THE
CYCLOPÆDIA OF INDIA
AND OF
EASTERN AND SOUTHERN ASIA.

THIRD EDITION
MORRISON AND GIBB, EDINBURGH,
PRINTERS TO HER MAJESTY'S STATIONERY OFFICE.
THE CYCLOPAEDIA OF INDIA

AND OF

EASTERN AND SOUTHERN ASIA,

Commercial, Industrial, and Scientific;

PRODUCTS OF THE MINERAL, VEGETABLE, AND ANIMAL KINGDOMS, USEFUL ARTS AND MANUFACTURES.

BY

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MADRAS; OF THE MYSORE MUSEUM, BANGALORE.

IN THREE VOLUMES.

VOL. I. A—GYROCARPUS.

THIRD EDITION.

LONDON:

BERNARD QUARITCH, 15 PICCADILLY.

1885.
PREFATORY NOTICE.

The first edition of this Cyclopedia was published in 1858 in India, the second, also in India, in 1873, and the years 1877 to 1884 inclusive have been occupied in revising it for publication in England. During this process, every likely source of further information has been examined, and many references made. I am under obligations to many learned men, to the secretariat Officers of the Indian Governments, and to the Record and Library Officers of the India Office, Colonial Office, and British Museum, for their ready response to my applications for aid.

This edition contains 35,000 articles, and 16,000 index headings, relating to an area of 30,360,571 square kilometers (11,722,708 square miles), peopled by 704,401,171 souls. In dealing with subjects in quantities of such magnitude, oversights and points needing correction cannot but have occurred; but it is believed that errata are not many, and will be of a kind that can be readily remedied.

It is inevitable that difficulties in transliteration should be experienced owing to the variously accented forms which some words assume even among tribes of the same race, also to the different values accepted in many languages or the same letters, and especially to the want of correspondence in the letters of the several Eastern alphabets; but in this work traditional and historical spelling has not been deviated from, and the copious Indices will guide to words of less settled orthography.

Men of the same race, habits, and customs, plants and animals of the same natural families, genera, and even species, are so widely distributed throughout the South and East of Asia, that local histories of them are fragmentary and incomplete. India in its ethnology, its flora and fauna, can therefore only be fairly dealt with by embracing a wider area. This is the reason why the Cyclopedia and my work on the Timber Trees include all Eastern and southern Asia, the regions, the areas and populations of which may be thus indicated:
### India, Eastern and Southern Asia

<table>
<thead>
<tr>
<th>Region</th>
<th>Square Kilometers</th>
<th>Population</th>
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<tr>
<td>Caucasus, Russian, Trans-Caspian, do.</td>
<td>472,666</td>
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<td>Central Asia, do.</td>
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<td>Independent Turkoman Region, Khiva, Bokhara, Thignan, Karategin, etc.</td>
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<td>Persia</td>
<td>1,647,070</td>
<td>7,659,000</td>
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<tr>
<td>Afghanistan and Provinces, Kafiristan</td>
<td>721,664</td>
<td>4,000,000</td>
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<td>China Proper, China Provinces</td>
<td>4,024,690</td>
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<td>Corea</td>
<td>236,784</td>
<td>8,500,000?</td>
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<td>JAPAN AND PROVINCES</td>
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<td>French India, Portugalique India, Ceylon</td>
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<td>FURTHER INDIA—</td>
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<td>British Burma, Manipur</td>
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<td>Tribes south of Assam, Burma, Independent, Siam, Annam, French Cochin-China, Cambodia, Malacca, Independent, Straits Settlements</td>
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<td>ISLANDS—</td>
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<td>Andamans</td>
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<td>Nicobars</td>
<td>1,772</td>
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<td>Sunda Islands, Moluccas, Philippines, Spanish Indies, Netherland India, New Guinea and Papuan Islands, British Northern Borneo, Australia, Tasmania, New Zealand</td>
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<td>489,933</td>
<td>117,705</td>
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<td>489,933</td>
<td>489,933</td>
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<tr>
<td>Total, excluding Australia, Tasmania, and New Zealand</td>
<td>30,860,571 sq.kil.</td>
<td>704,401,171</td>
</tr>
<tr>
<td>11,722,708 sq. m.</td>
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I am under obligations to Messrs. Morrison & Gibb for their careful press-work. All that their art could do has been done to aid me in keeping the work in a compact form.


Edward Balfour.
THE CYCLOPAEDIA OF INDIA
AND OF EASTERN AND SOUTHERN ASIA.

A

A, ā.—In the English language, the ordinary sounds, long or short, are as a in many; ā in all, and as ā in municipal. It has representative letters and sounds in all the languages of the east and south of Asia. In Arabic, Persian, and Urdu or Hindustani, the letter alif and the vowel mark zabr have almost similar sounds to the long and short ā of the English, as in that part of the āzīn or Mahomedan call to prayers, Allāhō Bār, Allāhū Akbār, retaining the long sound invariably when in the middle or end of a word. A Tamil, the English A and ā, long and short, are represented by two initial letters equal to ā and ā; and all the consonants have the inherent sound of short ā, thus kā, nā. In Telugu, the short ā is represented by the letter ā initial, and by a mark placed on the top of a consonant. The long ā initial has the same sound as ā in anger.

AACH, Aul, or Atche. TAM. Morinda citrifolia; M. multiflora. See Dyes.

AADAL. ARAB. Sacks for carrying provisions, on camels.

AAKAL. ARAB. The fillet of the Arabs; a rope or woollen band, or of other material, which in Arab twists round his head covering.

AALIN NAR. MALEAL. Fibre of the Ficus indica, the banyan tree.

AAT-ALARI. TAM. Polygonum barbatum.

AB. PEERS; HIND. Water. Hence Abi, watery. Also Ab-kari, the distillation of alcoholic fluids, the strong waters of Europeans; and in use as revenue term in British India for the excise ranch which superintends the licence to sell all kinds of intoxicating substances, as arrack, toddy, plum, etc. Do-ab, literally two waters, the territory or mesopotamia between two rivers. Panj-3, five waters or five rivers; that territory in the north-west of British India through which several rivers flow.

ABA or Abba, ARAB., in Egypt called Abayeh, a cloak woven of camel or goat’s hair, worn by 1 classes of the Arab races, known to Europeans in the Persian Gulf as a cameline. It is made in the Bedouin tents. It is of every degree as to quality and ornamentation, and varying in price from one or two dollars to a hundred dollars,—the last a marvel of softness and beauty, considering the material used. To the common working Arab the aba is often the sole article of clothing.

ABACA BRAVA, the wild or mountain abaca of the Philippines, a variety of the Manilla hemp plant, Musa textilis, the fibres of which serve for making ropes, called agotag and amouq in the Bicol language.—Royle’s Fib. Plants.

ABAD. PEERS. A postfix to districts of country and towns, as Arungabād, Dowlatābād, Allahābād, Farrākhabād, Hyderabad, and used by almost all the races of British India to indicate towns in which Mahomedans have ruled. Abadi is an inhabited or populated place. Abadi-raqba, the area under tillage.

ABAK. ARAB. Mercury.

AB-AMBAIR, in Persia, large underground reservoirs lined with brick, filled by kanate, or by collecting the rain of a wide area. They are covered in by vaulted roofs of masonry, and a flight of steps leads down to the water.

ABAR-MURDAI. PEERS. Sponge.

ABA SİN. BŞRT. The river Indus; lit. father of rivers.

ABASSA, sister of the khalif Harun ur Rashid, by whom she was married to Jafar, his vizir, under a condition which was not adhered to. There are extant some Arabic verses by her on the subject of her love for Jafar.

ABBAS, a dynasty of khalifs, who reigned at Bagdad, from a.d. 749-50 to 1258-9 (a.h. 132 to 656), when Bagdad was besieged and taken by Hulaka, grandson of Chengiz Khan, and the khalif Mustasem put to death. They are known to Europeans as the Abbassides. See Al Abbas; Khalifah.

ABBASII. PEERS. A curved broad-bladed scimitar.

ABBAYE. Beng. The head man of a village.

ABBOTTABAD, in lat. 34° 9’ N., and long. 73° 0’ E., a small military and civil station, N.N.E. of
Chamba, at a height above the sea of 4120 feet. It is the headquarters of the Hazarat district of the Panjāb. The district is inhabited by the Khāral, Dhund, Bœl, Jadun, and other Musulman moun-
taineers.—MacGregor; Rob. Schtl.

ABBOTT, JAMES, C. B., an officer of the Bengal army, who was assistant political agent at Herat under Major D’Arcy Todd. He went on a mission to Kūiva, and was the bearer of terms from its khan to the emperor of Russia, as recorded in a narrative of his travels. He was afterwards employed in the Hazarat district of the Panjāb, where he baffled the Sikh general, and marched upon and occupied, with 1500 match-
lock men, the Mariquella pass, which 16,000 Sikh troops and 2000 Afghan horse were preparing to thread. For this he received the thanks of both Houses of Parliament.

ABD. Arab. A slave, a servant, often in combination applied to God’s service, as Abdallah, a servant of God; Ab’d ur-Razzaq, slave of the food-giver; Abudiat, worship; Zain-ul-Abidin, the ornament of servants. It corresponds with the Arabic Ghulam, and the Hindi Dasa or Das, all of them ordinary names in India.

ABDALI, a powerful Afghan tribe, residing in every part of Afghanistan, but principally in Herat and Kandahar. They have been termed Dourani since 1747, when Ahmad Shah, Sad-
dozai, the first Afghan king, on ascending the throne, gave them that name. The Abdali and Ghilzai, but particularly the former, arrogate to themselves a superiority over other Afghan tribes, and from their great numerical strength have exercised a greater power. The Abdali are also called Sulimani. The Abdali take their name from their great ancestor, Malik Abdal. Early in the 16th century, Shahr-i-Saffa was the chief town of the Abdali. Early in the 17th century it was Herat which they held, until ousted by Nadir Shah. See Afghan; Ahmad Shah; Barakzai; Paniput.

ABDALI, an Arab tribe in the immediate vicinity of Aden, capital Luhej. The tribe is the most civilised but the least warlike in the S.W. of Arabia.

ABDALLAH was the name of the father of Mahomed; Abd-ul-Mattalib was Mahomed’s grand-
father. Abdallah was a term applied by Mahomen-
dan Arabs to apostate Christians who embraced the Mahomedan religion. It is now a name of many Mahomedans.—Sale’s Koran.

ABDALLAH Ibn ABBAS was one of the most learned of the companions of his cousinMahomed, and one of the most celebrated of the resters of his sayings and actions. He has received the titles of Interpreter of the Koran and Sultan of Commentators. He died A.H. 65. His father Abbas, son of Abd ul Mattalib, was paternal uncle of Mahomed, and ancestor of the Abbas khalifas.

ABDALLAH Ibn ul MOKAFFA, a Persian who lived in the 8th century. After the fall of the Omeyyades he became a convert to Mahome-
danism, and rose to high office at the court of the khalifs. During the reign of the khalif Mansur, he wrote the Kalila o Damima, a famous collection of fables, which he says were translations from the Pehlavi of Barzuyeh, who again trans-
lated them from the Panchatantra. Being in possession of important secrets of state, he became dangerous in the eyes of Mansur, and was foully murdered A.D. 760.—Chips, iv. p. 158-9.

ABD. Pers. Glancing, as a gem or polished sword; in India, a water cooler, who cools water by freezing mixtures. Abdar-Bashi, at the Persian court, the chief of the kitchen. Abdar-Khana, the place where water is kept for drinking.

ABDHUT, a Hindu religious mendicant,—in the north of India, of the Vaishnava, and in the south, of the Saiva, sect.—Wilson.

ABDUL KADAR of Badayun, a learned Mahomedan employed by Akbar to make translations from Sanskrit. He was very bigoted, and quarrelled with Abul Fazl and Faizi on some point of religion. He wrote a historical work, the Mantakhab-ut-Tawarikh, and filled his book with invectives against their irreligion and that of Akbar. He also disclosed many grievances complained of by the people at the time. Even although it is almost a hostile narrative, it leaves a more favourable impression of Akbar than that derived from Abul Fazl’s Akbar Namah. Akbar employed him to make a catalogue of the library of Faizi, which contained 4060 books, carefully corrected and well bound, on poetry and litera-
ture, moral and physical science, and theology.

—Elph. p. 469. See Mubarak; Faizi.

ABDUL-KADAR, surnamed Ghous-ul-Azam, the great contemplated, born at Jal, near Baghdad, A.H. 471 (A.D. 1078-79). He was endowed with great virtues and alleged gift of miracles, had many disciples, and is still much revered. He is called Shāhīk, but was a Sūya, i.e. of the race of Hussain, and died in A.H. 571 (A.D. 1175), aged ninety-seven years. Where he died or was buried does not appear. He was the founder of the sect of the Kadrit fakirs.

ABDUL-KADAR, Ghilani, the Pir Piran or Pir i Dostagir, a native of Ghilan, who taught Sāfī doctrines at Baghdad, where his tomb is still reverenced. Sādī studied under him. His anni-
versary is held on the 11th Rabi-us-Sani. He is in-
voked in time of trouble, or during cholera or other plague or epidemic, on which occasion a large green flag is carried in his name. His sister’s son was Syūd Ahmad, Kabīr.

ABDULLAH, son of the khalif Omar, in A.D. 650 defeated Yesdejdī. Yesdejdī was then on his return from Khorasan, and for the last time put himself at the head of his subjects. See Istakhr.

ABD-UR-RAZZAQ, Jamāl ud-Dīn Abd-ur-Razzaq, bin Jalal ud-Dīn Ishaq-us Samarkandi, was born at Herat in A.H. 816 (A.D. 1415), where his father was Kazi in the time of Shah Rukh, grandson of Timur. Shah Rukh, in 1441, sent him on a mission to India to the king of Vizian-
agar; subsequently on an embassy to Ghilan; and he, again, was ordered to proceed as ambas-
sador to Egypt. In January 1442, Abd-ur-Razzaq set out from Herat, and, proceeding by the of the Kohistan and Kirman to Ormuz, thence sailed for India, arriving at Calicut after a long detention, wind-bound, at Muscat. He then pro-
cceeded via Mangalore and Belur to Vijianagar. Re-embarking from Calicut, he arrived in March 1444 at Kalahat, in Arabia.—India in the Fifteenth Century.

ABD-US-SHAMS, also called Dawar-us-Shams, the sun-flower. See Ausarāiah.
ABD-US-SHAM'S.

ABD-US-SHAM'S, or Saba, founder of Maribah. Amongst his sons were Hinayar, Amru, Kahtan, and Ashar. See Saba.

ABELIA TRIFLORA. Stewart.
Chota Bata, Hind. | Adai Pushatwar, Pushut.

A plant of Kaghan. Mr. Fortune introduced into England the Abelia rupestris from China.

ABELMOSCHUS ESCULENTUS. W. and A. Rob.
Hibiscus longifolius R. | H. esculentus, L.
Lalo. | Fr. of Maur. | Garbeau, W. Ind.

A herbaceous annual, a native of tropical America, largely cultivated all over the East Indies, its capsules being held in much esteem as a vegetable. It is generally raised from seed, and produces abundance of fruit, which is the only part of the plant that is eaten. The whole plant is mucilaginous, but the fruits or pods are highly so. The fruits are boiled whole, and served up as a vegetable; or the seeds are added like barley to soup. The young pods are pickled like capers; its ripe seeds, when allowed to dry, and parched, can with difficulty be distinguished from coffee. Its mucilage has been recommended as a demulcent, in coughs, in the form of lozenges, but they are not easily digested. The deep purple juice of the stigmas can be communicated to paper. Dr. Riddell strongly recommends this plant as capable of furnishing an excellent fibre for the manufacture of paper, and the fibres are said to be exported from India, as one of the hemp's of commerce; by Dr. Roxburgh's experiments, a bundle of them bore a weight of 9 lbs. when dry, and 95 lbs. when wet. They retain their gloss even when very brown and rotten.—0'Sh. | Rozh. | Royle, Flb. Plants | Useful Plants | Mason | Riddell.

ABELMOSCHUS FICULNEUS. W. and A. Rob.
Hibiscus prostratus, Rozh. | H. ficulneus, Linn.
Karupu Benda. | Tam.

It grows abundantly on the black cotton soils of India. Flowers white; the bark contains a large proportion of white reticulated fibre similar to that obtained from the mulberry, and useful for gunny bags and paper; this fibre is of great length, and not very strong.—Madras Exhibition Journeys Reports | Robert Brown.

ABELMOSCHUS MOSCHATUS. Manch.
Hibiscus abelmoschus, R.
Kala-kasturi. | Duk. | Vittulei-kasturi.
Katta-kasturi. | Malal.

A gaudy flowering annual, with blood-coloured eyes on its large yellow blossoms, a native of various sorts of India, flowering in therainy and cold seasons. Its brown seeds are the Hub-ul-Musk of the Arabs, as called because of their smell and taste resembling a mixture of musk and amber, and, on burning, a similar odour is evolved. They are kidney-shaped, and of the size of hemp-seed, and are used to perfume owders and pomatums. They are found in all he bazaars; and amongst the people of India are reputed to be useful in snake-bites, when bruised and applied externally and internally, or bruised and steeped in rum or arrack. In Dr. Roxburgh's experiments, the fibre broke with a weight of 107 lbs. The plant, like A. esculentus, abounds in mucilage, and is said to be used in Northern India to clarify sugar.—Roxburgh; O'Shaughnessy; Mason's Travels | Journeys | Reports Madras Exhibition | Useful Plants of India.

ABELMOSCHUS TETRAPHYLLUS. Wall.
At the Madras Exhibition of 1857, Mr. Jaffray exhibited an excellent white and strong fibre obtained from this plant. Its flowers are large, yellow, with a dark centre; abundant in Girguan woods, Bombay.


ABHIGAT, a sect of Hindoos who subsist by begging. They dwell alone or in monasteries.—Sherring's Hindu Tribes, p. 264.

ABHIHANGA STHINAM, a Hindu ceremonial, on the wedding day, when the bride and bridgroom are anointed with oil. In the Hindu ceremonial, when oil is applied to the crown of the head, and reaches to all the limbs, it is called abhyanga. It is like the precious ointment upon the head, that ran down upon the beard, even Aaron's beard, that went down to the skirts of his garments.—Psalm cxxiii. 2; Ward's View of the Hindoos, ii. p. 112. See Hindu.

ABHIDHANA. Sansk. Any Sanscrit dictionary or vocabulary. One of the oldest is the Abhidhana Ratnara of Haluyadhita Bhatta, about the 7th century. Abhidhana Chintanani is a vocabulary of the Jaina doctrines, by Hema Chandra, a Jaina celebrity who lived in the 15th century.—Garrett; Doveson.

ABHIDHARMA, the third division of the sacred writings of the Singhalasee Buddhists, addressed to the Dewas and Brahmas. They are in the Pali language, and are called the Pttakattyam, or Three Baskets.—Eastern Monachism.

ABHIGNYAWA, amongst the Singhalasee Buddhists, five great powers attached to the Rahatship.—Hardy's Eastern Monachism.

ABHIMANI, a name of the Hindu god Agni.

ABHIMANYA, a son of Arjuna and Subhadra, who fought in the great war, or Mahabharata, on the second day of the battle, and he slew a son of Duryodhana. On the thirteenth he himself was slain. He was on the side of the Pandya, or Pandava. His son Parikshit succeeded to the kingdom of Hastinapour.—Wheeler, History of India, i. p. 152; Garrett.

ABHIHA, a pastoral race, who were settled about the beginning of the Christian era, on or near the lower course of the Indus, on a tract known to classical geographers as the Abiria of Ptolemy, lying between the Tapti and Dergarh, north of the Sabirakri range of mountains and of Syrastrum, and of the Abiria of Saurashtra are mentioned in the Mahabharata. From their pastoral habits, the name came to be generally applied to all the cowherds of Hindustan. In the spoken dialects of Upper India, the word is softened to Abhir. In Bengal and Mahtratti it is unchanged, occurring as Abhir. Abhir, at the mouth of the Indus, has been supposed by some to have been Ophir.—Wilson.

ABHISHEGAM. Sansk. A Hindu religious ceremony, which consists in pouring milk on the lingam. This fluid is afterwards kept with great care, and some drops are given in the Panche Shegam rite to dying people. Traces of this
ABBHIYADAYA.

Abhisegam ceremony are found in the earliest antiquity. Several primitive races had a kind of sacrifice called a libation, which was performed by pouring some fluid, but especially oil, in honour of the divinity. The Hindus of India have preserved this custom, not only in respect to the lingam, but also in honour of their other deities. They usually offer them libations, wash them with cocoa-nut oil, melted butter, or water of the Ganges. They often rub them with oil or butter when they address prayers or present offerings to them, so that all their idols are black, smoked, plastered, and dirtied with a fetid grease. The Talopains of Pegu and Ava, and the priests of Siam, also wash their idols with milk, oil, and other liquids. The Jews had sacred stones, which they anointed with oil, and to which they give the name of Betyle.—Sonnerat's Voyage, pp. 159, 160. See Betyle; Eagle Stones; Ban-lang; Salagram; Stone Worship.

ABBHYADAYA, in Hinduism, offerings to the manes of an individual's progenitors.

ABHISH, Hind. Land cultivated by artificial irrigation from streams or tanks. Lallam, in Afghanistan, means cultivation dependent on natural rains.

ABID. Arab. A devout person; constantly engaged in the worship of God.

AB-i-DHANG. Pers. This is a usual drink amongst the Illyats in Northern Persia. It is butter milk weakened with water, and to which a little salt is added.

ABIES, the fir genus of trees of the coniferous tribe, known for their valuable timber. Species of several coniferous plants, abies, cedrus, cupressus, juniperus, picea, pinus, and taxus, grow in the Himalaya, in Japan, the Philippines, and China. A. Harrangi, Siebold, is a Japan tree with a brown wood, used for various domestic purposes; and the A. Momi, Siebl., also of Japan, is valued for the whiteness and fine grain of its wood. A. leepolepis, A. firma, 100 to 120 feet, A. bifida, 90 to 100 feet, and A. tsuga, 60 to 70 feet, grow on Mount Fujiyama.—Hooker's Hist. Journ.; Hodgson's Nagasakt; Punjab Report. See Conifers.

ABIES BRUNONIANA. Hooker. Pinus Brunoniana, Wall. J P. dumosa, Lamb. Deciduous silver fir, Eng. ; Semadongu . . . . Tr. Grows in Nepal, Bhutan, and at Gossain than. A beautiful species, which forms a stately pyramid growing to 70 or 80 feet, with a trunk 15 to 20 feet, and with branches spreading like the cedar, but not so stiff, and drooping gracefully on all sides. The wood is not durable; its bark is, however, very useful. Dr. Hooker found stacks of different sorts of pinewood stored for export to Tibet, all thatched with the bark of Abies Brunoniana. In the dense and gigantic forest of Abies Brunoniana and silver fir, he measured one of the larger trees, and found it 28 feet in girth. It grows occasionally in dense forests to a height of 70 to 80 feet, with a clear trunk of from 14 to 20 feet, and a spreading, very branching head. Abies Kaempferi, the Pinus Kaempferi, Lamb, a native of Japan, is found wild on the mountains of Fako.—Eng. Cyc.; Hooker's Hist. Journ.

ABIES SMITHIANA. W. Himalayan spruce. Kachan . . . . of Jelum. ; Seh . . . . . Lar. A handsome tree, common in many parts of the Punjab Himalaya, at from 3500 to 11,000 feet. Trees of 10 to 12 feet girth, and 130 to 140 feet high, are not unfrequent. Thomson notes one of 17, Madden mentions one of 20, and Dr. Stewart had seen one of 21, feet girth. The timber is soft and light, often with much sapwood, and the fibres are frequently twisted. It is the least valued of all the conifers, by the natives, for construction. In some parts, however, especially on the Beas, it is largely used for shingles, which are said to last for two or three years, and under cover it will last twice that period.—Hooker's Hist. Journ.; Stewart's Punjab Plants; Cleghorn's Punjab Report; Royle.

ABIES WEBHIANA. hooker. Pinus spectabilis, Lamb. ; P. Webbiana, Wall. Chirrow, of Himalaya. Gobea, Sullar, PAN, Tes of KULUK AND KANGRA. Oonum, Dunshing, HIND. This fir tree grows at great elevations on the Himalaya, where it is one of the principal ornaments of the forests. It attains a height of 80 or 90 feet. At Choogtam this tree attains 36 feet in girth, with a trunk unbranched for 40 feet. According to Dr. Hooker, it is silt white, soft, and highly prized for durability, but Dr. Cleghorn says it is not much valued, and is used for shingles.—Hooker's Hist. Journ.; Royle's Ill. Hist. Botany; Timber Trees; Punjab Report.

AB-I-GUM. Pers. Literally 'lost water,' thirty-six miles from the east entrance of the Bolan pass. The stream in the pass sinks into the loose pebbly stratum, but, percolating through, it reappears at Bibi Nani some miles below.—MacGregor's Beluchistan.

AB-I-MA. Pers. Literally 'mother of the waters;' the Amu Daria, or Oxus river.

ABIR. ARAB. Crocus sativus, LINN. ABIR. HIND. A perfumed cosmetic powder, which is rubbed on the face or body, or sprinkled on clothes to scent them. There are many receipts for it; one kind is composed of rice flour, or the powdered bark of the mango tree or deodor, camphor, and aniseed. A superior kind is prepared from powdered sandal wood or wood-aloes, Curcuma zerumbet (Kuchoor), or Curcuma zedoaria (umbi huklee), rose flowers, camphor, and eucat cent perfumes, pounded, sifted, and mixed. In every case it is a mixed cosmetic perfume, and other ingredients used are yellow saffron, violets, orange flowers, aloes wood, musk, true spikenard, and rose-water. It is a term applied in India to any perfumed powder, and is also often given to Curcuma zerumbet and saffron.—Herbals.

AB-I-SHEREEN. Pers. The Hindyan river.

AB-ISTADA. A lake 17 miles long, 65 miles S.S.W. of Ghazni.

ABJAD. ARAB. The name of an arithmetical verse, the letters of which have different powers, from one to a thousand. This was the ancient order of the alphabet as it is now used in the Hebrew alphabet. The system is much used in chronograms and in books of astronomical tables.

ABKARRY. HIND. Excise revenue derived in India from duties levied on the manufacture and sale of mebibrating liquors, as toddy, pachhai, and arrack; also on intoxicating drugs, whether in substance, infusion, or extract, as opium, bhang, churrus; also on certain licensed distilleries, and on shops licensed to sell by retail.—Wilson.

ABKHORA. HIND. A drinking pot, with or without a spout (tut); it has a handle and lid.
ABORIGINES OF INDIA.

ABJURATION.

Ablutions, amongst the Hebrews, Hindus, and Mahomedans, are included as part of their religious rituals. They are allotted to several periods of the day, and varied to meet particular forms of purification. The Hebrew ceremonial, as still practised by their Jewish successors, is laid down in the books of Moses; and is that generally followed by Mahomedans, both for men and women. Both Mahomedans and Hindus carefully act up to their ordinances, as to purification. The Hindu ritual is severe on this point, and along the banks of their sacred Ganges, crowds of men and women may be daily observed. Their 5thnaman, however, as also their ritual purification before eating, may equally be performed in their own houses. The Buddhists of Asia are less strict. Although frequently enjoined in the Bible as parts of Hebrew ceremonial, they are even more stringently carried out by Hindus, but less so by Mahomedans. The Hebrews, in Gen. xxxv. 2, were ordered to "put away the strange gods; be clean, and change your garments;" and a Hindu considers those clothes defiled in which he has been employed in business, and always changes them before eating or worship. Again, in Gen. xxii 24, 'The man brought the men into Joseph's house, and gave them wash, and they washed their feet.' And with Hindus, as soon as a guest enters, one of the first civilities is presenting water to wash his feet. So indispensable is this, that water to wash the feet makes a part of the offerings to an image. Solomon's Song, iv. 3, says, 'I have washed my feet; how shall I defile them?' A Hindu washes or washes his feet before he retires to rest. If called from his bed, he often excuses himself, as he shall daub his feet; and as he does not wear shoes in the house, and the floor is of clay, the excuse seems very natural. Lev. xiv. 8, 9, and 33, relate to personal uncleanness, and there are similar customs prevalent among the Hindus; but in the Moslical institutions there is no law like that of the Hindus, which rules that a Brahman becomes unclean by the touch of a Sudra, or a dog, or the food of other castes. The Hindu food ritual is given in Mark vii. 3, where the Pharisees and all the Jews, except they wash their hands oft, eat not, for with Hindus bathing is an indispensable prerequisite to the first meal of the day, and washing the hands and feet is equally so before the evening meal. Mahomedans use water or sand before prayers, before meals, and after many ordinary occurrences.—Ward's Hindus; Holtel's Qunat-islam.

ABNOMA. Abl. Eiv. HIND.

ABOOS. Abl. Eiv. HIND.

ABO, HOVA. Eiv. HIND. The climate of a county or locality, literally the water and air.

ABOO, AAB, also written Abu, an affix to many banks, islands, reefs, mountains, headlands, and shoals in the Red Sea and Persian Gulf.

ABOR or Abar is a name applied very indefinitely by the Assamese to independent hill tribes on both sides of the valley, but it is more especially the appellation of the great section called Padam or Padgym. They have five settlements in the lower ranges bordering on Assam, in the vicinity of the Dibang river, viz. Membu, Silook, Pados, Phahee, and Bonjee. The young women at Membu, until they become mothers, wear as an under-garment, suspended in front from the loin, a row of from five to a dozen round embroidered plates of bell-metal, which rattle and chink when they move. Very young girls, except for mourning, wear nothing else, but the smallest of the plates is never seen without these appendages. In the end of 1861, the Meyong Abor attacked and plundered a village in the British territory, but the tribe expressed a desire to renew friendly relations, and begged that their offences might be overlooked. On the 5th November 1862, an agreement was made with them, binding them to respect British territory, and the same engagement was subscribed on the 16th January 1863 by the Kelong Abor. On the 8th November 1862, a similar engagement was concluded with the Abor of the Dihong Dibang duar. The Abor are polyandrous, it being not uncommon for an Abor woman to have two husbands, brothers, living under one roof. They do not eat beef, but hunt and eat the flesh of the buffalo. Their bachelors live in the Morang, a large building in the centre of the village for the reception of strangers, and in this custom they resemble the Naga on the south of Assam, and some of the Archipelago races. Numbers of the Abor people are also found on the shores of the two great northern branches of the Brahmaputra river. When first known, they made periodic descents on the plains. Colonel Dalton thinks that the Abor, Aka, Dulla, and Mira are of a Tibetan stock. The Abor Miri language belongs to the old Assam alliance, but it has been greatly modified by Tibetan. It has a strong ideologic resemblance to the Dhimal, Bodo, Garo, and Naga, but with some specific Tibetan traits.—Journ. Ind. Arch. 1858; Treatises, etc., vii. p. 343; Indian Annals; Latham's Ethnology; Mr. Campbell, p. 54; Dalton's Ethn. of Bengal; Imp. Gaz.

ABORIGINES. In British India, in the southeast of Asia, and in China, many of the races dwelling in political dependency are supposed to be the prior occupants, and on that account are distinguished by this term. Some of them are in large nationalities; others broken, dispersed, disconnected, even homeless. The census of 1871 showed that the aborigines of British India then numbered twelve millions, or one-twelfth of the population:—

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madras</td>
<td>650,000</td>
</tr>
<tr>
<td>Central Provinces</td>
<td>1,950,683</td>
</tr>
<tr>
<td>South Bengal</td>
<td>4,000,000</td>
</tr>
<tr>
<td>North-East Bengal</td>
<td>1,000,990</td>
</tr>
<tr>
<td>Karen</td>
<td>402,117</td>
</tr>
<tr>
<td>Khyen and Yabang</td>
<td>51,562</td>
</tr>
<tr>
<td>Rest of India</td>
<td>4,000,000</td>
</tr>
</tbody>
</table>

Dr. Hunte says 17,716,825, excluding Madras and feudatory states. The dates of the first arrivals in British India are, however, wholly unknown. But the bulk of the immigrants seem to have come from beyond the Himalaya on the north, at intervals ranging between 3000 and 1000 years before the Christian era. Small bodies in the N.W. corner of the Peninsula appear to be of Western origin. There are also peoples in the southern parts of the peninsulas of India and Malacca with marked Negro features, and such recur as large or small nations in the Andamans, the Malay Peninsula,
and in the Archipelago islands, with traces also, in
the valleys of Northern India, as if there had once
been a great Negro wave setting to the east, or
had been prior Negroid races occupying the
southern parts of Asia.

A great bulk of the original settlers in India
—labourers, farmers, foresters, shepherds, cow-
herds, artisans, and professional races—seem to
have come down the valleys of the Indus, of the
Ganges and Brahmaputra, and to have streamed
through the gaps in the Himalayas; and, from
the practice followed of living apart, as castes,
who neither eat together nor intermarry, most
of the immigrant tribes and races are now as
distinctly marked as on the days of their first
appearance. The Mahomedans ever, who have
less of such separatist habits, although they also
to a considerable extent follow the ancient custom
of marrying amongst their own people, are still
readily distinguishable from one another,—tall,
powerful, fair men of the Afghans; fair, robust
Maghuls from Tartary; the fair, slender Non-aat
race from Southern Persia; the darker men of
Arab origin; and the powerful, large-made trading
race, known in the south as Labbay. All these—
amongst the Hindus, Brahman, Kshatriya, Vaisya,
and Sudra, and amongst the Mahomedans, Syuds,
Shaikhs, Moghuls, and Pathans—are in great
numbers. But, throughout all India—in hamlets,
in forests, and on the plains, in towns, and in
valleys, and on the mountains—are numerous
smaller bodies or tribes, with physical forms and
habits and pursuits quite distinct from each
other. The native races readily distinguish each
other, but this is a capability which most Euro-
peans fail to acquire, in consequence of which
ethnologists have formed very dissimilar opinions
as to the origin of the nations in the south of
India.

Mr. Hodgson includes all the people of India
under two races, the Aryan and Tamulian. Dr.
Caldwell, referring to the great variety of feature,
colour, etc., and to the influence of caste restric-
tions and climate, finds no indication either of
the Mongol or Negro tribes among the Dravidians;
Mr. Hislop says he has never found an instance of
Negro physiology among the barbarous people
of Central India, but considers both their hair and
features to be decidedly Mongolian. Sir Walter
Elliot says that in the Carnatic, also from Tan-
jore west through the Western Dekhan, both
above and below the Ghats,—in Gujerat, amongst
the southern Rajputs, and as far north as Mount
Abu, in Kutch and Kathiawar,—also in the
Northern Circars, as far north as Orissa and the
country of the Konds,—he had never, during
forty years' sojourn, observed any indications of
true Mongolian features, nor had he seen any signs
of Negro blood, save in the instances of imported
Africans. But, on the other hand, he has been
struck with the remarkable diversity of form and
feature observable in every class of the population.

Amongst Brahmans, Tamil, Telugu, Canarese, and
Desahast Mahratta, some, he says, will be found
of a clear, light-brown colour; others as black and
darkly as any agricultural Pariah; some with fine,
tall figures, and sharply cut, aquiline features,
others with stout, ungainly figures, and thick, flat,
coarse physiognomy. It would, he adds, puzzle
a stranger to point out a group of Panchal
artisans, of Kanakapilli writers, of Buljawa, of
Komati merchants, and an equal number of Brah-
manas; and the same diversity runs through all
the castes. Many Pariahs, he continues, are very
fair and tall, with good, prominent, sharp-cut
features; others are black and squat, with the
lowest and most debased cast of countenance.
But all converge to a common type,—one sui
generis,—which might almost entitle the Hindu to
be recognised as a distinct family of mankind; and
he concludes by observing that it is a mistake to
attribute any marked influence on existing forms
to Aryan blood, except in a few special cases.
Aryan missionaries penetrated to the south of
India, but they were too few to make any impres-
sion on the community. He considers the origin
and affinities of the classes comprising the Indian
population to be still involved in obscurity.

Professor Mulle and Dr. Caldwell arrived at the
conclusion that when the Aryan Hindus crossed
the Indus, they drove the aboriginal inhabitants
across the Vindhya mountains and the Nerbudda
into the Dekhan, where they still dwell, speaking
their native languages, though mixed more or
less with the Sanskrit of their Aryan conquerors.
Their idioms—the Tamil, Telugu, and Karnatica—are
sister dialects of one speech. Dr. Frichard
concurs with Professor Rask in regarding the lan-
guages of the mountain tribes of India—the Bihis
the Gond, the Toda, and others—as likewise of the
Tartar stock; and he mentions also that some
curious analogies have been observed between the
Tamulian and other dialects of the peninsula, and
the languages of Australia. Mr. Hodgson, also, is
of opinion that all the aborigines of India are
northmen of the Scythic stem. Members of that
stock are found from their original seats on the
north of the Himalayas southwards to the seas;
and between Gilgit and Chittagong there are a
hundred passes over the Himalayas and their
south-eastern continuation to the Bay of Bengal,
through which they may have migrated ages upon
ages before the dawn of legend and of chronicle.
In every respect but that of language, dependent
throughout the vast continent of India, there exist hundreds
of thousands of human beings in a state not
materially differing from that of the Germans as
described by Tacitus. These primitive races are
the ancient heritors of the whole soil, from all the rich
and open parts of which they were expelled by
the Hindus.

Sudra is now the common caste appellation of the
mass of the Hindu inhabitants of southern India.
It cannot, however, be doubted that by the Aryans
the term was extended in course of time to all who
occupied, or were reduced to, a dependent condi-
tion, whilst the name M'Hecha continued to be
the appellation of the unsubdued un-Aryanized
tribes. Lassen and Max Müller suppose that the
whole of the Sudra or primitive servile classes
of Northern India belonged to a race different
from their Aryan conquerors; but Dr. Caldwell
thinks it probable that a considerable portion of
them consisted of the slaves, servants, dependants,
or followers of the high caste Aryans, and, like
the latter, belonged to the Aryan race. And the
legend that the Brahman, Kshatriya, Vaisya, and
Sudra all sprang from Brahm's body, though
different parts of it, is in favour of the idea
that the Sudra differed from the twice-born Aryan
in rank only, not in blood.

Mr. Logan remarks that, physically, the popula-
ABORIGINES OF INDIA.

ion of southern India is one of the most variable and mixed which any ethnic province displays. Some are exceedingly Iranian; some are Semitic, others Australian; some remind us of Egyptians, while others again have Malay-Polynesian and even Simang and Papuan features. Yet when the ye takes in the whole group at once, they are seen to have all something in common. They are not nanians, Polynesians, Papuans, etc., but South Indians. The Dravidian language, however, or one of its principal elements, was probably an extension of a Mid or Western Asiatic formation, and it may be inferred that the common element of the Dravidian, the Sin and Japanese languages, must be much more ancient than the occupation of Japan by the Japanese, India by the Dravidians, and India by the Fins. He says the main affinities of the Dravidian formation thus point two ways,—the linguistic chiefly to a Scythic, and his physical chiefly to an African origin or fraternity. The more important of these characters are pointed and frequently hooked pyramidal nose, with conspicuous nares; a more long rounded, mask-shaped, sinking chin of the orbital line, producing a strongly-defined orbital ridge; eyes brilliant, and varying from small to middle-sized; mouth large, lips thick and frequently urged; lower jaw not heavy, its lateral expansion greater than in the Aryan and less than in the Turanian type; cheek bones broad and large rather than projecting, as in the Turanian type, giving to the middle part of the face a marked development and breadth, and to the general contour an obtuse oval shape, somewhat bulging at the sides; forehead well formed, but receding, nailing to flattish, and seldom high; occiput somewhat projecting; hair fine, beard considerable, and often strong; colour of skin very dark, frequently approaching to black. We may, he adds, conclude from the ethnic character and position of the ancient Indian population, that it belonged to the small Turano-African type. But successive modifications of race seem to have taken place on India from times long anterior to the Aryan or even Tartar era, and imply linguistic changes also. The above is the higher and most-improved type. But, as in Africa, Ultra-India, and Asiaeina, a smaller, more Turanian, and less Semiticized type is still preserved, although variously crossed. The peculiarities in the variable physical character of the Dravidian physical types, when compared with the Scythic, are African and Afro-Semitic. The very exaggerated occipital and maxillary protuberances are not characteristic of the typical African head, but of a debasement of it confined to certain localities. Several East and Mid African nations have the so-called African traits much softened, and differ little from the Dravidian. Even woolly or spiral hair is not a universal feature in Africa, some tribes having fine silky hair. The Dravidian pyramidal nose, the sharp depression at its root, the slight maxillary and occipital projection, the turgid lips, the oval contour, and the beard, are all African. Mr. Logan thinks there is reason to believe that the strong Africanism of some of the lower South Indian castes is really the remnant of an archaic formation of a more decided African character. The position of India between two great Negro provinces, that on the west being still mainly Negro, even in most of its improved races, and that on the east preserving the ancient Negro basins in points so near India as the Andamans and Koral. It is therefore highly probable that the African element in the population of the peninsula of India has been transmitted from an archaic period, before the Semitic, Turanian, and Iranian races entered India, and when the Indian Ocean had Negro tribes along its northern as well as its eastern and western shores.

Many of the Non-Aryan races have long been very severely repressed. Mann, in the tenth chapter of his Institutes, says they must dwell outside of the town, their sole property dogs and asses, their clothes such as have been left by the dead, their ornaments rusty iron. They must roam from place to place; no respectable man must hold intercourse with them; they are to be the public executioners, and may retain the bedding, the clothes, and the ornaments of those they have executed. In the eighth chapter, he says the Chandala can never be released from bondage, though he be emancipated by a master.

Under Mahomedan and Christian rulers, the primitive races have been very largely freed from all open persecution; but, to the present hour, the Pariah, the Chakili, the Mhar, the Mang, the Holyar, the Pullar, the Chauar, and others, do not reside within the towns. Not only their touch, but even their near presence or look, entails ceremonial pollution. The workers in hides and leather—the Chamar, Madaga, Muchi, Chakili, Dhor, and Mang—are, everywhere throughout India, regarded by Hindus as unclean.

Colonel Dalton arranges the aboriginal races of Bengal, Chutia Nagpur, and Behar, as under:—

a. Kolarian, viz.:—
Ho of Singbhum.
Savage Korwa of Siriguja.
Kur or Kurku or Muaus of the Central Provinces. Junag, Binhor, and others.

b. Dravidian, who, in Bengal, comprise four great divisions of the aborigines, viz.:—
Oran, ... 600,000 Gond, in Bengal, 50,000
Male, Pahari, or Mulah hill-men, ... 400,000 Khond, ... 50,000
Kolarian, or others.

c. Broken Tribes, viz.:—
Chur. Kharwar.
Parheya. Kisan or Nagear.
Bhuider. Nagbansi.
Boyar. Mar, and others.
Kaur or Kaura.

Kharwar.
Kisan or Nagear.
Nagbansi.
Mar, and others.

Kaur or Kaura.
Bhuider.
Kistan or Nagear.
Kharwar.
Kharwar.
Kisan or Nagear.
Nagbansi.
Parheya.

To the south-west of Bengal, in the Peninsula of India, are several great prior nations, engaged in all the avocations of civilised life, speaking the cultivated Canarees, Malealum, Tamil, and Telugu, with other races and tribes speaking uncultivated tongues, as Boder, Kurgi or Kodaga, the Todava, Badaga, Kothar, Irular, Kurumbar, Gond, Khon or Khand, Gudha, Yerkala, Kora, Pullar, Savara, Yenadi, and others who have remained in an unsettled state, many with no houses or villages. Among these may be mentioned—

The migratory Wadawar, or road-maker and
ABRAS.

Chin. Imp.

and

and

Colonel Riddell; Gundamani, BUEM. Eng., Si

diggers Baora. Korawa, Kalawar, Saora, Irular, Kammawar, Eskar, palties are ascendency ent. On Gujerat, capable brave, one Mailer, Archip. Hodgson''.

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weights, also for beads and rosaries, whence the specific name. From their extreme hardiness and pretty appearance, people prize them for necklaces and other ornaments. They are said to form an article of food in Egypt, though considered hard and indigestible. In fine powder, goldsmiths use them to increase adhesion in the more delicate parts of manufactured ornaments. The roots abound in sugar and mucilage, and are employed as a substitute for liquorice, for which they are perfectly suited. The leaves have a similar taste, and, mixed with honey, are applied externally in swellings of the body. It is a popular belief that the seeds almost uniformly weigh exactly one grain troy; but they vary from one to two grains. The Burmese use them, with a fraction for two grain weights, 120, by one mode of reckoning, and 128 by another, make one tikal, which weighs, according to Captain Low, 253-75 grains troy.

Its Chinese name means 'anxious desire,' and refers to the sorrows of a widow who wept under one of these trees, and died of her grief.—Smith, Chin. Mat. Med.; Riddell, Useful Plants; Mason; O'Sh.; Anisie; Rozz.; Voigt; Bombay Products.

See Liquorice Root.

ABSAN-UL-FIL. ARAB. Colocasia esculenta.

ABSHAR. HIND. A stripe pattern.

ABU or Abao, the ancient Arbuda, is in Rajwara, in lat. 24° 35' 37" N. and long. 72° 45' 16" E. It is a large isolated mountain, in the territory of the Rao of Serohi; 45 miles N.E. from the military cantonment of Decca, and to the S.W. of the Aravalli range. It is situated on the western border of the desert of Rajputana, and one of the philanthropic Lawrence Asylums has been located on it. It is a magnificent mass of mountain, with a fine lake, the Nakhi Talao, on the top of the hill. Its summit is covered with exquisite vegetation, in which white and yellow jasmine and wild roses predominate. Every glen and knoll has its tradition and romance; and the Jain temples of white marble offer examples of architectural decoration which probably are unequalled in the world for elaboration and costliness. Its fame is of great antiquity; and pilgrims appear to have been attracted to its sacred temples since A.D. 1034. Hindi temples are said to have existed here in remote ages, dedicated to Siva and Vishnu, but all traces of them have disappeared. On their traditional site at Delwara, the famous Jain temples now stand, built by Bimul Sah, a rich Jain merchant, and others; for, in Jain estimation, Abu is the holiest spot on earth. At Delwara are five Jain temples, the largest being dedicated to Rishabhanath, the first tirthankara, whose image there is quadruple. Another is dedicated to him, A.D. 1031, as Adisvara or Adina-tha; and one to Neminath, the 22d tirthankara, built of white marble, and delicately and richly carved. The base of mount Abu is about 13 miles long, 11 broad, and 50 in circumference. It rises abruptly from the sandy plains, and the ascent is consequently steep and winding. The summit of the hill is very irregular, consisting of peaks, ridges, and valleys, sloping plateau, and extensive basins. The highest point is called Guru Sikhar, and is 5655 feet above the level of the sea. The average height of the station is 4000 feet. Colonel Tod described the neighbourhood of mount Abu, as the site in which, from the most ancient times, ascetics known as Aghora, Mard-khor, or man-eaters, had resided. The aborigines of the hill appear to have been a tribe of Bhils. They seem at some time or other to have become mixed with marauding Rajputs from the plains, and with the workmen who were so long engaged in building the Delwara temples. This mixed race call themselves Lok, and are now in possession of almost all the land under cultivation. He says, taking a section of about sixty miles in the alpine Aravalli, from the ascent at the capital of Udaipur, passing through Oguna, Panurna, and Mirpur, to the western descent near Sirohi, the land is inhabited by communities of the aboriginal races, their leaders, with the title of raja, being hereditary. Thus the Rawat of the Oguna commune could assemble five thousand bows, and several others can, on occasions muster considerable numbers. Their habits are dispersed through the valleys in small rude hamlets, near their pastures or places of defence. The Bhils latterly have been settling to agricultural pursuits. Abu is subject to frequent shocks of earthquakes. The Rao of Sirohi, with some difficulty, was induced to approve of the sacred ground being used as a station for European residents and soldiers. Abu is one of the five mountains which the Jains of Western India consider sacred, the others being Girmar, Palitana, and Tallijah in Saurashtra, and Parasamth hill in Bengal, far to the east. Abu is the headquarters of the Rajputana Political Agency.—Dr. Cook, in Bo. Medical Transactions, 1860; Billst's Catalogue; Cunningham's Bhilsa Topes; Tod's Travels, p. 84; Postain's W. India, p. 2; Imp. Gaz.

ABU. ARAB. Father; also meaning possessed of, or endowed with, and is numerously combined in Arabic.

ABU ABDULLAH MUHAMMAD ISMAIL, BOKHARI, born A.H. 194, died A.H. 256. He was one of the six principal collectors of the Hadis, or traditions of Mahomed.

ABU ALI il-HUSAIN, ibn ABID ULLAH, ibn SINA, a learned physician and philosopher, A.D. 980–1037, known to Europe as Avicenna, but to his contemporaries by his titles us-Shaikh, the chief, and ur Rais-ul-Atabah, literally physician-general. He was born A.D. 980 at Khurmatain (also, as is said, at Assena), a village near Bokhara, and was educated at Bokhara, studying under Abu Abid Ullah un-Nathali. His name ruled in the realm of medical science for a longer time than that of any other writer except Aristotle and Galen. In his twenty-first year he wrote a book, which he called Al Kitab al Majnu, a cyclopaedia of twenty volumes; and he subsequently wrote a commentary of it, which also extended to twenty volumes. When the Samani dynasty fell, in the beginning of the 11th century, he quitted Bokhara, and for a short time was employed under the Dileni ruler; but in 1012 he returned to Jorjan, where he began to write his most celebrated book on the principles of medicine, Kitab ul Qanun fi't Tibb. He subsequently lived for short periods at Rai, Kazwin, Hamadan, and Isfahan. He wrote about 100 other treatises, amongst them us Shafa, Shafa fi Hilmat, Najat, and Isfah. His Qanun was printed at Rome A.D. 1535; was translated into Latin, and printed at Venice 1608; and for many centuries was, even in Europe, the most celebrated authority in
medical science. It went through several editions. He died while on a journey at Hamadan a.d. 1037, at the comparatively early age of fifty-seven.

ABUBAKR, the father-in-law of Mahomed, and his successor, as Khalifah. He received from Mahomed the title of Al Sadig, the sincere friend. ABUL DULIF MISAR ibn MOHALHAL, an Arab traveller who was at the court of Nasr i bin Ahmad bin Ismail of the Samanids at Bokhara, when ambassadors arrived from the king of China, Kalatin-bin-us-Shakhkir, to negotiate a marriage between his own daughter, and Noah, the son of Nasri (who afterwards succeeded to the throne of Bokhara). Abu Dulif accompanied the ambassad-ors on their return, about the year 941. The whole narrative of this traveller is not extant, but much of it has been preserved in citations by Yakuti (A.H. 617, A.D. 1220) and Kazvini (A.H. 667, A.D. 1268-69); and a German editor collected these passages into a tolerably continuous narrative, and translated them into Latin.—Yule, Cathay, i. exi.

ABU HANIFA, one of the learned doctors of the Mahomedan faith, born A.D. 699-70. He was a commentator of the Koran. See Imam; Hanifa; Koran.

ABU ISHAQ of Istakhir, or Persepolis, author of Kitab-ul-Akalin, or book of countries, which he wrote A.D. 951 (A.H. 340). He travelled through the Mahomedan principalities, from India to the Atlantic Ocean, and from the Persian Gulf to the Caspian Sea. He and Ibn Haukal met on the banks of the Indus, and compared notes to-gether. Ibn Haukal made Abu Ishaq's writings the basis of his own work.

ABU KARIB, the most powerful of the Himyaritic monarchs. He was commonly called Totta. In A.D. 206, he covered the Kaaba with a tapestry of leather, and supplied its door with a lock of gold. See Kaba.

ABU KUBAYS, a hill which bounds Mecca on the east. According to many Mahomedans, Adam, and his wife and his son Seth, lie buried in a cave here. Others place Adam's tomb at Muna; the majority at Najaf. The early Chris-tians had a tradition that our first parents were interred under Mount Calvary; the Jews place their grave near Hebron. Habil (Abel) is sup-posed to be entombed at Damascus; and Kabil (Cain) is believed to be under Jabal Shamsan, the highest wall of the Aden crater, where he and his progeny, tempted by Iblis, erected the first fire-temple. This worship, however, was probably imported from India, where, according to the Vedas, Agni (the fire-god) was the object of man's early adoration.—Burton's Mecca, iii. 198-99.

ABUL-BAQA-ul-HUSAINI-ul-KAFAWI, the Hanafi, author of a cyclopedia of the sciences.

ABUCASIS or ALBUCASA, a Spanish phys-ician of the 11th century, who wrote several medical and surgical treatises that are still extant.

ABULFADA, author of the geographical book Taqvim - ul - baladan, and other books, was the sovereign prince of Hama in Syria. His name and titles at length were, Sultan Ahmad Almuyad Amal-ud-Din Abulfada Ismail, the son of Malic Alafdal Nur-ud-Din Ali, son of Jamal-ud-Din Mahmud, son of Umar, son of Shahinesb, son of Ayub, of the Ayubi family. Born A.D. 1273, died in the year 1331, A.H. 732. He mentions the abundance of pepper grown in Malabar, and the fine cotton manufactures of Coromandel. He divides Hindustan into Al Sind, the country of the Indus, and Al Hind, the country of the Gauges.—History of Genghiz Khan, p. 409.

ABUL FARAGH, styled Al-Mufrijan; Mar Gregoriou Abu Paraghi bin ul Hakim Harun ul Malati, author of the book of dynasties, which he finished, in Arabic, in the reign of Argoun Khan, the last of Chenghiz Khan's grandsons. He was a Jacobite Christian of the city of Malatia in Cappadocia. It was arranged in ten chapters.

1. On the Saints since Adam. 2. The Judges of Israel. 3. The Kings of Israel. 4. The Chal-dean Kings. 5. The Kings called the Magi. 6. The Ancient Greek Kings. 7. Latin Roman Kings. 8. Christian Greek Emperors. 9. Mahomedan Arabic Kings. 10. The Mogul Kings. He is the Abul Pharagius of history; Prideaux notices him.—Chatfield's Hindustan, p. 245.

ABUL FAZLI, the minister and favourite of Ak-bar, emperor of India. He wrote Akbar's memoirs. He was a man of enlarged views and extraor-dinary talents, but he was a professor rhetorician, and is still the model of the unnatural style which is so much admired in India. He was an assiduous courtier, eager to eotlo the virtues, to gloss over the crimes, and to preserve the dignity of his master, and those in whom he was interested. His dates and his general statements of events are valuable; but he had a dishonest way of telling a story, and his narrative is florid, feeble, and indistinct. He wrote the greater part of the Akbar Nama, which was continued for the last three years by a person named Isayat Ullah or Muhammad Salla. Selim, the eldest son of Akbar, took a dislike to him, and to obtain peace, Akbar sent Abul Fazli to a command in the Dekhau; but when recalled from there in the 47th year of Akbar's reign, and while advancing with a small escort towards Gwalior, he fell into an ambuscade laid for him by Narsing Deo, raja of Orcha in Bundel-kund, at the instigation of Prince Selim, and although he defended himself with great gallantry, he was cut off with most of his attendants (A.D. 1602, A.H. 1011), and his head sent to the prince. Akbar was deeply affected by the intelligence of this event; he shed abundance of tears, and passed two days and nights without food or sleep. He sent a force against Narsing Deo, with orders to seize his family, ravage his country, and exercise such severities as on other occasions he never permitted. He does not seem to have been aware of Selim's share in the crime. But Selim, in memoirs written after he was emperor, acknowledges the murder, and defends it on the story that Abul Fazli had persuaded Akbar to renounce the Koran and deny the divine mission of Maho-med.—Price's Jalangir, p. 33; Elph. pp. 384, 462. See Mubarak; Faizi.

ABUL-HASAN-ABI, known by the patro-nymic surname Al Masudi, a native of Baghdad, and great traveller, acute observer and writer. He wandered to Morocco and Spain on the west, and eastwards to China, through all the Mahomedan and other countries, and he wrote his travels, which he styled Miraj-ul-Zahab, or Meadows of Gold.—Elliot, p. 19.

ABUL-HASAN-RUDIKI, the oldest of the
ABYSSINIA.

Persian poets, still well known and popular in Central Asia. He is remarkable for the fertility of his pen, and the purity of his language. Hammer states that, according to the commentators of the Yamin, his history of Persian poetry, he is said to have written 1,300,000 distiches, collected in a hundred books. His magnificence was princely. He went about preceded by 200 slaves, and followed by 400 camels laden with valuables. P. Arminius Vambeke, Botkara, p. 77.

ABYSSENIAN.—It is thought that Abyssinia, as this land is known, was probably given its name from the Abyssinian, or Eritrean, who were the first to make the acquaintance of, and to trade with, the inhabitants of the interior. This land was visited by the Portuguese, and subsequently by the Dutch and English. The Abyssinians are divided into two classes: the Amhara, who are the ruling class, and the Tigrinya, who are the farming and trading class. The Amhara are ruled by a king, who is the head of the government. The Tigrinya are ruled by a chief, who is the head of the tribe.

The Abyssinians are a fine-looking people, with a tall and graceful figure. They are skilled in the arts of war and trade, and are noted for their bravery. They are also noted for their musical talent, and are said to be the best musicians of the world.

ABYSSINIA, a country in the N.E. of Africa, known to the people of Persia and India as Habash and Habashistan, and its people as the Habush or Habshi, though in India this latter

ABUTILLON INDICUM. G. Don.

Sida indica, Linn. Abut. Asiaticum, W. and A. Sida populi-folia, Roxb. Potari, E. BENG. Payrun tutti, TAM. Tha ma khi sl ok, BURM. Tuttura-benda, KANGNI, KANGHI, HIND. Nugu or Bolta - ATTAR KHANI PAPA, PAP. Pedda or Tutti PTATAK, SIBDE, Pedda or Tutti URAJ, PETIKA, MAHAL, benda.

This is a small plant, of two to three feet, common in most parts of India, and cultivated in Burma. It yields a rather strong fibre, fit for the manufacture of ropes. The leaves are used in India and Burma in the same manner as the marsh-mallow in Europe, in decoction as an emollient fomentation, and an infusion of the root is a cooling drink in fevers. To obtain the fibre, the plants are gathered and freed of their leaves and twigs, and are put out to dry in the sun for a couple of days. They are then taken up, tied into bundles, and placed under water for about ten days, after which they are taken out, and the fibres are well washed to remove the bark and other foreign matter that may be adhering to them, and then placed in the sun to dry.—Voigt, 114; Roxburgh, iii. 179; Drs. Wight, Mason, Shortt, Stewart, and Mr. Powell.

ABUTILLON POLYANDRUM. W. and A.


ABUTILLON TOMENTOSUM. W. and A.

Sida tomentosa, Roxb. Too-thi, TAM. Fibres from this were exhibited from two or three districts at the Madras Exhibition of 1855.—Roxburgh; Madras Exhibitions Juries' Reports.

ABUVVA. Tel. Trichosanthes palmata, R.—Tr. bracteata.

ABU-ZAIRD-UL-HASAN, a native of Siraf, who wrote a continuation of the Arabic work by Suliman the merchant. He never travelled in India, but he made inquiries of travellers, and collected the account given by the merchant Suliman. Abu Zaid met Masudi at Basra in (A.H. 303) A.D. 916, and he obtained from Masudi much information. He begins by remarking the great change in the commerce of the East that had taken place in the interval since Suliman wrote. A rebellion had broken out in Khan-fu, which had utterly stopped the Arab trade with China, and carried ruin to many families in distant Siraf and Oman. He gives also an account of a visit which an acquaintance of his own had made to Khundan (Chang-gan or Sin-gan-fu), the capital of China.

ABWAB. ARAB. Heads or subjects of taxation; miscellaneous cesses, imposts, and charges. —Wilson.

ABYSSINIA, a country in the N.E. of Africa, known to the people of Persia and India as Habash and Habashistan, and its people as the Habush or Habshi, though in India this latter
term is applied to all the Negro races from Africa. It is one of the most ancient monarchical races in the world. Its principal provinces are Tigré, Amhara, and Shoa; at an early period they extended their power over Southern Arabia. But when the Arabs threw off the Abyssinian yoke, the remnants of the Abyssins in remote parts of Arabia were reduced to servile avocations, and formed the Khummar of Yemen. The people of Tigré and Amhara are of Semitic origin, and profess Christianity. In 1864, Theodore, the king, imprisoned Captain Cameron, H.B.M. Consul at Massowah, and subsequently, put several Christian missionaries and others in chains, and confined Mr. Rassam, and, in the year 1869, an army under Sir Robert Napier was sent from British India, which effected their relief, and Theodore destroyed himself as the army reached Magdala. General Napier was created Lord Napier of Magdala.

ACACIA, a genus of plants, numbering about three hundred species. Several are well known in the south and east of Asia, the foliage of some being attractive, while others furnish valuable timber, useful guns, and other important products.

The Rewa is a large tree common in Rajwara, sacred to the Matajee, around whose shrines groves of this tree are commonly found.

The Rheonj is a very common tree in particular parts of Rajwara, upon which travellers, at certain parts of the roads, suspend shreds of their clothes, as in other parts of India. To the extremities of the young branches are suspended innumerable masses of exuded sap of large size. Several quick-growing species, introduced from Australia, are reared for fuel on the Neilgherry Hills; and other Australian species might be brought to India, viz. A. armata, R. Br., the kangaroo thorn, a valuable sand-binding plant; A. floribunda is the Willow Acacia; A. longifolia, Wilde, var. A. sophora of R. Br., a bushy tree, renders most important services in subduing loose coast sand; bark used for sheep skins. Wattle trees yield also an abundance of gum arabic. A. decorum is the Black Wattle. Its bark sells in Great Britain from £8 to £11 per ton, and it yields 80 to 90 per cent. of tannin. A. falcata, Wilde, the KoA tree of the Sandwich Islands, yields a very durable wood. A. melanoxylon, R. Br., is the valuable South Australian black wood tree. A. microbotrya, Bentham, yields about 50 lbs. of gum annually. A. glaucescens, A. homalophylla, and A. pendula, Bennet, are the valuable Myal woods of Australia.—*Gen. Med. Top.* p. 197; von Mueller; *Eng. Cyc.*; G. Bentz.

ACACIA AMARA. Wilde. Babul tree. Mimosa amara, Roxb. Bel kambi, . . . CAN. ; Wunjah maram, . . . TAM. ; Lallye, . . . MAH. ; Nalla-regs, . . . TEL.

This tree grows above the gluts of Canara and Sunda, not inland, and not north of the Gungawalli river. It is a tolerably large tree in Coimbatore, but of rather low stature. Its flower is very beautiful. In Coimbatore the wood is dark-coloured and hard. In the Bombay Presidency, the wood is always very crooked, otherwise, when ripe, it is strong and tough, and might be applicable to domestic purposes. From its black colour, the natives of Canara and Sunda deem it (wrongly) a species of ebony.—*Rozb.* ii. 548; *Voigt*, 261; *Dr. Wight*; *Dr. Gibson*.


Amghahaut, . . . Ar. Nalla tamma, . . . TEL.
Aka, . . . Ben. Tamma elettu, . . . TEL.
Babla, . . . BENG. Barabamu, . . . TEL.
Nan-lang-kyen, BURN. It’s gum : Babul, . . . HIND. Babul Gond, . . . HIND.
Mughilan, . . . PERS. Andere, . . . SEV. Valodiin; Karu, . . . TAM. velaim plaas.

This yellow flowering and rather slender tree is met with in varying abundance throughout India, Sind, and Ceylon. It is of rapid growth, and requires no water, flourishing on dry arid plains, and especially in black cotton soil, where other trees are rarely met with. It can never be had of large size, and is generally crooked, but it is a very hard, tough wood, and is extensively employed for tent pegs, ploughshares, sugarcane rollers; for the spoked, naves, and fellos of wheels; for the knees and ribs of country ships; and generally for all purposes to which a hard bent wood is applicable; it is not attacked by white ants. Amongst its other useful products, may be named its gum, bark, and seeds; the latter being extensively used in the Dekhan for feeding sheep. The bark is very largely employed in the centre of the peninsula as tanning material, and, when properly managed, makes a good leather, with a reddish tinge, though in native hands the leather is often porous, brittle, and ill-coloured. Dr. Buchanan mentions that, in Mysore, the bark was employed in the process of distilling rum. The ground bark mixed with the expressed seeds of the Sesamum orientale has been used as food in times of scarcity. A decoction of the bark makes a good substitute for soap, and is used in dyeing various shades of brown. It yields an abundance of transparent gum, which flows out from incisions or fissures in the bark, and hardens in lumps of various sizes and figures, and is used in India as a substitute for the true gum arabic, which is the product of A. vera. In the medical practice of the people, the bark is used internally as a tonic and astringent; in decoction, as a wash for ulcers; and, finely powdered and mixed with gingelly oil, externally in cancerous affections. Dr. Gibson for years advocated extensive planting of this useful tree in the Bombay side of India, and several forests of it at Khangum, Kasoordee, and other places have been preserved. The pods have long been employed in tanning on account of their astrignency. In Sind, logs of 24 inches square and 11 feet long are obtainable. In the Panjub it has a girth of 9 to 16 feet.—*Dr. Cleghorn; Gibson; Riddeker; Mr. Rohde; Useful Plants; Captain Macdonald; Rozb. ii. 548; Voigt*, 262; Beddome, *Fl. Syl.*

ACACIA CATECHU. W. and A. Mimosa casia, Linn. Acacia allicaece, Buch. *Acacia arrar, Buch.* intisoles, D. C.

Tella Korinda, . . . TEL. Konda Korinda, . . . TEL.

This climbing shrub grows in Coromandal, Alipur, Monghir, and Saharanpur.—*Voigt*, 263.

ACACIA CATECHU. Wilde. A. polycantha, Wilde. Mimosa catechu, Linn.
A. Wallichiana, D. C. catechoides, Wall.
Khaire guch, . . . BENG. Khadiramu, . . . SANS. ; TEL.
Sha-bin, . . . BURN. Khair; Rot khir, . . . SING. ; Khaire, Kith-khiss, . . . HIND. ; TAM. ; Wodley.
Ka't ha kikar, . . . DUK. Podala manu, . . . TEL.
Kwarch, . . . PANJ.

This tree is common all over the plains and
ACACIA CINEREA. Spr.

Dichrostachys cinerea, W. and A.

Werdil. HIND. Velatoooroo, Tel.

Vedatil. TAM. Nela Jami, Shimna Jami, Tel.

This tree is said to grow in the Circars.

ACACIA DEBILATA. Link.—A handsome tree, from 15 to 30 feet high, abundant in Port Philip and Twofold Bay, forming luxuriant groves on the banks of streams, between lat. 34° and 30°. Its bark contains a greater percentage of tannin than any other, and pays to ship to England. It was introduced from Australia, and grows on the Neillgherries—Simmonds, Cat. Paris Ex. 1879.

ACACIA ELATA. Linn.

Mimosa elata, Roxb.


This large, tall, stately, and excellent timber tree is very popular in Canara and Sunda, both above and below the ghats; it occurs in the Godavery forests, Panjib; in Dehra Doun, Assam; is plentiful in the Pegu, Tanongoo, and Prone districts, and very abundant off along the sea-shore from Amherst to Fergani. Its maximum length is 40 feet, and 8 in girth. It grows readily from cuttings. When seasoned, it floats in water. Its timber is straight, lengthy, and of large girth, red-coloured, hard, and strong, and very durable. It is much valued and useful for house-building. It is used for posts for buildings. It is adapted for cabinet-making, and of sufficient girth to be advantageously employed in Government buildings, and for packing-cases.—Voigt, p. 261; J. L. Stewart; Roxb. ii. 516; Captain Beddome; Drs. Gibson and McClelland; Captain Dance; Eyre, Hist. Bot. p. 181; Mr. Thompson, Report on Kamaon; Cleghorn, Panjab Report, Killia and Kangra, p. 82.

ACACIA FARSEANEA. Willde.

Mimosa Farseinana, Roxb.

Vachellia Farseinana, W., Index, Poir.

Guya babula, BENG. Babuver. SIND. Jali, CAN. Vaday valli maram, TAM. Iri babul, MAHR. Kasture petuma chatta, Vel velam, MALEAL. Walayati kikar, PANJ. Kampa tamma, Hanja, PUSHT. Nuga tamma, Tel.

A native of every part of India, the Panjab, Sind, Silhet, Assam, Bengal, both peninsulas; and grows up to 5000 feet. It is also a tree of Africa and Australia. In waste places in the Western Dekhan, where it occurs also in garden hedges, it is only a scruffy shrub, and Dr. Gibson says its wood is only applicable for tent pegs and firewood; but Veitch mentions that the wood is hard and tough, and used for ship-knobs. Dr. Stewart also says for ship knops. A delightful perfume is distilled from the sweet-scented yellow flowers, and the tree exudes a considerable quantity of useful gum.—Dr. Gibson; Major Drury; Roxb. ii. 557; Timber Trees; Voigt; Beddome; Dr. Stewart.

ACACIA FERRUGINEA. D. C.

Mimosa ferruginea, Roxb.

Seet. net. BURM. Woni, Anausundra, TAM. Simal vel velam, Tel.

This tree much resembles A. catechu and A. sundra, and differs chiefly in the smaller number of pinnae; it is common in the jungles, grows in the Madras Presidency, on the Coromandel coast and Northern Circars, and is found at Couraltum, in the Bombay Presidency. It attains a height of from 20 to 25 feet. It flowers in April and May, the bark is very astringent, and is used by the natives in the distillation of arrack from jaggery in the same way as the bark of A. leucophana. The wood is of a reddish brown, streaked with a darker hue, heavy and durable, and does not warp or crack, the grain rather coarse and even, works well, and gives a smooth surface; it is used in building and in the construction of eattles, ploughs, etc.; it weighs 60 lbs. per cubic foot when seasoned, and 65 to 70 lbs. unseasoned, and has a specific gravity of 0.60.—Voigt, 260; Drury; Roxb. ii. 551; Ainisic; Beddome, Fl. Syic. part v. p. 51.

ACACIA JACQUEMONTII. Bentham.

Babul, HIND, PANJ. Gargusa, PANJ. Bahari, BURM. Harriana, CAN. Hanzu, BURM. Suril, TAM. Kakohi, PANJ. Kikkari, Tel.

A small shrub of the Panjab and Trans-Indus, with immense white spines; it grows in clumps, and from 6 or 7 up to 10 feet high. It is common on sandy knolls and ridges in many parts of the arid tract from Dehli, westward by Harriana, Sirsa, Montemarie, etc., to Trans-Indus, to about
ACACIA LATRONUM.

2000 feet. The bark of the root is used in the distillation of native suquets.—J. L. Stewart, M.D.

ACACIA LATRONUM. D. C. Buffalo-thorn.
Mimosa latronum, Koen. | M. corinina, Linn.

Common in the barren tracts of the Dekhan, and found on the Madras side of India.—Voigt.
ACACIA LEUCOPHLEBA. Willd.

Acacia alba, Wilde. | Mimosa alba, Roxb.
Renu, | BEAS. Gargas, SALT RANGE.
Safed Kikar, | HIND. Kuto andra, SINGH.
Kar, | JELKUM. Vel velum, Vellta tumma.
Hewar, | MAHR.
Ranni, Raujii, | PANJ. Tella tumma, Tel.
Nimbar, Jand, | ...

Its specific name, and its Hindi, Tamil, and Telugu synonyms, are given from the whitish or pale yellow colour of its bark, which, in S. India, is one of the ingredients used in distilling arrack from jagari. It extends from about Lahore along the arid tract to Dehli, and to Ceylon. In Coimbatore the tree attains a medium size, with a rounded head, but in the Dekhan it is nearer of a size fit for and used for anything beyond to posts small houses. The wood it furnishes, however, is strong, good, and dark-coloured, though generally small. It is easily distinguished by its paniced globular inflorescence and stipulate thorns. A tough and strong fibre, in use for large fishing nets and coarse kinds of cordage, is prepared from the bark by maceration. Major Boddome says the timber is hard and strong, much like Babul, but closer grained and of a deeper colour; it is used for the same purposes. A cubic foot unseasoned weighs 62 lbs., and 55 lbs. when seasoned; its specific gravity is .880. It makes excellent fuel for locomotive purposes. Mr. Jacob says its wood decays more rapidly, and is more speedily attacked by the Goo insect, than any timber of which he had knowledge. He says it occasionally reaches tolerable dimensions; but even were it possible to preserve it, it would not be worth doing so, from its brittleness and the coarseness of its grain.—Drs. Cleghorn and Wight in M. E. J. R.; Dr. Gibson in Bomb. Geo. Soc. Journal; Voigt; Roxb.; Beddome, Fl. Sylve. p. 48; Dr. J. L. Stewart.
ACACIA MICROPHYLLA. Roxb.

Mimosa microphylla, Roxb.

Tettila of Silhet. A tree growing in Silhet to about twelve feet in height, and the people use its bark in distilling an intoxicating liquor.—Roxb. ii. 549.

ACACIA MODESTA. Walliich.
Phala, Phullah, | HIND. | Palosa, Pulasa, Pushr.
A tree of slow growth, a native of the Panjab, Cis and Trans Indus, and in the Doabs. The wood of an old tree is very dark brown, or nearly black, hard, strong, and heavy. Green it weighs 69\frac{1}{2} lbs., and dry 53\frac{1}{2} a cubic foot. It is very durable, and is a favourite for cart-wheels, sugar-mills, plough stocks and shares (? Bellew), Persian wheels, the mallets for cleaning cotton, etc. The tree yields sparingly a gum (Bhimibodi gond) similar to gum arabic, which Bellew states the people of the Peshawar valley consider to be restorative.—J. L. Stewart, M.D.

ACACIA NEMU. Smith.

Mimosa nema, Loureiro.
Ho-hwan, | CHIN. Ye-loh, | CHIN.

This plant grows in China and Cochín-China, and is used for ornamental purposes. At Ningspo, bark used for tanning sails.—Smith, Mat. Medica.

ACACIA SPECIOSA.

ACACIA RAMKANTA. Gibson.—Under this name Mrs. Gibson and Riddell describe an ornamental species of Acacia, or a variety of A. Arabica, common in the Dekhan, though less abundant than A. Arabica, from which it is distinguishable by its straight, tall, erect stem and general cypress-like appearance, or resembling a gigantic broom, and by the colour of its legumes. Its wood is quite equal to that of the A. Arabica, being hard, and used for cart-wheels, ploughs, etc.; but the natives attach some superstitious notions to the use of the tree.—Drs. Gibson and Riddell.

ACACIA ROBUSTA, introduced from the Cape, is growing freely on the Neelgherry Hills. At the Madras Exhibition of 1857, Mr. M'ivor exhibited specimens of bast from this tree, strong, very tough and durable, also pliable when wetted, and constantly made use of for all the purposes to which Russian bast is put in gardens in Europe. This bast, he says, was cheaper and more plentifully and in large quantities, as the trees when not cut down threw up numerous young shoots, to the height of from six to twelve feet, in one year. The bark of the tree is also a powerful tanning material.—Mr. M'ivor, Madras Exhibition of 1857.

ACACIA RUGATA. Buch. Soap Acacia.

Acacia concinna, D. C. | Mimosa rugata, Lam. | sapoaria, Roxb.
Mimosa concinna, Roxb., | | abastergens, Spr.
Wild.

Kochai, | BENG. Chnik, MALR.
Ken-bwon, | BUM. Go-go, TAK.
Fei tsu-kih, | CHIN. Shikul, TAM.
Ching, | MAHR.
Pak, | PAL.

This plant has a long flat pod or legume, containing separate, small, oval, dark-coloured seeds. It grows in the Peninsula of India, Bengal, Naga, and Sitthet, Assam, Moulineau on the Atraran, and in the Archipelago. The legumes are used for washing the hair, and by Hindus for marking the forehead. The leaves are acid, and used in cookery instead of tamarind, and with turmeric they give a beautiful green. The pods or legumes are three or four inches long, and about one and a half inch broad, greasy, yellowish, or reddish brown. They abound in an acid, deterrent, fatty principle. In China they are roasted, pounded, and kneaded into small balls, and used to wash the person or clothes. Three or four of the black seeds are in one pod. They are roasted and eaten, and are used by artificial flower makers to wax their thread. Pods and bark are exported from Canara, the former as a washing material, the latter for dyeing and tanning fishing-nets.—Smith, Chin. Mat. Med.; Elliot, F. A.; Drury, U. P.; Voigt; Roxb. 565; Drs. Gibson, Mason.

ACACIA SPECIOSA. Wildl. W. and A.

Acacia sirissa, | Buch. Allobiza lebbek, Bentth. | Mimoso flexuosa, Rott. | mohls, var.
Bactris, | | | Julibrissis, |

Sirin, Shurungra, BEAS. | | | |
Sirhia, | BENG. UMA. | | |
See, Tssek-tha, | BUM. | | |
Lasrin, lasrin, | CHENA. Kulu vase, Velvangel, TAM.
Bhuk, | | | |
Sirhia, | | | |
Hind, Dirsana, Sindava, TAM.

This large tree grows wild in the Himalayas up to 5000 feet, and it is cultivated in the plains of the Panjab. It occurs throughout the N.W. Provinces; it is plentiful in Pegu, particularly in the Toung-hoo district, and is found on the Irrawadi. In Ganjam and Gumsur it is very plentiful, attains
ACANTHACEE.

an extreme height of 30 feet, and circumference 43 feet, the height from the ground to the intersection of the first branch being 22 feet; and it is used for sugar crunchers, pestles, mortars, and ploughshares. It is common in the forests of the Bombay Presidency, grows in Travancore, on the Coromandel coast, and is a common tree in Coimbatore, where it is frequently seen growing by the road-sides on account of the shade that its large head affords. The timber is large, and in old trees dark-coloured, very hard, and close enough grained for furniture; and large masses of very pure gum are often found on it. It is common in the hills and gardens of Murree and Hazara. The heart-wood makes good charcoal; the leaves and twigs are gathered as fodder for camels and other animals. The bark is stated to be applied to hurts of the eye (Madden); and the seed is official, forming part of an anjun for opthalmic disease. The specific name of Julibrissin, used by Bentham for the variety A. mollis, is a corruption of Gul-Abroshan.—Capt. Macdonald; Drs. Mason, Stewart, M'Clelland, Cleghorn, Wight, Gibson; Voigt; Roxb. ii. 544; Cal. Cat. 1862.

ACANTHACEE.

ACANTHACEE.

ACANTHA STIPULATA. D. C.


Stipules, Roxb. | Anacalypha, Bosc.

Oil, B. Durgari, BEAS. | Ran-drenkh, CHENAB.

Amulki, B. | Valathi Siris, HIND.

Soet, B. | Lasken, JHELUM.

Surangsa, Kasir, CHENAB. | Ola, KAVI.

This unarmed acacia has flowers of a pink colour. It is one of the largest trees of the genus, and is found in Dehra Doon, in the mountains north of Bengal, in Travancore, Courtallum, in most parts of the Peninsula, in Assam, in the forests from Rangoon to Tsinghoo, and on the banks of the Ataran river. Dr. Stewart says that on the various rivers of the N.W. Himalayas, it grows at from 3000 occasionally to 6000 Himalayas. It is handsome in appearance, resembling somewhat Poinciana regin, and is seen in great abundance and luxuriance in portions of the Kangra valley, where its girt reaches and occasionally attains 60 feet. In Kangra, logs are obtained from 20 to 30 feet long, and 4 to 6 feet in girth. Its wood is coarse-grained and tough, but not easily worked.

—Stewart's Panjab Plants; Mr. Thompson's Report.

ACACIA SUNDRA. D. C.

Acacia chandra, Willd. | Mimosas undra, Roxb.

Fall kher, HIND, MAHR. | Nalla chandra. | TEL.

Karangally, TAM. | Sundra, TAM.

This tree grows throughout the Peninsula and the Sunderbuns, but varies in size in different localities. It is common in the jungles of Bombay, there always scrubby, small, and crooked; and though rather plentiful in the forests under the chas, Dr. Gibson had not seen it of a size capable of affording planks. Mr. Rohde mentions that he had obtained, at Guntoor, planks 1 foot broad; that posts 5 feet long were procurable at twelve rupees per hundred, well suited for fencing and for rice pestles. The natives regard it as the most durable wood for posts in house-building, though from its non-elastic nature, it is unfavourable to the holding of nails driven into it. The wood is of a dark colour, close-grained, very hard, heavy, and very strong, a one-inch bar sustaining a weight of 500 lbs. Sp. gr. 1.296. It is also used as ploughs, mortars, and pestles, and for railway sleepers. A resin similar to that which exudes from the A. catechu is procured from this tree. The two trees are nearly alike, the uncertainty of the prickles absent or present being a distinguishing characteristic of this one.—Mr. Kohde; Dr. Wight; Voigt; Cleghorn's Report; Useful Plants; Beddome, Fl. Style. p. 50.

ACACIA TOMENTOSA. Willd.

Mimosas tomentosa, Roxb. | Mimosas kleinii. | Poir.

Salsein babula, BENG. | Jungle nail tree, ENG.

Elephant thorn, ENG. | Ani mulla, TAM.

Grows on the Madras side of India, common near Sholiapore, in the Kandesh jungles and the Bombay Dekhan, and is found in Bengal.—Voigt.

ACACIA VERA. Bach. Gum arabie tree.

Acacia nilotica. | Mimosas nilotica, Linn.

The Acacia vera is a tree of the African desert, and, according to Wollstede, of Arabia, its leaves yield the camel the sole forage it can meet in those arid regions. Two products are obtained from it, one natural, the other artificial, namely, gum arabie and the dried acacia juice (Akakia of Dioscorides), a solid, dark-coloured, shining substance, soluble in water, which it colours red. It is obtained by pounding the unripe fruit, and the juice is throned before the sun, and then placed in bladders, in which it gradually dries, weighing about 5 or 6 ounces each. It is sold in the bazaars of Bengal in thin, very black cakes about the size of a rupee. It was much valued by Hippocrates and Dioscorides. Wollstede found the Sumur trees of great size, and the gum exuding in considerable quantities; but very little of it was collected by the Bedouins, who complained that the price it brings in Maskat did not repay them for their trouble.—Wollstede, i. pp. 73 and 106; Baker's Albert Nyanza; O'Shaughnsey; Mendis.

ACALEPHIHE. or sea nettle, include a great number of radiate animals of which the Meduse are the type. They are common in all the seas.


Chuni maram, TAM. | Chinhi, TINNI, TEL.

Wood to be obtained about 18 inches in diameter, hard and heavy, not of much value to carpenters. Leaves attenuant and alterative, and an agreeable stomachic in dyspepsia and other ailments.—Wight; Hog.

ACALYPHA INDICA. Linn.

Mukto-joori, BENG. | Harita manhari, TAM.

Shinet busunda, TAM. | Kuppani chettu, TAM.

Morkante, TAM. | Puppanti, Miruktunda, TAM.

Koopie, TAM. | Duk, HIND. | Murupunl, TAM.

Kaupanni, MALEAL, TAM.

A small annual, common everywhere in the Peninsula and Bengal, and easily distinguished by the singular cup-shaped involucre which surrounds the flowers. In decoction it is cathartic; the leaves, with garlic, are anthelmintic. Mixed with common salt, the leaves are applied externally in psoa, and the juice rubbed up with oil externally in rheumatism. Wight also figures A. mappa.

—Hog; Useful Plants; Honig, O'Sh.; Voigt.

ACANTHACEE. R. BR. The Justicia tribe; its type is the genus Acanthus. The species are herbaceous or shrubby. Many are mere weeds; others bear handsome flowers with gaudy colours, but seldom with any odour. A very small number have been occasionally employed medicinally as emollients or diuretics. In Ceylon, "nellou" is
ACANTHOPTERYGI.  
ACANTHOPTERYGI, fishes having bony skeleton with prickly spinous processes in the dorsal fins. See Fishes.

ACARUS FARIN.Æ, the meal mite; it is never present in flour unless damaged, and in a state unfit for consumption. The domestic mite, A. domesticus, which does so much injury to stored insects and birds, can be somewhat guarded against with camphor and a solution of corrosive sublimate. The sugar mite, A. saccharinum, so common in cane sugar, is unknown in the palm sugars of India. A. Telarius, the scarlet mite, or red spider, envelopes the leaves of a plant in a delicate, closely-woven web, which so checks the respiration that the plant becomes dry and withered. See Insects.

ACASANIV. SANSK. In Hindustan, an ethereal voice heard from the sky; an emanation of Brahman. When the sound proceeds from a meteor or a flame, it is called Agni-puri, or formed of fire. An Avatara is a descent of the deity in the shape of a mortal; and an Avantara, a word rarely used, is a similar incarnation of an inferior kind, intended to answer some purpose of less moment. Acasana, therefore, is a manifestation of a deity, in which he is heard but not seen. Akasa is a name for the sky or firmament. See Akasa.

ACATJSJA VALL. TAM. Cassaya filiformis.  
ACAWERYA. SING. Ophioxylon serpentinum.  
ACCPITRINÆ, a sub-family of the family Falconidae, comprising the sparrow-hawks, goshawks. The more prominent in S.E. Asia are—  
Astur palpumaria, L., goshawk.

virgatus, Tem., crested do.

Micronius badius, Gunn., the shikra.  
Accipiter nisus, L., sparrow-hawk.

virgatus, Tem., the Beasa do.
A. nisus, the sparrow-hawk of Europe, Asia, and N. Africa, is common in the hilly parts of India; rare in the plains, where abundantly replaced by Micronius badius. Migrates partially in northern regions. There is a nearly affined race in the Malay countries, A. nisoides, distinguished by having a white throat with three distinct dark stripes, and no rufous on the under parts of the adult male. In other respects quite similar to A. nisus, and by no means to be confounded with A. virgatus, which likewise has the throat stripes. Accipiter trinotatus has elegant rows of large round white spots on the tail.

ACCOUNTANT.

Kanu-go. ARABO-HIND. Grama-karana., SANSK.
Patwari. HIND. Kayasta,
Kulkarni. MAN. Kanakapilli., TAM.

In the village system of India, this is one of the municipalities.

ACER, a genus of the Aceraceae, or sycamore tribe of plants, comprising the genera Acer, Dobinea, and Negundo. Dr. Royle mentions that immediately we commence ascending the Himalaya, either in Nepal, or Sirmoor, we meet with species of the Acer. A. oblongum descends to the lowest level, being found in Nepal and further north in the Dehra Doon, between 2000 and 3000 feet of elevation. A. culturatum is found at 6500 feet on the Mussooree range, and at similar heights in Sirmoor and Garhwal; while A. caudatum (Wall. Pl. As. Rat. t. 132) and A. acuminate (Don) sterculiaceum and villosum, are only seen with pines and birches on the loftiest mountains, which are for many months covered with snow. A. sterculiaceum (Wall. Pl. As. Rat. t. 106) is closely allied to A. villosum, which differs but little from a pseudo-platanus, or sycamore; and as this affords timber which, from being light and tough, is much used by turners, and for making saddle-trees, so it is probable that both the Himalayan species would answer equally well for the same purposes. The wood of A. culturatum is white, light, and fine-grained, and might be turned to the same uses as that of the maple, which is esteemed by turners, and also occasionally for making gun-stocks. A. caudatum is also found in Kunawar, and A. sterculiaceum extends to Kashmir. A. Dobinea, discovered in Nepal by Dr. Hamilton, is only a shrub of six feet in height. A. fraxinifolium is a native of North America, from which sugar is said to be made. Many species grow in Japan and the Himalayas, and are used by the people. For example, A. virgatus, A. nisus, A. californicus, A. hookeri, f. et z., Darjiling hills, villosum, Wall., Simla, picatum, Thomb., Hazara, palmatum, Thomb., a beautiful maple. A. niveum, Blume, India, and the Archipelago, rising to 150 feet in height.

—Von Mueller; Hodgson's Nagasaki; Royce's Ill. Bot.

ACER CAUDATUM, the Mandal maple tree of Kulu, Kangra, Dooban, and Simla. Wood not esteemed.—Dr. Cleghorn.

ACER CRETICUM. LINN.
Kitha, Kakri, CHENAB. Kukandra, J. JELLEM.
Kangr, Mandar, TIL-PATTER, KANG.
Til khan; trikhana, TI-AN.
Trikada, J. JELLEM.

A small tree, not uncommon at places near most of the great rivers of the Panjab, from the Ravi westward from 3500 up to 6000 feet. Of no special use.—Dr. Stewart.

ACER CULTURATUM. WALL.
Kaura, CHENAB. BRAS. Kandur, KANURA.
Kanka, KARDO, CHENAB. Tikkam, MURREE.
Kahra, Kangru, TIKKAM.
Trekam, Trekhan, JIEL.
Tilpattar, Kilpattar, JIEL.
Killh, Chirindu, Jarimu.
Karn, Kanjar, TI-AN.

A. culturatum and A. sterculiaceum much resemble each other, often grow together, and are frequently confused. They are found on all the rivers up to near the Indus, at from 4000 to 10,000 feet. They are handsome trees, and attain a considerable size. A. sterculiaceum attains to 12 feet girth, but the timber is not particularly valued. In Kangra it is used for ploughs, bedsteads, and jampan poles. From Bissahir, etc., there is a considerable export to Tibet of drinking cups made of the knots of these maple-wood trees. They are much used there, and often set in silver. Gerard states that they are made of juniper, and Moorcroft says horse-chestnut (see Pavia); but J. D. Cuningham mentions the knots or excrecences of these two maples as giving the best kinds. A. culturatum is prized for shade. The juice of the leaves is, in Kanawar, said to be so acrid as to hurt the hands, but the leaves and twigs are in places much lumped for fodder.—Dr. J. L. Stewart.
ACER LEVIGATUM. 

ACER LEVIGATUM, Wall., the Karaalul, or karandul of Kotigurh, is found in the Satlej valley, between Rampur and Singnham, at an elevation of 3000 feet, also higher up in the Nepal mountains, and at Darjiling. The knots are hollowed out, and used as drinking cups. — Voigt; Cleg. Veg. Rep. p. 64.

ACER OBLONGUM, an evergreen tree, of rapid growth, native of Nepal and Kumaon, and in southern hill ranges, such as the Gagar, and is very abundant at Naini Tal. — Voigt, p. 92.

ACER STERCULIACEUM. Wall.

A large tree of Nepal and the N.W. Himalaya, with a trunk three feet in diameter. The indi names allude to its inceased three-pointed aces. From the knotty parts of this tree are made the coarser sorts of wooden cups used in un-tes and the Cie-Alpine Himalaya, inhabited by Bhotia, and termed Lahauri Doba, and a sister kind, termed Talua Doba, is made from Acer oblongum. A Hookeri, isolobum, pentamimium, Sikkimense, and stachyophyllum, are her species. — Dr. J. L. Stewart.

ACESINES or Akesines, the Greek name of the hanub, a river of the Panjub; supposed to have 0 its origin in Abu Sin, a name of the Indus, e Sanskrit name being Chandra-Bhaga.

ACETIC ACID. Acetic acid, Vinegar. —

The ordinary vinegar prepared from the Indian bazaars purchased from the Dolichos siliquosus. Dr. Shaughnessy discovered that much pyroglucine acid passes over along with other gases, in scarce the charcoal for the Eshapore powder and, he recommended for India the practice followed in Germany, where a strong acetic acid obtained by causing a mixture of one part of nit, four of water, and about one-thousandth part of honey or yeast, to filter into a caskaining wood shavings, and provided with holes secure a free circulation of air. A very large surface being thus exposed, the alcohol is rapidly inverted into acetic acid. In India, teak shavings well boiled in water and subsequently steeped good vinegar, should be employed. — Beug. Bot. ar. p. 233.

ACH. HIND. Morinda citrifolia, M. tinctoria. 

ACHICHEMIDIE. During the time of this nasty, the language in use was the Bactro-Asiatic. We know from their inscriptions that the old Bactrian formations, which gave historical and geographical designations at a later period, — Dumas's Egypt, pp. 462-467.

ACHALABHIRA, one of the Ganadharas, masters of the Jain schools.

ACHA MARAM, also Aati maram. TAM. Any my tree; Diospyros ebenaster; Hardwickia mamosa, Bauninia racemosa.

ACHANDRARAM. TAM. A perpetual remnant of village land, as long as the moon and sun are.

ACHAR, a native race in Nepal, from whom Mewar select their priests.

ACHA. MALAY. Antiaris, sp.

ACHARA. SANSK. The observances of the Hindu religion; the personal and social customs of the Hindus; also a name applied to Siva or Vishnu, and also Brahman as the Supreme Being. It means free from further transmigration.

ACHARNI. HIND. A hier.

ACHARYA or Achari. SANSK. A religious teacher, a brahman who instructs in the Vedas the religious students of the Brahman, Kshatriya, and Vaisya castes. In modern use, it is applied to any religious instructor, or to any brahman and religious mendicant professing to be qualified to give religious instruction. In the south of India, it denotes the head of a religious society, the Mahant of Hinduism, or the Panda or head priest of a temple. Among the Mahrrattas it was given to brahmans employed by respectable families as cooks. It is assumed by the Madhava Brahmanas, and by the five castes of artisans — blacksmith, goldsmith, coppersmith, stone-cutter and carpenter—in the Tamil and Telugu provinces. At present, the brahman who reads a portion of the Vedas at the time of investiture with the posta, is called by this title, as well as the person who reads the formulares at a sacrifice.— Ward's Hindoo; Wilson. See Gayatri; Hindu; India.

ACHAVERAM or Acheveram, a village with a celebrated pagoda five miles S.W. of Devcottah. It was taken in September 1749 by the Tenjore army from the British under Captain Cope.

ACHA-TATA. See Akshana.

ACHCHHAN. MALEAL. A father; a respectful appellation of the men of the Nair royal family who have no office or official rank in the State.

ACHCHU. KARN. Acheha, MALEAL, TAM.

A mould; a printing press.

ACHCHU-KAVALL. Tel. Fees in kind to poligars for protecting lands.

ACHE. Count d'Aché, a French admiral sent from France to support Lally as a naval colleague, but he was undecided and unfortunate, was defeated off Tranquebar, and again by Pocock, and he ultimately sailed for France, where he became an accuser of Lally.—Malleson.

ACHEEN, Athi of the Malays, is the capital of a kingdom of the same name, situated at the north-west extreme of Sumatra, near the entrance of the Straits of Malacca. Every vessel entering the straits was formerly obliged to call at Acehen to obtain a pass, but Europeans set at defiance the assumed authority of its kings. These still, however (1879), continue independent of the Dutch. Pop. 326,000. This monarchy arose from the usurpation of sultan Salah-ud-Din in A.D. 1521, previous to which time Acehen had been a province of Peelir, and governed by a viceroy from that Kingdom. The Achinese differ much in their persons from the other Sumatrans, being in general rather shorter, and of a darker complexion. They are supposed to be a mixture of Battas and Malays with Chullaiah, as they term the natives of the west of India. They are an active and industrious people, and show much mechanical ingenuity. Their Padri, religious men, chiefly Malays of the Menangkabao states of the interior, for many years opposed the encroachments of the Dutch in the interior of Sumatra. The Achinese adopted Mahomedanism, A.D. 1206; the Malacca Malays, A.D. 1276; the Javanese, A.D. 1478. They are
strict Mahomeds, and great numbers resort in the Arab vessels to Mecca, with the view of becoming Hajis or pilgrims. The Spanish Pillar dollar is the standard coin. The natural productions of Acheen and its neighbourhood include gold dust, Baros camphor, which is highly prized in China; sapan wood, beecswax, dammer, and rattans. Cattle are abundant, and also small horses of an excellent breed (the best, indeed, in the Archipelago, with the exception of those of Bimah in Sumbawa), which are exported in considerable numbers to the settlements in the Straits of Malaca. The better kind have fine crests and good strong shoulders, in which latter particular, as well as in height of wither, they differ very much from the horses of Java and the islands to the eastward, which are generally deficient in these points. The Achin and Malay languages are written in the Arabic character. See Archipelago.

ACHENIYA PATA. Beng. Paderia ternata.

ACHERONTIA SATANAS, the death's-head moth of Ceylon, a richly-coloured nocturnal moth, which utters a sharp, stridulous cry when seized. —Tennent.

ACHETA, the cricket genus of insects. A. campestris and A. domestica, the Jhungur of Hindustan, attack the poppy plants from November to January, until the stem begins to shoot. A large species attacks the Casuarina trees. It lodges at the foot of the tree, and at nightfall ascends the tree, and cuts off the young top shoots. The crickets are very destructive to garden and field crops. See Insects.

ACHI'HRAR. HIND. Fruit of Buchanania latifolia: also pickles.

ACHIHR TILAK. SANSK. The ceremony of putting a few grains of rice on the forehead of an image when addressed, or on that of a brahman when invited to an entertainment.

ACH'HIK, a tribe in Bengal.

ACHILLEA MILLEFOLIUM. L. Milfoil; the Bui Madaran, Momadra, and Capendiga, of the Panjab.

ACI MARM. TAM. Calosanthes Indica.

ACHIMENES, very ornamental plants of various colours, flowering in the rains, of easy culture. The scaly tuberous roots, by which they are propagated, must be carefully preserved during the dry weather, by occasionally moistening the earth in which they are kept; and after the commencement of the rains, the imbricated buds, which they produce under ground, may be divided and planted out.—Riddell.

ACHOBA. POSHT. Land irrigated by the natural rain.

ACHODA. SANSK. Solanum trifoliatum.

ACHOTTI DURI, of Nepal. Hystrix longicauda.—Marsden.

ACHRAS ELENGIOIDES. D. C.

Acosta elengioles, D. C.

HOLAY, ... NEILGH. [Pala, ... TAM.

A large tree, very common on all the higher ranges on the west of the Madras Presidency, and is to be found in Ceylon. The fruit is like a small crab apple, and is made into pickles, and used in curries. The wood is of a dull red colour, short but straight in the grain, and very dense. It makes good beams for houses, but splits too much to be used for planks. If well seasoned it turns well, and it makes excellent carpenters' planes.—Beddome, Fl. Sylv. p. 235.

ACRAS SAPOTA. Wilde. Sapodilla.

Koweeet, ... of BOMBAY. Ratami, ... SINGH.

Thwoot-ta-bat, BURM. Smit Eiupe mariam, TAM.

Bally tree, Sapota, Eng. Sima Ipna chetuth, TAM.

A native of China, cultivated in the E. and W. Indies and S. America. In India grown as a fruit tree; wood hard and close-grained. These seeds are aperient and diuretic; in overdose they are dangerous. The bark is said to be a good substitute for cinchona. The Tamil name of this tree is liable to be confused with Mimusops and Bassia.—Jaffrey; Riddell; Rozb.; Voigt.

ACHUILLIJA. BEN. iea macrophylla.

ACHYRANTHES ASPERLA. Linn., Rozb.

A. Indica, Roha, Rheed.; obtusifolia, Lamb.

Urong, ... BEN. Kerb; Harbavia, ... BURM. Ajang, ... NAI URU; Neagam, ... EGYPT. Sultad, Agareh, ... HIND. Lal-ehchirhi, ... KATH ALATI, MALAE.

A herb growing all over India, in many places as a troublesome weed; its seeds, flowering spikes, leaves and ashes, are used in native medicine and as greens. An infusion of the root is given as a mild astrigent in bowel complaints. The flowering spike made into pills with a little sugar is a popular preventive medicine in Behar for person bitten by rabid dogs. The root is used by the natives as a tooth-brush; the whole plant when macerated yields a considerable quantity of potash.—O'Sh.; Rozb.; Voigt; Jaffrey; Honigb.; Usefu. Plants. See Vegetables.

ACID LIME. Citrus bergamia, Risso.

ACIDS, the tezab of the Persians. The most important are the sulphuric, nitric, hydrochloric, acetic, carbonic, tartaric, citric, oxalic, and arsenic. For making these, natives of India have peculiar formulae; their lemons and lime give them citric, and the gram-plant, Cicer arietinum, the oxalic acid. Acidum mondrolisum, white oxide of arsenic. Acidum benzoicum, benzoic acid, though name from benzoin, is found in other substances, as storax, and the balsams of Peru and Tolu. It is also produced by the action of re-agents on several vegetable substances.

Acid, Citric. Ning-mung-sha, CHIN, in India an article of commerce.

ACID, Muratic. Hydrochloric acid.

Sen-kiang-sha, CHIN. Namak-ka tezab, HIND.

Spirit of salt, ... ENG. Acidum muriaticum, LAM.

In India, an article of commerce.

ACID, Nitric. Aquafortis, nitric acid.

Tha-lau-ta-gar, BURM. Ayer Mangelehur.

Acide myrie-kuang-shui, CH. = MALAY.

Acide nitrique, ... FR. = POTASSE-UPPU-DRAV.

Salpetre saure, ... GER. = kam, TAM, TEO.

Shore ka tezab, HIND.

In India, an article of commerce.

ACID, Nitro-Muriatic. Aqua-regia.

Eau regale, ... FR. Acidum nitro-hydro-.

Konigs-wasser, ... GER. chloricum, LAT.

In India, an article of commerce.

ACID, Prussic. Smith. Hang-jin-chih, CHIN.

In India an article of commerce.

ACID, Sulphuric. Vitriol.

Ritus, ... ARAB. Arq-i-gaa-gard, PERS.

Kam-ka-bian, BURM. Gandak ka-dagva, kam, TAM.

Gandak ka-tezab, HIND. Gandak-ka-atr, HIND.
ACID LIME.

In India, an article of commerce, but largely manufactured in the several mints.—Royle, *Arts of India*.

ACONITUM. *Linn.* This genus of the Ranunculacea is almost entirely confined to Europe and Northern Asia, a few only being American. Throughout the temperate part of the Himalaya as species occur, but most frequently to the eastward in the moist parts of Nepal and Sikkim. Roots of *A. ferox*, luridum, napellus, and palma-are, are extensively used as the Bikh poison, and throughout the Himalayas are indiscriminately called, nor can the dried roots be distinguished from each other. Aconitum or Bikh is prepared *Aconitum ferox*. It is a formidable poison; an tenth of a grain killed a goat in one of Dr. O'Shaughnessy's experiments in twelve minutes. It is animal used in convulsions. It is used in an ointment, one grain being mixed with a drachm of laird, and is an invaluable local application in many forms of neuralgia, especially in tic-douloureux. It almost immediately occasions a tingling sensation in the part, then numbness, and relief of the pain. Several species of Aconite occur in China. Ts'au-wu-t'u is the name for the tubers. Maximo fiez met with nine in the Amur region,—four near Peking, and three in Mongolia. Ts'au means mild. An arrow poison called Tu-h-peh-t'sai is said to be prepared in some country on the west of China from a species. *A. palmatum Don.*, is a plant of the Himalayas, up to 10,000 feet.—Hooker and Thomson; *Smith*.

ACONITUM FEROX. *Wall.*, *Cat.*

*ACONITUM* viridum, *Don.*

atah Bish, Bish, *Beng.*

Wuchnak, *Maha.*

Ita titu, *Moura-bikch*, *Panik.*

ish, Bish, Bish, *Hind.*

Visa-navi, *Tam.*

Ita Zahr, Mahoor, *Vasa-nabhi,*

shakn, Bachnag, *Tel.*

This is a native of the Himalayan mountains, owing at 10,000 to 14,000 feet, and is one of the best celebrated articles in Indian medicine and zoology. The root is equally fatal taken internally or applied to wounds; but the effects are intensified in a concentrated state when the extract is introduced into a wound. A preparation of the root is much used in all the hill districts in India to poison arrows for the destruction of wild beasts; and tigers are destroyed by the poisoned arrows being shot from bows fixed near tracks leading to their watering places. It has been used on several occasions to poison wells and lakes, and doubtless might be made a formidable means of defence against the invasion of the territories in which it abounds. The Gurkhas y that they could so infect all the waters with a dreadful root that no enemy could advance to their mountain fastnesses.—*O'Sh.*; *Bl. Disp.* 6; *Phar.*, 265-286; *Useful Plants*; *Hooker*; *Clep.* *f. et Th.*; *Cleghorn, Punjabi Report*.

ACONITUM HETEROPHYLLUM. *Wall.*

vika, Vajai turki, *Du.*; *Atis, Batis, Patis*, *Hind.*

This plant occurs in abundance on the lofty mountains of Choor, Shalna, and Kedarnath in the Sutlej valley, between Rampur and Sungnám, an elevation of 8000 to 13,000 feet, and varies greatly in the size and form of its leaves, from rich circumstance it derives its specific name. It was first described and identified by Dr. Allieh in *Plant, Asiat, Rarioras*, and has received ditional notice from Professor Royle. The root is composed of two oblong tubers, of a light ash colour externally, white internally, and of pure bitter taste. These are met with in the market in small irregularly conical ash-coloured pieces, white internally, taste bitter, but not numbing. It acts as a bitter tonic and febrifuge, is used by Europeans and natives in the treatment of fever, debility, and diarrhoea, and it has been long employed in Indian medicine as a tonic and aphrodisiac. The roots are said to be eaten by the Kunwar hillmen as a pleasant tonic under the same name. Two Ates are, however, met with in the bazaar, and one of them is quite inert,—up to two drachms of 120 grains having been given by Surgeon-Major Walter without any effect.—*Cleghorn, Punjabi Report*, p. 66; *Pott*., *Handb*., *i.* P. 324; *Useful Plants*; *Honigberger*; *O'Sh.* p. 166-8; *Ind. Ann. Med. Sci. Ap.* 1856, p. 395; *Hooker* *f. et Th.*; *Beng. As. Soc. Proceed.*

ACONITUM LURIDUM, *H. f. et Th.*, grows at Tankra and Chola in Sikkim, at an elevation of 14,000 feet; the native names are supposed to be identical with those of *A. ferox*.—*H. f. et Th.*

ACONITUM LYCOCOTONUM. *De C.*

Lang-tuh, *Chin.*; *Wolsbane*, *Eng.*

A plant of the Himalayas, at 7000 to 10,000 feet; also of China. Its root very poisonous.—*Smith*; *H. f. et Th.*

ACONITUM NAPELLUS. Monshhood.

*ARIS* dissemant, *Don.*

A. delphiolum, *Reich.*

A. ferox, *Wall.*

A. multifidum, *Royle.*

Wolsbane, *Eng.*

Tilia kachang, *Panj.*

Bish, Batsam-bish, *Hind.*

Vasha-navi, *Tam.*

Mahoor, *Vasa-nabhi,*

Tel.

It is found in the Sutlej valley, between Kunchur and Sungnám, at an elevation of 10,000 to 15,000 feet. The roots are used for destroying wild animals. It is a plant of Europe and America. It has variable forms.—*H. f. et Th.*; *Cleghorn, Punj.* Rep.

ACONITUM SINENSE. *Smith*.

Chnen-wu-tu, *Wu-tu*, *Ch.*; *Kwang-wu*, *Chin.*

Its conical tuberous roots, from 1 to 1½ inches long, are highly poisonous and acrid.—*Smith*.

ACONITUM VARIETATUM. *Smith*.

The plant—Hoh-fu-tase; *Hen-huang*, *Chin.*

The tuber—Shui-chang-pu, *Chin.*

This is largely cultivated in China, in Chang-mg-hien, Lung-ngan-fung, and Seh-uen. Its tubers are used medicinally.—*Smith*, p. 3.

ACONTIADI.DE. See Reptiles.

ACORN.

Balut, *Arab.*

Ghiande, *It.*

Siang-shih, Siang-tau, *Ch.*

Glandes, *Lat.*

Lih-kiau, *Fr.*

Schedulinii, *Russ.*

Glinda, *Sp.*

Bellotas, *Sp.*

Bichela, Ecker, *Ger.*

Acorns are common in the bazaars of India, being used in native medicine. Their taste is astringent and bitter. Several species of oak are indigenous in the Tenasserim Provinces, and on the hills of N. India.—*Mason; Smith, Chin. Mut. Med.*

ACORUS CALAMUS. *Linn.* Sweet-flag.

*ACORUS* odoratus, *Lam.*

Ighir, Waj, Ikaron, *Ab.*

Swet-bach, *Beng.*


Bach; *Gora-bach,* *Burm.*

Lihay; *Len- haciendo,* *Durm.*


Shi-chang-pu, *Chin.*

Vasha, Galonii, *Sansk.*

*ACORUS* odorans, *Fr.*

Wadla-kaha, *Singh.*

Akorn, *Gil. de Dios.*

Vassambu, *Tam.*

Safed Bach, *Hind.*

Vadaja, *Tel.*

Vembu, *Maleal.*

Vassa, Vasa, Vundy, *Tel.*
This genus of the Acoraceae is a native of Europe, also of North America, but is cultivated in the moist, cool parts of the East Indies. The whole plant is aromatic, but the root alone preserves the flavour in drying. It is a favourite medicine among the Hindus as a stimulant in flatulency. It occurs in the shops in longitudinal pieces, wrinkled and marked with projecting points, and might be easily substituted for more expensive spices or aromatics. The root is useful inague. In Constantinople, a sweetmeat is made out of its root. The leaves are also fragrant; a hair powder is made of the roots, the scent being supplied by the leaves. The Calamus aromatics of the ancients is referred by Boyle to the Andropogon Calamus aromaticus.—O'Shaugh. p. 626; Stewart; Powell; Boyle; Pereira; Roxburgh; Mason; Useful Plants.

ACORUS GRAMINEUS. _Smith._ The Shih-chang-pu of the Chinese, grows wild in Sech-uen, Shen-si, and Kwei-chuan. Its rootlets are used internally, in powder, juice, and tincture; and the plant is largely cultivated for its sword-shaped leaves, which are hung up at the dragon boat festival on the fifth day of the fifth month of each year. It kills or drives away insects. It is largely eaten at Constantinople to prevent the pestilence.—Smith.

ACRE, the subdivisions of the acre have hitherto, in the Madras Presidency, been in 40ths (or Goontas) and 16ths of 40ths, or else in 16ths (annas) and 4ths of 16ths.

ACRE or Akka, a town in Palestine, originally called Achebo, but, being in after times improved and enlarged by Ptolemy the First, it was called after him Ptolemais. Subsequently, falling into the possession of the Arabs, it recovered its Hebrew name. It was first taken by the Arabs in A.D. 636. The Christians became masters of it in 1104. Salah-ud-Din got possession of it in 1184, and held it till 11th July 1191, when it was retaken by the Crusaders. The latter held it for exactly one century, when the Arabs finally wrested it from them, and retained it until they, in their turn, were obliged to cede it to the Turks in 1517. From this time Acre remained neglected till about the middle of the 18th century, when the Arab shaikh, Daher, took it by surprise. Under his wise administration it recovered a part of its trade. He was succeeded by the tyrant Jazzer Pasha, who fortified and embellished the town. In 1799 (5th March) it rose into importance and consideration by its gallant and successful resistance to the arms of Bonaparte, directed by Sir Sydney Smith, a British officer, and in the middle of the 19th century the British again took it.—Robinson's Travels, i. pp. 198, 199.

ACROCARPUS FRAXINIFOLIUS. Wight. Shingle tree, ... Eng. Mallal kune, ... Tam. Pink cedar, red cedar, ... Kilingi, ... Neilgh.

This is one of the largest and loftiest trees in the Madras Presidency, and is the parent of the Dalaling Terai. It is of rapid growth, is generally of straight growth, with large buttresses at the base. It is very general about the western forests, on the Tinnevelly and Travancore hills, on the Anamallays, Neilgherries, Wynad, and in Coorg and S. Canara. It ascends from the plains up to nearly 4000 feet. Colonel Beddome measured a tree 27 feet in girth above the buttresses. The flowers appear in December or January with the young leaves, or when the tree is quite destitute of foliage. The timber is flesh-coloured, and shrinks in seasoning; it is light, and much resembling that of the Cedrela toona, and has a Cedrelaceous smell; it is much used by the planters at Coonock, and in the Wynad for building purposes, furniture, etc., and in Coorg it is largely used for shingles.—Useful Plants; Beidome, Fl. Sydce. p. 44.

ACROCHORDIDE, wart snakes. See Reptiles.

ACROCOMIA SCLEROCARPA, the Maea Palm, widely diffused in Brazil and the West Indies. The hard-shelled nuts are worked up with the Negroes into sundry ornamental articles, and the kernel yields a thick golden oil. It might be introduced into India.

ACROGENS, in botany, one of the primary classes of the vegetable kingdom according to the natural system. The stems of Acrogens differ much in appearance from those of Exogens and Endogens. The wood is not secreted for layers of tissue, which have the power of reproducing regular zones of wood, as in Exogens, or regular arrangement of vascular and cellular tissue, as in Endogens. There is generally but single ring of vascular bundles even in the ferns.

ACROSTICHUM, a genus of ferns of the West and East Indies and Australia. The A. acrostichoides, a climbing fern with pendulous fronds, clothes the betel palms on the Megna with the most elegant drapery. Dr. Hooker found parasitic orchids growing on the trees which were covered with this climbing fern.—Hooker, Journ. ii. p. 338, 353.

ACSHA. BANSK. An astronomical term of the Hindus. Acesha Ansa and Acesha Bhagas are degrees of terrestrial latitude; Acesha Carmap, hyptoneness; but in its astronomical sense means what Europeans call the argument of the latitude, even and often Chandra.—Warren.

ACTAEA, a genus of the Ranunculaceae. Scapia Linn., the baneberry, is a native of the Caucasus and Siberia. Roots astringent; the whole plant acid and poisonous. A. cumins, Well., is found on the Choor and Aharon mountains. A. astera is sometimes collected in China, as the souring rush is, for cleaning pewter vessels, for which its hispid leaves well suit it.—Williams' Middle King. p. 286; O'Sh. p. 170.


A small tree of the central and southern parts of Ceylon, up to an elevation of 2000 feet.—Thwaites.

ACTIAS. See Insects.

ACTININA. Some of these zoophytes in the Eastern Archipelago are fully two feet in diameter. Little fishes dwell in their interior. Species of enormous size occur in the Chinese seas, and on the coast of Borneo.—Collingwood. See Zoantharia.

ACTINODAPHINE. Several species of this genus of trees—A. elegans, glanca, Molochina, Moomi, speciosa, and stenophylla—grow in Ceylon. Hooker, D. C., has a small or middling-sized tree, common on the hills in the districts of North Arcot and Cuddapah, found in Bombay and the Konkan, and also in Sikim. A. saliens D. C., a small or middling-sized tree, is rare on the Western Ghats, in South Tinnevelly, on the Neilgherry and Ceylon; it is closely allied to the Ceylon A. elegans, A. Thwaitesi, and A. stenophylla, and they are all probably only varieties of one species. Timber may be of good quality.—
ADAM'S PROPHETS, also Khalifa-ul-Akbar, the first of God's vicegerents; and in the tenth century his grave in Ceylon became the established resort of Mahomedan pilgrims. Adam's stature, according to Mahomedan legends, was about 36 feet. His burial-place is shown by the Arabs at the hill Abu Kubays, and according to their legends Adam and Eve dwelt at Mount Arafat, where Adam's place of prayer is shown. A usual Mahomedan tradition runs, that on the violent expulsion of our first parents and their tempters from Paradise, Adam fell on the mountain of Serendib, Eve at Jidda near Mecca, Eblis near Basrah, and the serpent at Isphanam. Adam, after long solitude and penitence, was led by Gabriel to Mecca, and thence to the mountain of Arafat (recognition), where he was reunited to Eve after a separation of 300 years. With the Hindus, Adam is supposed to be the same with Swayam-bhuva, who was made with seven handfuls of mould taken from the seven stages of the earth.—Yale, Cathay, 354; Ch. Bunsen, iv. pp. 373, 383, 397. Burton's Mecca, iii. 209. See also E. T. Tentam, Canton.

ADAM. TAM. An oil measure of 20 pails.

ADAMANI, a section of the Kasrani Beluch settled at Jok-Budhu in the Dera Ghazi Khan district.—M'Gr. N. W. F. part i. p. 4.

ADAMANT or Admantine Spar, the modern Corundum. Professor Tennant says the adaman described by Pliny was a sapphire. Adaman is the Shamir of the Hebrews, spoken of in Ezek. iii. 9. —Curiosities of Science, p. 103.

ADA MAYA. See Kama; Lakshmi; Maya.

ADAMBO. MALEAL. Lagerstremia reginae.

ADAMITE, a religious sect in Persia, whose followers, men and women, are said to meet in a cave by night with the lights extinguished, and to conduct their rites like those of Mylitta of the Assyrians, those of the Arab Alitta, and of the Persian Mitra. But this is the usual mode which Eastern sects adopt to vilify their opponents.—Chesney, quoted by M'Cregor, p. 9.

ADAM MARRI, a Beluch tribe. See Kelat.

ADA MORINKA. Tel. Cadaba Indica. L. ADAMS, an Englishman who visited Japan about the year 1599, and resided at the court of Jeddo for many years. By his influence, Captain Saris delivered a letter from James 1. to the emperor, and a treaty was signed in September 1613, granting privileges to the E. I. Company.

ADAM'S BRIDGE, a narrow ridge of sand and rocks, mostly dry, forming the head of the Gulf of Mannar, and, with the island of Ramisseram near the mainland, and that of Mannar near Ceylon, almost connecting this island with the continent. It is about 30 miles in extent, and 1½ broad. In Mahomedan tradition, it was by this bridge that Adam, on his expulsion from Paradise, crossed to Ceylon. It connected Ceylon to India until the end of the 15th century (1480), when, during a storm, the sea made a breach through the rocks, which a subsequent storm enlarged, after which foot traffic ceased. The rocks of Adam's Bridge, in Hindu legends, are said to have been traversed by Rama in his invasion of Ceylon, and he afterwards erected a Saiva temple on Mount Kattamantissa in Ramisseram, with two lingams. These have since continued to be largely visited by pilgrims from the most remote parts of India, who visit the sacred sites, and bathe at the junction of the two seas. The
ADEN.

ADEN'S NEEDLE.

ADEN'S NEEDLE, Yucca gloriosa.

ADAM'S NEEDLE.

ADAM'S PEAK, the summit of a lofty mountain in Ceylon, 7500 feet above the sea. It is called by the Arabs, Er-Rahoon. A hollow in the lofty rock that crowns the summit is said by the Brahmans to be the footstep of Siva; by the Buddhists, of Buddha; by the Chinese, of Fo; by the Gnostics, of Jesu; by the Mahomedans, of Adam; and the Portuguese were divided between the conflicting claims of St. Thomas and the eunuch of Candace, queen of Ethiopia. Mr. Duncan, in a paper in the Asiatic Researches, containing 'Historical Remarks on the Coast of Malabar,' mentions a native chieftain, in which it is stated that a Pandyan, who was contemporary with Mahomed, was converted to mahomedanism by a party of dervishes on their pilgrimage to Adam's Peak. The peak is visible 60 leagues to seaward. The footmark is still an object of pilgrimage; it is on a flat stone near a pool of water. There are other models of feet in different parts of the island. The Karlam Rasul, or footprint of the Prophet, is another alleged footprint on a hill at Secunderabad. —*Vule, Cathay*, p. 359-368; *Temten's Ceylon*. See Mahawelli-ganga.

ADANSONIA DIGITATA. L. Boobab.

Khadiyan, ... Duk. *[Papapa pulia maram, Tam.]* Monkey bread tree, Eng. *Anal pulia maram,* *Ethiopian sour gourd,* " *Gorak amli,* ... *Hind.*

This tree has been naturalized in India. Its trunk is very short, but in girth it attains the largest size of any known tree. Roxburgh mentions one 50 feet in circumference, at Mantotte in Ceylon. As a timber tree it is useless, the wood being spogy and soft, but fishermen use its fruit as floats for their nets. Its bark and leaves have been recommended as a febrifuge. The natives of Senegambia dry and carefully powder the leaves which appear with the fruit. This powder they call Lalo, and they believe it is useful in dysentery.—*Useful Plants; Drs. Riddell, Voigt, Roxb.* ii. 164; *Annd. Ind. Ann.* p. 372.

ADAPA KARRI. TAM. Charcoal.

ADAS. MALAY. Fennel; *Nigella sativa.*


ADAS. ARAB. Eruvm lens, *Linn.*; in Hindi, Cicer arietinum.

ADA SYAMALL. Tel. Helicteres isora, *L.*

ADATOY. TAM. Adhatoda vasica.

ADAVI. Tel. Wild, not cultivated; hence—

Adavi amuda. Jatropha curcas.

Adavi avasa. Bauhinia racemosa, *L.*

Adavi bera. Luffa amara, *R.*

Adavi chama. Typhonium sylvaticum, *Schott*; also Canavalia virens, *W. and A.*

Adavi cheruku. Saccarum procumem, *R.*

Adavi chikkudu kaya. Lablab vulgaris, *Savi.*

Adavi godhumulu. *Coix barbata,* *R.*


Adavi kakara. Moronics mixta, *R.*

Adavi kanda. Arum gratum, *R.* *Dracunculus polyphyllum,* *Linn.*

Adavi kikkutu gaddi. *Amphidromia bifurca,* *Lind.*


Adavi mamana. Boerhavia erecta, *L.*


Adavi naib. Gloriosa superba, *L.*


Adavi nelli kura. Premon sp.*


Adavi pola. Trichosanthes cucumerina, *L.*

Adavi pratiki. Hibiscus lampas, *Carr.* VII. *tretalogete,* *R.*


Adavi zilakara. Vernonia anthelmintica.


ADDA or AI-ADDA. ARAB. Sciscus officinallis. A small lizard celebrated by Arabia physicians as a restorative and as a remedy for elephantiasis, leprosy, and other cutaneous diseases.— *Eqng. Cyclic.*


ADDAB JASAN, the ninth day of the ninth month of the Parsi year. On this day money distributed to the priests, and offerings of sandal wood are made to the sacred flame in their temples, which are then much crowded.— *T. Parsees.*

ADDASARAM. Tel. Adhatoda vasica, *Nov.*

ADDATINNA PALAY. TAM. Aristolochia bracteata.


ADDIKA or ADDIGA. KARN. *An screws.*

ADDIINGAUS, a Bactrian sovereign in Arian b.c. 26. See Greeks of Asia.

ADUGBHERRI, mountains in the south western parts of the Nellore district; contains copper ore.

ADEGA. See Jewellery.

ADEI. HIND. Abellica trifora. Lonicera quinquefolialis.


ADELLA SERRATA. *Stewart.*


*Thakola, Karr.*

A small tree common in the Siwalik range rising to 4000 feet at times, up to the Chenab its wood is used for fuel and charcoal.—*J. Stewart, M.D.*

ADEN.

ADEN, a British settlement on a part of the Yemen, almost the most southerly point on the Arabian coast. It is situated in lat. 12° 47' N. and long. 45° 10' E., and is a peninsula of about 15 miles in circumference, connected with the continent by a low, narrow neck of land 182 yards in breadth, nearly covered by the sea at high spring tides. The population in 1872 numbered 19,829, and, besides the Garrison, consists of
of Arabs, Africans, Somali, Parsi, Hindus, and Jews. The Romans named it Portus Romanicus; and it has risen into or fallen from importance according as the line of commerce has changed. It is mentioned by Marco Polo, and by Marino Sanudo, his contemporary, as the great entrepot of that part of the Indian commerce which came westward by Egypt. It has been identified as the Eden of Ezek. xxvii. 23. It is the Arabia Edmon of the Periplus. It was fortified by the Turkish sultan, Solyman the Magnificent, but in after years was held by the Arab shaikhs of the surrounding districts, from one of whom, the sultan of Labei, it was captured by the forces of the East India Company, 10th January 1839, Major T. Baillie commanding. Albuquerque failed in an attack on it in a.d. 1513, and the English and the Dutch temporarily had intercourse with its chiefs. It is merely a small volcanic promontory jutting out into the sea, and connected with the Arabian peninsula by a narrow neck of land, across which a low wall has been drawn from shore to shore of the two bays which nearly surround the promontory. The principal harbour, or Back Bay, is about three miles wide at the entrance, and affords an admirable shelter in all weathers for vessels which do not draw more than twenty feet of water. It is unsurpassed by any on the Arabian or adjacent African coasts, being capacious, easily made, and free from rocks and shoals. Water of a good quality, but in limited quantities, is found at the head of the valleys within the crater, and to the west of the town. As the wells approach the sea, they become more and more brackish. The Banian well, the best in Aden, is 185 feet deep, the bottom is 70 feet below the level of the sea, and before being drawn it contains about 4000 gallons. The wells within the town have an unlimited supply at from 30 to 40 feet, but the water is unfit for drinking. An inexhaustible supply of water is procurable on the northern coast of the harbour, but the difficulty of bringing it into Aden, and its liability to be cut off by hostile Arabs, renders it almost unavailable. Many of the best wells have been excavated since the British conquest, and the oldest does not date more than a century back, and a.d. 1500. These may not have reservoirs. The crater is nearly circular in form; its diameter is about a mile and a half, and it is surrounded on the northern, western, and southern sides with precipices chiefly composed of lava, and rising from 1000 to 1775 feet in height, the latter elevation being that of the Jabal Shumsam, a lofty range of volcanic peaks, which form the crater’s western side. The greater part of the valley’s rocks are more or less vesicular. Volcanic ashes were found about 500 feet above the sea, on the summit of the hill near Steamter Point. Aden pumice is mentioned by Dr. Carter as occurring in a small series of strata, consisting of pisolithic pumiceo, cemented together with glassy, crystallized gypsum, and he identifies it with the volcanic matter covering Pompeii. The mode of working the pumice beds in Aden is by running galleries horizontally, or nearly so, into the various strata. The interior of many of these mines presents a fantastic appearance, the galleries radiating from a common centre, and being connected one with another, and small pillars of pumice being left to support the roof of the mine. The

pumice beds are extensive, but not exceeding four feet in thickness. 4000 lbs. were exported to India in 1876.

ADenanthera Aculeata. Roxb. Prosopis aculeata, König. P. spicigera, Bum. spicigera, Wildc. Chani., Tel. Grows to the size of a tree on the Coromandel side of India, on low lands far from the sea, also in some parts of Hindostan. Its pod is an inch in girth, and 6 to 12 inches long, and contains, besides the seeds, a large quantity of a sweetish agreeable meal, substance, which the people eat. — Voigt, 259; Rozb. ii. 371.

ADenanthera Pannovina. L. Red-wood. Rakto chandan, Beng. Manasiad, — Singh. Y-wai-ghi, Bum. Madetiyi, — Tam. Ranjana, Ranguna, Hind. Manjaji, — Voigt. Ku-chandan, Ani gandamandi, — Theoria-gooni, Tharis gooni, — Malay. Bandi guruvenda, — Tel. Kambhoji, — Sansk. Manseni kotta, — " This is a large and handsome tree, growing at times 100 feet high, and found in most of the forests of India; well suited for planting in avenues. It is met with in the Rangoon, Pegu, and Toungoo districts. It grows also in the Sittot, Bengal, Assam, and the Marulceas. The inner wood of large old trees is deep red, hard, solid, and durable, suitable for cabinetmakers’ purposes, from which, in Upper India, it gets its name of Rakto chandan, or red sandal wood; but the true red sandal or red sandars wood of commerce is the Pterocarpus santalinus. A cubic foot weighs 56 lbs. when seasoned; sp. gr. 896. The wood is said to yield a red dye; ground to a paste with water, it is used by Hindus to make sectarian marks on their foreheads. The seeds are of a highly polished, scarlet colour, with a circular streak in their middle on each side, and are used as weights by jewellers, and as beads in bracelets, necklaces, etc. Books represent these as usually weighing four grains, and selected seeds are in use by the Burmese for that weight. Many, however, do not weigh more than two or three grains each. A cement is made by beating them up with borax and water. The powdered seeds are said to be used as a farina; the pulp of the seeds, mixed with honey, is applied externally to hasten suppuration in boils and abscesses. — Hooper’s Hist. Journ. ii. p. 327; M’Clelland; Mason; Useful Plants; Jur. Rep. Med. Ex.; Mendis; Cat. Bengal Ex., 1862; Dance; Voigt, 259; Hog; Rozb. ii. 370.

Adenema Hyssopofolia. Don. Cieenidia hyssopofolia, Ad. | Chota chirayita, Hind. Common in various parts of South India; is very bitter, and much used by the natives as a stomachic, being also somewhat laxative.—Ind. Ann. Medd. Scien. p. 270; Dr. Cleggthorn.

Adenophora Lilifolia, Ledeb., or Capanula lilifolia. The root of one species, called Shu-san, resembles ginseng; for which in China it is sometimes substituted, as also is the Capanula glanea of Japan.—Smith.

Adenosma Uliginosa. R. Br. Ruellia uliginosa, Linn. One of the Acanthaceae. The juice of its leaves, mixed with salt, is used on the Malabar coast as a purifier. A. balasanea has a strong odour of turpentine.—Rozb. iii. 52; Hog; Voigt, 482.

Adeps Myristice, A concrete oil obtained
from nutmegs by expression, sometimes erroneously called oil of mace.—Simmonds. See Oils.

ADEVA RAJAS. of Tulua, Andhra, or Telignaga, had a capital at Woragalli or Warangal. One of these, in authentic history, was Pratapa Rudra in A.D. 1162, prior to whom nineteen Adeva Raajas reigned 370 years (? 211), and are supposed to be the eighteen princes of Andhra descent; and Sri Ranga seems to have reigned in A.D. 800.—Thomas’ Princely’s Antiquities, p. 278.

ADHA BIRNI. HIND. Herpestis monniera. ADHAK. HIND. A dry measure 18 in. deep, equal to 750 cubic in. In the Dekhan, 7 lbs. 11 oz.; in Mysore, 7 lbs.—W.

ADHAN. HIND. The richest land lying under the protection of the town walls. Mal or malatti, is land not irrigated from wells.

ADHAR or AHAIRA. SANSK. Food.

ADHARA SAKTI. See Sakti.

ADHARMA. SANSK. Injustice, unrighteousness. An epithet of Siva, meaning wickedness; also the bride of Mriya. Adharameswara, the same with Adra Malik.


Bashi, 

Beas. Blackkar; Peckar, PANJ.

Basaka, Basoka. Beng. Urus or Urasa, SANSK.

Bassit. 

Chenab. Tera-bajijia. SUTLEJ.

Malabar Nut. 

Eng. Aladode. TAM.

Aris, Arus, Asganda, HIND. Addasaram.

This shrub grows in Ceylon, in both the Indian Peninsulas, in Bengal, Nepal, Sihet, N.W. Himalaya, Panjaban, up to 4000 feet, and in Java. The wood is soft and considered well suited for making charcoal for gunpowder. Its leaves are used in native medicine, and have a strong smell when bruised.—Drs. Roxb., Ansikste, O’Shk. p. 483, Voigt, 488, J. L. Stewart.

ADHELA. HIND., SANSK. Half a paisa. Adheli, half a rupee or shashuli; half of any piece of money. Adhi, half; Adheela, a half anna; and other combinations. Adi-pao, literally half a quarter of one-eighth.

ADHIGACHHED YADI SWAYAM, a bramh girl’s right to select her own husband. See Swayamvar.

ADHIKANAN, a poet of the Dekhan.

ADHIKMASA. SANSK. In Hindu division of time, an embolismal month, intercalated to bring the lunar months in correspondence with the seasons of the year.

ADHUMI N. or Ajumian, a section of the Sufi of Persia; they take the name from sultan Adhum, who resigned his throne to become a mendicant. They are celibates, are continually moving their lips in devotion; they are wanderers.—Malcolm; M’Gregor, p. 159.

ADI or ADI. TAM. A foot measure; a measure of length, 10’46 in. 57,600 sq. Adi = 1 Kani.

—W.

ADI, the elder daughter of Kasypa, the mother of the Hindu gods.

ADI, the fourth month of the Tamil year, July—August.

ADI. SANSK. Original, chief; as Adi-pati, Gran-adi-pati, the headman of a village; in Java a title of nobility; Adi raj, a paramount prince. ADI or AI island, the Polo Adi of the Malay, in lat. 4° 19’ S, long. 143° 47’ E. (East Point), Medera, is about 25 miles in length, lying to the N.E. of the great Keh, distant about 60 miles, and being the south-westernmost of a group of high islands. The inhabitants are Papuans. This sea is unfathomable at a short distance from the island, but there are several indistinguishable islets on the north side. The chief traffic was in slaves which were distributed among the neighbouring islands of the Archipelago, and are sometimes carried as far as Bally and Celebes.—J. Ind. Arch.

ADIANUM CAUPLAN VENERIS. Lima, Shair-ul-jin, 

ARAB. Mabharma, 

HIND. 

Maiden Hair. ENG. Dum Tali, 

KASHE. Venus or Fairy’s Hair, 

PARASHA. Wansha, SALT E. 

Hans-Raj, gal-marium. 

BISAI. TH. INDUS. 

HIND. Keh,or Keh, the capital.

It is indigenous in the Himalaya, and, like the European plant, it is given as an expectorant. In Europe it is the basis of the celebrated syrup of capillaire.—O-Sk. p. 677; Dr. Stewart.

ADIANUM CAUDATUM. L., Hall. 

Pari-sosan, 

PANI. 

Hansa-Raj, Mabharma, HIND. 

SHAIR-ul-jin, 

ARAB. 

This, with A. venustum and other species of the Panjaban, has been introduced into India.—Voigt.

ADIANUM LUNULATUM. BURM., SPR. 

Hansa-Raj, Mabharma, HIND. 

SHAIR-ul-jin, 

ARAB. 

Occurs in many places in India and Burma. It is probably this regarding which Dr. Maso says that a small handsome fern is seen in the crevices of old ruins and walks everywhere, of the same genus and nearly resembling the English maidenhair, the prettiest of all the ferns.—Maso.

ADIBUDDHA. According to the Sanskrit authorities on buddhism, when, in the beginning all was perfect void, Adi-Buddh was revealed in his form of a flame of light. He is the self-existent great Budh. The Adi-Nath or Maheshwar, who name is Apay, who became manifest in the Mahasangato (perfect void) as the letter A, who is the creator of Prajna and of the world. In China and Mongolia, according to M.M. Hue and Gabe, the theistic buddhists acknowledge an Adi-Buddha, or eternal Budhha, whom they consider to be God over all. In Ceylon and Indo-Chinese countries there is no such belief.—Yale, i. 242.

ADIDWAITA, SANSK. The Supreme Being including two qualities, viz. Adi-atma, the spiritus, essence, and Adi-butra, the material essence.

ADIGAR. SINGH. A chief, a village headman.


ADIMA. TAM.—A predial slave attached to the land. A Nair feudal dependant.

ADIMODURAM. TAM. Root of Glycyrrhiza glabra, also of Abrus precatorius.

ADINA CORDIFOLIA. H. f. et Bkt. 0. of the Rubiaceæ, a timber tree of Berar, Mandi, Garhwal, and Gorakhpur.

ADINATH, the celestial Buddha, also father of Matsyendranath, and grandfather of Gorakhnath. ADINATHA or Rishabdeva, the first and greatest of the Jaina saints.

ADINATHA, the kings of Mahadeva, placed on the banks of the river Raju by king Naraca.

ADIPURUSHA. SANSK. The presiding spirit of the universe.

ADIRAJA. SANSK. Supreme of kings, a paramount sovereign, an emperor.

ADISHAKTI, or the primeval energy, a name of Kali, represented as a four-handed woman of dark colour, of terrific features, with a protruding
ADWITA.

ADWAITA.

ing tongue, besmeared with human gore, with a necklace of skulls, and holding a skull and a serpent in her hands.


ADITYA, founded a Semitic kingdom in Yemen, the first in Southern Arabia. See Saba; Joktan.

ADITI, daughter of Daksha, and one of the two wives of Kasyapa. She was mother of the Devas (see Aditya, Agni, Kasyapa, Deva, Surya, Surya varna, Vamana), hence called Deva-matri. She bore eight sons (according to others, twelve), seven of whom were the seven Aditya, the eighth was Martanda, the sun. The word in Sanskrit means free, unbounded, infinity, the boundless heaven. The Yajur Veda describes her as the wife of Vishnu; but other Hindu books call her the mother of Vishnu. Her history is regarded by Professor Wilson as an allegorical personification of astronomical phenomena.

ADITYA, a name of Vikrama, supposed to be the same with the Vikramaditya, who was contemporary with Sapor, king of Persia.

ADITYA. SANSK. The sun. Adityavar, Aditwar, or Aitwar, Sunday, from Adit, the first, and war, day.—W. The twelve Aditya, in Hindu mythology, are said to be the offspring of Aditi and Casyapa, who is called the mother of the gods. They are emblems of the sun for each month of the year, and are themselves called suns; their names are Varuna, Surya, Vedanga, Bhanu, Indra, Ravi, Gabhast, Yama, Swarnareta, Divakara, Mitra, and Visvam (Gita, p. 144). Another list is Ana, Aryavara, Bhave, Daksha, Mitra, and Varuna, to which Dhatri, Indra, and Savitri are often added. Of these, Visvam seems to be considered as the first, for Krishna, describing his own pre-eminence, says, 'Among the Aditya I am Visvam.' The names of the twelve vary according to the several authorities. Later mythology counts twelve, all sun-gods, and representing that luminary in phases of the twelve months. Their name, Aditya, comes from the noun Aditi, which signifies literally 'unharmlessness, indestructibility;' and it denotes them as 'of an eternal unapproachable nature.' To the Adityas Hindus ascribe unapproachability by anything that can harm or disturb; in them can be distinguished neither right hand nor left, form nor limit; they are elevated above all imperfections; they do not sleep nor wink; their character is all truth; they hate and punish guilt; to preserve mortals from sin is their highest office; they have a peculiar title to the epithet Asura, 'immaterial, spiritual,' for this is the proper and original meaning of this term; it is a derivative adjective from the noun Asu, 'life, existence.'—Oriental Linguistic Studies, p. 38; Williams' Nala, p. 122.

ADITYA BHAKTI. TEL. Helianthus annuus. See Canna.

ADITYAN or Adyar. MALEAL.—A slave. The Adyan or slave, serf, or vassal of Malabar lives under the protection of a rajah or religious establishment. This tribe visit Coorg from Malabar to work as labourers. They speak Malalam.

ADJAI or Ajye, a mountain stream in Bhirum. It is the Amystis of Megasthenes, and the Ajamati of Wilford. In its literal acceptance, the Ajye means the unconquerable, and many a Hindu mother, like Theisis, formerly dipped their children in its waters to make them invulnerable. Hence may be accounted the name of Bhirum, or the land of heroes. It was anciently called Malla Bhum, or the land of the Malla (wrestlers and athletes).—Tr. of Hind. ADJAT. MAHA. People of the mixed castes.

ADJUTANT BIRD, Leopoldius argus.

ADNAN, one of the ancestors of the present Arabs. He was a direct descendant from Ishmael. His posterny is called Al Arab al Mustaaribah, 'the naturalized, or insitious, Arabs.'—Sale's Koran. See Kahtan; Joktan.

ADNARA. HIND. Panther.

ADOLIA. The larvae of this genus of insects are hairy, and sting with virulence.—Tennent, Ceylon. ADO-MODIN. TAM. Holostemma Rheediaum.

ADONDA. TEL. Capparis hordina, L.

ADONDA CHAKRAVARTI, a Chola leader who seems to have been the suddher of the Kurumbar or Shepherd tribes.

ADONI, in lat. 15° 38' 9" N., and long. 77° 20' E. A town and revenue district in the centre of the Peninsula of India. These have formed parts of the dominions of the Vijnanagar, the Adal Shahi, the Dehli Empire, Hyderabad, and Mysore, and now of the British. Adoni is 309 miles from Madras, and 483 miles from Bellary. It is south of the Tumbudra, and 1395 feet above the sea. The hill station near is 2103 feet. Its silk and cotton fabrics are famed and largely exported.

ADOPTION, a custom amongst Hindus of adopting male children, giving all the child all the rights of legitimate offspring; and when the child idea round his head the turban of his adopted father, he is finally severed from the stock whence he had his birth. This right is restricted to choosing amongst the kindred. Hindu law recognised twelve kinds of adoption.—Teid's Rajast. i. p. 31.

ADRAISTE of Arrian, the modern Takka. See Anshatra.

ADRAK, also Ada. HIND. Zingiber officinale, green ginger. Sont, dry ginger.

ADRA MALIK, the male power of the sun. Among the Samarians, children were burned as to Molech, supposed analogue, or to be identical with the Adharmsvaras of the Hindus.

ADRAKA, a town to which Alexander crossed the Hindu Kush from Alexandria apud Caucasus. He reached it in 16 days.

ADU. TAM. A sheep, a goat. Attu-Karan, a shepherd or goatherd.

ADULARIA, or Moonstone, is very abundant in the neighbourhood of Kandy, where it is occasionally the predominating ingredient of the rock.

ADWAITA. SANSK. A school of Hindu philosophy and theology, established by Vyasa, and carried out by Sankaracharya. The latter was the founder of the monastery of Sringeri, near the Tumbudra river. The system regards the Supreme Spirit and the human spirit as one, and the world as an illusion. The term is from a, privative; and dwiti, two, non-duality. This system of philosophy is pantheistic, and is usually termed Vedanta. This view is held by the Smarta brahman and all Hindus following that sect, holding, viz., that the creature is not separate from the Creator, but partakes of his essence. The Dwita or dual philosophy is that of the Madhava brahmans and their followers, viz., that the Creator and his creatures are separate. The
ADWAITANAND.

Vaisishtha adwaita is a third philosophy; it means non-duality with a difference, viz. that the creature, separate from the Creator during life, becomes absorbed into his essence after death. This is the doctrine of the Sri Vaishnava sect. These philosophies are known to all Hindus.

ADWAITANAND. See Chaitanya.

ADYAR, a small river which commences principally from the leakage of tanks about 30 miles west of Madras, and enters the Bay of Bengal in the south environs of Madras, being spanned by several bridges in its course.

ADYASTHANA, or First Shrine, is a name applied in the Bhavisya Purana to the original temple of the sun in Kaushir, which is said to have been built by Samba, the son of Krishna; but adya is perhaps only a corruption of Aditya, or the sun, which is usually shortened to adit, and even ait, as in aditwar and altwar or Ilewar for Adityawara, or Sunday. Biladuri calls the idol a representation of the prophet Job, or Ayub, which is an easy misreading for Adit.—Cunningham's Ancient Geog. of India, p. 295.

ADZ. Acet. Errum lens, Linn. ADZA, the Tibetan name of Assam.

ÆCHIMANTHERA WALLI. Nees. Gossypinastrum.

Patrang, Joundela of Ravli. B.E. Marua, . of Ravli.

Bees are particularly fond of its flowers; a kind of cloth is made from the tormentum of the leaf.—J. L. Stewart, M.D.

ÆCIDIUM THOMSONIA infests the fir tree, Abies Smithiana. See Fungii; Insects.

AEN. MAHR. Terminalia glabra, W. and A., and T. coriacea, Roxb. ÅEGAGRUS, a wild species of Ibeo, of Middle and North Asia, called Pasing by the Persians.—Cat. As. Soc. Beng. See Capræae.


A large shrub in the Sunderbuns, the Tenasserim Provinces, both Peninsulas, Australia, Moluccas, and Java; when in bloom it is covered with small white flowers, which seem to have great attractions for the fire-flies. In moving up the streams near the seashore on a dark night, these trees are seen illuminated with myriads of waving brightening wings, and making them look in the deep gloom like superb candela-bras hung with living lamps. Bees give it the preference to all other shrubs in attaching their combs to it. It is a useful coast-plant.—Mason; Voigt, 385; Roeb. iii. 130; von Mueller.

ÆGINETICA INDICA, Willsde, the Tsam cumulo of the Maleali, is a small, annual, singular-looking, rush-like plant, with a flower like the bowl of a tobacco pipe. It grows in the Circars, at Khancalis, Salsette, and Konkanas. As pechman, Well, it is an astringent, growing on the roots of Andropogon muricatius.—Roxel. 130; Voigt, 496.

ÆGILE MARMELOS. Corv. Bel fruit tree.

Crataeva marmelos, Linn. | Feronia pulchella, Roth. Sri phal, Bel, . . . . . BENG. Mahura, . . . . . SANSK. Oo-sheet, . . . . . BURM. Vrilla-maram, . . . TAM. Tangleh Tangleh, MALAY. Marado chetta, Tel. Kuvelam, . . . . . MAHAL. Bilvamu chetta, . Dala gundu, . . . . . PUSHT. Mah-mamu chetta, .

The Bel, Bengal quince, or larger wood apple, is a large thorny tree which flowers during the hot season, and its large spheroidal fruit ripens after the rains. The tree grows all over India and into the Himalayas at Simla, Kasauli, Garwhal, and up to the Himalayas, and in the sub-Alpine tracts, and it is found about towns and villages throughout the Prome district, and also about Toungoo, more especially on the Shan side of the river. It attains an extreme height of 30 feet, and in girth 3 feet. The wood is light-coloured, variegated with veins, compact, very strong and hard, but is little used, partly perhaps from a religious feeling on the part of the Hindus, with whom the tree is sacred to Siva, and partly from the value of the tree from the great medicinal virtues of the fruit. But in the Godavery districts the native dholt or drum is often made of it; and it is used for wheels of wheels and crushers for sugar in Garhwale. The wood is ground with water into a sort of oily paste, which is poured on the lingam in the temples dedicated to Siva. The leaves are offered to Siva and to the female divinities in the same way that the leaves of the tulsi are offered to Vishnu. The fruit is delicious to the taste, and very fragrant. It is smooth, resembling an orange, with a yellow, hard rind, which is astringent, and used in dyeing yellow. The pulp of the fruit has been long in use in diabetes; and its aperient and detereous qualities, and its efficacy in remediying habitual costiveness, have been proved by constant experience. It has lately been brought into repute when fresh and in conserva as a remedy in some forms of dysentery. When dried before it is ripe (Belgar, Belgiri), the fruit is used in decoction in diabetes and dysentery; and when ripe and mixed with juice of tamarinds, forms an agreeable drink. The beautifully clear mucus which surrounds the seeds is, for some purposes, a very good cement, which as a gum may some day be turned to use in the arts. The roots, bark, and leaves are reckoned refrigerant in Malabar. The bark of the root, especially, is given in decoction in intermittent fever, and the leaves are applied as a poultice in ophthalmia. They abound in a volatile fragrant perfume, which is distilled from the flowers, known as marmal water, and is much used by the natives as a perfume for sprinkling on visitors. The pulp is also mixed in lime cement. In Peshawar, large numbers of snuff-boxes for domestic use, and for export to Afghanistan, are made from the shell of the fruit, which is prettily carved over and fitted with a small bone plug for the opening in the end. Lest the resemblance of the wood apple to the fruit of the Nux vomica might give rise to accidents, it should be remembered that their strong aromatic smell, like that of all other fruits belonging to the orange family, will distinguish them easily from the Nux vomica, which is devoid of aroma.—Drx. Roeb., M'Clelland, Wight, Gibson, Brandis, Stewart, O'Shaggnessy, Riddell, Waring, Cleghorn; Major Drury's Useful Plants; Mr. Elliot; Cat. Cat. Ez. 1862; Ind. A. Med. Sc. 1854; Beddome.

ÆGILE SEPIARA is used in Japan for hedges, its thorny branches being useful. The fruit is never eaten raw, but is roasted on hot ashes. It has a glutinous pulp, which is laxative.—Hog. Veg. King.

ÆLIUS GALLUS, a Roman of the Equestrian order, sent, between B.C. 24 and A.D. 1, with a force to explore Ethiopia and Arabia. The force was
organized at Cleopatris, in the neighbourhood of the modern Suez, and consisted of 10,000 Romans, with 15,000 mercenaries, together with a fleet of 80 vessels of war and 130 transports. After two years' absence in Nejran, Elías Gallus brought back with him a small part of his army, hunger, fatigue, and sickness having destroyed the remainder, for only seven fell by the sword.—Playfair’s Aeronautics.

AEROLITES, or Aneza, an Arab tribe in the vicinity of Syria, and if we add to them their brethren in Nejz, they may be reckoned one of the most considerable bodies of Bedouins in the Arabian deserts. They are nomades, migrating over 30,000 square miles. In spring they approach the fountains of Syria, and form a line of encampment extending from near Aleppo to eight days' journey to the south of Damascus. Their principal residence, however, during that time is the Hauran and its neighbourhood, when they encamp near and among the villages, while in the more northern country, towards Homs and Hamah, they mostly keep at a certain distance from the inhabited grounds. In these parts they spend the whole summer seeking pasture and water, purchase in autumn their winter provision of wheat and barley, and return after the first rains into the interior of the desert. They are the only true Bedouin nation of Syria, the other tribes in the neighbourhood of this country having more or less degenerated in manners, and several being reduced to subjection.—Skinner; Barkcharilt; Upton.

AENEUS, the Vayu of the Hindu mythology. See Mythology; Saraswati.

AERATED WATER, Ho-lan-shin of the Chinese; Soda water.

AERIDES, or air plants, are numerous in all the humid parts of S.E. Asia. The Tenasserim Provinces abound in orchids, most of which grow on trees, and are epiphytes, not parasites. The flowers of some of the species are great favourites with the Burmese, and are sought after to adorn the hair. The Burman books say that the trees around king Wathaudria’s hermitage wore covered with orchids, and that after being plucked they would retain their fragrance seven days. In the Andaman Islands, in the course of a few hours, a vast number can be collected. Ac. affine, Wall., with large rose-coloured flowers, is of Assam, Nepal, and the Khassia hills. Ac. amphilacemum, Roxb., grows on trees, and blossoms in May. Ac. cornutum, Roxb., grows at Dacca and Eastern Bengal. Ac. guttatum—Perida Mara, Tel.; Saccelabium retusum—is a lofty parasitic species, growing on trees near Dacca. Ac. multiflorum, Roxb., is a large and beautiful species of Silhet, with large purple and white flower. Ac. odoratum, Lour., a sweetly fragrant plant, with large white flowers with a tinge of rose. It is met with at Dacca, the Khassya hills, Chittagong; in the Bombay Ghats, on the Mahabaleshwar hills, Tenasserim, Moulmein, China, and Cochin-China. The flowers hang in long racemes of a light flesh colour and spotted, from six inches to a foot long. They grow from the axils of the leaves, appearing in April and May. Ac. pulilium, Roxb., grows on trees in Chittagong and Eastern Bengal. Ac. radiatum, Roxb., on trees in the Gangetic delta. Ac. rostratum, Roxb., blossoms in April and May in Silhet. Ac. suaveolens, Roxb., found on trees in Chittagong, has very fragrant flowers all the

year long. Ac. tessellatum, Wight, with large flowers of a greenish yellow, grows in the Circars. —Roxb.; Wight; Vout; Mason.

AEROLITES, the deco-gola or devigola of the Hindus. These are not uncommon in the possession of the Hindus, who worship them. The guardian of a temple showed Baron de Bode a flat black stone, which appeared to be an aerolite, weighing several pounds, and let him into the secret of its wonderful properties, namely, that of being propitious to mothers who wish to be blessed with a numerous family, and who, by pressing it to the heart, must receive some favours. This peculiarity bears some resemblance to what is told of the temple of Halgab-Baal, at Emsa, on the Orontes, in Phoenicia. Aerolites are possibly the lastylia of the Jew. The earliest of which we have any reliable account, is one that fell about the year in which Socrates was born, in Aegos Potamos, 2300 years ago. One of the khulifus is said to have had swords forged from the iron of fresh fallen meteoric stones; men have sometimes been killed by them in their fall. Every now and then, in some place or other of the earth, stones varying from the size of a musket ball to seven or eight feet in length, and many hundred seers in weight, fall down to the ground out of the sky. In many cases they have been seen to fall from, or result from, the explosion of luminous meteors or fireballs, not unfrequently with a force causing them to sink to a depth of from ten to fifteen feet into the earth, as in the case of those that fell at Barbotan in France, 24th July 1790, at Vienna, 16th June 1794, at Western in North America, 14th December 1807, etc. etc. In many cases a small and very dark cloud appears suddenly in a perfectly clear sky, and the stones are hurled from it with a noise resembling musketry or cannon; such a cloud moving over a whole province, has sometimes covered it with thousands of fragments. Sometimes, as in Germany (Kleinwenden, 16th September 1849), a large aerolite fell with a thundering noise from a perfectly clear sky. The largest with which we are yet acquainted, are those of Barbotan, in Béarn, 75 feet in length, and that of Otumpa, which also fell in South America, and which is now in the British Museum, London, and weighs 214 maunds. Some have, by accurate observations, been proved to move no less than 30 miles in a second. The falling of the following meteors in Southern Asia has been established:

B.C. 1451. Showers of stones destroyed the enemies of Joshua at Beth-horon, Josh. x. 11.

211. Stones fell in China.—De Guignes.

192.

99. Two large stones fell at Yong in China; the sound was heard over forty leagues.—De Guignes.

38. Six stones fell at Leang in China.

40. Four stones fell at Po in China.

22. Eight stones fell in China.—De Guignes.


9. Two stones fell in China.—De Guignes.

6. Sixteen stones fell in Ning Techeon in China, and other two in the same year.—De Guignes.

Date unknown. The black stone, or Hajar us Shah, at Mecca.

A.D. 500. In the sixth century, stones fell on Mount Lebanon, and near Emis in Syria.

570. Fall of stones near Bender in Arab.—Koran, vi. 16; ev. 3 and 4.

832. July—August. A stone fell at Tabaristan.—De Stey; Quatremère.
AFGHANISTAN.

ÆCHYMONEAE ASPEREA. *Linn.* Shola.

Æschynomene paludosa, *L.* Hedysarum lagenarium, *R.*


Kath-sola, *Tel.*

*Mal.*

*Pun.*

*Nya.*

*Burm.*

*Attakusala,*

*Mal.*

*Pun.*

*Attoomethe,*

*Tel.*

*Pun.*

*Attoomethe,*

*Tel.*

This pith of this plant, known as shola, is used for light hats, bottle covers, and ornaments; many present the appearance at a little distance of ivory carvings. It is one of the Leguminose, and, under the Tamil name of Sudday-kecray, the leaflets are used as greens. It springs up spontaneously in the Burma rice-fields, especially in the Tharawaddy district, and affords an excellent hemp.—*Madras Ech. Jur. Reports of 1855; O'sh.;* *Roszb.; McCl.*


ÆSCULAPIUS, a learned physician of Greece, deified by the Greeks and Romans. He is not known, under that name, to the Hindus or Arabs.

ÆSCULUS CHINENSIS. *Smith.*

Æuc-n-rich, *Chin.* | So-lo-tez, *Chin.*

This soapwort grows in Hu-peh and Szech-u'en.

The fruits resemble the horse-chestnut, and in Hankow sell at threepence each. They are used medicinally (Smith, p. 5). *Æ.* India, *Colebrooke,* is a tree of the Himalayas up to 9000 feet, height 150 feet. *Æ.* hippocastanum, *Lina,* grows in Central Asia; *Æ.* Khassya, in the Khassia hills.—*Mueller.*

ÆSOP'S FABLES. Their original source was the Jataka of the Buddhists. See Jataka.

AET. *Ar.* A verse of the Koran.

ÆTILES, stones worshipped as sacred objects. See Aerolites; Batyle; Salagrama; Stone.

ÆTNA, in Hindu mythology, a nymph; the same with Atinidevi.

ÆTOBATIS NARI NARI. *Block.*

Therrundi. of Malabar. Eel tenki. *Tel.*

Purilang. *Malay.*

An edible fish of India and Malay estuaries.

ÆTOS, a name of the ancients for the Nile, from At or Ait, a rise of the river.

AFAR. *Arab.* Gall.

AFGHANISTAN is known to the Afghans as Valayat, and they regard it as comprising (1) Kabal or Kabalistan, which includes all that mountainous region north of Ghazni and the Safed-Koh, as far as the Hindu Kush, limited towards the west by the Hazara country, and towards the east by the river Indus; and (2) Khorasan or Zabulistan, which includes all that extensive tract of country, alpine in its eastern limits, and table-land or desert in its western extent, that stretches south and west from about the latitude of Ghazni, and borders on the confines of Persia, from which, towards the south, it is separated by the desert of Seistan. Khorasan towards the north presents a very irregular outline, and is bounded in that direction by the mountains of Hazara and Ghur; towards the south it is separated from Beluchistan by the Wazishi range of mountains and the Beluch provinces of Sarawan and Kach Gandava; and its
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limit towards the east are the Sulaiman range, with its subordinate range and the Daman of the Derajat. The greatest length of Afghanistan within these limits is 750 miles, and breadth 550 miles; but the average length is 600, and its breadth 450 miles, lying between lat. 30° and 37° N., and long. 61° and 70° E. More than half of this, however, is independent, and much of it is hostile. The middle of the country of the Upper Ghor, that of Kandahar, of Chitral, of the Afridi and Waziri, and much of the Hazarajat, pretend as little to owe allegiance as the Amir cares to claim it; and Badakshan, Kunduz, the Char Valley, the countries of the Aimak, the Hazara, the Ghilzai, and Kakar, also Kurram, Khost, and Dawar, only yield obedience when the demand is backed by force.

The districts of Afghanistan included in the above are, Kabul, Jalalabad, Ghazni, Kandahar, Herat, and Balkh, or, as the last has been called, Afghan-Turkestan. The administration of the country of the Ghilzai and Hazara has sometimes formed separate commands. Afghanistan in its physical form consists of a star of valleys radiating round the stupendous peaks of the Koh-i-Baba, and everywhere bounded by mountains of a very rugged and difficult nature. Its natural divisions may be said to be six in number, viz: (1) the basin of the Kabul river, including its tributaries, the Logar, Panjsher, and Kunar rivers; (2) the table-land and valleys of the Ghilzai country from Ghazni to Kandahar, including the Arghandab, the Tarnak, and the Arghesian; (3) the tributary valleys of the Indus, viz Kurram, Khos, Gomal, Ghobe, and Bori; (4) the basin of the Seistan lake; (5) the valleys of the Helmand, the Hari-Rud, and Murghab; and (6) the tributary valleys of the Oxus, viz. Maemana, Balkh, Kuhlu, Kunduz, and Kokeha rivers.

These regions are occupied by different races, thus—(a) north of the Hindu Kush generally in the country of the Usbak, which includes Maemana, Andkui, Akcheh, Saripul, Balkh, and Kunduz; (b) the country of the Aimak and Hazara, known as the Hazarajat, includes generally the upper portions of the valleys of the Murghab, Hari-Rud, Helmand, and Arghandab; (c) the country of the Daurani tribe, extending 30 miles north and south of a line drawn from Herat through Kandahar to Quetta (Kot-Shal or Shal-kot); (d) south of this is the Seistan country, consisting of the lower portion of all the tributary rivers of the Seistan lake; (e) north and east of the Daurani are the homes of the great Ghilzai clan, who were for a brief space in the 18th century dominant, and are still feared; their country consisting of the upper portion of the Tarnak and Logar rivers, including all the open plain region between their east and west watersheds; (f) in a triangle bounded roughly by the Panjsher river, the south range of the Kunar and the Hindu Kush, is the country of the Siah Posh and the kindred race of Chitral; (g) then, in all the valleys that carry off the drainage of the Laaspisar range and its ramifications, are the Yusufzai; (h) to the south, fringing the eastern slope of the Safed Koh, are the Momand, the Afridi, the Orakzai, the Shunwari, the Khattar, the Turi, and the Bangash; and (i) still further south are the Waziri, stretching across the debouchure of all the valleys from the

Kuran to the Gomal, shutting off from the plains the smaller tribes of Jaji, Permuli, Khostwal, and Dawari; (j) the great Povindan elan occupy the triangle bounded by the Ghilzai, Waziri, and Kakar; (k) the Kakar extending N.E. from the Shal valley to the Takht-i-Sulman.

Afghanistan, throughout its whole extent, is mountainous, and its general aspect is that of a series of detached, little-bottomed valleys, with some cultivation in the valleys, but bounded by spurs which are mostly exceedingly bare and bleak. Some of the defiles to the north of the Hindu Kush are of surpassing grandeur, while the soft, still loveliness of some of the sheltered glens on the southern slopes of that range is spoken of with rapture by every traveller.

The general elevation is considerable. From the Koh-i-Baba the country slopes outwards, and contains in the table-land of Ghazni, and in the upper valleys of the Hari-Rud, the Helmand, and Kabul river, some of the highest country of a similar nature in the world. The country lowers towards its boundaries; its rivers become exhausted by absorption into the soil and by irrigation, and, except in its N.E. corner, the country is bounded everywhere by very barren, desert-like land. If we go round it from Badakshan east to Haji Shah on the Oxus, by Andkhui and Maemana to Herat, thence to the west of Herat to the Seistan lake, and lastly round the southern border of the Garmal (Garm seir) to Shal, the want of water everywhere arrests cultivation and habitation.

The only plain regions in Afghanistan are three, viz. the district between the foot of the northern slopes of the Hindu Kush and the Oxus, also that at the foot of their south-western slopes along the lower part of the courses of the Herat, the Farrah, and the Helmand rivers, and the desert region to the south of Kandahar. Some valleys have very considerable spaces of level within them, but they are so hemmed in by the mountains as to preclude their being named plains.

Nevertheless there are numerous elevated flat-bottomed valleys, of an open, undulating surface, affording ample space for cultivation, the stretches of land, of considerable extent and evenness of surface, furnishing open spaces admirably adapted for the movements of an army. This physical feature of the country explains the fact of a nation of mountaineers carrying on most of their warfare on horseback, and priding themselves on the efficiency and elan of their cavalry branch.

There are many rivers in Afghanistan, but none of any magnitude, and, generally speaking, they are everywhere fordable throughout the greater part of the year. Even the largest partake of the character of torrents; and, though they often come down with great force after rain, they soon run off. Their volume is also greatly diminished by the irrigation canals and drains cut from them, by which a stream, which at its commencement promises to become of some magnitude, is almost entirely exhausted before it reaches any river.

The names of the rivers, commencing from the north, are—Oxus, Kokha, Farkhan, Kunduz, Kuhlman, Balkh, Andkui, Murghab, Hari-Rud, Harat-Rud, Farrah-Rud, Kosh-Rud, Helman, Arghandab, Tarnak, Lora, Bori, Zhobe, Gomal, Tochi, Kurram, Kabul, Panjsher, Kunar, Panjkora, and Swat. The irrigation canals are very numerous, but are small for agricultural purposes,
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and only extend a few miles from either bank of the river. There are several lakes; amongst them that of Seistan is the most extensive; in the Ghilzai country is the Ab-istada; the Daria Darrah is in the Hazara country; there is also a lake, or rather a marsh, north of Kabal, and the Chattibar lake at the head of the Chitril river.

The S.W. portion of the country is occupied by a sandy desert, over which, during the summer season, a deadly wind blows. The climate is of the most varied character, the diversities being due entirely to the difference of elevation rather than of latitude. Ghazni, for instance, is 7730 feet above the sea, and for the greater part of the winter the inhabitants seldom quit their houses, and the thermometer sinks to 10° to 15° below zero. It is a prevalent belief that the entire population of Ghazni has several times been destroyed by snow-storms. The winter cold is intense wherever the elevation is above 5000 feet. The heat of the summer is almost everywhere great, except in the very elevated parts of the Hindu Kush and other lofty mountains.

The principal towns are—Kabal, Herat, Kandahar, Ghazni, Jalalabad, Girishk, Farah, Sabzwar, Maemaana, Andkhui, Shibbargham, Siripin, Balkh, Kuhlum, and Kunduz; all of these have fortifications. The others are only villages, or at best collections of huts and tents.

Balbar enumerates the tribes which inhabited Kabul in his day. In the plains were Turks, Ainas, and Arabs; in the towns and in some villages were Tajaks, Pashani, and Paranech; and in the hills were Hazara, Togderri, Afghans, and Kafirs. The languages spoken amongst them were Arabic, Persian, Turks, Moghulai, Hindi, Afghani, Pashani, Ghahri, Barraki, and Dehganis.

Ferrier tells us (History, p. 307) the wars that have redden the soil of Afghanistan since the middle of the 18th century have been so continuous, that many of the old families have become extinct, and several tribes have remained without a head. Estimates of the population of parts of Afghanistan have been made by Dr. Lord, Lieut. Wood, Vambery, Elphinstone, Lumsden, Leech, Burns, Bellew, Temple, Chamberlain, James Broadfoot, Aga Abbas, M'Gregor, and Edwardes, from which Lieut.-Col. M'Gregor's estimates of 4,901,500, as under, are framed—

Badakshan and Darwaz, etc., 55,000
Kunduz, Kuhlum, Balkh, Charvistan, viz. :
Maemaana, 90,000
Andkhui, 50,000
Shibbargham, 25,500
Siripin, 72,000—237,500
Ainas, viz. :
Zaidn, 120,000
Feroz Kohi, 40,000
Jamshidi, 40,000
Taunmi, 50,000—250,000
Hazara :
Daurani, viz. the clans Popalzai, Alikuzai, Barakzai, Attehakzai, Nurzai, Ishakzai, Khudgian, 600,000—127,500
Seistan :
Tarin, viz. the clans of the Spin Tarin—Adwani, Lasran, Marpani, Shudzai; b. clans of the Tor Tarin—Abdur Rahmanzai, Alizai, Batezai, Habilzai, Haikalzai, Hamranzai, Kadadzai, Kalzai, Kardagh, Khanzai, Khanzai, Malizai, Muizai, Nazai, Nurzai, Sezai, 38,000
Umsan Khel, Abdullazai, Kabizai, Hamzazai, Shabozi, and Khabzalzai, 127,500
Ghilzai :
Povindah, viz. Lohani, Nasir, Nazai, Kha-roti, 30,000
Hindi and Jat, 600,000
Tajak, 500,000
Kazibzah, 150,000
Mixed population of towns, 65,000
Waziri, viz. Malsud, Utmanzai, and Ahmadzai, 127,500
Sheorani, 30,000
Turk, 21,000
Bangash, 21,000
Zaemukht, viz. Mamuzai and Khwahdad Khel, 21,000
Orakzai, 108,000
Dawari, 34,000
Khostwal, 12,000
Afridi, viz. Kuki Khel, Malik Din, Kambhar, Kamr, Zakka Khel, Aka Khel, and Sipah, 85,000
Jangi, 7,000
Mangal, viz. Mira Khel, Khajuri, Zab, Margai, and Kamal Khel, 3,000
Jadran, 3,000
Shinwari, 50,000
Chugiani, 50,000
Mamozai, viz. Tarakzai, Alamzai, Baizi, Khwahzai, Utmanzai, and Dawezai, 80,000
Yusufzai, viz. Baezi, Khwazosai, Malizai, Turklian, Utmanzai, Hasznai, Akazai, Mirzali, Khialzai, Dadzai, Chaghazai, Nurzai, and Utnak Khel, 400,000
Chitrall, Nimcha, Lughmani, etc., 150,000
Kohar, 100,000
Kohistani, 100,000

It must, however, be remembered that the tribes with democratic governments enumerated from the Waziri to the end of the above list, lying between British India and the Kabal dominions, do not acknowledge any fealty to Kabal, and their number is 1,220,000. They fight amongst themselves; and the Sikhs formerly, and now British India, have made peace and war with them without any reference to Kabal. Also the Kazibzah and Parsivan and others are not called Afghans. The former are descendants of Persians who entered the country with Nadir Shah; they follow military pursuits, and serve in the cavalry and artillery of the Kabal army. The Parsivan dwell for the most part in towns and cities, occupied as merchants, shopkeepers, and in the various trades; while those who reside in village communities are husbandmen and shepherds.

Afghan Turkestan is the name given to all the Afghan dominions north of the Hindu Kush and Koh-i-Baba. It comprises the districts of Maemaana, Andkhui, Sar-i-Pal, Shibbargham, Balkh, Kuhlum, Kunduz, and Badakshan.

Andkhui town is in lat. 36° 54' N., long. 35° 29' E. It is 10 miles W. of Balkh, 18 miles E. of Shibbargham, and 60 miles N.N.E. of Maemaana. The town contains 2000 houses, and about 3000 tents in its environs, or scattered over the oasis in the desert. According to Vambery, they are principally Turkomans of the Ailechi tribe, intermixed with Uzbaks and a few Tajaks. Burns, however, agrees with Ferrier's statement that three-fourths of the population are of the Persian tribe of Afshar, whom Shah Abbas established there, the remaining fourth being Uzbaks. Andkhui is on the banks of a stream, which, flowing north from the mountains, passes Maemaana, and is lost in the desert before reaching the Oxus. It was here Moorcroft died. The Andkhui army consists of 1800 horse and 600 foot, which could be trebled in a day.
Badakhshan is an extremely mountainous country, about 180 miles in greatest breadth, and 100 miles in length, bounded on the north by the crest of the spur of the Hindu Kush, which divides the drainage of the Oxus from that of the Kokcha from its end at Jan Kala to the Oxus opposite to the ruby mines, and on the south by the crest of the Hindu Kush. The Badakhshi seem to be of the same race as the inhabitants of Kafiristan, Chitral, Vakhan, Shagnan, and Roshan, and the differences between them and the surrounding states and tribes of Tartar origin are the more marked according as they have intermarried less with their Uzbek conquerors, or in direct proportion of the incapable of their villages. The Uzbek forcibly converted the Badakhshi of the plains to the Sunni persuasion; those who took refuge in the mountains are Shiaks, and always go armed. The climate is very severe in winter. The country yields salt, sulphur, lapis lazuli; and its ruby mines are on the right bank of the Oxus. Morad Bey of Kunduz overran Badakhshan, and on leaving the country drove before him 20,000 families, who were never permitted to return. It is governed by a Mir, who acknowledges the Amir of Kabul.

Balkh is 357 miles N.W. of Kabal, 120 miles W. of Kunduz, 370 miles N.E. of Herat, 500 miles E. of Mashad, 600 miles S.E. of Khiva, 50 miles W. of Khulm, 260 miles S.E. of Bokhara, 200 miles S.S.E. of Samarcand, and 67 miles from the left bank of the Oxus. It is situated on a plain surrounded by canals from the Balkh or Delins river. Its circumference may be about 4 or 5 miles, but its ruins have a circuit of about 20 miles. The population consists of 10,000 Afghans, 5000 Uzbaks of the Kapchak and Sabu tribes, and 1000 families of Jews in the old town. The people of Central Asia have a great veneration for Balkh, and call it Am-ul-Balad, mother of cities. Moorcroft and Guthrie are buried side by side outside the city. It was captured in 1855 by Muhammad Akram Khan, Barrakzai, and has since then been under Afghan rule.

Khulm or Tashkurgan town, is 307 miles N.N.W. of Kabul, 310 miles S.E. of Bokhara, 50 miles from Balkh, 70 miles from Kunduz, 420 miles N.E. of Herat, and 497 miles N.W. of Peshawar by Kabul. It is situated on a plain immediately north of the gorge by which the Khulum river escapes from the hills. It consists of four or five villages, with a population, in 1845, of 15,000 souls. Since the 9th May 1855 it has been in the hands of the Afghans.

Kunduz district, about 1838, contained 60,000 houses with 270,000 souls; the Talikhan district, 25,000 houses and 112,500 souls; and Hazrat Imam, 20,000 houses and 90,000 souls,—in all, 472,000 souls.

Maemenan is situated on a plain in the midst of hills. It is 172 miles N.E. of Herat, 105 miles S.W. of Balkh, 380 miles E. of Mashad, 280 miles S. of Bokhara, 330 miles W.N.W. of Kabul, 665 miles N.N.W. of Kandahar by Kabal, 572 miles from Kandahar by Herat, and 230 miles S.E. of Merv. The inhabitants are Uzbaks, with some Tajaks, Herati, about 50 families of Jews, a few Hindus and Afghans, in all about 15,000 or 18,000 souls. The district is 20 miles long by 18 broad. In 1857, the Mir of Maemenan tendered submission to Persia. Early in 1858, being threatened by Persia, he applied to Muhammad Afzal for assistance; in 1859, he headed a rebellion against the Afghans, but was defeated. In 1861, he tendered his submission to Herat, and in the end of the year transferred it to Kabal. In the beginning of 1868, Maemenan stood a siege by Abdur Rahman, and the inhabitants gallantly repelled three assaults, but at last submitted to terms.

Sar-i-Pul is 100 miles S.W. of Balkh and 300 miles N.E. of Herat, a confused collection of houses and tents, with 18,000 souls, two-thirds of them Uzbaks, the rest Hazara. The chief is an Uzbek.

Shibbargh is 250 miles N.E. of Herat and 60 miles W. of Balkh. It contains 12,000 souls, Uzbak and Persian. The people are brave.

Kafiristan is beyond the limits of, but borders on, Afghanistan. It is bounded on the west by the Belut Tagh, on the east it touches Chinese Turkistan and Little Tibet, to the south lies Afghanistan, and to the north Kokun or Ferghana, where the population is Chaghtai Turk. The Kafr have idols of stone and wood, male and female, also a stone, Imranti, representing deity. They are independent, have defied all attempts at reduction, and their enmity to Mahomedans is unceasing.

Pukhtun is the national appellation of the Afghans proper; but Afghans and Pathans also designate themselves Ban-i-Israel, and some claim direct descent from Saul, king of Israel. Pukhtun is the individual, and Pukhtana the collective name of the Afghans. This word is described as of Hebrew (Ibrani) origin, though some of them say it has a Syrian (Suriani) source, and signifies delivered, set free. The term Afghan is also said to have the same signification. One tradition is that the mother of Afghan or Afghan, on his being born exclaimed, 'Afghana,' 'I am free,' and gave him this name; another tradition is that in the pangs of labour she exclaimed, 'Afghan, Afghan,' or 'Fighan, Fighan,' words which in the Persian mean woe! grief! alas! Afghan is claimed as the designation only of the descendants of Kais.

The term Pathan is said to be from Pihtan, a titular appellation alleged to have been bestowed by Mahomed an Afghan called Kais.

Their origin is involved in obscurity. But several writers consider them to be descendants of one of the ten tribes of Israel; and this is an opinion of some Afghans themselves. A few authors consider that this nation is not of Jewish origin, but that those who introduced the Mahomedan religion amongst them were converted Jews. They are in tribes, several of which have recently occupied their present lands.

The Abdali, besides having the name of Daaurani, which they received from Ahmad Shah, are still called Sulimani, from the mountains whence they came; the district they then inhabited bears the appellation of Tobeh-Mahruf.

Afghans call the Tajak Dehgan; the Uzbek call them Sart; and those of them in Turkistan are called by travellers Owkhar. The Tajak, though of a different race, resemble the Parsiwan in occupations as well as language, but they chiefly lead an agricultural life, settle in villages, and cultivate the soil. The Karani, Ashtaran, Mashi-
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ani, and Wardak call themselves Pathans, but they are of a different origin from the Afghans. The Karani division contains the Orakzai, Afridi, Mangal, Khattak, and Khugiani tribes, and the Wazir are sometimes included in these.

The Hindk are much more numerous than the Tajaks, and they exhibit all of Indian descent, and retain the well-known appearance, ways, and manners of their original country, together with a mixture of those which have been attributed to the eastern Afghans. They are worse treated than the Tajak, and by no means bear so respectable a character.

Hindus are to be found over the whole of Afghanistan. In towns they are in considerable numbers, as brokers, merchants, bankers, goldsmiths, sellers of grain, etc. There is scarce a village in the country without a family or two, who exercise the above trades, and act as accountants, money-changers, etc. They spread into the north of Persia. They are encouraged in Bokhara, and other towns in Tartary.

The character of the Afghans is unfavourably noticed by all writers. They are very superstitious. To carry a Koran in procession, or to place it under their heads when they go to sleep, or to repeat one thousand times the name of God or of Mahomed, are deemed to be infallible as means of curing ailments. They have a great dread of the evil eye, and cover themselves and their domestic animals with amulets. To obtain a knowledge of future events, like the Sortes Virgilianae, they open a book at random, and apply the first verse that meets the eye to the subject of the inquiry. The best book for the purpose is the Koran, and the trial ought to be preceded by fasting and prayer, which indeed are necessary in all attempts at divination.

A love of gain is their ruling passion. Mr. Elphinstone, who has written the most favourably of them, says (p. 250) most of the Daurani chiefs prefer hoarding up their great but useless treasures, to the power, reputation, and esteem which the circumstances of the times would enable them to command by a moderate liberality.

The people of Europe may experience difficulty in giving credence to the unfavourable opinions which eye-witness writers express regarding the Afghan race; but in a public document laid before the British Parliament in 1881, Abdul Rahman, Amir of Afghanistan, on the occasion of his replying to the demand of the Indian Viceroy for an Afghan envoy, says, 'A thoroughly confidential man does not (as your Excellency is well aware of the nature of the people of Afghanistan) exist in this country.' The democratic character of their tribal relations is not favourable to combination. Ever since the year 1836, the British have been endeavouring to have all Afghanistan under the sway of one ruler, the object in view being to form a barrier to the progress of Russia from the N.W. But, except for the very brief periods since the beginning of the 18th century, that the Ghilzai, the Abdali or Daurani, and their clan the Barakzai, have been dominant, there has not, so far as is known of these tribes, been anything like a settled monarchy. In India, a remark of an Afghan chief has gained currency: when speaking to a British officer, he remarked, 'Why, sir, if we had not you to fight with, we would fight amongst ourselves.'

General Ferrier describes the Afghans generally as physically tall, robust, well-formed and active; their step is full of resolution, and their bearing proud, but rough. They are brave even to rashness, excited by the smallest trifle; enterprising without the least regard to prudence, energetic, and born to war. They are courageous and intrepid, and displays itself most readily in the attack. If that fail, they are easily disheartened, and show no perseverance, for as they are soon elated, so are they as easily depressed. They are sober, abstemious, and of an apparently open disposition; great gossips, and curious to excess. Their anger is not betrayed by any sudden burst of passion; on the contrary, all that is brutal and savage in their nature is manifested with the most perfect calmness, but it is the volcano slumbering beneath the ashes. Courage is with them the first of virtues, and usurps the place of all others. They are cruel, perfidious, coarse, without pity, badly brought up, exceedingly inclined to theft and pillage. In the latter character they differ from their neighbours the Persians, who are, however, as great scoundrels as themselves, for they endeavour to satisfy by every means in their power to conceal their knavery under the appearance of law or rhetoric, while the Afghans do the very reverse; they at once place the knife on your throat, and say, 'Give, or I take.' Force is their only argument, and it justifies everything. An injury is never forgotten, and vengeance is a passion which they love; even at the cost of their lives they will satisfy it should an opportunity present itself, and this in the most cruel manner. There is no nation in the world more turbulent or less under submission. The people are as gross and coarse as savages; the chiefs and upper classes are more civilised, but their politeness is always tinctured by a rudeness of manner very offensive to Europeans. Country and honour are to them as empty sounds, and they sell them to the highest bidder without scruple. The Afghans, he says, are as incapable of a continued course of action as of ideas; they do everything on the spur of the moment, for a love of disorder or for no reason at all. It matters little to them who gives them laws; they obey the first comer directly they find it to their advantage to do so, and allow him to play the tyrant and govern them if he pays them well and does not interfere with their passion for rapine and devastation. Pillage, fighting, and disturbance are at times necessary to their very existence, and are followed by long days of repose and idleness, during which they live on the fruits of their depredations. Their cupidity and avarice are extreme; there is no tie they would not break, no duty they would not desert, to gratify their avidity for wealth. This surpasses all that can be imagined; it is insatiable, and to satisfy it they are capable of committing the greatest crimes. For it they will sacrifice all their innate and native pride, even prostitute the honour of their wives and daughters, whom they frequently put to death after they have received the price of their dishonour. He says (p. 309) that during the 1839-41 British occupation the husband sold the honour of his wife, the father that of his daughter, and the brother that of his sister. Gold in Afghanistan is, he adds, more than anywhere else the god of the human race; it stifies the still small cry of every man's conscience, if, indeed, it can be
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afghan has a conscience at all. It is impossible to rely on their promises, their friendship, or their fidelity. They enter into engagements, and bind themselves by the most solemn oaths to respect them, and in order to give them a sacred character, transcribe them on a Koran, to which they affix their seal, nevertheless perjure themselves with an impudence perfectly inconceivable. Excitement, the clash of arms, and the tumult of the combat, are to him life; repose is for an Afghan only a transitory state of being; the sweets of domestic life have no charms for him. He is only really a man when he is fighting and plundering. Then his eye is full of fire, his hand grasps convincingly the hilt of his sabre, and he presses his sinewy legs against his horse's side until the animal can scarcely draw his breath, and horse and one; he understands the arduous of the other, and it is difficult to distinguish which of the two is the most vicious.

Colonel M'Gregor says (Khorasan, i. 213), 'I now them to be liars, treacherous beyond all he races of the earth, vain-boasters, and utterly untrustworthy in every way.' He also says he has heard many men talk of the courage, generosity, and frankness of the Afghans in terms of the highest praise, but all who know them agree very early with Ferrier, and it is impossible to form a more favourable estimate than his.

Major Edwards, an intelligent observer and experienced authority on Afghan character, expressed his regret to be obliged to take exception to Mr. Elphinstone's very high estimate of the Afghan character, and in this he thought he would be supported by every political officer on the N.W. frontier, and almost every military officer who served in Afghanistan. He says, 'Nothing that I have met is finer than their bosom, or worse than their morale.'

Major Reynell Taylor says (ii. p. 131) the Afghans are a race in the first place very hostile to himself, and further, have less of that good and honourable principle of allegiance and good faith towards those whose salt they have eaten, and whose service they have adopted, than any other nation that we have hitherto come in contact with. And when the Afghan, be he Amir or villager, can fight as well as he likes, and run away when the aspect of affairs does not satisfy him, without the slightest idea of credit among his fellows; he can align himself over the irresistible pressure of circumstances, which has on some occasions obliged him to break through the most solemn oaths and engagements; he can wade through murder to an inheritance, and be admired in his own country as a stirring, decided character, fit to cope with the world's difficulties; or serve a master for a me, rob him, and return to his village with no other shadow on his respectability than might hang over the position of a successful adventurer on the diggings.

Dr. Bellow says (ii. p. 182) the pride of the afghan is a marked feature of their national character. They eternally boast of their descent, their prowess in arms, and their independence, cap all by, 'I am not a Pukhtun?' They spue all other races; towards strangers of the east they are manly and plain-spoken, but towards the weak and low they are abusive and tyrannical. They enjoy a character for lavish or at least liberal hospitality. In out-of-the-way and unfrequented localities there is a show of greater hospitality and welcome, but it is not genuine; and as often as not, if the guest be worth it, he is robbed or murdered by his late host as soon as beyond the protecting limits of the village boundary, if not conveyed by a convoy (badraqa) of superior strength. 'They glory in being robbers, admit that they are avaricious, and cannot deny the character they have acquired for faithlessness. According to their neighbours, the Afghans are said to be naturally very avaricious and grasping, selfish and merciless, strangers to affection, and without gratitude. They have, he says, all these faults, but the condemnation is too sweeping and severe. Though not always sincere, in their manners the Afghans observe many outward forms of courtesy towards each other and strangers, that one would not expect in a people living the disturbed and violent life they do.

A Persian quartet runs, 'If ever a scarcity of men occur, take a few of the following races, viz.: first, the Afghan; second, the Kamboh; and third, the low Kashmiri. From the Afghan you will meet with treachery, from the Kamboh fraud, and from the Kashmiri grief and sorrow.'

Lient.-Colonel M'Gregor says (iii. pp. 59, 60), 'It cannot be stated that there is, as we understand it in Europe, any national spirit amongst the Afghans; they fight much more for their own interests than for their independence.' The chiefs are ready to pass from the ranks of the Amir of Kabal into the service of the Wazir of Herat, the chief of Kundahar, the British, the Persians, Sikhs, Tartars, or Beluch, and rice versa, without the slightest scruple. It is indifferent to them whether their friend of to-day be their enemy to-morrow, or whether they have even to take arms against their relations or not; the love of money enables them to overlook all these considerations. As a general rule, he says, (p. 64), if an Afghan is obliged to work one month in twelve, he considers himself most unfortunate. The repression of crime and levying a tax he considers as zulm, tyranny. To live in perfect licencc, and never to be asked for anything, is what he would call the proofs of a paternal government.

General Ferrier says the Afghan army might, in case of necessity, consist of the whole male population, for every man is born a soldier, and attaches himself to some chief as soon as he can hold a musket. . . . At the first news of war the chiefs hasten to bring their several contingents. In the field, the Afghans never think of what is going on in their front. On the line of march they form neither advanced nor rear guards, but move straight on without the least uneasiness until they meet the enemy. The love of war is felt much more amongst Afghans than all other eastern nations. . . . War to them is a trade, for it would be impossible to give the name of science to the thousand absurd proceedings which they employ, and which prove that their chiefs are completely ignorant of the first elements of the art. The reason of their success against the other Asiatic hordes up to this day has been their clan in the attack, their courage, but not any clever dispositions, or a knowledge of military operations. . . . It cannot be denied that they are excellent
skirmishers and experienced foragers, for they possess the necessary qualifications in a much greater degree than Europeans. Against cannon the Afghans feel that they cannot trust to the prowess which they value so highly. Their valour is incontestable, but their presumption is greater. Though they are entirely ignorant of the art of attack and defence of towns and fortresses, the Afghans are remarkable for the obstinacy of their resistance and the correctness of their aim when they are behind walls. The impudence of this nation for discipline and military organization arises from their spirit of impatience under the slightest degree of restraint.

The enrolled, or daftari, forces vary; they are in three divisions,—Kabul, 31,000; Kandahar, 18,000; and Herat, 22,000. Of these, 35,000 were Afghan cavalry, 6000 Parsis or Kazzilbash horse, 4000 Hazar horse, and 26,000 infantry of mountaineers, Afghan, Parsian, Hazara, Uzbek, and Beluch.—Lieut.-Col. M'Gregor, ii, pp. 67, 68.

Elphinstone describes (245-6) the Afghan men as all of a robust make, and as generally lean, though long and muscular. They have high noses, high cheek-bones, and long faces. Their hair and beards are generally black, sometimes brown, and rarely red. Their hair is always coarse and strong; they shave the hair off the middle part of the head. The tribes near towns wear the hair short, but the rest have long and large locks hanging down on each side of the head. They wear long and thick beards. Their countenance has an expression of manliness and deliberation, united to an air of simplicity, not unmixed with weakness. The eastern Afghans have the national features most strongly marked, though they have least of the expression above alluded to. The lineaments of the western tribes are less distinct, and exhibit a much greater variety of countenance, some of them having blunt features, entirely different from those above described; their high cheek-bones, however, never leave them. The western Afghans are larger and stouter than those of the east; and some Daurani and Ghilzai are of surprising strength and stature; but, generally speaking, the Afghans are not so tall as the British. The eastern Afghans have generally dark complexions, approaching to that of the Hindustani race, while those of the west are olive, with a healthy colour and appearance; but among them, as among the eastern Afghans, men as swarthy as Indians and others as fair as Europeans are to be met with in the same neighbourhood; the fair are by much the most common in the west, and the dark in the east. He tells us (pp. 182-185) that many of the Afghan songs and tales relate to love, and most of them speak of that passion in the most glowing and romantic language. Besides the numerous eloquences, the dangers of which are encountered for love, it was common for a man to plight his faith to a particular girl, and then set off to a remote town, or even to India, to acquire the wealth that is necessary to obtain her from her friends. Among the Yusufzai, no man sees his wife till the marriage ceremonies are completed; and with all the Bardurani there is great reserve between the time when the parties are betrothed and the marriage. Some of them live with their future father-in-law, and earn their bread by their services, as Jacob did Rachel, without ever seeing the object of their wishes. But the Aimak, the Hazara, the inhabitants of Persian Khorasan, Tajik, and many of the Hindus in those countries, permit a secret intercourse between the bride and bridgroom, which is called namzad-baz, or the sports of the betrothed. With them, as soon as the parties are affianced, the lover steals by night to the house of his mistress, the mother, or some other of the female relations, favouring his design. The freest intercourse, the most unreserved conference, and even kisses and all other innocent freedoms, are allowed, but further than these the strongest cautions and prohibitions are used by the mother to both parties separately. The custom prevails even among men of rank, and the Amir himself sometimes exposes his person alone in the midnight adventures of namzad-baz. Among the Afghans, as among the Jews, it is thought incumbent on the brother of the deceased to marry his widow, and it is a mortal affront to the brother for any other person to marry her without his consent. The widow, however, is not compelled to take a husband against her will, and if she have children, it is thought most becoming to remain single (p. 179).

The bulk of the Mahomedan population are of the sunni sect, the shiah sectarians being the Badakshahi, Vakhi, Seistani, Tajik, Kazzilbash, Hazara, Turi, Bangashi, some of the Orakzai, the Dawari, Khostwali, Jaji, Chitrali, and some of the Kohistani.

The nine five classes of cultivators, viz., proprietors cultivating their own lands; tenants who rent it for a payment in money or produce; Buzurg, who are the same as the metayer of France hired labourers and slaves. In towns the common daily pay of a labourer is 100 dinar (about 4½d.) in Kandahar it amounts to three shahi an 12 dinar (about 6½d. or 7d.) and at Kabul shahi will buy 5 lbs. of wheat flour. There are two harvests; the most important has its season in autumn, and its crops are reaped in summer. It consists of wheat, barley, lentil, Erum lens, Cicer arietinum, peas and bean. The other is sown in the end of spring, reaped in autumn, and consists of rice, the millet Panicum Italicum, and P. niliacenum, Sorghum vulgare, Pennicillaria spicata, Zea mays at Phaseolus mungo. A third harvest, called Pala comprises all the melons and cucumbers, pumpkins and gourds. Wheat and barley are grown even up to 10,000 feet elevation. Rice is cultivated in great quantity at Jalalabad 2000 feet, Kabul 6000 feet, and to a considerable extent Ghazni, 7700 feet. Poplars, willows, and other trees are extensively planted, as well mulberry, walnut, apricot, apple, pear, and pome trees, and the Elaeagnus orientalis, which bears an edible fruit. Wheat is the general food for the people. It is made into unleavened bread as also are the millets. Indian corn heads are roasted and eaten as a luxury; and Cicer arietinum (Chana) is occasionally used. Pennicillaria spicata is grown in great quantities in Dama and in the countries of the Bangesh and Khattra. Sorghum vulgare is the chief grain of Bokhara barley is grown for horses. Artificial irrigation (abi) is carried on by channels, canals, the karez or subterranean aqueducts. Larch means cultivation by the natural rains. A gre
AFGHANISTAN.

A variety of mushrooms grow in most parts of the country, and constitute a considerable portion of the food of some classes of the peasantry, and specially of the Hindu population of towns.

During the autumn months, large quantities of sheep, oxen, and camels are killed, and cut into convenient sizes, which are salted and dried in the sun, and stored for winter use. The meat thus prepared is called hands. Old horses are similarly utilized. The cow, and in some places the buffalo, is kept for the milk they yield. Milk, especially with the peasantry and nomades, is largely used food.

After making butter or ghi, the butter milk is used fresh, or made into curds by souring, or hastened by the addition of a few drops of the juice of the fig-tree, or into cheese by the dried fruit of a solanaceous plant. The curds are also freed from water by pressure in a cloth; to be a little salt is added, and the handfu1s are made into small cakes, which are dried hard as a stone in the sun, and keep for any length of time. They are called Krut; and when soft are reduced to a paste in a wooden bowl (krut mal), and then with bread, meat, or vegetables, a quantity of boiling ghi being first poured over the mess. This is the national dish of the Afghans, and is eaten with great relish, though very sour, astrin- gent, and greezy. Krut is pure casein. The more refined Persians dislike this food, and ridicule the Afghans, parodying the Arabic anathema into words, La houla wa la illah Krtta Khuri.

The sheep are two kinds of the fat-tailed breed, one with a white fleece, which is manufactured into various home-made stuffs, and is also exported; the other with a russet brown or black coat. These are called Postin sheep, their skins being made into postins, and their wool of the shearing season made into felts, or woven, and exported to Bombay and Karachi and Persia. Keep constitutes the main wealth of the nomade population, who use their milk, as also that of the goat and camel, in a similar manner to that of the cow and buffalo.

The wild animals, the squirrel, the otter (sugnah), the jerboa rat (mast-i-dopa), the ferret, and the agger, are trapped for their furs and skins. The varda is found all over the country; occasionally the tiger and the lynx, antelopes, bears, and the wild ass occur; also the ibex, wild goat, barascha; porcupines and hedgehogs are common, also, in the Kohistan-i-Kabal, the doragra, a hybrid between a male wolf and the female of the wild dog.

Horses form a staple export from the country. The Yaboo is the horse of the country,—stout, stive, and hardly, about fourteen hands high, used mainly as a beast of burden, though also for riding; and a considerable portion of the irregular cavalry and artillery are supplied with them. The horses known in India as the Kabali are chiefly from Macmna and Mashad, but there is mixed breed by Persian horses out of country area. Dost Muhammad Khan made efforts to improve the breed, and had several extensive breeding establishments. The Turkoman horse is said to have a large share of Arab blood, introduced by the Arabs when they first overran the country in the 8th century. Traffic is carried on by the Yaboo, camels, and mules, carts being unknown.

Silk, felts, rosary beads from chrysolite, postins dyed from one to upwards of fifty rupees, the choga, the khosai felt cloaks of Kundahar, and wine, are the chief articles manufactured.

Malachite and peacock copper ore occur in the Koh-i-Amad, a few miles west of Kabul, also in the neighbourhood of Bajawar, north of Peshawar. This, with iron and lead, are met with in several parts; also sulphur and alkaline earths. Coal, called kina, is found in Zurmat and Surkhab, and near Ghazni on the surface of the ground, but is not utilized. Iron occurs in large quantities in the Ferum district; quicksilver is said to be found, also asbestos, which is called sang-i-pamba. Native sulphate of copper is said to occur in the Gulkoh, about 40 miles W. by N. of Ghazni. Lead ore is said to be abundant in the Hazara country; and veins of it occur at Kala Mula, Hazrat, Koh-i-Patao, and Argandab, about 32 miles N.W. of Kalat-i-Ghilzai. Chrysolite and soap-stone occur at Sahak-maksud, a hill about 30 miles N. of Kundahar. Sulphur is found in small quantity in Herat; also in the Hazara country and at Pir-kisari, on the eastern confines of Seistan. At Pir-kisri there is said to be an active volcano, called Chah-i-Dudi, or smoking-well, from which smoke and ashes are said to escape. Antimony is said to occur in several places, but it is often mistaken for galena. Gold and lapis lazuli are found at Huladat, near Damian, and at Istalif, north of Kabal, also in the Kabal river, and auriferous rocks occur near Kundahar. Zine, in the form of its silicate, termed zak, is met with in the district of Zoba, in the country of the Kakkak clan. It is dug out from the soil in earthy nodular fragments of a reddish-yellow colour, and easily cut by a knife. It is chiefly used by sword-makers for polishing new blades. Nitre is abundant all over the country.

On the mountains, from 10,000 to 6000 feet, are the Cedrus deodara, Abies excelsa, Pinus longifolia, larch, the hazel, the yew, Thuja orientalis, juniper, walnut, lemon, wild vine, wild peach, almond, the rose, honeysuckle, currant, gooseberry, hawthorn, rhododendron, etc. Below these, at 6000 to 3000 feet above the sea, are acacia, bayberry, Chamomela umbils, bigonia, Salvadora Persica, verbena, and others. The lemon and wild vine are also met with here.

The walnut and several oaks descend to the secondary heights, where they become mixed with the ash, the alder, the Pistacia, Arbor vitae, juniper, and species of astragalus.

The lowest or terminal ridges present a bare aspect; trees are rarely or never met with, and shrubs only occasionally; and the plants met with comprise most of those that form the undergrowth or herbal vegetation in the higher ranges.

Afghanistan and British India are not conterminous. They are separated from each other by a number of tribes, who are wholly, or in parts of their clans, independent. They are the Akazai and Hassanzai, adjoining Hazara; the Bunerwal, Judun, Momund, Swati, and Utmankhel, beyond Peshawar; the Afridi, beyond Peshawar and Kohat; the Orakzai, Turi, Waziri, and Zaimukht, near Kohat, Bumbu and Dera Ismail Khan; the Kusrami, Sheerani, and Ustrama, near Dera Ismail Khan; the Bozdar, Khetan, Khosa, and Laghari, beyond Dera Ghazi Khan; and further south the Bugti, Gurehani, Marri, and Mazari. These will be found noticed separately and under the heading North-West Frontier Tribes.
AFRICA.

The two great passes from India into Afghan-istan are the Bolan, from Shikarpur to Kandahar, and the Khabar, from Peshawar to Kabul; the Afridi hold the Khabar and Kohat passes. The numerous sections of the Afridi, each headed by its chief, have been usually split up into factions, and united only to oppose the rulers of the Panjab and of Kabul, and to levy ‘black mail’ from travellers and merchants. All the great invaders and the supreme potentates of Northern India have successively had these Afridi in their pay,—Chengiz, Timur, Babar, Nadir Shah, Ahmed Shah, the Bamzai, the Sikhs, and lastly the British. To all, these unmanageable mountain-aineers have been treacherous. They are brave and hardy, good soldiers and better marksmen. The best shots in the Guide Corps are Afridi, and perhaps 200 of them may be found scattered among the Panjab regiments.—Rec. Govt. of India, No. 11; Bellere; East India Papers, Cabool and Afghanistan; Ferrier’s History of the Afghans; Masson’s Journeys; McGregor’s Central Asia and Afghanistan; Malcolm’s Central India; Elphistone’s Kingdom of Cabul; Griffiths; Cleg- horn’s Panjab Report; Tod’s Rajasthan.

AFIM. HIND. Opium.

AFLATUN. AR. B’dellium; Commiphora Madagascarencea.

AFRASIA, a king of Turan, who invaded and took Persia.

AFRICA is 4600 miles long from the Medi-terranean to the Cape of Good Hope, and has 4100 miles at greatest breadth, from Cape Verde to Cape Gardafui. Its greater parts lie within the tropic zone; in the less elevated parts the heat is great, and it has a great desert on its north, called the Sahara. Its principal rivers are the Nile in the north, the Niger, the Zaire, Senegal, Gambia, Congo in the west, and Zambesi in the east. The Atlas mountain, in N.W. Africa, rises 10,000 and 13,000 feet in height above the sea; Lamalmon, in Abyssinia, is 11,200, and Compass mountain, Cape of Good Hope, 10,000. Africa is joined to Asia by the Isthmus of Suez, which is 125 miles across, and through which, in the 19th century, a canal was drawn, connecting the Red Sea with the Mediterranean. Africa was known to the ancient Hindus as Sanae-Dwipa. Until the middle of the 19th cen-tury, however, little authentic was known to the people of Europe as to the races of Central Africa, or the countries they occupy; but great efforts have since been made by Europeans to obtain a knowl-edge of the country. Mungo Park, Denman, Bruce, Livingstone, Baker, Gordon, Burton, Speke, Cameron, of Great Britain; Stanley and Dr. Nassa of the United States; a German party under Dr. Lenz, Mr. Mahr, and Dr. Poge, with a French party under Count de Brazza, have all added to our knowledge of it. From unknown times, African races, chiefly the Negro family, have been seized and sold as slaves by each other and by the Arab and other more civilised races, amongst whom all the Chris-tian races of Europe, of the West Indians, and N. and S. America, long took a part. The first to endeavour to stop this traffic was Great Britain, and their import into British India has been prohi-bited. In the south of Asia they were styled Sidi, also Habash or Habshi by Mahomedans,—Habash being their term for Abyssinia. These Habash were the principal household slaves and the eunuchs of the palaces. Their numbers along the maritime states of Arabia, Persia, Beluchistan, and Sind have been great, and have left a marked impres-sion on the physical features of those of the pri-or races who profess Mahomedanism. Many of the Mahomedans of the Peninsula of India, even of good family, have exaggerated Negro features. The Hindus of the N.W. parts of the Peninsula of India have been the principal slave-dealers on the east coast of Africa.

The latest estimate of the population is 186 millions, which for an area of 114 million square miles gives an average of 16 inhabitants per square mile. One of the latest authorities divides the population of Africa as follows among the great families into which ethnologists have classified the peoples:—Negroes, 130,000,000; Hamites, 20,000,000; Bantus, 13,000,000; Fulahs, 8,000,000; Nubians, 1,500,000; Hotentot, 50,000. This would give a total population of 172,550,000. These figures are, of course, only approximate, and the Bantus, according to F. M. Muller, form even one quarter of the population of Africa. In the regions of the great lakes there are countries quite as thickly populated as many of the states of Europe. Mr. Stanley tells us of countries of relatively small extent and which yet possess millions of inhabi-tants. According to Behna, the Negro region is by far the most populous part of the continent. If the populations are sparse in the desert parts, they are very dense in other regions. Thus we find that in the Sahara estimated at 50 millions, or about 53 per square mile; the town of Bida, on the Niger, has a population of 80,000 inhabitants. The population of East Africa is estimated at about 30 millions and that of Equatorial Africa at 40 millions. Ethnologists, however, are not unanimous as to the races occupying Africa. An ordinary divi-sion of African races is into,—(1) the Northern and blackest tribes; (2) the Pal and Nub tribes, scattered among the former; (3) the Kafir or Bantu tribes, south of the equator; (4) the Hotentots and Bushmen (these two being treated as totally distinct by certain ethnologists). Professor Lepsius admits of three varieties only in one and the same original Neg-type, viz., (1) the Northern Negroes; (2) the Southern or Bantu Negroes; (3) the Cape Negroes. He then groups all African languages also in three zones,—(1) the Southern, south of the equator, the Bantu dialects, explored chiefly in the west and east coasts, but probably stretched across the whole continent, comprising the Herer, Pongwe, Fernando Po, Kafir (Osa and Zulu), Tsabana (Soto and Rolon), Sukuli, etc.; (2) the Northern zone, between the equator and Sahara and east as far as the Nile, comprising Eifik, Ita-yora, Ewe, Akra or Ga, Oty, Kru, (Mande), Temne, Bullom, Wolof, Fulah, Kanuri, Teda (Tibm), Logone, Wandala, Bageri, Maba, Konjara, Umale, Dinka, Shilluk, Bori, Oigob, Nuba, and Barca; (3) the Hamitic, including the extinct Egyptian and Coptic, the Livan dialects, such as Tureg (Kabyli and Amsadies), the Kushitic or Ethiopian languages, in-cluding the Beja dialects, the Soho, Falusia, Aga-Galla, Dankali, and Somali. The Hotentot and Bushman languages are referred to the same zo
The Hamitic languages comprised in the third zone—the Egyptian, Libyan, and Kushitic—are akin to Africa. They are all intruders from the east, though reaching Africa at different times and by different roads. The true aboriginal nucleus of African speech is contained in the first zone, and represented by that class of languages which, on account of their strongly marked grammatical character, has been called the Bantu family. The Bantu and Hamitic families of speech differ from each other in many of the most essential points of grammatical articulation.

To mention only a few,—the Bantu languages are prefixing, the Hamitic suffixing. Bantu grammar admits of no gender, to denote sex; Hamitic grammar does. In and about Kordofan, where the dialects lie about piecemeal, the inhabitants of one mountain peak do not understand those of another, but learn to understand with great facility strangers or really strange tribes that have settled among them for a short time only.

This receptivity of language, and more particularly of the language of savage and nomadic tribes, for foreign influences is illustrated again and again in the course of Professor Lepsius's arguments. The power of mimiery is far greater among lower than among higher tribes, and it extends in the case of language even to purely grammatical turns. Of all the races whom the scholar has seen, the Mincopi Negroes of the Andamans possessed this power of mimicy to the greatest degree, and they are in the oldest known scale of humanity. There are limits, however, even to this, and in one case—that of the Hausa language—Professor Lepsius admits that it cannot be classed as a Bantu or prefixing dialect modified by Hamitic neighbours, but that it is really a Hamitic, more especially a Libyan language, surrounded and modified by Bantu speech. By a similar process of reasoning he excludes the Hottentot language also from the African family properly so called, and brings these people in the south in connection with the Kushites in the north, from whom they were separated by the pressure of Bantu tribes, recovering the eastern territory that had for a time been wrested from them by Kushite invaders. On maps Nubia generally extends south from the first cataract over the whole breadth between the Nile and the Red Sea as far as Habeah, south-east beyond Chartum, south and south-west along the White Nile to the Bahr-el-Gazal. But Lepsius, though admitting the presence of scattered Nubian tribes in the south, more particularly about Kordofan and the neighbouring hills, fixes on the Nile as the natural frontier between the true Nubian, sometimes, though wrongly, called Berber, in the west, and Kushitic tribes coming from the east, these being represented by the modern Bejas as their most advanced post. What gives an additional interest to these Nubian tribes, is that they alone among African races have something like a history, to be read on the monuments of their neighbours the Egyptians. The Egyptians distinguish from the earliest times between the red or brown southern race and the Negroes, who are called Nubasi. Among these the Uaña occupy a prominent place so far back as the third millennium before our era, and they are identified by Lepsius with the Nubians. Whether the so-called Nubian inscriptions which are found scattered over the country occupied by Nubian tribes, and beyond so far as the confines of the White and the Blue Nile, are of Nubian or Kushite origin, has never been determined. These inscriptions have their own alphabet, running from right to left; and considering that the words are divided, as they are in the cuneiform inscriptions of Persia, there is no reason why we should despair of seeing them deciphered before long.

Professor Lepsius thinks that they are not Nubian,—that is to say, not Negro, but Kushitic,—and that the key to be applied to their interpretation should be looked for in the Beja, and not in the Nubian language.

The ocean has afforded great facilities for the interchange of commodities with the Asiatic continent; for the Arabian Sea, that part of the Indo-African Ocean on the south of Arabia, including the Red Sea, has 6000 miles of seacoast, and the races occupying it have, from prehistoric times, traded eastwards; and there are Negro and Negrito races to the extreme east of the Archipelago. In the Andamans are the diminutive Mincopi, in the Malay Peninsula are the Semang, in the Philippines and New Guinea and its neighbouring islands are the Papuans.


AFRIDI, the most important, if not the most powerful, of all the tribes to the west and southwest of Peshawar. The Afridi country extends from the right bank of the Kabul river for about 50 miles nearly due south, marching with the British border all this distance. A tongue of their land projects into British territory between the two principal frontier stations of Peshawar and Kohat. The Kohat pass is 15 miles long and three or four in breadth. Mr. Elphinstone says the Afridi are the greatest robbers amongst the Afghans, have no sense of honour, and he had never heard of any one hiring an escort of Khairab to secure his passage through their country. Major Matheson described them as avaricious, desperately fond of money, their fidelity measured by the length of purse of the seducer; they are immoral in their care of their women, they marry the widows of deceased brothers. Colonel McGregor adds that ruthless, cowardly robbery, cold-blooded, treacherous murder, are to an Afridi the salt of life; as he has lived,—a shameless, cruel savage,—so he dies. Yet the Afridi is, on the whole, the finest of the Pathan races on the British border. If there were no chance of robbing or murdering a traveller before his reaching the door of an Afridi, he would be offered such food as was available. The men do nothing; the women perform all the duties of daily life and all field labour. They hold the Khairabar and Kohat passes, through which in succession the invaders of India in former times have come, and the Afridi have received tribute from them all. Bengeri, Imam, Babar, Nadir Shah, the Barakzai, the Sikhs, and lastly the British, have all paid money to the Afridi for permission to enter their passes, or for their aid, or for their passiveness, in time of war, and to all, from the first to the last, they have been treacherous. They are fierce and cruel, faithless and altogether untrustworthy; they are ready to betray one another, and live in perpetual feud. Their hills above and about the Khairabar pass are difficult for military operations. The high lands
of Tirah, which stretch far back into the interior, and in which the Afridis, together with the Orakzai and others, take up their summer abode, are accessible from Kohat, and possess a climate congenial to Europeans. The Khaibari are lean but muscular men, with long, gaunt faces, high noses and cheek-bones, and black complexion. They wear dark blue turbans, and long dark blue tunics, sitting close to the body, but reaching to the middle of the leg. The Adum Khel and the Aka Khel can bring into the field more than five thousand fighting men. The Adum Khel Afridis consist of four clans, namely, the Gullee Khel, with 980 fighting men; the Asher Khel, with 760; the Jowaki, with 1040; and the Hussun Khel, with 880; making in all 3660. The Aka Khel have five clans,—Bussee Khel, Sungul Khel, Asher Khel, Sultan Khel, and Mudar Khel,—with a force of fighting men amounting to nearly 1500.—MacGregor, N.F.W.

AFSANTIN. Ar. Artemisia Indica.

AFSHAN. Pers. Shining, glistening. Afshani Kaghz, paper sprinkled or studded with gold-leaf, used in India when writing to persons of distinction.

AFSHAR, a Turk tribe who supported Shah Ismail. See Kajar; Kazzibash; Khorsan.

AFTAB. Pers. The sun. The asphalt-gir is a round, flat, vertical parasol, carried to shade persons of rank, by special permission of the sovereign, and usually emblazoned with a family device. The sunshade is an emblem of rank in eastern countries; it is held by a servant to protect his master from the rays of the sun. It is also used as a flag or ilam at the ceremonies of the Muharran.

AFTABAH. Pers. A brass ewer, used for washing hands by pouring water from it on the hands, the water falling into a basin called Silche. These are the Hbrek and Tishat of the Arabs. The European mode of washing hands or feet in a basin is deemed wholly unclean.

AFTIMUN. Panj. Cuscuta reflexa.

AFZAL KHAN, a general of Muhammad Adal Shah of Bijapur, whom Sivaji induced to appear at a conference, and took the opportunity of assassinating, October 1659.

AFZELIA BJUGA. A. Gray. A timber tree of the Andamans and of the islands in the Pacific. Whilst every other kind of vegetable and meat is eaten with the fingers, cannibal food is touched only with forks, generally made of the wood of the Nokonoko (Casuarina equisetifolia, Forsk.) or the Vest (Afzelia bijuga, A. Gray), bearing curious, often obscene names, and having three or four long prongs. The reason given for this deviation from the general mode of eating is a widely spread belief that fingers which have touched bokolas are apt to generate cutaneous diseases when coming in contact with the tender skin of children.—Gallow's "Vacation Tourists," p. 268.

AGA, written Agha and Aka in Turkish—means a noble, a commander, but is assumed by persons in civil life. It is also applied to all eunuchs.

AGA-KARA. Tel. Mimordica dioica. Roxburch.

AGA KHAN, a Persian noble long residing in Bombay; the hereditary Pir or religious head of the Khojah sect. He died in the year 1880 or 1881, and was succeeded by his son. The family are descendants of former rulers of Persia.

AGALLOCHAL WOOD. Eagle-wood.

AGALLOCHAL WOOD. Eagle-wood.

AGAM IDA. Kalaombre, Jav, Mal.

AGAMOTRI. Kalambak, Kayu gahru, Kambarkab.

AGAMOTRI. Kalambak, Kayu gahru, Kambarkab.

AGALLOCHAL. Agla, Agila.

AGALLOCHAL. Agila, Agila.

AGALLOCHAL. Lignum aloes, Irs.

AGALLOCHAL. Lignum aloes, Irs.

AGALLOCHAL. Bois d'Aigle, Fe. Ud-i-Kiimari, Pers.

AGALLOCHAL. Bois d'Aigle, Fe. Ud-i-Kiimari, Pers.

AGALLOCHAL. Garo de Malacca., Gr. Agala marum., Tam.

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AGALLOCHAL. This in the wood of the Aquilaria agallocha. In England it is much prized throughout the East as a perfume. The best specimens appear to be mass of resin in decayed wood, and melt under heat, giving forth a very fragrant odour. The tree is said to be void of it when in a healthy state, and only to exude this resinous substance when in decay, or even after it has died. There appears to be at least three kinds of Agallocha or wood-aloes, the trees producing which are not fully identified. Dr. Roxburgh, followed by Dr. Royle, admits doubtfully the existence of two viz. the Aquilaria agallocha of Roxburgh, and Aquilaria ovata, Cor., the Garo de Malacca or Lamarræe; and an inferior sort is said to be derived from Excecucaria agallocha, which need not be taken into account. But Labourow maintains that the best lign-aloës or Calambac, which appears to be the Ud-i-kamari of the Indian bazaars is derived from a tree which he calls Acloyxylon agallocha. Drs. Roxburgh and Royle consider the Malayan Agila, the Aquila and eagle-wood of commerce, and the Ud-i-Hindi of the bazaars, the product of Aquilaria agallocha, which grows plentifully to the north-east of Bengal, and that is probably identical with A. ovata, Royle. The Acloyxylon agallocha of Labourow yields a scented wood used by the Chinese in medicine and perfumery, and is said to bring £2 the cwt. in Sumatra. The lign-aloë brought from Burma is the produce of a tree that grows on the Mergui Islands, and imported into Mergui by the Belung race. Specimens of Ambaya wood of the odoriferous sandal-wood from Timor, clove wood, and other choice woods from the Molucca and Prince of Wales Channel, were sent to the Great Exhibition of 1851. The Hakims of Ind administer Agallocha wood in their electuaries—combination with spices, ambergris, etc.—W. Honigberger; Mason; O'Shaughnessy; Elliot's "Flo Andriciæ; Simmonds; Exhibition of 1851."

AGALMATOLITE. Sami stone, Anglo-Hind. Figure stone, E. Hwih-shih, Chins.

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AGALMATOLITE. Phillips called it Pagodalite, from its being imported from China in figures, pagodas, etc also Swarthy stone, i.e. deity stone. It is for four quantities in Mysore, near Chutia, Nagpur also in China, in N'gan-huai and Kiang-sia there is cut into ornamental figures. —Smith Col. Ouseley in Bl. As. Trans., 1843; Repotted by Dr. Buist. See Sami Stone.

AGAMABA SASTRA, a name of one of the Trasras, a sacred saiva book. Agama Vageesha, one of the Trasras; vak, a word, and eel lord, the god of speech; a name of Vrihaspati.

AGAMIDÆ, a family of reptiles. See Turtles.

AGANHOTRI or Agni Hotri. Hind. A Brahman who maintains a perpetual fire in his house.
AGARICUS.

AGARICUS. fine Tam., Cooke. Eng.
Gracillaria Faulkner; Eno.

They are tall, well-made, with high Aryan features and tawny complexions. They allow widows to re-marry, and they bury the dead; but afterwards, when the bones are dry, the principal joints and part of the skull are taken up and conveyed by the representative of the deceased to the Ganges. This service is often neglected. The bones taken are called Ashta or Ashtung, as representing the eight parts of man. Some of their women are very pretty, bright-looking creatures, of reddish light-brown complexion; fine glossy, long black hair; very bright eyes, remarkable for the clearness of the white of the eye; slight, flexible, graceful figures; teeth white and regular; faces not disfigured by paint, and no godna or marks of tattooing except on hands and legs. The hair is very neatly and elaborately dressed, secured by a large silver ornament. Among them many have grey eyes, and long eyelashes are a prevailing feature. In Gangpur, where there are some three or four thousand Agareais, all Agareah females are regarded as witches. There is among all classes in Gangpur a widespread and deep-rooted belief in witchcraft. It is equally dreaded by the wildest and by the most civilised of the people, and Agareah women have often been badly treated, to drive the spirit out of them, or make them give up the black art. In Gangpur there are old women, professors of witchcraft, who stealthily instruct the young girls. The latter are all eager to be taught, and are not considered proficient till a fine forest tree, selected to be experimented on, is destroyed by the potency of their mantras or spells, so that the wife whom a man takes to his bosom has probably done her tree, and is confident in the belief that she can, if she please, dispose of her husband in the same manner if he make himself disagreeable.—Dalton, Eth. of Bengal, 323.

AGARII. Beng. The great rice or dhon crop of the year, sown in Asar, June—July, and cut in the latter half of Aghan, December.

AGARI? A servile caste in Cuttack, bullock-drivers or slaves.

AGARICACEÆ of Lindley, the mushroom tribe of plants, comprising the genera Agaricus and Lycoperdon. Mushrooms grow in India during the rains, but are little used by Europeans, from the difficulty experienced in distinguishing the poisonous from the edible kinds. Some are found in all the bazaars of India, and are employed in native medicine. Agaricus igneus, garikun, Hind., is a mushroom of the Punjab. Agaricus subcoryneus, Cooke, of China, referred also to the sub-genus Pleurotus, is allied to the British Agaricus umbrinus. It is a denderphyt, dry readily, and is used in the Straits Settlements for food. Agaricus subumbreus, new to science, is a large, excellent, edible mushroom of Kashmir. Agaricus muscaria, a yellowish mushroom used in the Punjab is there called shirian and bathakri; and A. fossulatus, Cooke, occurs in the Kabal hills.—Von Mueller; Mason; Faulkner; Honibarger; Voigt; Fries; Cooke.

AGARICUS CAMPESTRIUS, L., Mushroom.


This is the common mushroom; it is largely eaten in most places where it grows. It is also extensively dried for future consumption, and is said to preserve its flavour tolerably well. The same species also appears to grow commonly in Kashmir and Kullu, sparingly in Lahore, and abundantly in
AFGHANISTAN, where Belknap states that the poor use it largely as food. In Kashmir, the people say that the edible mushroom is always white, and the poisonous kinds, called henar, always dark-coloured, and that they have no other test of the quality. Dried mushrooms (generally small) are official in the Panjab.—Dr. J. L. Stewart, *Panjib Plants*, 267.

AGARYA, descendants of the original Thugs, who, after being expelled from Delhi, settled for a time at Agra.

AGARWAL, an important branch of the Marwari mercantile race, comprising many of the wealthiest traders and bankers in Hindustan. According to Sir Henry Elliot, they derive their name from Agroha in Hariana, whence they originally migrated to other provinces after the capture of that place by Shahab-ud-Din Gori in 1194. Common tradition refers their name and origin to Agro. The Agarwal is one of the 84 Gachha or families of the Jains, and most of its members profess the Jain religion.—W. S. Agroha.

AGASALA of Mysore, a goldsmith.

AGASA-TAMARE. TAM. Psita stratiotes.

AGASSI. TAM. Agati grandiflora, Desv.

AGATHISVAR, a small clan of Rajputs in the Barees district.

AGASTYA, a name famed throughout all the Tamil parts of the south of the Peninsula of India as that of a sage, a native of Tibet, who introduced literature and the sciences among the Tamil race. The name occurs in the Rig Veda and the Puranas, but the tales about him related by the Tamil people are derived from the Ramayana and Mahabharata. The writings attributed to him are in verse, in the Tamil language, and contain in all 19,647 stanzas on ancient history, religion, theology, magic, exorcism, purification, medicine, diseases, leprosy, botany, materia medica, pharmacy, prescriptions, chemistry, sin and crime; but these have evidently been composed by different authors, who have assumed this literary name, and some of them are of so recent a date as after the arrival of Europeans in the country. The traditions amongst the Tamil people connected with this name are so intermixed with fable, that it is impossible to separate the truth. He is celebrated in northern India as a mahamuni, or holy rishi, and is traditionally said to be the leader into the south of the first and most influential colony of brahmanas, B.C. 500. The Vindhya mountains are fabled to have, at his command, prostrated themselves before him, by which is understood that he penetrated through their defiles, and he is said to have advanced southwards to Cape Comorin, but also to have settled in Kolapur. It is called by way of eminence Tamir Muni, the Tamil sage, and is said to have acquired great influence at the court of Kulasekhara, the first Pandyan king, for whose instruction he composed numerous elementary treatises, amongst which the most celebrated is his arrangement of the grammatical principles of the Tamil language. He is mythologically represented as identical with Canopus, the brightest star in the extreme southern sky in India; and he is said to have been the son of Mithra, the sun, and Varuna, conjointly, and to have been born in a water jar; and he is worshipped near Cape Comorin as Agateswara, the lord Agasty. Orthodox Tamil Hindus believe he is still alive, though invisible to ordinary eyes, and that he resides somewhere on the fine conical mountain, commonly called Agastiya Malai, or Agastiya's hill, from which the Porur or Tannur, the sacred river of Timmavinny, takes its rise.—*Dr. Caldwell's Comp. Grammar; Calcutta Christian Intelligencer* for 1861, p. 6; *Wilson's Hind. Theat.* i. p. 333; *Rev. W. Taylor; As. Soc. Trans., vol. iii. p. 213. See Hindu.

AGASTYA. SANSK. The star Canopus.

AGATE. A quartzose mineral, which occurs in great abundance in several parts of the great volcanic outburst in the Dekhan, and are there very abundantly swept into the beds of Godavery and Kistna rivers; also in great variety in other parts of India. Some of the agates and other silicious minerals in the amygdaloid rocks on the banks of the Scena river, between Solapur and Ahmadnagar, are of great size and in profusion; but the most beautiful are brought from Cambay, hence called Cambay stones and Godavery pebbles. The burnishers of the bookbinder and other mechanisms are made of agates. Agates are valued for ornament, and are manufactured into cups, rings, seals, handles for knives and forks, sword-hilts, beads, smelling-bottles, snuff-boxes, etc. The name is derived from Achates, a river in Sicily.

AGATHARCHIDES, a writer of the 2d century B.C., who, according to the account of the commercial intercourse between Egypt and Arabia and India. His writings are preserved in Diodorus and Phytios. He mentions cinnamon and cassia as among the articles imported, and states that ships came from India to the ports of Sabaea, the modern Yemen.—*Vincent's Com.; Ephes. 167.

AGATHIS AUSTRALIS. Hort. The Kawrie, or New Zealand pine, the Dammara Australis, *Lambert*, one of the Conifere, in its native forests attains a considerable height, with a straight, clean stem, which, from its lightness and toughness, has been found well calculated for the masts of ships. It is easily worked, and takes a high polish. It yields a hard, brittle resin like mastic, which is chewed by the natives. Its root is used in tattooing.—*Dr. Riddell; Eng. Cyc.*

AGATHIS LORANTHIFOLIA. Salisb. *Dammara loranthifolia, L.* | *Pinus dammara, L.*

AGATHIS LORANTHIFOLIA. Salisb. *Dammara loranthifolia, L.* | *Pinus dammara, L.*


A large tree, found on the very summits of the mountains of Amboyna, Ternate, and in many off the Molucca Islands. Griffith mentions a tree under that name as a member of the Tenasserim flora, and which the Burmese call Theeet-men, or tree governor. The leaf is precisely that of the dammar pine, but the Tenasserim tree is not known to yield any dammar. The timber of the Archipelago tree is represented to be light and a inferior quality, wholly unfit for any situation exposed to wet, but answering tolerably well for in-door purposes. The wood of the Tenasserim tree, on the contrary, is white, rather light, and bears a considerable resemblance to some kinds of pine. It is used by Burmese carpenters for various purposes, and the Burmese have a superstition that the beams of balances of their scales ought to be formed of this wood.—*Drs. Griffith, Mason and Riddell; Eng. Cyc.*

AGATHOCLES, one of the Greek successor of Alexander, who reigned in Bactria B.C. 247.
AGATHOTES CHERAYTA.  

AGAVE CHERAYTA.  

Ophelia chirayata, Griez.  
Swerlia cheyanta, Buch.  
Chirayit Gentian, Eng.  
Chirayit, HIND.  
Kirist,  
Kirystha,  
MEALE.  

This plant has smallish bright yellow flowers. It grows in Nepal, the north of India, and the Morung hills. It is one of the most esteemed of Indian medicinal plants. It is gathered when the flowers begin to decay, and is dried for use. Its bitter properties are in high estimation with European practitioners in India, who use it instead of gentian, for which it is a perfect substitute. The root is the bitterest part of the plant, and this bitter principle is easily imparted to water or alcohol. According to Mr. Battley, ‘it contains a free acid, a bitter resinosus extractive, with much gum, and chlorates, with sulphates of potass and lime.’ It is best in preparation as a cold infusion or watery extract, or a tincture, but not in decoction; even an infusion made with warm water is apt to produce headache. To form a cold infusion, a pint of water should stand more than twenty minutes on half an ounce of the brasic plant. It tends to produce a regular exertion of the alimentary canal. During its use the bile becomes more abundant and healthy in character. The tendency to excess of acidity in the stomach, with disengagement of flatus, is much restrained by its use. These qualities fit it in a most peculiar degree for the kind of indigestion which occurs in gouty persons. It may, when necessary, be associated with alkaline preparations or with acids; the latter are generally preferable. The same remark applies to its employment in the treatment of scrofula. As a remedy against the languor and debility which affect many persons in summer and autumn, nothing is equal to the cold infusion of this plant. It may be taken twice or even more, frequently, daily, for a considerable time; then discontinued, and afterwards resumed. Children take it more readily than most other bitters. It is found to be a very efficacious remedy in India against intermittent fevers, particularly when associated with Guilandina bonduce or Caranga nuts. Its efficacy in worm cases has procured for it the name of worm-seed plant. The extract is given with great benefit in some forms of diarrhoea and dysentery, particularly if combined with ipecacuan, the emetic tendency of which very markedly controls. The parts of the plant that are chiefly used in medicine are the dried stalks with pieces of root adhering to them; tincture is formed of it with orange-peel and cardamoms.—Roxb.; Useful Plants, quoting Don in Loud. and Edin. Phil. Mag.; Wallich, Plants As. Rarior, etc. See Chirecta.

AGATI GRANDIFLORA.  

A. grandiflorum, Desv.  
A. var. albiflorum,  
B. coccineum,  
E. ecynomenae coccine,  
A. gr.  
B. gr.  
B. gr.  
B. gr.  
C. gr.  
D. gr.  
E. gr.  
F. gr.  
G. gr.  
H. gr.  
I. gr.  
K. gr.  
L. gr.  
M. gr.  
N. gr.  
O. gr.  
P. gr.  
Q. gr.  
R. gr.  
S. gr.  
T. gr.  
U. gr.  
V. gr.  
W. gr.  
X. gr.  
Y. gr.  
Z. gr.  

The agave genus of plants belongs to the natural order Amaryllacea. The species are known by the name of American aloes, and produce clusters of long stiff fleshy leaves, collected in a circle at the top of a very short stem, and bearing flowers in a long terminal woody scape. A. Americana is a native of America within the tropics, from the plains to elevations of 10,000 feet, but is now common in every part of India, and is naturalized in the south of Europe. It is much valued as a hedge plant; but its chief importance arises from the excellent fibres which it yields, familiarly known as Pita thread. The usual mode of preparation is to cut the leaves, and throw them into ponds for three or more days, when they are taken out, macerated, and scraped with a bluntish instrument; but the best thread is obtained by crushing the leaves, when fresh, and scraping them. The leaf fibres are liable to rot, owing to a milky viscid juice contained in them. This is, however, considerably obviated by very hard crushing or pressure between heavy cylinders, which, by getting rid of all the moisture, renders them more pliable for weaving and other purposes. They are much used for lashing bales of calico. As log-lines for ships, they are found to be very durable, and far superior to ropes of wool, country hemp, or jute. A bundle of the Agave fibre bore 270 lbs., that of Russian hemp only 160 lbs. Dr. Wight found some cord of it bore 362 lbs. In Timneckly it sells from 20 to 40 rupees the cando of 500 lbs., and at Madras 7 rupees a maund. In 1853-54 were exported from the Western coast 3650 cwt., valued at 21,506 rupees. Aloe fibres are admirably suited for cordage, mats, ropes, etc., and might be advantageously used in the manufacture of paper. In Mexico, they prepare a fermented liquor from the stem;
AGAVE CHINENSIS.

The dried flowering stems are used as an impenetrable thatch. An extract of the leaves is used to make a lather, like soap; and the leaves, split longitudinally, are employed to sharpen razors on, serving the purpose of a strop, owing to the particles of silica they contain. The roots are diuretic and antisyphilitic, and are brought to Europe mixed with sarsaparilla. The Mexicans make a paper of the fibers of Agave leaves laid in layers.—Smith: *Drs. Wight, Stewart, Pahalg Plantis; Roxb. ii. 167; Simmonds' Veg. Prod.; Mod. Ex. Jour. Reports; Useful Plants.

AGAVE CHINENSIS, the *T'-ch'in-hiang of the Chinese, a plant of Formosa, yielding fibre, and used medicinally.

AGAVE PERFOLIATA.—*Willde.


Common in gardens throughout India.—Roxb.

AGAVE VIVIPERA. Linn.


Its Fibre.


This is common throughout India; planted in hedges, it grows luxuriantly without any further cultivation, and is capable of being extended in any soil. In the Lucknow jail, rope and sack-cloth have been made of it. A good fibre, long in the staple, is procured from the leaves, which are allowed to rot in water for twenty days, are then beaten on a plank and again thoroughly washed. A strong and useful cordage is made from them, as well as mats, ropes, etc. In South Arecot, these fibres sell at 30 rupees the cundy. In the Madras Exhibition of 1855, a good specimen of fibre from this plant was contributed by Dr. Kirkpatrick. It was long in the staple, clean, and strong, and had been prepared without rotting, by the simple process of beating, scraping, and washing. The name of 'silk-grass' also is applied to the *A. yuccafolia.* The fibres of the *A. vivipera* are said to equal in strength the best hemp.—*Useful Plants, Royle,* p. 43, *Jouries' Rep.*

AGAVE YUCCÆFOLIA, a plant naturalized in India, capable of yielding fibres.—*Royle,* p. 43.

AGELATA? A wood of this name was exhibited at the Madras Exhibition of 1857. It was light-coloured, with a fine even grain, and it appeared admirably adapted for furniture and many domestic purposes. It was said to be abundant in the woods, and had been used for a variety of purposes by the railway engineers; and gr. 0-74.—M. E. of 1857.

AGGANA SUTTAN, a discourse of Buddha. See Wijno.

AGHANI. Ar. The title of several Eastern airs, particularly the Kabir-ul-Aghani, compiled in the 10th century by Abul Paraj Ali, for which he got 2000 dinar from the Sultan of Syria and his vizir Ibn Ebad; copies of it were sold in Baghdad for 4000 drachmas of silver.

AGHAT, in Ahmadabad, a stone inscribed with the terms of sale, erected in a field. It is a stone-deed of sale. They usually bear on the top a representation of the sun and moon. Agathiya, land held rent-free.

AGHOR, a river in Mekran (?). In its bed are several mud volcanoes, i.e. the form of jets of liquid mud, known as Ram Chandar ki kup, the wells of Ram Chandar. See Oriam; Ram Chandar.

AGHORA, a name of Siva in his terrible form.

AGHORA, a deprecatory sect of Hindu devotees, who practise the most disgusting, filthy, and impure rites, their food being ordure and carrion, etc. It is said, however, where not insane, much of this is imposture, the object being to excite the wonder of the beholders, and make them believe in the utter indifference of the Aghora to worldly enjoyments. They are ogres; indeed, the similitude of the word to Aghori is noticeable. They go about nude, with a fresh human skull in their hands, of which they had previously eaten the putrid flesh, and afterwards scraped out the brain and eyes with their fingers, into which is poured whatsoever is given them to drink, and to this they pretend to be indifferent whether it be ardent spirits or milk or foul water. The Aghora is an object of terror and disgust. Hindus, however, look on these wretches with veneration, and none dare to drive them from their doors. They were among the worst of the many turbulent and troublesome inhabitants of Benares, and there is scarcely a crime or enormity which has not, on apparently good grounds, been laid to their charge. There are said to have been Aghoras ascetics in the neighbourhood of Abu from the most ancient times, and formerly to have been cannibals, hence their other name, Mard-khor. One of the ancient Hindu dramatists, Bhava Bhutta, who flourished in the 8th century, in his drama of Malati and Madhava, has made powerful use of the Aghora in a scene in the temple of Chamundha, where the heroine of the play is decoyed in order to be sacrificed to the dread goddess Chamundra or Kali. The disciple of Aghora, Ghanta, the high priest who is to perform the horrible rite, by name 'Kalapa Kundala,' is interrupted in his invocation to Chamundha by the hero Madhava, who thus describes the scene (Act V., scene 1, H. H. Wilson's Translation):—

'Now wake the terrors of the place, beset
With crowding and malignant fiends. The flames
From funeral pyres scarce lend their sullen light,
Clogged with their fleshly prey, to dissipate
The fearful gloom that hems them round.
Well, be it so. I seek, and must address them.

How the noise, . . .

High, shrill, and indistinct, of chattering sprites,
Communicate, fills the charnel ground;
Strange forms, like foxes, flit across the sky;
From the red hair of their lank bodies darts
The meteor blaze, or from their mouths that stretch
From ear to ear, thickset with numerous fangs,
Or, on heads, on brows, the silvery streams.

And now I see the goblin host: each stalks
On legs like palm-trees, a gaunt skeleton,
Whose fleshless bones are bound by starting sinews,
And scantily cased in black and shrivelled skin,
Like tall and withered trees, by lightning soaked,
They move, and as amidst their sapless trunks
The mighty serpents curl, so in each mouth,
Wide yawning, lolls the vast blood-dripping tongue.
They mark my coming, and the half-cowed morn;
Falls to the howling wolf; and now they fly.'

D'Anville speaks of them as 'une espée de monstre,' whose existence he doubted, though he quotes from Thévenot, who remarks, 'Les habitans de ce bourg (Deben) estoient autrefois de ceux qu'on nommoit Merdi-coura, ou Andrus poffages, mangeurs d'hommes; et il n'y a pas
grand nombre d’années qu’on y vendait encore de la chair humaine dans le marché.” (Voyages de M. de Thévenot; Paris 1684.) D’Anville adds, that this ‘espèce de bête,’ this Moréi-cour, had been noticed by Pliny, Aristotile, and Ctesius, under nearly the same name, Martichora.

Colonel Tod adds, that he passed the gopha or cave of the most celebrated of these monsters of the present age, who was long the object of terror and loathing to Abn and its neighbourhood. One of the Deora chiefs told him that, a very short time previously, when conveying the body of his brother to be burned, one of these monsters crossed the path of the funeral procession, and begged to have the corpse, saying that it would make excellent chattan, or condiment.

The headquarters of the caste were at Burputra (Baroda); and in Colonel Tod’s time there still existed on the old site a temple dedicated to the patroness of the order, Aghoreswar-Mata, represented as ‘lean fiance,’ devouring all. Her votaries are brought into the combinius class of ascetics, of whom they are the most degraded, beyond all controversy.

Mareo Polo (Mansden, Marco Polo, p. 252) speaks of a class of magicians who are akin to the Indian Aghora. ‘The astrologers who practise the diabolical art of magic, are natives of Kashmir and Tibet. They exhibit themselves in a filthy and indecent character; they suffer their faces to remain uncleaneed by washing, their hair uncombed, being in a squawish style. Moreover, they are addicted to this horrible and beastly practice: when any culprit is condemned to death, they carry off the body, dress it with fire, and devour it.’

The Aghora wand and waterpot were a staff set with bones and the upper half of a skull.

Wilson says the sect had died out by the beginning of the 19th century, only a few disgusting wretches, universally feared and detested, being then met with, whose odious habits and practices rendered them objects of aversion. They are now very rarely heard of. Cases, however, do occur from time to time in different parts of India, to show that such horrid rites continue to be practised; and the report for 1856 of the Madras Faujdary Adawlat gave the details of a horrible tragedy at Trichinopoly. — Tod’s Rajasthan, i. 575; Trav. p. 84; The People of India, by J. Forbes Watson and John William Kaye, i. and ii.; Friend of India, 1808; Leyden Asiatic Researches, iv. 202; Sherrin’s Tribes, p. 270; Wilson’s Hindus.

AGHORA-GHANTA. A priest of the goddess Chandni. Aghora-panthi, one who follows the practice of the Aghora. —W

AGHZAI. P. N. Fagonia erectica. Spal-aghzi is Astragalus multiceps and also Ballota limbata.

AGIA. HIND. A small plant with a purple flower, which grows in poor exhausted lands in the N.W. Provinces, and destroys other grasses; it kills the millet Paspalum scrobiculatum, in the also the Sorghum vulgar and sugar-cane, but not the Cajanus Indicus.

AGIAH or Augiah, a grass described by Hamilton (vol. i. p. 2) as growing about the thickness of the wrist and to a height of thirty feet, in the belt of low land running along the whole northern frontier.

AGILA-GAIRU. MAL. Eagle-wood.

AGIN. HIND. A witch; a Hindu goddess.

AGILA ODORATA. Lour. Canarium Sinoense, Rumph. | San-yeh San, . . . CHIN.

This grows in Cochlin-China and China. It is a flowering shrub with tannite and pinnate leaves, and very small yellow flowers in axillary racemes with a very agreeable perfume. The leaves are eaten as a vegetable; the roots and leaves are supposed to be worth trial as tonics. There is a fine-leaved variety. Both the Agilia odorata and Murraya exotica are very sweet-scented, and much cultivated by the Chinese; they are used to scent teas. A. Michanaporesis, Carey, grows in the forest of Midnapur.—Fortune’s Tea Districts, p. 7; Riddell; Hog, 171; Smith, p. 6.

AGILA ROXBURGHIANA. W. and A.


This large tree is very common throughout the Western Ghat forests, up to 4000 feet, also in the Timneckely hills, and in parts of Mysore, etc., and Ceylon, flowering in March and April. It is very variable in shape of the leaves and fruit and amount of pubescence; the timber is strong, and useful for building.—Beddome, Pl. Sylv.

AGILA SPECTABILIS. M’Clelland.

Kayam Kayo, . . . BURI.

A large tree met with in Tenasserim and along the banks of rivers in the Pegu and Tounghoo districts. It affords a light, serviceable timber, somewhat stronger than the American pine, and capable of being wrought with little labour. Wood, red-colonred, strong, and adapted for house-building.—M’Clelland; Mason.

AGILE-MARAM. TAM. Chickgrass tabularis.

AGNI, the Hindu god of fire, the Igis of the Romans. He is variously represented in Hindu legend, and has many epithets. About a fifth of all the hymns in the Rig Veda refer to this god exclusively; and most of the ten books open with hymns addressed to him. In Vedie mythology, Agni is the personification of fire, and the agent of the south-east division of the earth. He is very variously described,—sometimes with two faces, three legs, and seven arms, of a red or flame colour, and riding on a ram, his vahan or vehicle. Before him is a swallow-tailed banner, on which is also painted a ram. He is by others represented as a corpulent man of a red complexion, with eyes, eyebrows, head, and a tail of a tawny colour, riding on a goat. From his body issue seven streams of glory, and in his right hand he holds a spear. Agni is the son of Kasyapa and Aditi, but his origin, his attributes, and epithets are very variously represented. His consort, or sakti, is Swaha, a daughter of Kasyapa. She bore three sons, Pavaka, Pavamana, and Suchi. Swaha resembles the younger Vesta, or goddess of fire, of the Romans, who had no images in their temples to represent her. Thus Ovid has said—

'No image Vesta’s semblance can express:
Fire is too subtle to admit of dress.'

Neither do we meet with an image of Swaha. Those of Agni are usually seen in pictures. Agni continues to be worshipped by the modern Hindus as the personification of fire. He was worshipped as the destroyer of forests, and as useful in the sacrifice and in the household. 'When generated from the rubbing of sticks, the radiant Agni bursts forth with the wood like a fleet courser.' 'When excited by the wind, he rushes amongst the trees like a bull, and consumes the forest as a
rajah destroys his enemies." 'Such as thou art, Agni, men preserve thee constantly kindled in their dwellings, and offer upon thee abundant food.'—*Rig Veda*, i. 73; *Coles: Myth. Hind.* pp. 115, 117; *Dowson*.

AGNI, a fire ordeal. The accused touches fire or heated metal, and if burned he is deemed guilty. See Divination.

AGNI or Agni-Mata. BENG. Plumbago Zevelica. Agni-jwala is Grisa Pumtossi; Agni-vindrapaku is Amannia vesicatoria; and Agni-sikhra is Gloriosa superba; also Catharius tintorius.

AGNIASTRA, in Hindu mythology, the fire- shaft invented by Visvakarma in the war between the gods and the Daitya or Titans. See Visvakarma.

AGNI-BRAHMANA, a brahman who officiates as priest at the burning of dead bodies.—*W*.

AGNICULA, a general term for four Rajput tribes, supposed of Parthian descent,—the Chohan, the Purihar, the Solanki, and Pramara,—who are said to have been purchased by a conversion of the gods Mount Abu. It is supposed that they were recognised by the Aryan brahmanas, in order to obtain their martial aid. Tod says they were regarded as of the Tutsa or Takshak race, who invaded India about two centuries B.C., which was about the time that Parswa, the 23d Jaina Tirthankara, appeared in India. Their aid was required to overawe the Daitya or Titans in the vicinity of Mount Abu. The Agnicoonda, or fireplace, is still shown on the summit of Abu, where the four Agnicula tribes were created by the brahmanas to fight the battles of Achil-es and polytheism against the Buddhists, represented as the serpents or Takshaks.—*Tod*, ii. p. 451; *Prinsen's Antiquities*, by Thomas, p. 247. See Khait; Rajput; Chohan.

AGNI-DAGDHA, a Hindu who has died without issue, and is burned at once, without the previous ceremony of having fire put into the mouth.—*W*.

AGNI-HOMA, or simply Homa. Oblations to fire; a Hindu rite.—*W*.

AGNIHOTRA. SANSK. Performance of a daily or occasional worship, with fire lighted from a perpetual fire preserved in the dwellings of Agnihotra brahmanas, the remnant of the worshippers of Agni, who still preserve the family fire, but in other respects conform to some mode of popular Hindu devotion. A Brahman who keeps the sacrificial fire is obliged by law to know the particular gotra of the 491 to which his own family belongs. When the fire is to be consecrated, Agni Havyavahan, the god who carries the oblations to heaven, must be invoked. This invocation or invitation of Agni is called pravara. Agni himself, or the fire, is called Arsheya, the offspring of the Rishi, because the Rishi first lighted him (it) at their sacrifices. He is the hotri as well as the adhvaru among the gods. Like the hotri and adhvaru priests, he is supposed to invite the gods to the sacrifice, and himself to carry the oblation to the seat of the immortals. When, therefore, a brahman has his own fire consecrated, he wishes to declare that he is as worthy as his ancestors to offer sacrifices, and he invites Agni to carry his oblation to the gods as he did for his ancestors. According to prescribed rule, where a perpetual flame is maintained, it is used to light the fire round which the bride and bridegroom step at the marriage ceremony, and the funeral pile of either; but the household fire is preserved only by this particular sect, the Agnihotra, and the great body of the people have nothing of the kind. They distinguish between the sources whence they obtain the kindling flame according to the purposes of its application, and the fire of the marriage rite, for instance, is taken from the hearth of a respectable person, or from a fire lighted on some auspicious occasion, whilst for the funeral pile any unpolluted fire may be used. It is only necessary to avoid taking it from another pile, or from the abode of an outcast, of a man belonging to the tribe of executioners, of a woman who has lately borne a child, or of any person who is unclean. Notwithstanding these exceptions, it is at present the common practice of the Hindus of ordinary rank in the Western Provinces to procure fire from an outcast to light the funeral pile. The Agnihotri, from agni, fire, and hotra, a sacrificial priest, is always of the brahmanical class.—W. *W. Furruckabad, The Toy Cart; Colebrooke on the Beligious Ceremonies of the Hindus; Asiatic Res. xxii. 241*.

AGNIMUNDA and Agnipuri, formed of fire; an ethereal voice heard from the sky, proceeding from a meteor or flame.

AGNI-PARIKSHA. SANSK. A fire ordeal, by the accused walking through a fire, or dipping the hand into boiling oil.—*W*.

AGNI PURANA, a Hindu sacred book in praise of Siva, supposed of comparatively recent origin.—*Dowson*.

AGNI-SANSKARA. SANSK. The sacrament of fire; the worship of fire as the completion of any essential rite; the burning of the dead body of a Hindu.—*W*.

AGNI-SAVARNI, in Hindu mythology, one of the fourteen patriarchs who preside successively over the fourteen Manwantara of the Calpa.

AGNI-SHIMA, or Agni-Shimaiya-yoga. SANSK. Oblations of milk offered at new moon, through fire, to Indra.—*W*.

AGNI-SUTRA. SANSK. In Mysore, a girdle of sacrificial gear, passed round the waist of a brahman lad when he is invested with the sacred string of his caste.—*W*.

AGNI-VESA, an early Hindu writer on medicine, said to be son of Agni.—*Dowson*.

AGNIYA, a servant of the Cuvera or Guhya.

AGOR. MAHI. A watchman or guardian of the village lands and crops. Agor-batai, a division of a crop between the cultivator and the landlord, after customs, threshing, and storing.

AGOTAG. BICOL. Musa textilis.

AGRA, in lat. 27° 10' 6" N., long. 78° 5' 46", is a large city on the right bank of the Jumna. It was the seat of government from the time of Akbar. Its name has been derived from Agur, a salt pit, owing to the prevalence of a saline soil; also from Aghari, in advance, from an answer made to sultan Secunder Lodi by the steersman of his boat, when asked which site should be built over. It gives the name to a revenue division of the N.W. Provinces of India, comprising the districts of Muttra, Agra, Furruckabad, Mynpur, Etawa, and Etah. Agra city is 842 miles by rail from Calcutta, and 650 feet above the sea. Its population in 1872 was 149,008 souls. Near Agra is the tomb known to Europeans as the Taj Mahal, built of
AGRA-BHOJANA.

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white marble and red sandstone by Shah Jahan, over his wife, Arjuman Bano Begum. She died in 1629, and this building was completed 1648. It is on the river bank. Five miles out, on the Dehli road, is the tomb of the emperor Akbar at Sikandra; also the College, the Metcalfe Testimonial. The Ram Bagh garden merits attention; and the magnificent tomb of Itimad-ud-Dowlah, the vizir of the emperor Jahanarg, and father of the famous empress Nur Jahan, who built the tomb. The fort of Agra was built by the emperor Akbar, and is one of the grandest in India. It is built of red sandstone. It is 1½ miles in circuit, and its walls 70 feet high. In front of the main entrance is the Tripoli, now used as a marketplace. Facing the gateway, and outside the enclosure of the fort, is the Jama Masjid. It is 180 feet long and 100 feet broad. It was constructed by Shah Jahan in 1644, after five years’ labour, and was built in the name of his daughter, Jahan Ara, who afterwards shared her father’s captivity when he was deposed by Aurangzeb. Within the fort are the public halls, the Diwan-i-Am, built in 1655 by Aurangzeb, and the Diwan-i-Khas; also the Machi Bhawan, on the river side of which are two thrones, one of white marble and one of black slate. Besides these, there are the Shish-Mahal, the Jahangir Mahal, and the exquisite Moti Masjid, built by Shah Jahan a.d. 1654, with its three domes of white marble, reared upon a lofty sandstone platform. The battle of Agra was fought on the 17th October 1805, General Lord Lake commanding.—Bishop Heber, i. p. 587; Elliot, Sup. Gloss.; Mundy’s Sketches in India, i. p. 53; Thurlow’s Company and the Crown; Delhi Gazette; Robert Schlagentweit; Imp. Gaz.

AGRA-BHOJANA. SANSK. Literally first served with food at a feast, implying a brahman who has read the yajur, sami, and atharva vedas.

—Hindu Theatre, iii. 184.

AGRADANA or Agriharika, in Bengal, a brahman of inferior order, who conducts funeral obsequies or sadhahas for hire, called ironically Mahapatra and Mahabrhmohana.—Wilson.

AGRAHARAM. KARN., MAHL., TAM., TEL. A village occupied by brahmans. Agrahara or Agram is from two Sanskrit words, Agra, first; hara, what receives. It is written variously. These villages are held at a favourable quit-rent or free from assessment; it may be free from all tax (sarv agraharam) or at a stipulated rent (ulmukta agraharam) or at a rent which fluctuates with the produce (kattubadi agraharam).

AGRAHAYANA, a Hindu month falling in November and December.

AGRAHI, a section of the Banya of Benares, who claim to be of the Vaisya caste.

AGRAI, a cultivating race in the Konkan.

AGRICULTURE is the only industrial enterprise which is conducted on a large scale in British India. In China it is a great and highly honoured employment, and it affords a livelihood to the large majority of their respective populations. 34,844,000 adult males, or 56.2 per cent. of the entire population of British India, are agricultural, living exclusively by the soil, or eking out the earnings of other employments by the produce of the land they till, or as agricultural labourers. There are also large numbers of women and children similarly employed, and the field labourers are 7½ millions in number. The owners of the lands of British India are mostly all of the Hindu religion, or of the various original or modified cults which the non-Aryan races profess. Brahmans and Rajputs are large proprietors, and some Mahomedans are owners, but few of these three races labour with their own hands. In the extreme south of the Peninsula, the great body of the cultivator landlords speaking the Tamil, Canarese, Malalaim, and Telugu languages, are the Valalar, Idayan, Kavadi of Coorg, Okaliga, Bair, Reddi, Balja, Kandhi, Kapa, Kannu, and Gond. In the south of India, these are broken up into many sections, who have assumed the form of castes, whom the Census report of 1872 enumerates as—Tamil, viz. Brahman, Vaisya, Valadan, Kavari; Pulley, Kukalavun; Idayan, Kanakan, Chaney, Vaney, Ochhen, Pancheavun, Ambutten, Kuvayen, Sanan, Paranyan; Vettay, Kummany, Chakili, Talukun, and Reddi. Telugu, viz. Brahman, Kapa or Kamma, Kolla, Balja, Sanay, Mangay, Mathuraju, Sakala, Kamara, Yanathi, Vetti, Mutham, Tulaka, Thuthakela, Kondla, Komala, Olla, Gandra, and Nambe.

The people speaking Canarese, almost all of the lingaet sect, are largely agricultural.

In the Bombay Presidency, and extending into Berar and Malwa, the Kundi, a Mahrtta race, is so exclusively agricultural, that their tribal name is ordinarily used to indicate a cultivator.

Farther north are the Kurmi, a numerous race, whom some ethnologists consider identical with the Kundi, also the Lodha. In Bengal are the Chasa and Kisan; farther to the north-west are the Gujar, Rajput, and Jat, the last being spread throughout the Panjab southwards to the Arabian Sea. The finer garden work is carried on everywhere by the Tota-Kara, the Mali, the Kachhi, Lodha, and others.

The labourers consist of the broken tribes, whose position, even yet, is almost a proflit slavery. The great body of labourers in the Tamil country are not Hinduized, as, for instance, the Pariah (parayan) and Chakili; in the Telugu country, the Madherva, Malla, and Madiga; in Coorg and the Canarese districts, are the Holiya and their branches, Badaga, Balage, Kembuti, Kallu, Madiga, Mara, and Marangi. Amongst the countries formerly ruled by the Peshwa are the Mhar and Mang, and Dher, and Kolt, and Bili; and farther to the north are the Southal, Dom, and Chammar, with many other non-Aryan tribes.

The soils of British India are of varied fertility, but the poorest soils can be made to produce something if only watered naturally or artificially; and the cultivation is by their rulers, by constructing weirs across rivers, excavating canals, forming tanks, and digging wells, have never ceased to plan and strive how to provide a supply of that essential element. In most districts the annual rainfall would be ample if it were but distributed throughout the agricultural season. It is a common experience for a tract of country to suffer from drought and flood in the same month. There might be drought for twenty-nine days, and a flood on the thirtieth. This necessitates the employment of storage tanks; but a large part of the country is still without them, and many have fallen into disrepair; and in the Madras Presidency, many rivers that formerly flowed for
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five months now flow for only three or four. Fully 80 per cent. of the occupied land was still, in 1869, unprotected by irrigation; and as an increasing population has to depend largely on the land for their food, its prices increase and the people suffer. The quantity that runs to waste is something enormous. For instance, one foot of rainfall on a square mile gives 1,082,532 cubic yards, or 174,239,775 gallons. But, in India, the rain falls in heavy downpours, and the proportion absorbed by the soil is comparatively small. The monsoon of 1862, for instance, was under the average in the Karnatic, yet the quantity of water that ran to waste into the sea from the Pennair (a second-class river), after a sufficient supply had been drawn off for all the cultivation as then existing under it, amounted to no less than 4,693,812,356 cubic yards, or 691,831,855,075 gallons, sufficient to have irrigated nearly 1000 square miles. This discharge was calculated from the register kept at the amicat at Nellore, and is rather under than over the mark.

In average seasons, the fields of British India yield more than the population consume. There are 1653 million of acres under food crops, and 274 under non-food crops, and the total produce is estimated at 54 million of tons, and the annual surplus of food at about 5 million tons, part of which is sent to other countries. The usual export of grain is between 1 and 1½ million of tons, rice being about 1 million, and wheat ranging between 50,000 and 325,000 tons. Besides the cereal grains, millets, pulses, vetches, and vegetables, there is other food available for the people, from land and sea, and from horned cattle, sheep and goats, milk, poultry, eggs, fish, and straw for fodder for their cattle. Former rulers, both Hindu and Mahomedan, have tried to improve the breeds of horses, horned cattle, and sheep, and introduced many exotic plants. Continuing such efforts, the British have established an Agricultural Department of the State, agricultural schools, model farms, horse and cattle fairs. Railroads and a great commercial navy are equalizing the supply, and they have secured for traders the peace essential for their success, and to carry to other parts the surplus produce of caoutchouc, cardamoms, cinchona, coffee, cotton, dyes, hemp of kinds, indigo, jute, lace, millets, oil-seeds, opium, pepper, pulses, rice, timber, and wheat. But scientific and practical men entertain the belief that the cultivators of British India could improve on their present efforts. The average out-turn of food grains is estimated in the Panjab, Mysore, and Madras, over the cultivated area, at 11 bushels per acre, which, assuming 57 lbs. to the bushel, may be taken at 627 lbs. The average produce per acre on a series of observations extending over ten years, in several districts of the Bombay Presidency, was found to be—Wheat, 9 bushels, or 558 lbs.; Jari, 10 bushels, or 650 lbs.; Bajra, 6 bushels, or 390 lbs.

In the N.W. Provinces and in Bengal, the average out-turn of food grains is estimated to be 13 bushels per acre; in the Central Provinces, 8 bushels; in Bombay, 7½ bushels; in Berar, 6 bushels. The average yield per acre of some of the usual dry crops was found to be as under:

Black rice, dependent on rain alone, 700 lbs.
Chana or Bengal gram, 450 lbs.
Gootie or Madras gram, 600 lbs.
Dhal, 500 lbs.
Cotton, unirrigated, 200 lbs.
Indigo, unirrigated, of dry indigo, 30 to 50 lbs.
Wheat, partially, 20 to 30 bushels.
Hemp, 460 lbs.

As the result of a great number of experiments in different parts of Southern India, the average yield of rice cultivation, first crop, was found to be as follows per acre:

Best white rice, fully irrigated, 2400 lbs.
Maximum, shown by the experiments, 3650 lbs.
Red rice, fully irrigated, averaged 1800 lbs.
Black rice, partially irrigated, do., 1200 lbs.
Black rice, depending on rain only, do., 700 lbs.

But in the Dehra Doon, wheat cultivation averages 1260 lbs. per acre, or say 22 bushels; and Bajra, at the Sind experimental farm, 1420 lbs. per acre, or say 25 bushels. Also, it has been known that Mr. Lawes of Rothamsted, for many years in succession, by free manuring, raised an average of 34-14 bushels of wheat, or say 1945-98 lbs.; and in Jersey the average is 37 bushels per acre, or say 2109 lbs. On these data, Mr. Cunningham says (pp. 16 and 18) that if the standard of cultivation in England could be reached, the additional food available would be 2890 millions of bushels, or enough, at 7 bushels per head, for the annual consumption of an additional population of 410 millions.

The defects in the agricultural work of British India, to which all European investigators point as the causes of scant yield, are too slight ploughing, want of manure, heavy annual cropping, and reckless watering. In British India, only special crops are manured; but the benefit of manuring lands has been shown, as under, by Messrs. Lawes and Gilbert of Rothamsted:

<table>
<thead>
<tr>
<th>Bushels per Acre</th>
<th>Weight of Bushels per lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1852-92</td>
<td>153</td>
</tr>
<tr>
<td>1893-72</td>
<td>153</td>
</tr>
<tr>
<td>1873</td>
<td>153</td>
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<td>1874</td>
<td>153</td>
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<tr>
<td>1852-92</td>
<td>153</td>
</tr>
<tr>
<td>1893-72</td>
<td>153</td>
</tr>
<tr>
<td>Unmanured land, Land receiving yearly 14 tons of farm-yard manure per acre.</td>
<td>345 lbs.</td>
</tr>
</tbody>
</table>

So that, whilst wheat on properly cultivated but unmanured land in England produced a yield on the average of 12-97 bushels or 74-29 lbs. per acre, fully manured lands yielded 34-14 bushels or about 2030 lbs. per acre. The Indian cultivator, however, well acquainted with the importance of manuring his lands, he may be less thrifty with it, and may make insufficient exertion to obtain due supplies of it, but more than all he can possibly gather could be applied to the spade husbandry of his gardens, where sugar-cane, betel-leaf, and the finer and higher-priced fruits and vegetables are grown. Many of them, also, are no doubt wasteful, even destructive with their water supply, and on these points the Indian cultivator might take a lesson from the Chinese, who are of the very highest class of gardeners and farmers, though their agricultural implements are scarcely any better than those of the Hindus. Their secret is that they are exceedingly industrious, and waste nothing. There is not an inch of a Chinaman's field left uncultivated, or a clod that has not received its due portion of manure; the sewage
of towns and villages is not wasted, or worse than wasted, as in India, but is returned to the land; whereas the surprising productiveness of Chinese agriculture. The Chinese also thoroughly understand irrigation. They do not waste their water or their land in the process, but cause drainage and irrigation to go on together. Mr. Elliot says the native farmer thoroughly understands his business as regards fertilizing the soil, and that if he does manure very little, he at least manures as much as he can; leaves are used to add to the manure heaps; nitrous earth is also used in some parts of India; fish are applied to land on the coast; town sweepings are carefully used, and so also are the refuse of oil mills and indigo vats; crops to be ploughed in green are in some instances grown; salt earth is applied to cocoa-nut trees in Malabar; in the Madura collectorate, even bata's dung is collected from old and ruined buildings; where flocks of sheep are to be met with, the owners receive regular payment for every night they are folded on a farmer's field; and in some parts of the country, where the means of enclosing them exist, cattle are also folded on the land. The cattle are, however, not stalled, and even what can be collected of their dung is dried and used for fuel. This is a loss to the Indian lands. In England, every 1000 lbs. of the dung of grass-fed cattle contains 11 lbs. of valuable manurial matter,—4 lbs. of nitrogen, 3 lbs. of phosphoric acid, and 4 lbs. of lime. In India, every morsel of dung that falls on roads and lanes and the barren plain is carefully gathered, and used as fuel. This is chiefly the consequence of the great dearth of wood over all the cultivated tracts; and the necessity of planting is now recognised by the governments of India. There is a custom, in the Nellore district, of planting a certain portion of the lands bordering on streams, or intersected with watercourses, with the Acacia arabica and A. leucopeleca. These shelter the grass in hot weather, and their pods are used as food for cattle and sheep. The wood is also valuable; and when about ten years old it is cut down for timber, after which the land is put under crop, and another section is laid down under this admirably combined system of fodder and timber growing. Manures containing organic matter increase the condensing powers of the soil. But, as a general rule, the Indian farming exhausts the organic matter in the soil, and thus renders it less able to take up moisture from the air. Their cropping of the land is very exhausting, not so much from the crops grown being those that make great demands on the soil, but because nearly the whole are removed and not consumed by the stock of the farm; and the native practice of allowing the land to lie fallow for several seasons, is a proof of their consciousness that they have been exhausting it. Also, according to existing rules, a cultivator pays rent or revenue only on the fields he cultivates. The ryot has not a fixed holding, but changes it at pleasure, and as a consequence the land is becoming exhausted, and permanent improvements are not made. The ryots of a village may not pay for more than 200 acres, and yet in the course of years may temporarily exhaust many hundred acres. If each cultivator were obliged to keep to a given area, the exhausting character of the husbandry would render the soil unfit to yield the scanty produce obtained by the ryot. The existing practice is only a modification of the Kunari form of cultivation as followed by all the hill tribes of the East Indies, which consists in burning the forest or brushwood and sowing their grains in the ashes, taking only one crop off the cleared land, and proceeding to another place in the year following.

In the south of India, soils are classed roughly as Nanja and Panja, or wet and dry. Nanja soil is fitted for the cultivation of rice, admitting of artificial irrigation, and hence commonly termed wet cultivation, in contra-distinction to Panja, or dry cultivation, which comprises all such crops as are dependent solely or chiefly upon rainfall and dews. Amongst these dry crops may be named an inferior sort of rice, yielding a scanty and precarious crop; several oil-seeds, as linseed, castor, gingly or sesamum, (Sesamum Indicum), all dry grains, as wheat, barley, sorghum, bajra (Pennisetilla spineta), maize, millet, ragi (Eleusine coracana), and the like; all vetches, dhal (Cajan Indicus), Madras hemp (Dolichos indicum); Bengal gram (Cicer arietinum); also indigo, cotton, with a few garden plants, as tobacco, chillies, turmeric, which require partial irrigation.

Undoubtedly, for the food of the community, more could be made of the land than at present, but the agricultural races have still much land available. The Panjab has 30,000 square miles of cultivable waste, Bengal 85,000 square miles out of an area of 144,000; Assam has 7500 square miles cultivated, and 18,000 of cultivable waste; Burna has a total area of 87,000 square miles, of which 5000 are cultivated and 37,000 believed to be cultivable. The lands still uncultivated in these two provinces cover an area of 55,000 square miles, five times as large as Belgium, in which a redundant population could be placed. In the Central Provinces, out of a total area of 114,000 square miles, 30,000 are cultivated and 40,000 believed to be cultivable. In Bombay, 30,000 square miles of the 88,000 square miles of cultivable land are actually under cultivation; and in Madras, which has, besides the zamindaries, a total area of 130,000 square miles, only 10,000 square miles of inferior soil remain uncultivated.

In Northern India, the harvests are ordinarily classed as rabi and kharif. The rabi crops, those sown at the fall of the year and reaped in the early spring, consist of the cotton, maize, sorghum, indigo, wheat, barley, oil-seeds, hemp, jute, vetches, peas, Bengal gram, and Madras gram, and the arhar or tür dhal (Cajanus Indicus).

However largely the means of irrigating lands may be extended, the dry cultivation must ever form the backbone of Indian agriculture; it is for this that retentive soils have so high a value. The best of these is the regur, kali matti, or cotton soil, which overlies the great outburst of volcanic rocks that spread from the Belgian district northwards to Malwa, and is to be seen in patches throughout the country. It is capable of absorbing and retaining more than one-third of its entire weight in water, and has, in a remarkable degree, the power of absorbing moisture from the air. The rabi crops being grown in the cold season of the year, and on the plateaux and table-lands, need all the heat obtainable. One conclusion
come to by Dr. Wight as the result of his cotton experiments in S. India was that, from being sown there for a later growth, it did not receive sufficient heat. And throughout the central plateau of peninsular India, the cultivators regard hedges and trees as injurious to crops, which are annually enclosed by the branches of thorny trees, and are burned after the harvest; consequently, when the crops are off the ground, the whole region has a treeless aspect.

To secure the utmost benefit from the available water supply, the beds of paddy fields are in terraces, so as to admit of the water being led from the higher to the lower beds, and in all the mountainous countries terracing is to be seen carried out to a great extent. On the N.W. of British India, Elphinestone (Caubul, p. 353) described it as followed by the Othman Khel, and at Srinuggur, he says, walls are made along the sides of the hills, and filled with soil from the lower part of the hill; the walls are from three to ten feet high, and the terraces about five yards broad. The walls are soon concealed by grass and other vegetation, and as they are never straight, but consist of the bends in the surface of the hills, the effect is pleasing and picturesque. In Beluchistan, in the Mekran province, and in the valley beyond Baghwan, terracing by some prior race has been conducted in a manner so cyclopaean as to excite the wonder of all who have seen the huge rocks which have been laid across the slopes of the mountains. The Malai Arasar, or hill kings of the Pulneys, in the extreme south of India, follow the terracing system. And in the Archipelago, the people of the Tengger mountains, described by Raffles, and the Serwati and Letti, Babs and Timor Laut islanders, scarp the hill-sides into a succession of platforms and terraces.

Over-irrigating seems to have the effect of bringing the saline particles of the soil to the surface. Mr. Schrottky has informed us that in the saline soils of Kattywar, the quantities of chloride of sodium decreased from the surface downwards. The first six inches had 3 per cent.; at one foot below there was 0.48 per cent.; and in the subsoil at 2½ feet, only 0.44 per cent. His recommendation for its removal was subsoil draining. Mr. Robertson of the Madras school also recommends improved ploughs and deep ploughing, to bring fresh soil to the surface. The agricultural implements of India are constructed with the same objects in view as those of Europe, and those employed in the Dharwar collectorate may be noticed for the whole. The large plough is used on ground being brought into cultivation for the first time. It is broken up with this lengthways and crossways. If the land is heavy, eight, even sixteen, bullocks are used; if light, four are sufficient. It is used in cotton and also in grain cultivation. A smaller plough is used in black soil at intervals from six to ten years, and worked with two or four bullocks, according to the depth of ploughing and stiffness of the soil. In cotton and also in grain cultivation, and in red soils, it is used every year. The kul is used with two bullocks after ploughing, for further breaking up the soil, and also used without previous ploughing in the years when the black cotton soil is not ploughed. After the seed—whether cotton or grain—is sown with the drill, the iron and wooden supports are removed from this instru-

AGRIOPHYLLUM GOBICUM.

AGRI-HORTICULTURAL SOCIETY of Calcutta was established in 1820 by Dr. Carey; that of Bombay in 1830, and reorganized in 1853; that of Madras in 1835; that of Lahore in 1851.

AGRIOPHYLLUM GOBICUM, an annual salsoaceous plant of E. Asia, the 'soulk' of the
AGROHA.

Mongols, largely eaten by the Ala Shan nomades.

—Von Mueller.

AGROHA, a small town on the borders of Hariana, the original seat of the Agar tribe. It was taken by Shahab-ud-Din Gori, 1194, on which the Agarwal dispersed all over India. See Agawal.

AGROSTIS, a genus of grasses of the natural order Graminaceae of Lindley; several species are met with in pastures and barren land. See Cynodon dactylon.

AGULLAS BANK, begins at lat. 32°3 S. and long. 29 E., and extends its breadth to the S.W. all it exceeds 125 miles.

AGUMUKI. Beng. Bryonia scabrella.

AGUNDU-PAKU. Tel. Ammannia vesicaria.

AGWAR. HIND. The first portion taken from the heat of corn, the purgative in kind of the laughman.—W.

AGYA-GHAS. HIND. Andropogon schoenanthus.

AGNEIA COCCinea.

Ha! h'men, . . Burn. | I'soke gyeec, . . Burn.

The roots of this curious flowering plant are used medicinally by the Karen. Wight figures A. becciformis, and Voigt names A. puber of the Moluccas.—Mason.

AHAR. Arab. Quicklime.

AHALU, of Kaghan, Visnum album, L.

AHALYA, in Hindu mythology, was the first woman made by Brahma. She became the wife of the rigid Gautama, and was seduced by Indra assuming her husband's form; but she was purified and restored to her husband. Ahalya and Indra are allegorical for the sun and night.—Jarrett.

AHALYA BAI, a Maharatta princess of the folkar family, who ruled in the middle of the 18th century. She was born a.d. 1735; she was not a beauty, but in conversation her countenance lit up, and she had a slender frame. She had a quick and clear understanding, strong natural sense, a witty mind, and noble virtues. She was married to Kundee Rao, the only son of Mulhar Rao folkar; but before she was twenty years of age he was left a widow, with one son, Malli Rao, who became insane and died, and a daughter, tuteha Bai. From her widowhood she adopted his white garments of Hindu widows, and ceased to use jewels. On the demise of her son she claimed to rule. Opposition was at first given, but by a.d. 1765, while not more than thirty years old, she succeeded to the administration of the folkar government. She appointed Tukaji folkar to the command of her armies, and his family succeeded to the sovereignty. She was sufficient; she built the Visawara temple at junars, and the present Indore. She heard complaints in person; and after a peaceful reign, from 1765, at the age of sixty. See folkar; Maharatta Governments.

AHAN-RUBA. Pers. Loadstone.

AHAR. HIND. An embankment, a small sand: also a salt pit.

AHARWARAH or Aharat, a territory on the north-east frontier of Malwa, which contains many districts. It is to the west of the Rambanga, and extends into a portion of Rohilkhand and Murdabad. The Ahar tribe are spread through Rohilkhand and other districts in the N.W. Provinces, following pastoral pursuits. They claim to be descended from the Yadu race or Yadu Mancus, and the Ahir make the same claim; but Mr. Sherring says the Ahir assert that they are the descendants of Krishna himself, and that the Ahar are only the children of Krishna's cowherds.—Sherring's Tribes, p. 337; Malcolm, Cent. Ind. i. p. 325.

AHDI. ARABO-HIND. In the armies of the emperor Akbar, a cavalry soldier who served with his own horse and accoutrements; the Sillahdar of the present day.

AHETA or Negrito, a small Negroid race, the second name, meaning little Negro, being given to them by the Spaniards; but that of Ita or Ahet, written Ajeta, is their usual appellation among the planters and villagers of the plains. The woolly-haired tribes are more numerous in the Philippines than in any other group of the Indian Archipelago; they were estimated by M. Mallat, in 1842, to amount to 25,000. The islands Samar, Leyte, and Zebu have not any of them; but they are found in Negros, Mindanao, Mindoro, and Luzon. In the early accounts of them by the Spaniards, they are described as being smaller, more slightly built, and less dark in colour, than the Negroes of Africa, and as having features less marked by the Negro characteristics, but as having woolly instead of lank hair; and their social condition could not then have been much better than now, since they are described as living on roots and the produce of the chase, and as sleeping in the branches of the trees, or among the ashes of the fires at which they had cooked their food. They are all well formed and sprightly, but rarely exceed four feet and a half in height. It is impossible to surmount their tendency to idleness. They prefer a savage life to all the charms of civilisation. They take no pains in clearing their hair, and do not know how to arrange it; it forms a sort of crown round the head, which gives them an exceedingly fantastic aspect, and when seen from a distance, makes the head appear as if surrounded with a sort of aureole.—Earl’s Papuans, pp. 121 to 131. See Alfoeren; Papuan.

AHI. SANSK. A serpent; also a name of Vritra, or the rain cloud; also a mythical chief of the races warring against the ancient Aryans.

AHI-CHHATRA or Ahir-Kshetra, a town mentioned in the Mahabharata as the capital of N. Panchala. It is the Adi Sadra of Ptolemy; and it has been identified with Adikut, or Ahir-Chhatra, near Ramnagar in Rohilkhand. Its fort was restored, about the middle of the 17th century, by Ali Muhammad Khan. Its history reaches back to B.C. 1430, at which time it was the capital of Northern Panchala. The name is written Ahir-Kshetra, as well as Ahir-Chhatra; but the local legend of Adi Raja and the Naga which formed a covey over its thread, or among the ashes of the fires at which they had cooked their food, makes the head appear as if surrounded with a sort of aureole.—Cunningham, Ancient Geog. of India, p. 359.

AHILLA. SINGH. Cathartocarpus fistula.

AHINSA, in Buddhism, the non-injury of animal life.

AHIIR. In Central and Northern India, and in the N.W. part of the Peninsula, Ahir is a general term for a pastoral race, who are known in Bengal as the Ahbir, a contraction from the Sanskrit Abhir, a cowherd race noticed by Ptolemy as occupying above Patalene. They
are most numerous in the N.W. Provinces, spread through the Central Doab, in the Upper Doab, on the west of the Jumna, and in the Lower Doab and province of Benares. They are distinguished as three tribes who acknowledge no other connection than the name of Ahir. These are the Nandbans, Judda or Yadubansa, Goila or Gonlabansa. The first are more numerous in the Central Doab; the second in the Upper Doab, and on the west of the Jumna; and the last in the Lower Doab and the province of Benares. The two first are numerously subdivided, bearing distinctive appellations, taken usually from the place where they reside. Some of the Jadubans have been converted to Mahomedanism, and are known as Rangar, in common with some other tribes. Tribes of Ahir are numerous also in Rajasthan and the Punjab. In the Delhi territory, the Ahir eat, drink, and smoke with Jats and Gujars, and in some cases with Rajputs. The several subdivisions intermingle, avoiding only the courts and temples, and where they are much intermixed, as in the Dehli Doab, with Gujars and Jats, they conform to their usage of the marriage of the widow of an elder brother by the next in seniority. They have two forms of marriage, the bhanwar, or first class, and the darcjha, or second class. Ahir hold lands along the borders of the rivers Jumna, Ganges, and the Hindun, where the uncultivated grass lands afford them means of grazing their herds. In Oudh they are now generally agriculturists, as well as engaged in rearing cattle; but they have no rights in the soil. In 1871 they numbered in Oudh 1,170,000 souls. In the N.W. Provinces they were two and a half millions. Immense numbers of the Ahir seek the high grazing grounds of Central India and Western Bengal, where they form encampments in houses made of large bamboo mats, residing, with their wives, families, and herds, until the grass in the neighbourhood is exhausted, subsisting entirely on the proceeds from their cows and buffaloes of their milk and butter and ghi. Their mat houses can be taken to pieces and removed like tents. They are a sober, quiet, and contented people. They have not any chiefs or head men. They have not, since many centuries, been of any political importance. But in the Ramayana and Mahabharata the Abhir of the west of India are mentioned; the geography of the Puranas describes the western parts of India, from the Tapti to Devagahir, as called Abhira; and in the 8th century, when the Kathi arrived in Gujerat, they found the greater part of the country possessed by the Ahir. At the present day, in Northern India, they do not keep sheep, and in this they are imitated by the small bodies of the cowherd race in the Dekhan. The Palli herdsmen dynasty, who reigned in Bengal from the 9th up to the latter part of the 11th century, are supposed by Sir Henry Elliot to have been Ahir, and they seem to have spread in ancient times into all the lands where their herds could find pasture. Gwalior in Central India, Gawilghur in Berar, and Golconda in the Dekhan, are supposed to have been their halting sites. But the countries in the south of the Peninsula were long held by the shepherd Kurumbar (Kurn in Canareese, a sheep); and Asa Ahir, whose stronghold Asirghar was taken, is said to have had 5000 buffaloes, 5000 cows, and 20,000 sheep. There are several Kur Kut in the south and Yenni-Guda, the hill of the buffaloes, and Yennai-Guda, the hill of butter, indicate pastoral stations. Asir-guir is said to have been so called from that Asa-Ahir. Ahir Kolii of Kandesh reside along the banks of the Gima and Tapti rivers, and are employed as watchmen.—Wilson; Sir W. Elliot in the Jo. Eth. Soc.; Sir H. Elliot.

AHIRI, a forest in the chieftship of the same name, in the southern portion of the Chund district, on the left bank of the Pranhita river. It has much teak trees. The inhabitants are almost wholly Gonds, and the languages spoken are Gondi and Telugu.

AHKAM. ARAB. Orders: plural of hukum.

AHL. Pers. People. Ahl-i-kar, servants Ahl-i-kitab, the people of the book; a term applied by Mahomedans to Jews, Christians, and Mahomedans.

AHLADA MARA. CAN. Ficus Indica.

AHLI-NE-NGAI. BHUT. A tree of Moul, mentioned for ordinary house-building purposes.

Its leaves are eaten as greens.—Col. Cat. Ez.65.

AHMAD, son of Yaliya, styled Al Biladur, author of Fattah-ul-Baldan. See Biladur.

AHMADABAD, a town in India, in long. 73° 38' 30" E., and lat. 23° 1' 45" N., built on the left bank of the Sabarmatty river. It was the capital of Gujerat during the Mahomedan occupancy, in 1413-1442. When Ahmad, grandson of Jaka, styled Wajch-ul-Mulk, resolved to found Ahmadabad, he chose a site occupied by a community of the Bhil race, whose predatory habits were the terror of the neighbourhood. He resolved to create his new capital by means of the city of Chandraoti, the materials of which he used, and compelled all its people to follow the spoils of their temples and dwellings to the uninteresting unhealthy, low flat on the banks of the Sabarmatty. It has been held by the Mahomedans of Dehli, by the Gaekwar, and by the Maharratas. General Goddard took it by storm 10th Feb. 1780, but did not retain it. In 1818, on the overthrow of the Peshwa's power, it reverted to the British. Population in 1872, 153,492. The district has 89,489 souls, Srawak or Jains, Hindus, Mahomedans, with a few Parsees, Christians, and Jews. The agriculturalists are Kunbi, Rajputs, and Koli. Many of the Kunbi are skilled weavers. The Kunbi clan are the Lewa, Kadwa or Kadava, and Anjana. The Kadwa Kunbi, when a suitable husband cannot be found, marry the girl to a bunch of flowers, which is afterwards thrown into a well. The girl is then a widow, and can now be married by the natra, or second and cheap form of marriage. Or they marry the girl to a man already wedded, obtaining previously his promise to divorce her as soon as the ceremony is over; and the girl is afterwards given in natra to any one who may wish to wed her. Some of the Rajput are grasya, others cultivators. The Srawak Jain merchants are more wealthy than the Meho Hindu merchants.

The races on the border tract between Gujerat and the Kathiawar district are the Chandasana, descended from the Hindu dynasty of Junagar; the Waghele, a remnant of the Solani race, who escaped from Ahinhiwar when driven by Ala-na-Din, 1297. The Waghele were first known as Makwara; the Gohil, immigrants from Marwar. The Thakara are the descendants of...
AHMAD BIN HANBAL.

Solanki and Mukwann families who intermarried with the Koli of Mahi Kanta. The Mol-salam re Pramara Rajputs, converts to Mahomedanism. These and other city residents are designated Kashi.

Ahmadabad is famed for its cloths of gold and silver, silks, cotton fabrics, manufactures of gold, silver, steel, enamel, mother-of-pearl, aqua-gem, and fine woodwork, gold and silver thread, pottery, and paper, many of the industries being under the contract of guilds. Its architectural structures are mosques, tombs, man- singlems, and wells. Ahmad Shah and his queen were buried there.—Told's Travels, p. 131; Imp. Trav. AHMAD bin HANBAL, the fourth and last of the learned doctors of the Mahomedan faith, born A.D. 780. See Imam.

AHMANDAGGUR, a city and fortress in the province of Aurungabad, is the principal artilleri- faction of the Bombay army. It is on the left bank of the Scena river. Its fortress, in the centre of a great plain, consists of a curtain with bastions and ditches, and the Pettah also is surrounded by curtain and bastions. The population in 1828 was 21,208; in 1833, 23,774; and in 1872, 2,841. It is in lat. 19° 5' N., and long. 74° 55' E.

It was the capital of the territories of the Nizam Mahb Bhai religion; and their many extensive areses, the Farrabagh and Roshk-i-Irm, etc., are now in ruins. A pretty little mosque, the Mami Masjid, is to the south of the fort. The mosques and its officers formed several valuable arces. The city is 1760 feet above the sea in the Scena theri or valley, and the rock is green- stone and greenstone amygdaloid. Ahmadnagar fell to the Moghul Empire in 1559, at the close of the reign of Akbar. It subsequently fell to the Mahrattas, but underwent great vicissitudes till ceded to the British in 1803. Aurangzeb Alamgir I. long reigned, died, and was tem- porarily interred here. The Pettah was taken by General Sir Arthur Wellington on the 8th August 1803, and on the 12th the fortress sur- rendered. The people of the district are Mahrattas of the Kumbi, Mali, and Ahom sections, with the Mar, Mianag, Dher, Chamar, and Ramnaj pugatory tribes of Kehlai, Kaikara, and Wadara. The hill tribes are Bhil, Koli, Thakur, and Wari. The Mahomedans are poor. The village municipal servants are the patel, kulkurni, josi or bhat, thumbar, nahi, sutar, lohar, chamar, parit, shangi, rakhwaldar, mulla, and guaro. The Bora mahomedans and the Marwari of the Jain sect are the chief merchants.—Pers. Obs.; Imp. Gaz. AHMAD SAID RAFFAI, founder of the Saffa fakirs, known as the Howling Darvesh. See Darvesh; Fakir.

AHMAD SHAH was the son of Zaman Khan, his hereditary chief of the Abdali. He was descended of the Saddozai clan, which was looked upon with a sort of religious veneration by his tribe. The person of a Saddozai was inviolable; and no officer, of whatever rank, could put an Abdali to death without the authority of a saddozai. Ahmad was a prisoner with the Ghilzai when Kandahar was taken by Nadir Shah, 738 A.D. That conqueror received him with a word, assigned him an honourable maintenance, and sent him to reside in Mazandaran. Abdal_Jarir mentions in his memoirs (p. 176) that Nadir Shah always kept a watchful eye over him, but that the officers of all ranks treated him in private with great respect. He was with the army of Nadir Shah at the time of that king's assassination, June 1747, and on the morning following that event, unaware of its occurrence, and in the hope of rescuing the king, Ahmad led 4000 Afghans and Uzbaks against the Persians. Fere Bazin, a Jesuit, witnessed the unequal con- test 'au milieu des balles et des sabres,' and describes the valour and the good order with which they retreated to their native country. Ahmad was then twenty-three years of age, and he hastened to confirm himself in the command of his own tribe, and extend his influence over the neighboring tribes and countries. In October (1747) he was crowned king at Kandahar; a Mulvi poured a measure of wheat over his head, and he changed the name of his tribe from Abdali to Daurani, by which it has since been known. He modelled his court on that of Nadir Shah, but exercised his authority with moderation. He was absolute in the plains and cities, as well as in Balkh, Sind, Kashmir, and other conquered provinces. He left the Afghan tribes to their internal government, retaining only sufficient authority to secure the supply of their contingents of troops or money, and to preserve tranquillity. Beluchistan, Seistan, and some other places remained under their native chiefs, and were bound to render allegiance and military service. He took possess- ion of most of Khorasan, and he protected Shah Rukh, the son of Nadir Shah, in Meshhed, while his own immediate dependencies were confined to the east of that city. After ascending the throne, he began, in 1748, his march towards India, and soon brought all the country up to the Indus under his authority. He took possession of Lahore and other towns in his route, and advanced to the banks of the Satlej. He found the forts occupied by the Moghul army, under Prince Ahmad, the heir-apparent, and the Vizir Kam- nal-Din Khan, who had been sent from Delhi to oppose the invasion. Ahmad Shah's army did not exceed 12,000 or 15,000 men, mostly cavalry. He crossed the river at a place where there was no ford, left the Indians in his rear, and took Sirhind, where the baggage and stores of the Indian army had been deposited. The Moghul army entrenched their camp, and for ten days repulsed all the attacks of the Daurani. On the tenth day, after a general and desperate attack on the entrenchments, during which a party of the Daurani made its way into the midst of the Indian camp, the assailants were totally repulsed (March, A.D. 1748—26 Rabi-ul-Awal, 1161), and compelled to retreat homewards during the ensuing night. Before it reached the Indus, Prince Ahmad, hearing of the illness of his father, the emperor Muhammad Shah, quitted the Panjab, to which he nominated a vicerey. On this Ahmad Shah turned back, and did not quit the Panjab until its vicerey had engaged to pay a permanent tribute. The emperor Muhammad Shah expired in April 1748 (A.H. 26 Rabi-us-Sani, 1161), within a month of the battle of Sirhind, and his son Prince Ahmad succeeded him. From the Panjab, Ahmad Shah sent an ambassador to demand the formal cession of that province,—a demand with which the recollection of Nadir Shah's invasion induced the Delhi government at once to comply. After
A succession of assassinations, Ghazi-ud-Din, grandson of Asaf Jah, deposed the emperor, A.D. July 1754, and put out his eyes, as also those of his mother, and raised a prince of the blood to the throne, under the title of Alamgir II. Ghazi-ud-Din took the office of vizir on himself. He marched towards Lahore A.D. 1756. He had been allied to the daughter of the viceroy, Mir Manu, and advanced as if to celebrate the marriage; and when he had completely lulled all suspicion, he surprised the town, and took the widow of Mir Manu a prisoner in her bed. Her late husband had been retained by Ahmad Shah as viceroy, and his widow was governing the province for her infant son, and when being conveyed to Ghazi-ud-Din's camp, she prophesied the vengeance of Ahmad and the ruin of India. Ahmad Shah no sooner heard of the outrage, than he marched from Kandahar, and advanced through the Panjab, and arrived within twenty miles of Delhi, on which Ghazi-ud-Din repaired to the Daurni camp and was pardoned, but Ahmad Shah marched on Delhi to inspire among the peasants. Nearly all the horrors of Nadir Shah's invasion were now repeated, for though not personally cruel, Ahmad Shah had much less control over his troops, and the city again became a scene of rapine, violence, and murder. He sent a detachment with Ghazi-ud-Din to levy a contribution from Shuja-ud-Dowlah, and himself marched with a similar intention against the Jats. He took Balamghar fortress, and put the garrison to the sword. Muttra, a holy city of the Hindus, was surprised by a light detachment during a religious festival, and the unoffending votaries were ruthlessly slain. He laid siege to Agra and to one of the Jat forts, but sickness broke out in his army, and about June 1757 he set out for his own country. Before leaving, he married a princess of the house of Dehli, and contracted another to his son, afterwards Timur Shah, and appointed Najib-ud-Dowlah, a Rohilla chief, to the command of Dehli, but Ghazi-ud-Din immediately displaced him in favour of Ahmad Khan Bangash. Subsequently the Mahrattas, under Ragoba, brother of the peshwa Baji, took Delhi, and in May 1756 Ragoba marched a little part of the army of Labore, and occupied all the Panjab, the Daurni forces retiring across the Indus without attempting to oppose the Mahrattas. Ahmad Shah was at this time occupied in the north-west part of his dominions, and when about to move on India, he was detained by the revolt of Nasir Khan, the Beluch ruler. On settling that matter, he marched by the southern road of Shikarpur to the Indus, and up that river to Peshawar; he crossed it in the month of September 1756, and advanced into the Panjab. It was his fourth invasion of India. The Mahrattas offered no opposition, and, keeping near the hills, he crossed the Jumna opposite Saharanpur. The Mahrattas had 30,000 men in the field, but, being in two separate bodies, Ahmad Shah came suddenly on the force under Datta Sindhia, and that chief and two-thirds of the force were cut to pieces. The other division, under Mahlar Rao Holkar, fled towards the country south of the Chambal, but was overtaken and almost destroyed by a Daurni detachment, which made a prodigious march for the purpose.

Sada Siva Rao Bhuo (Sadashi Rao), who had replaced Ragoba, marched to meet Ahmad. His army was composed of Mahrattas and Rajput cavalry, the whole numbering about 270,000. Suraj Mull advised Sada Siva Rao Bhuo to harass Ahmad. This advice was not followed, and the Jat and Rajput armies consequently withdrew. The Bhuo occupied Dehli, and came in contact at Paniput with Ahmad's army of 38,000 foot, 49,000 cavalry, besides the Rohilla and Oudh auxiliaries. Several indecisive encounters ensued, but on the 7th January 1761 an obstinate battle was fought. The result continued doubtful until the Bhuo fled from the field, leaving his troops in disorder, and Ahmad's victory was complete, and about 200,000 of the Mahratta army fell. Wiswas Rao, the son of the Peshwa, was slain, and after the battle, Jungkhi Sindhia and Ibrahim Khan Gadi were put to death. This completely broke the Mahratta imperial power, and was the destruction of the Mahratta empire. The confederacy of the Mahrattas, which dissolved on the cessation of their common danger: Ahmad Shah returned to his summer headquarters near to the Indus by his victory, and never afterwards took any share in the affairs of India. In November 1762, however, he again appeared on the Indus, irritated against the Sikhs for the trouble they had given him, not less than from bigoted zeal against all non-religionists. He signalized his march through Amritsar by the demolition of the Sikh temple of Harmandur and of the sacred tank. The first was blown up with gunpowder, and the reservoir, besides being defaced and filled up as far as materials and time permitted, was polluted with the blood and entrails of cows and bullocks,—a sacrilege even greater in the eyes of the schematic disciple of Guru Govind than of the orthodox brahmanical Hindu. Pyramids were erected of the heads of slaughtered Sikhs; and Forster (Travels, i. p. 279) relates that Ahmad Shah caused the walls of those mosques which had been polluted by the Sikhs to be washed with their blood, to remove the contamination and expiate the insult. He died in 1773. At his death (Forrier, Hist. of the Afghans, p. 90) his frontier on the north was the Oxus, and the mountains of Kafiristan; on the south the sea of Oman; to the east the mountains of Tibet, the Sutlej and the Indus; and to the west Persia, Khorasan, and Kerman. From that time until 1820, his sons and grandsons continued in strife for the dominion, till set aside by the Mahmudzai branch of the Barakzai tribe, whose striving has been no less continuous all through the 19th century. —Elphinstone's India; Ferrier's Hist. Afghans; M'Gregor's Central Asia; Malcolm's Persia; Cunningham's Hist. of the Panjab; Cossins'A. Rao's Narrative in As. Res. iii. p. 97; Grant-Duffy's Hist. of Marrathas; Sac'ti Mutakakhira; Burns' Cabool; Burns' Travels; Fraser's Life of Nadir; Nadir Namah; Jones Histoire de Nadir Shah; Orme's History; Balfour's Memoirs of Huzain; Père Bazin in Lettres Edifiantes; Elliot's Life of Hojzi Rahmat.

AHOM. —AHOM, a branch of the Tai family, who gave
AILANTUS.

The name to the people and province of Assam. The Ahom at a very early period conquered all the tribes in the valley of Assam, founded a kingdom there, and became prolesytes to Hinduism. They intermarried with the people of the country, and their features have greatly improved.

AILIMAN, also known as Ahrimanes and Agromanius. The ancient Persians held, and modern Parsees hold, a dualistic belief in Ormuzd (Ahura Mazda), the good, and Ahriman, the evil, principle from whom all evils spring. See Aryan; India; Parsees.

AIL-SSEE-HA. BURM. A tree of Moulein, good wood, used for making musical instruments. — *Col. Cot. Ez.,* 1862.

AISHAM. ARAB. Pl. of Hashem, servants of humble position in the employ of Mahomedan lords of India.

AIHU. PERS. Cervulus Wallachii, Cuv.

AIHVA-MARDA. See Ahriman; Ormuzd.

AIHVIL. TAM. Atmospheric air. Ahvi Ramam, 'steam-wood,' so called from its emitting steam when the root is cut, is a Malabar tree, growing about 10 inches in diameter and 15 feet long; it is much used for inferior purposes in the names of native vessels, in repairs, etc. — *Edge, Calabar and Canara.*

AI or AYI. MAHR. Mother; the great priest; the earth goddess, largely worshipped by races on the inland fringes of the Mahazati countries, in very lonely situations.

AI, an island of the Moluccas, about 10 miles to the westward of Bandu Lather. It is about 2 miles in circumference, and moderately elevated, its entire surface consisting of nutmeg plantations, is spice being its sole exportable product. — *Jour. Ind. Arch.*

AIDUMA, a small island on the S.W. coast of New Guinea, near the entrance of Triton's Bay, Warungari, in lat. 3° 53' S., long. 134° 15' E. The chief exportable products are wild nutmegs, several kinds of odoriferous bark, ebony, and tun-wuka, which, with tortoise-shell and small quantities of trepang, form the return cargoes of the Ceram, and sometimes Macassar, prahus that sit the port annually for purposes of trade. — *Nur. Ind. Arch.*

A-IGALU or Ayigalu. KARN. The casket in which the portable lings is carried round their seak by the sect of Lingas.

AIGAREET MYIT. MALAY. A root which said to deprive spiritual liquor of its all its strength; and a decoction given to an intoxicated person is said to render him immediately sober. — *J. Ez.,* 1862.

AIGRITTE, or Kalghi, forms part of the order of rank amongst Hindu and Mahometan chiefs, and of such of their nobles to whom a right to wear it in their turbans has been accorded. The ceremony of seating on the throne, masnad, or ghadi, consists in placing the tice thereon, and placing the tika or munion of veneration on the forehead of the prince; and ing on the jewels, consisting of the aigrette, chace, etc.

AHIAN or Elam. PANJ. Andromeda ovalia, a plant of the Panjab; goats and sheep die on eating its leaves.

AIL. BENG. A ridge of earth thrown up at the edge of rice-fields, serving as a bank to hold in the water of irrigation, and dividing the plots of cultivated ground the one from the other.

AILAK. TURK. Summer quarters of the pastoral nomades.

AILANTUS EXCELSUS. WILDE.

Maruk, MAHR. Peru maram, TAM. Peru mara, MALEAL. Poda mam, TEL. Arula, SANSK. Payapa, ...

This tree resembles the ash in its general appearance, but attains a larger size; it flowers in January and February. It is common about old buildings, and in broken ground of the Dekhan and of Gujerat, about Barooch and Baroda; it is common in the Northern Circars and in the Godavery forests, and is met with in Coimbatore. Dr. Wight says its wood had been described as hard, close-grained, and heavy, and fit for gunstocks; but Dr. Cleghorn, in the Madras Exhibition Jury Reports, describes the wood as light and white, and he and Graham say it is used for making sword handles, etc., also employed to make sheaths for spears and cutamara, and is not durable. The bark is used in medicine by the natives as a bitter tonic and astringent, the juice of the leaf as a remedy against indigestion and diarrhoea. — *Dr. J. C. Wight, Cleghorn, Riddell, Gibson; Useful Plants; Mr. Elliot; Mr. Jaffrey; M. E. Jurges' Reports; Captain Deedone.*

AILANTUS GLANDULOSUS. DESF.

Chun-Chu, Chun-Chun, Chun-Chu, CHIN.

A hardy deciduous ornamental tree of Japan, China, and the Moluccas; the food of the silk-producing insect, Bombyx disciella. It has been introduced into South Europe and Algeria, France and England. It grows 60 feet high; wood valuable, and tree a useful sand-binding plant. — *J. E. Ed. Journ. vii. p. 194; Von Mueller; Smith.*

AILANTUS MALABARICUS. D. C.

Doop, Baga Doop, S. CAN. Peru mara, TAM., TEL. Mudda Doop, S. CAN. Beelam. Walbelin gas, SINGH. Mutti pal, TAM. Kumbu, T.

A very lofty tree, common up to 3000 feet in Ceylon, and in the dense moist forests of the Western Ghats of the Peninsula of India, from South Canara to Cape Comoris, also in the Animalay hills. The bark has a pleasant and slightly bitter taste, and is given in cases of dyspepsia, and is considered a tonic and febrifuge. It yields a fragrant resinous juice known as Mutti pal. This, reduced to powder mixed with milk and strained, is given in small doses in dysentery, and reputed to be an excellent remedy, owing chiefly to the balsamic properties of the resin. The fruit, triturated with mango and mixed with rice, is reckoned useful in cases of ophthalmia. The bark is rough and very thick, studded with bright garnet-looking grains apparently of a resinous nature. This resin, as commonly met with, is of a dark brown or grey colour, plastic, opaque, and with an agreeable odour. It contains 77 per cent. of resin, the rest impurity. Alcohol readily dissolves the resin, and evaporation leaves it as a very viscous, transparent, light-brown semi-liquid, which does not solidify by many days' exposure to a steam heat. When burnt it gives out a fragrance, and hence it is sometimes used for incense. Its perfume is, however, inferior to that produced by many other resins employed in the conception
of the incense employed in Christian and heathen worship. The peculiar consistancy of the resin would enable it to substitute Venice turpentine for many purposes.—_Ainslie, Wight, etc._; _Useful Plants_; _Gibson; Ferguson; Beddome, Fl. Syl._; _Mr. Broughton._

**AILIRA BENGALENSIS.**

Gray. Bounce patti, _Uria._ Puttuli, _Uria._ An edible fresh-water fish of _Orissa._

**AILURUS FULGENS.** _F. Cuv._

A. ochraceus, _Hodg._ Wah; Wah donka, _Bhor._ Sukham, _Sunam._ L.R. Red cat bear, _Eng._ Nagalya pony, _Nepal._

This richly-coloured animal, one of the Ursidae family, is a native of Nepal and Sikhim, dwelling among the rocks, and living on fruits, roots, bamboo sprouts, acorns; also on insects and larva. It is inches high.

**AIMAH.** _Arab._ Land granted by the Moghul governments, either rent free or at a reduced rent, to learned or devout men, or for some religious object.

AIMAK, a Mongolian, Manchu, and Turk word, meaning a tribe, but usually applied to four tribes called the Char Aimak, who dwell to the north of Herat and Kabal, in the range of the undulating country, in which some places assumes a mountainous, in others a hilly, character; and in some parts is well watered, in others bleak and rough, forming a watershed of two natural divisions, from the western of which flow the Murghab, the Tajenj, and the Farrah-Rud, and from the eastern, the Helmand, the south-eastern feeders of the Oxus and the north-western feeders of the Khabul river. They are brave and relentless; and Afghan, when travelling from Balkh, Kabul, Kandahar, or Herat, never enter into the mountain districts of these intrepid nomadic tribes. One Aimak tribe is known as the Firoz Kohi, after the city of that name, about 65 miles from Teharan. Timur, exasperated at the depredations which they committed, transported the whole of them into the mountains lying between Persia and India. Elphinstone names four Aimak tribes, Hazara, Taimuni, Taimuri, and Zuri, and estimates their number at 400,000 to 450,000 souls. General Ferrier says the Hazara Zaidnat had 28,000 tents, the Firoz Kohi 9000 tents, which at 4½ for a tent would give 160,000 souls. Vamberg names four, Jamshidi, Taimuri, Firoz Kohi, and Taimuni, and says the Jamshidi have 9000 tents, or 40,000 souls, and that the whole are of Iranian origin, and speak Persian. Ferrier says the three branches, under great emergency, could collect 60,000 fighting men; but Lecce says the Taimuni could collect 20,000 against a foreign enemy. Lieut.-Colonel M'Gregor, reviewing the statements, allows them to be able to show 12,000 fighting men, and estimates 250,000 souls as the Aimak population, viz. Zaidnat 120,000, Firoz Kohi and Jamshidi each 40,000, and Taimuni 50,000. The Taimuni dwell at Gorian and Kohsun, on the western boundary of Herat, and in the villages and towns situated east of Islam, from Turkill Shaham as far as Khaf. About 1000 of these families dwell near Herat. The Taimuni dwell in the Jolgha-i-Ierat, from Kerrukh to Sabzwar, the few who have extended to Farrah being styled by the Afghans, Parsivan. The Taimuni are of a wild, warlike nature, though agricultural. The Firoz Kohi near Kale No, and the Jamshidi have the shores of the Murghab. He says that in the reverence for fire, their respect to the east, which their tent doors look, they retain many of the fire-worshipping views; eat horse-fles and mix the flour of a nut called khundz (chestnut?) with that of their wheat. Sir John Malcolm informed Elphinstone that there was a large tribe called Aimak in Syria, which he established itself in Luristan, and produced the dynasty of Atabeks, so celebrated in Persian history.—_M'Gregor's Central Asia_, part iii._Ferrier's Journ._, p. 225; _Elphinstone's Caub._, p. 181; _Latham's Descriptive Ethnology_; _Ferrier's Hist. of Afghans_, p. 3; _Vamberg's Sketches Central Asia._ See Afghanistan.

AIN, also Arjun. _Man._ Pentaperta arjun, _P. tomentosus_, and _P. glabra._

_AIN._ _Arab._ A rule; ordinary revenue. _Alul-Mal, land revenue._

**AINAH.** _Hind._ The eye; a mirror. Aina- _zaz, a looking-glass maker. Ainaak, spectacles._

_AIN CHUR._ _Hind._ Dried slices of unripe mangoes.

**AINDRA-JALIKA.** _Hind._ Conjuring is called, from _Indra_., 'the Hindu deity,' and _Jal_., a net, a deceit. Aindri, the _Sacti_ _Indra._—_Hind Tow._, ii. p. 306.

**AING.** _Burm._ Dipterocarpus alatus.

_AIN-i-AKBARI_, a compendium of _Indi jurisprudence_, prepared by the emperor _Akbar_., famous minister, Abul Faiz, aided by pandits. It was the first genuine communication of Hindu jurisprudence to persons of other religions. It gives the detailed account of the Mogul Emperors at the end of the 16th century, and was translated into English by F. Gladwin, London, 1800.

**AINI MARA.** _Maleal._ Artoecarpus hirunt._

_AINKUDI KUMMALAB_, the five artistic castes of Malabar. See _Kummalak._

_AIN MUSA_, or Ayun Musa, the springs which well of Moses, 4½ miles S.S.E. of Suez. They are in a small depression, about half a mile in circumference. The largest pool is 10 or 15 feet in diameter, with two smaller ones near it, all slightly depressed below the surface of the surrounding desert. They are mossy structures. In the vicinity are isolated sand mounds.

**AINO.** _Hind._ The aboriginal races of Yezo. The severe treatment by the Japanese has led them other countries, and they also occupy the south part of the island of Seghalin or Sakhalin, which is in possession of the Japanese. Aino, in the language at Sakhalin, signifies 'man.' In the historical records of the Japanese, they are referred to as eastern savages; and about the 6th century they still occupied the northern provinces of Yezo. Towards the close of the 9th century A.D. the Aino of Nippon became subject to the Japanese, and the Aino disappeared from that island a separate race, emigrating to Yezo. In the 15th century the Japanese took Yezo, where a number of Aino still remain; but in the course of the 16th century the Aino crossed over to the island of Sado, called _Oke_ or _Northern Yezo_, where they formed several settlements. They seem to be an offshoot of the hairy aborigine race of Central China mentioned by early historians. The main peculiarity attaching them is the heavy growth of thick hair on chest and limbs, and which very often covers the whole body. Miss Bird mentions having seen...
two boys whose backs were covered with fur as fine and soft as that of a cat. In form and features they are very unlike the Japanese. Their heads are well shaped, with high and prominent foreheads, and their faces are very striking. The eyes are large and very beautiful, the colour a rich liquid brown, the expression singularly soft, and the eyelashes long, silky, and abundant. The physique is very powerful; but they are very little removed from being savages. They have neither history nor letters, and claim descent from a dog. Their clothes are made from the bark of trees and the untanned skins of animals. They are grossly ignorant, very dirty, and their objects of worship consist of the bear, the sun, the moon, fire, water, but principally the Japanese conqueror Yoshitsune, because, as the tradition handed down for seven centuries tells them, he was kind to them. They are a subdued people, stupid, gentle, and good-natured. Of the Japanese government they live in absolute terror. The men occupy themselves in hunting and fishing, and the women labour ceaselessly at their household duties. Alno-Japanesia was a name proposed by Mr. Logan to designate all the Japanese and Alno islands from Formosa to Kamtschatka. —Hodgson's Nagasaki, p. 62; Raffles's Russians on the Air, p. 307; Miss Bird's Japan.

AIRUN. AIR. AIR.

Amongst the Mahomedan races of India, the air and the water together, Ab-o-huwa, are reckoned to constitute climate. Amongst Hindus, the water alone is regarded as the agent affecting the salubrity of the climate.

AIRAVAT, in Hindu mythology, a Naga king, father of Udipi.

AIRAVATA, one of the fourteen gems produced from the churning of the ocean. Airavi, in Hindu mythology, the white elephant, the vahan of Indra. The word means 'watery,' and is applied to the rivers Irawadi, Ravi, and Phanni.

AIR BLAdddER.

Fish maws, Swin., Eng. Isinglass, ... Eng. Fish sounds, ... Air-bag, ... A peculiar organ with which the great majority of fishes are provided, and by which they are enabled to adapt the specific gravity of their bodies to the various pressures of the super- incumberant water at different depths. It is composed of a lengthened sac, sometimes simple, as in the common perch, sometimes divided into two or more compartments by a lateral or transverse ligature, as in the trout and salmon, and at other times furnished with appendices, more or less numerous, according to the particular species. In all cases it is composed of a thick internal coat of a fibrous texture, and of a very thin external coat, the whole being enveloped in the general covering of the intestines. Fishermen perforate this vessel with a fine needle, in cold and other species which require to be brought fresh to market, sometimes from a very great distance. By this operation the confined air is allowed to escape, and the fish constrained to remain quiet at the bottom of their well-boats, where they live for a very considerable period. The air bladder of certain fish is in much request as an article of diet, and in the arts. Russian isinglass is prepared from the sounds of the sturgeon, Accipenser sturio, found in the Caspian and Black Seas and their tributary rivers. In America, from the Labrus squatangus, the cod, Morhinus vulgaris; in Calcutta, from the sounds of the Polyenmus sela, the Scele of Bengal; and the sounds of two Madras fish, the Korwa and Katali, are so employed, and largely exported to China. Iceland fishermen, as well as those of America, prepare isinglass of a very excellent quality from cod sounds.—O'Sh. p. 68; Eng. Cyc.

AIRI of Coorg are carpenters and blacksmiths who have emigrated from Malabar. They dress like the Coorg race, but do not intermarry.

AIRUN, a temple in Bhopal, built in the first year of the reign of raja Tarapain, by Dyanya Vishnu, the then minister and brother of raja Meeri Vishnu. The inscription is the first in honour of the boar incarnation of Vishnu, and the boar coins probably belonged to this family of princes, who worshipped Vishnu as the boar. The inscription says that the minister Dyanya or Dhanaya obtained his office by public election, and through the grace of God! Dhanyu is called a rishi amongst the bramhans and the devoted worshippers of Bhagavan, but there is not any prepostereous eulogy of brahmans. The language of the inscriptions is Sanskrit, but with words written corruptly, and probably about the 8th century of the Christian era. The character used in the inscriptions is that subsequent to Kanouj Nagari, or Allahabad, but before the Gaur or

—Journal Ind. Arch.; Horsb.
Harsha character. Another inscription is on a pillar in front of the temple; the king mentioned is Buddha Gupta, who governed the country between the Jumna and the Narmanda. The pillar was raised at the expense of Dhanya Vishnu, before the temple of the preceding inscription, by Vaidala Vishnu, who had been elected to the regency. The notice of a new Gupta, and a date of the dynasty (165), is of great interest, as Buddha Gupta necessarily followed those mentioned on the Allahabad and Bhitari columns; and up to Buddha Gupta’s time, if he belonged to the Kanouj dynasty, its duration had been only 165 years. In the early part of the 5th century A.D., Fa-hian found a Buddhist king at Kanouj; and in the early part of the 7th century, Huien Thsang found a Hindu king reigning. The dynasties, therefore, had been changed between the 5th and 7th centuries, and the Gupta family had sprung up in the interval.—Bun. As. Soc. Journ. vii. p. 634.

AJITA. A double Persian wheel. AIT, an avatar of Mahadeva.

AITEAREYA BRAHMANA, the name of an Aranyak and a Upanishad of the Rig Veda, which contains the earliest speculations as to the Brahmanical ritual. It has been translated by Dr. Hang, and the Upanishad by Dr. Roer.

AITCHeson, Sir C. U., a Bengal civil servant, author of ‘Engagements and Treaties.’

AIYAN or Ayar, written Iyar. TAM. A spiritual father; a respectable title of a head of a Hindu religious community. Ayian, also Iyangar, in the south of the Peninsula of India, an honorary title given to Brahmins, especially those of the Sri Vaishnava or Ramantja order, as Ramiah Aiyangar.—W.

AJAIB-ul-MAKHLUKAT, a book on natural history, written in the Persian tongue, by Kasvini; it means ‘the wonders of creation.’

AJALA of Coorg. A class of the Pals or Tulua Pariahs who personate demons.

AJAM. Arab. Literally means ‘foreign;’ but in the southern part of Arabia, Al Ajam is applied to the opposite part of the coast of Africa. Ajam by the Turks means Turkish Arab. Persia is Balad-ul-Ajam, and the north-eastern coast of Africa is Bar-el-Ajam. The Arabs divide the world into two great bodies,—first, themselves; and secondly, Ajami, i.e. all that are not Arabs. Similar bi-partitions are the Hindus and M’hlecas, the Jews and Gentiles, the Greeks and barbarians, etc. etc.—Playfair’s Eden; Barton’s Mecca, ii. p. 26; Cattafingo.

AJATA SATRA, a king of Magadha who collected the remains of Sakya Muni, and deposited them in one large stupa at Raja Griha. He reigned for thirty-two years, and died B.C. 526. His race were Bhattiya Brahmins. Sakya died in the reign of this king.

AJAUKURI. HIND. Accacia Jacquemontii.

AJAYA PALA, author of a Sanskrit vocabulary of repute.

AJGARA. SANSK. A python; a rock snake.

AJIGARTA, a rishi mentioned in the Aitareya Brahmana, who lived in the forests with his three sons, Suna Puceha, Suna Sepha, and Suno Langula. He sold Suna Sepha to be offered in sacrifice, and was even willing to do it with his own hands.

AJIPALA, one of the Chauhan dynasty. His name is celebrated in the Chauhan chronicles as the founder of the fortress of Ajmir (A.D. 124), one of the earliest establishments of Chauhan power.

AJITA. SANSK. A form of Vishnu, also of Siva, meaning unconquered, from a, privative, and jita, victory.

AJIT SINGH, a celebrated king of Kanouj, who was murdered A.D. 1680. See Rahtor.

AJMER, the capital town of a district in Rajputana. Ajipala, of the Chauhan race, founded it in A.D. 145, and it was lost by Dola Rai in 1685 to Mahomed Kasim, the Arab conqueror of Siund. In A.D. 1621, the people hung upon the army of Mahomed of Ghazni. The district has since seen many dynastic changes, and the city has been the scene of many interesting events. Syed Hussein, who (A.D. 1210) was slain in a night attack by the Rahtor and Chauhan Rajputs, has a shrine at Taragarh, to which, in 1570, Akbar walked on the birth of his son Salim. S. T. T. Roe, ambassador of James I., here visited his credentials to Jahangir. Thomas Corlett, the pedestrian traveller of the 17th century who walked from Jerusalem to Ajmir, and spent only £2, 10s. on the road, dated his book from Ajmir. The Mahrattas held it from 1756 to 1780, but Daulat Rao Sindiah transferred it to the British, 25th June 1818. The population of the town and the Mairwara district in 1872 was 316,590, and that of the town of Ajmir, 26,569, Rajputs, Jat, Gujar, Miar. The town is in lat. 26° 2′ 10″ N., and long. 74° 43′ 58″ E.—Rennell’s Memoirs xlvi. and xlvii.; Tod; Imp. Gazetter.

AJMIRGARH, a hill in the Bilaspur district of Central Provinces, 3500 feet high. It has a temple from which the Sone flows to the north, the Mahanuzzi to Cuttack, and the Nerudda to the Indian Ocean. The place has always been sacred and is surrounded by temples of great age. On the south and east of this hill is the table-land ofCHATISHBUR.

AJMOB. SANSK. Aipam involucrum, a. grassvela and Petroselosum sativum, parsley. AJODHYA, on the right bank of the Ganges near the town of Oudh, is in lat. 26° 48′ 19″ N., and long. 82° 14′ 40″ E. It now has a population of 7518 of Hindus and Mahomedans, but in ancient times it was the capital of the kingdom of Kosala, the modern Oudh, ruled over by the great king Dasaratha of the Solar line, the father of Rama Chandra. At one time it is said to have covered an area of 12 yojana, equal to 96 miles. During buddhist supremacy Ajodhya declined, but on the revival of brahmanism it was restored by king Vikramaditya (A.D. 57). There are many Jain temples, and three mosques on the site of three Hindu shrines,—the Jami Masanath on the site where Rama was born, the Swarga-dwara (Mandir) where his remains were burned, and the Tareta ka Thakur, famed as the scene of one of his great sacrifices. A mausoleum is here of the Bahun Begum, and is the finest in Oudh.

AJUDHAN or Pak-Pattan, an ancient city in the Punjab. See Pak-Pattan.

AJUGA BRACTEOSA. Wall.
This and several other species resembling it occur in the Panjab Himalaya from 1500 to 8500 feet, and in the Salt Range; it is used to kill lice. The plant is considered deparative. Ajuga repens, Roxb., of the hills of the Panjab and Kashmir, is also known there as Jan-i-Adam, the life of man, from its many virtues. It is nearly inodorous, bitter, and astringent, and with other species is used in fever as a substitute for cinchona.—J. L. Stewart, M.D.; Honigberger; Powell, i. p. 365.

AJUNTA, in the province of Aurungabad, in lat. 20° 32' 30" N., long. 75° 45' E., celebrated for its buddhist chaityas and viharas, is in the northern face of a ravine, which has a westerly direction parallel to the face of the ghat, as they overlook Kandesh. There are many ravines or kosa near one commences at the town of Ajunta, and winds to the south and west for about three miles, opening there into Kandesh. Near its mouth is another ravine, taking a westerly direction for two miles, with several windings, at one of which, on the northern face of the rock, these caves have been excavated. This ravine nowhere exceeds 400 yards from brink to brink, nor above 500 yards at its bottom. Ajunta town is quite a small place, walled, with gates, and a bridge. The natives call the caves Yerrula, the same with those which Europeans call Ellora. They call them also Lena, and both terms mean drawings or paintings. There are 24 monasteries (Vihara) and 5 temples (Chaitya). The monasteries are usually square in form, supported by rows of pillars, with cells (Griha) in the walls, in all three sides. The largest temple is 94½ feet by 41 feet. They furnish a continuous narrative of the history of Buddhism for 800 years, from about B.C. 200 to A.D. 600. The back or end of the Chaitya or temple cave is almost always circular; the roofs are lofty and vaulted. Within the circular end of the cave stands the Dagoba or reliquary, consisting of a cylindrical case, supporting a cupola (Garbha), which is surmounted by a square capital or tee (Toran). The paintings on the walls depict Buddha and his disciples and devotees, with representations of streets, processions, battles, the interior of houses, domestic scenes of love and marriage and death, huntsmen on horseback, and animals of every size. Women in groups performing religious austerities. They are the most complete series of Buddhist caves in India, without any mixture of Brahmanism. They escaped the observation of the Mahomedans when they invaded the Dekhan early in the 14th century, and destroyed similar paintings in the caves of Ellora. Some of the paintings refer to historical events. One large picture is supposed to represent the introduction into Ceylon of Buddhism, and all the figures of men and women in it have only short waist-cloths or kilts. Another large picture represents the coronation of Sinhala, a Buddhist king. He is seated on a stool, crowned with a tiara, with necklaces, armlets, and bracelets of gold, and girls are pouring corn over his shoulders. Naked to the waist, he wears a striped dhoti, covering from the waist to the knee, with one end passed across his chest and over his left shoulder; most of the men attendants are similarly clothed with dhotis reaching from the waist to the knee. The soldiers present, spearman and foot and horse,
AKAL.

AKALI.

AKARI.

AKAR.

its leaves, which are pounded and the juice insip- sated. The insipiated juice of the sloe, Prunus spinosa, is substituted for the ancient Akaila. The Akalia is not now used in medicine of Europe.

AKALI. These were armed Sikh devotees and fanatics, violent and ignorant. They were first established by the Guru Govind, the founder of the Sikh faith, and they zealously supported him against the innovations of the ascetic Byragi. Their Boonga or temple, on the side of the holy reservoir at Amritsar, is a fine building; but Akali are met with all over the Panjab, though chiefly in the Manja territory, between Lahore and the Gharr, where Tarantara is their chief town. A considerable number are settled at Nandair, on the banks of the Godavery, but are quiet and peaceful. In reality wealthy, they affect poverty and beg; but in the time of the Sikh rule their begging was an insolent demanding, and as they were a bold united body who made common cause, and did not scruple to expose their own lives or to make false accusations of crimes, these wild-looking men enforced their demands with an insolent independence, which those only could understand who have witnessed a band of drunken Akali, almost in a state of nudity, brandishing their naked swords, and bawling out abusive and obscene language; their power to enforce their demands, therefore, was very great. They particularly showered their angry words on Europeans; and until Ranjit Singh mastered them, even his life was several times in danger. Under the British rule, and with power to enforce toleration, they are never heard of. They would extort alms from chiefs and others, by interdicting them from the performance of religious rites; and a chief unpopular with the Akali, who made common cause with each other, risked his authority. Their name is derived from Akali-purusa, worshippers of the Eternal, the word Akal being a compound of kal, death, and the privative a, meaning never-dying, or immortal. It is one of the epithets of the Deity, and is given to this class from their frequently exclaiming 'Akal, Akal,' in their devotions. They wear blue chequered dresses, and bracelets of steel round their wrists, which all Sikhs do not wear; though it is indispensable for a Sikh to have steel about the person, and it is generally in the shape of a knife or dagger. They formerly initiated converts, and had almost the sole direction of the religious ceremonies at Amritsar. The Akali had a great interest in maintaining the religion and government of the Sikhs, as established by Guru Govind, upon which their influence depended. They often went profusely armed, with half a dozen swords; perhaps also a matchlock, and several steel discs on their turbans.—Masson's Journeys; Mohn Lut's Journeys; History of the Panjab, i. p. 130, 131; Steinbach's Panjab, p. 8—9; Malcolm's Sikhs, p. 116; Ward's Hindoos, ii. p. 275-4; As. Res. vol. xi.; McGregor, History of the Sikhs, i. pp. 81, 236, 287; Pers. Obser. See Amristar; Banda; Boonga; Dics; Manja; Sikhs; Tarantara.

AKAL-NAFZAH. ARAB. Euphorbium.

AKA-PODWAL, a race in Malabar and Canara who follow the rule of Marumakatayam, or descent from mothers, the descensus ab utoro of the Locrians, who drove the Sicilians out of a part of Italy. See Polyandry.

AKAR-CHIRIT-MURAL. MALEAL. A plant yielding an elastic gum.

AKAR-KANTA. HIND. Alangium decapet and Alangium alatum.

AKAR-KOUF, a mound 10 miles north-west of Baghdad, on the west shore of a marsh 12 miles long and 5 broad, and 12 to 15 feet deep, fed by the waters of the Euphrates, through the Saklawi canal. The ruined pile is called by the Arabs Tal Namrud, and by the Turks Namrud Tapassi. Both these terms mean the hill not the tower, of Nimrod; and the term Akar-kouf, or Agargouf, given by the Arabs, is intended to signify only the ground around it.—Porter's Travels, ii. p. 281; Mignan's Travels, p. 102; McGregor, See Namrud.

AKAR-PAASI. MAL. Asparagus racemosus.

AKAR-WANGI. MAL. Andropogon muri- catus.

AKAS. ARAB. A hoop of a black colour worn by the Hodeleyah Arabs to retain the dark-coloured squire of cloth on the head. The outer rim is inlaid with pieces of delicately engraved mother-of-pearl, rather larger than Shilling.—Hamilton's Sinai. See Akal; Arab.

AKASA. SANSK. Ether, sky, space, ethereal space; the inane or vacant space of Lucretius; the fifth element of the Hindus; it is applied to designate several plants, etc.

Akasa Guruda gadda, Byronia epigona, Rott.; B. glabra, R. lii. 725.

Akasalinga, also Akasuliga, a form of the lingam. Akasam. See Acasalvi; Hindi.

Akasananchayatanam, in buddhism, the lowest of the incorporeal Brahma-lakas.

Akasa Tenna, Pistia stratiotes, L.

Akas-Bel or Amar Bauria, Cuscuta reticula; literally sky plant.

Akasha-Valli, Cassytha filiformis.

Akasa-Diya, a lamp suspended in the open air by the Hindus, in the month Kartik.

Akasia, in the Bombay Presidency, land which depends on the natural rains.

Akas-Mukhi, from akas, the sky, and Mukha, the face, ascetic mendicants among the saiva Hindus, who hold up their faces to the sky till the muscles of the back of the neck become contracted and retain that position. See Urtha bahu.

Akas-Nim, Bignonia suberosa, Roxb.

AKBAH, the Arab conqueror who overran the States of Barbary.

AKBAR, Jalal-ud-Din Mahomed Akbar, reigned in India from A.D. 1556 to 1605. He was grandson of the emperor Babur, and seventh in descent from Timur. He was the eldest son of the emperor Humayun, and was born at Amirkot, in the valley of the Indus, on the 14th October 1542, while his father was a fugitive. Humayun regained the throne in 1555, and died by a fall from his library stairs a few months later. Akbar was handsome in person, courteous in manners, skilled in all manly exercises, and courageous to excess. He delighted to master unruly horses and elephants, and was devoted to tiger-hunting. While yet a lad, he was kept under by his prior
Akbar.

minister, Bahram Khan, but he returned suddenly to his palace from one of his hunting expeditions, and issued a proclamation taking the government into his own hands. On this Bahram Khan raised an army, and attempted to seize the Panjab, but he was defeated, and pardoned by Akbar. By the time he attained the age of twenty-five years, Akbar had settled himself firmly on his throne; and in the course of his long reign he extended his sway over Rajputana, and from Afghanistan to Ahmdnagar in the Dekhan, and from the Suliman mountains on the west, to Bengal and Assam in the east. He was an enlightened monarch; he introduced religious tolerance, and equal justice; encouraged literature, arts and science; and the Ain-i-Akbari, or Institutes of Akbar, a legislative work, was compiled under his orders. Prior to this sovereign, of all the dynasties that had yet ruled in India, that of the house of Timur was the weakest and most insecure in its foundations. The houses of Ghazni and Ghor depended on their native kingdoms, which were contiguous to their Indian conquest; and the Slave dynasties were supported by the influx of their countrymen. But though Babar had been in some measure naturalized in Kabul, the separation of that country under Kamiun had broken its connection with India, and the rival of an Afghan dynasty turned the most warlike part of its inhabitants, as well as of the Indian Mahomedans, into enemies. Colonel Tod remarks (Rajasthan, i. p. 522) that it affords an example of the Hindu doctrine of the metempsychosis, as well as of the regard which Akbar's toleration had obtained him, that they held his body to be animated by the soul of a celebrated Hindu gymnosophist; in support of which, they say Akbar went to his accustomed spot of penance (tapasya) at the confluence of the Yamuna and Ganges, and excavated the implements, viz. the tongs, gourd, and deer-skin, of his anchorite existence. Assuredly, says Elliot, a more extraordinary man never sat on the throne of India. Brought up as a Mahomedan, he was a rationalist and deist, and never believed anything, as he himself declared, that he could not understand. The so-called Ilahi religion, which he founded, was pure deism mixed up with the worship of the sun as the purest and highest emblem of the Deity. Though Akbar himself could neither read nor write, his court was the home of literary men of all persuasions. Whatever book, in any language, promised to throw light on the problems nearest to this emperor's heart, he ordered to be translated into Persian. Lewis, an adventurous English merchant, visited Akbar's court, and one of his four translations entered the emperor's service. Akbar abolished all arbitrary land taxes, and fixed the revenues according to the values of the different lands,—fallow, 'out of cultivation,' 'in rotation,' 'best,' 'middle,' and 'bad lands,' and 'over-flooded lands.' The Fasil or harvest era of Northern India has been traced to the year of Akbar's succession to the throne, the 2d of Rabbi-us-Sani, A. H. 963—A.D. 14th February 1566. It was in his reign that his physician, Budyn, introduced the rhinoplastic operation for restoring the nose; and he bestowed on Budyn a jaghir at Kangra. The first mention of Thugs occurs in his time, for 500 were executed at Etawa. In his invasion of Kashmir, he was opposed by the warrior pastoral race of Golu-wan. Akbar's court was the most splendid that had ever been held in India, and he expended liberally. In marching, the enclosure of his own tents occupied an area of full five miles in circumference. His favourite residence was at Fattahepur Sikri, in the province of Agra. He instituted many public schools, abolished torture, did away with the capititation and pilgrim taxes, and reformed the laws. He arranged his empire into fifteen subahs or districts,—Kalab, Lahore, Multan, Delhi, Agra, Oudh, Allahabad, Ajmir, Gujarat, Malwa, Behar, Bengal, Kandesh, Berrar, and Ahmdnagar. Each was ruled by a Subahdar, with full military and civil powers, and a Dewan, nominated by the emperor; each district had a janjur, entrusted with the military duties and civil courts. Akbar had early to subdue a revolt of his own army, which he effected by an army of Rajputs under Todar Mull. His Afghan soldiery serving in Bengal subsequently revolted, and against them he sent his near relation, Man Singh, who, after twelve pitched battles and seventeen years of conflict, completely established Akbar's authority there. Akbar's brother-in-law, the raja of Jeyapore, afterwards conquered Kashmir. In Akbar's next efforts to curb the Yusufzai and Khairi hIGHLANDERS around Peshawar, his army of 40,000, under his foster brother raja Beraul, was completely destroyed and Beraul slain, and his subsequent efforts under Man Singh and Todar Mull only met with a partial success. Akbar next annexed Sind and reconquered Kandahar, and after 25 years of warfare, he was the undisputed possessor of the territories north of the Nerbudda. In A.D. 1573, he annexed Gujerat, Kashmir, and Sind, and parts of Afghanistan were subsequently added to the Moghul Empire. He married the daughter of the raja of Jeyapore, a Rajput state. He early expressed a desire to become acquainted with Christianity. In 1578 he received the Portuguese envoy, Cabral, from Goa, and hearing that an excellent priest was then living in Bengal, he sent for him to hold a public disputation with the Mahomedan mullahs. The accounts given by the Jesuits of an order issued by him in 1590 for the destruction of all mosques and minarets appears apocryphal; but it seems established beyond doubt that a party of Christian missionaries visited the country at his own express invitation. Akbar died on the 13th October 1605. He is buried at Sikandra, five miles from Agra on the Delhi road. His is a small altar-tomb of white marble, in the centre of a square area of about forty English acres, surrounded with trees. It is enclosed by an embattled wall with octagonal towers at the angles, surmounted by open pavilions and four very noble gateways of red granite, the principal of which is inlaid with white marble, and has four high marble minarets. The central building is a sort of solid pyramid, surrounded externally with cloisters, galleries, and domes, diminishing gradually on ascending it till it ends in a square platform of white marble, surrounded by most elaborate lattice—work of the same material, in the centre of which is the small altar-tomb, carved with great delicacy and beauty. This is the tombstone. At the bottom of the building, in a small but very lofty vault, is the real
tomb of this great monarch, plain and unadorned, but also of white marble.—Heber, ii. p. 335–6; Tod, Rajastanl, i. p. 324; Elliot, History of India, p. 248; Marshman; P. Armintius Vambery, p. 396.; Elphinston, Hist. of India.

AKBAR NAMAHI, a history of Akbar's reign, partly written by his minister, Abul Fazl.

AKCHEE. See Andhko.

AKEE, Blihia sapida, a tree of west tropical Africa, cultivated also in the West Indies. The arillus which supports the seed is eaten. It is very wholesome; and from its soft, rich flavour has the appellation of vegetable arrow. It should be introduced into India.—Macfadyen.

AKEEK. Pers. Cornelian; chaledony.

AKEL. Port. Arenga saccharifera, Labill. AKHA. HIND. A pair of grain bags used as panniers.

AKHAL. HIND. A fifth of the heap after the corn is threshed out.

AKHANDAM. Tel. Entire, not separated; a lamp which is kept continually burning in a Hindu shrine.

AKHAN JATRA, a Hindu cake festival.

AKHARWAL, a division of the Kurmi tribe.

A-KHASSA REGIO, a region described by Ptolomy, the snowy land of Lalak. See Khaschaul.

AKHAT. HIND. In the N.W. Provinces of Bengal, a portion of the crop paid to the village artisans.


AKII. PANS. Rubus flavus; R. fruticosaes.

Akira is R. rotundifolius, and Akheri is R. biflorus.

AKHJARI. PANS. Rosa macrophylla.

AKHRI-CHAR SHAMBH. HIND. A feast held amongst Mahomedans on the last Wednesday of their second month, Saffar. It took its rise from the circumstance of their Prophet having rallied from his illness. He took a bath on the 15th, and whilst drying his hair at the door of his house, he was accosted by an old woman thus: 'I am glad to see you well again; this is the Lord's doing, therefore he should be praised.' It is said that this remark prostrated Mahomed once more. On the last Wednesday of the month, he took another bath, and, plunging a mango leaf from a tree close by, he wrote on it the following seven short sentences from the Koran:—'Peace shall be the word spoken unto the righteous by a merciful Lord.' 'Peace be on Noah among all created beings.' 'Peace be on Abraham.' 'Peace be on Moses and Aaron.' 'Peace be on Elia.' 'Peace be on ye that have been good; therefore enter into Paradise, and remain therein for ever.' 'Peace be until the rising of the moon.' After meditating a short while on them, he washed the leaf, and drank the water thus used. Mahomedans differ as to what he used in writing the above. Some affirm that he wrote it with ink; others, again, say he used rose-water. Every Mahomedan on this festal day writes the seven sentences, selected by their Prophet from the Koran, on a mango leaf or on bread; if the former, the writing is washed off, and the water (called the 'water of peace') drunk, but if the latter, the bread is eaten, because they believe that by this means peace and quietness; health and plenty, will exist in their families throughout the ensuing year. After this has been done, the Mahomedan, according to his means, attires himself in the finest and most costly apparel, perfumes his whole body with attar, gets some meat, rice, bread and cakes, etc., prepared, and distributes them to the poor in the name of their Prophet. The rest of the day is passed very gaily; some of the richer classes have music and dancing, etc., while the poorer have a little richer repast than usual. For thirteen days after this festival no Mahomedan will leave his country or village to go to another, because ill-luck will attend him.

AKHILAQ-i-JALALL. This is one of the most celebrated Persian works on ethics. It was translated into English, among the publications of the Oriental Translation Society, by W. F. Thompson.

AKHOUND, the high priest of the Swat tribe; any religious teacher; a schoolmaster.

AKHOON-WOON. BURM. A revenue assistant.

AKHOR. HIND. Araila Cacheimirica.

AKHOZYE, an Afghan tribe in the valley of Kabil.

AKHIRA, the dancing-place of the Kol tribes.

AKHROT. HIND. Acreules triloba; Juglans regia.

AKI, the Lignum vitae tree of New Zealand; it is the Metrosideros buxifolia; and is a rambling shrub, climbing by means of its lateral roots to the highest trees. It should be introduced into India.

AKIBAT. ARAB. The end. Akibat-ba-Khur-bad, may the end be prosperous.

AKINCHANYAYATANA, in Buddhism, the third of the incorporeal Brahma-loka.—Hardy, p. 433.

AKINDO, in Japan, a merchant. The Akindo were not permitted to ride on horseback.—Hodges's Nagasaki, p. 12.

AKIT, a drink in use by the Arabs; but it has different names in all parts of Arabia. In the Hejaz it is known by the name of Mazir, as well as Iqt (a corruption of Akit). When very sour, it is called Saribah, and when dried, without boiling, Jamilah. The Arabs make it by evaporating the serous part of the milk; the remainder is then formed into cakes or lumps with the hand, and spread upon hair-cloth to dry. They eat it with clarified butter, and drink it dissolved in water. It is considered by the Arab a cooling and refreshing beverage, but boasts few attractions to the stranger. The Beluchi and wild Sindian tribes call this preparation of milk krut or kurut, and make it in the same way as the Bedouins. Krut is perhaps the source of the English word curd.—Burton's Mecca, i. p. 362.

AKKAD. An ancient race who occupied the mountainous country of Elam, from which they entered Babylonia. Before they left Elam, they had invented hieroglyphics; and the cuneiform characters of Babylonia and Assyria are a degenerated hieroglyphics, as are also the modern Chinese characters. Akkadian tribes established themselves to the E. of the S. parts of the Euphrates, between Kornah and the Karoon river, or even up to the Luristan range of mountains. The Akkad ruled near the shores of the Persian Gulf, and are the earliest mentioned in historic times who navigated the Persian Gulf and Indian Ocean. They are supposed to have formed part of the Kushite race, who had colonies along the
coasts from Bab-el-Mandeh to Malabar. The coast of the Persian Gulf was also the ancient home of their kinsmen the Cannanites, a part of whom became celebrated in after times under the name of the Phoenicians.

AKKAD. in Cairo, a weaver of silk cord.

AKKUSD. Beng. Rottleria lacera.

AKKYE, or Ryot Laut, the subjects of the sea; a littoral race in Quedah, who dwell on the shores and islets of the Peninsula. See Kedah.

AKLBIR. Hind. Datisca cannabina and Delphinium anísicum.

AKLL-al-MAIK. Az. Astragalus holmosus.

AKLIM. Arab. A climate, a region.

AKLU of Kaghán. Hiburnum stellatum, Rich.; also V. foetens.

AKO-KHEL, a subdivision of the Razai section of the Yusufzai of the plains. They are in the Peshawar district.—McGr., N. W. F. i. p. 87.

AKOLA. Hind. Alangium decapetalum.

AKOLA, a town on both banks of the river Morána, in Berar, in lat. 20° 42' 15" N., and long. 77° 2' E., with a population of 12,236. It gives its name to a district of 2699 square miles, with a population of 229,913. From the village of Patun, on the west to near Nanda on the east, a distance of nearly fifty miles, and about ten in breadth on both sides of the Purna river, are salt wells. The best are near Dablamunda. The shafts are 3 or 4 feet in diameter, lined with basket-work. At 90 to 120 feet is a thick and strong band of gritstone, through which, when pierced, water rushes up 15 or 20 feet. The water is drawn up, and is exposed in salt-pans. The salt contains siliceous salts, which give it a bitter taste, and spoil it for exportation. The district, since the 13th century, when it was overrun by Ala-ud-Din (1294), has been chiefly under Mahomedan rule. The last Hindu ruler, raja of Deogarh, in 1319 was dethroned. Besides the Hindus and Mahomedans, depressed races, as the Pasi fowlers, and Mang and Jogi, are present. The Kumbi cultivators worship Mahomedan shrines.—Imp. Gaz.; P. Ob.

AKOMANO, a name of Abriman.

AKORA, a Hindu monastery. See Asthol; Math.

AKOR KHEI, a section of the Khakat.

AKRA or ANKRA. Hind. Vicia sativa.

AKRABI, a clan of the Abdali tribe on the sea-coast to the west of the Aden. Bir Ahmad is their sole village. They have a high reputation for courage.

AKRI. Hind. Withania coagulans. Aksan is W. somnifera.

AK-ROBAT, a pass near Bamian; the town is about lat. 34° 42' N., and long. 67° 41' E.

AKRUR-ESWARA, the modern Aklesar, on the Nerbudda, opposite Bharoch; its name is from a private, and krura, cruel.

AKSHAHA or Ach-Chuta. Mah. Rice grains, coloured with saffron or vermilion, placed on the forehead of an idol; also on the foreheads of a Hindu bride and bridgroom at their marriage.—W.

AKSHAHA. Sansk. From a, private, and kshi, to decay. Akshaya Lalita, the 7th of Bhadra (August—September), when a festival is celebrated by Hindu women in honour of Siva and Durga. Akshaya-patra, a beggar’s platter. Akshaya Trítiya, the third luni-month of the light half of Vaisakha, April—May, when offerings are made by Hindus to Krishna; also to Manes. It is the supposed anniversary of the creation.

AKSU, a district of Kabağaria at the base of the Alataagh. Aksu town contained 12,000 houses. It is situated at the confluence of the Aksu and Kokshal. Its curtin has four gates.

AK TÁGH, a range of mountains forming the boundary between the khanate of Bokhara and Khokand, running E. and W. 500 miles.—Tr.

AKU JEMUDU or Aku Chemdú. Euphorbia nivulia, E. nereifolia, E. cattimandoo.

AKULMUH. Hind. Casipulina bondoucica.

AKULU. Tel., Sing. Aku, in Tamil, Elle. The leaves used by Hindus as platters. They are made of the plantain leaf, Wala-elle, Tam.; Ariti aku, Tel.; and leaves of the Banyan tree, Mari aku, Tel.; Ali-elle, Tam.; also of the Butca frondosa.

AKUND. Beng. Calotropis gigantea, Brown; and Calotropis liliae.

AKU PATRIKAM. Tel. Leaves of Cinna- momomum eucalyptoides, Nees. The leaves are used as a spice, and medicinally.

AKUSALA, in Buddhism, demerit; constituent of, preternatural karma.—Hardy’s Eastern Monachism, p. 433.

AKUT-CHUNI, small rubies or garnets, brought via Pali to Ajmir, and used as an aphrodisiac; one tola for two rupees.—Gen. Med. Top. p. 125.

AKYAB, the chief town in Arakan, in lat. 20° 6' 45" N., and long. 92° 56' 30" E., on the right bank of the Koladyn, a rapid river. It is the seat of a commissionaire. The European part is beautifully laid out, and in 1872 it had 19,230 souls. The Akyab district lies between lat. 20° and 22° 19' N., and long. 92° 14' and 94° E., and has an area of 5337 square miles, and a population of 276,671. The district is bounded on the N. by Chittagong, W. by the Bay of Bengal, S. by Ramree island, and by the Youmadung mountains. The name is said to be derived from a relic of Gautama, called Akyab-dau-kin, retained in a temple. Its forests have valuable timber trees,—Albizia procera, Dipterocarpus alata, Lagerstremia regina, Strychnos nux vomica, and Xyilia dolabiformis. The population is largely Buddhist and Hindu. The Arakanese seclude their women, and have early marriages. There are several tribes in the Arakan hill tracts.—Findlay; Imp. Gaz.; Pers. Obs. See Arakan; Hill Tracts.

AK-YAU. Burm. Wood-aloes.

AL. Arab. Pronounced and often written in the Roman letters el, and al, and is. It is the definite article ’the,’ as Al-Koran, the Koran.

AL., of Kanawar; Cucurbita maxima, Duch.

AL. Hind. Morinda citrifolia.

AI, in Kabal, a fabulous, preternatural being, resembling a woman of twenty years of age, the ghoul of Persia and Turkey. Persian women attribute the disasters of parturient women to her malevolence.—Burton’s Sindh, p. 399.

ALABASTER.

Marmar abyal, Arab. Alabastro, It. Alabatre, Fr. Alabastres, Lat. Alabastos, Gr. Sp. Alabstrum, "A village called Alabastron, in Egypt, gave its name to this mineral. It is a hydrous sulphate of lime in a peculiar crystalline state, sometimes quite pure, sometimes containing small quantities of carbon or iron. When pure it is of spotless white, and in texture and colour is almost unrivalled amongst minerals. It is found to a
large extent in Lower Egypt, and perhaps this is alluded to in 2 Kings xxi. 13. It is said to occur in the Boogtee hills near Jacobabad, and in Afghanistan in the quarries of Maidan. It is not known to occur in British India, the images of the Burmese being from a carbonate or granular carbonate of lime, though commonly called alabaster, and known in Europe as oriental alabaster; it is a stalactitic or stalagmitic carbonate of lime, of the same hardness as marble, and used for similar purposes, and is found of all shades, from white to brown, and sometimes veined with coloured zones. The magnificent Bolzoni sarcophagus, purchased by Sir John Soane for 1000 guineas, and exhibited at his museum, is of stalagmitic. The finest alabasters are from near Volterra in Tuscany, between Cecina and Leghorn. An inferior kind occurs near Derby in England, at Montmarte near Paris, and in the Tyrolean, Swiss, and Italian Alps.—Mason; Tomkinson.

ALABBAS. This race, called the Abbassides, reigned as khilfs in Baghdad from A.D. 749-50 to A.D. 1258-59, when Baghdad was besieged and taken by Halaku, the grandson of Chengiz Khan, and its reigning khalif, Mustasem, put to death. They derived their name and descent from Abbaspird, grandson of Mutabak, the paternal uncle of Mahomed (666-653). Ibrahim, the fourth in descent from Abbas, supported by the province of Khorasan, obtained several successes over the Unneid armies, but was taken prisoner and put to death by the khalif Merwan, A.D. 747. Ibrahim's brother, Abul Abbas, assumed the title of khalif, and a victory near the Zab river, A.D. 750, secured his position. He was named Us-Saffah. His brother and successor, Al-Mansur, born at Homina in Syria, A.D. 718, succeeded the khalif Us-Saffah A.D. 753. He laid the foundation of the town of Baghdad; he established schools of medicine and law; he gave much of his time to the study and advancement of astronomy; translations were commenced of the works of the ancient Greek writers on metaphysics, mathematics, astronomy, and medicine; and the first known lunatic asylum is said to have been established by him. He died A.D. 776. His grandson was Harun-ur-Rashid, known throughout Europe for his valour, his love of justice, his zeal for literature and the arts, and his encouragement of commerce, though guilty of many cruel tyrannical acts. He ruled from A.D. 786 till A.D. 809. He placed all public schools under John Monse, a Nestorian Christian; Manik and Saleh, two Hindu medical men, were his personal physicians; and Manik translated into Persian from the Sanskrit a treatise on poisons. Ul-Mamun, his son, after a brief contest, succeeded to the khalifat, and the twenty years of his reign, from A.D. 813 to 833, formed an important epoch in the history of science and literature. He founded colleges and libraries at Baghdad, Kufa, Basra, and Nesaib. He built observatories; Syrian physicians and Hindu mathematicians and astronomers lived at his court; and works on astronomy, mathematics, metaphysics, natural philosophy, and medicine were translated into Arabic from the Sanskrit and from the Greek. The brief period of forty-seven years of the reigns of Harun-ur-Rashid and his son Ul-Mamun, was a period of great prosperity; but that of Ul-Mamun was the Augustan age. During the khalifat of Makkadah (A.H. 319—A.D. 931), in consequence of a patient having been killed by an ignorant practitioner, a law was passed that no one should be allowed to practise medicine until he had been licensed to do so by the chief physician. Their ruin was hastened by their body-guard, which the khalif Mustasem had formed (883-842), and succeeding khilfs became mere puppets in their hands. Mustasem, the reigning khalif, was slain by Hulugan, 20th February 1258.—Thomas' Priscus, p. 304; Balfour's Eminnt Medical Men. See Burmecides.

ALABELA? a variety of the chank shell.

ALABU, Beng.; Alabu, Sank.; or Anupa Kaya, Tel. Lagenaria vulgaris, Ser.

ALACHA, Pusirat. A Kabali silk trouser piece, used to make paijamas.

ALACHANDALU, also Bobbarlu. Tel. Dolichos Sinensis, L.; and D. catjang.

ALACHATA, also Talantu tige. Ippom entata, Willde; I. chrysoides, W.

ALADDIN, properly Ala-ud-Din, meaning Glory of the Religion. This is the hero of a Persian tale inserted in the English copy of the Arabian Nights. It is not in the Arabian version of the Alif Laila. The opening of this story partakes in the highest degree of imaginative sublimity. We are introduced to a magician, conscious of the existence of but one living being able to assist him in the acquisition of a wondrous lamp; and, to ascertain the whereabouts of this mortal, he applies his ear to the ground, and, among all the footsteps which at that moment are tormenting the surface of the earth, distinguishes those of one particular child, playing six thousand miles away in the streets of Baghdad.

ALADEL, Singh. Artocarpus hirsuta.

ALAGHI-CHHITSA. Tel. Crotalaria v conceptiva.

ALAGIRI MALEI, a mountain twelve miles N. of Madura, in the S. of India, about 1000 feet high and 10 or 15 miles long. It is composed entirely of avanturine quartz or micaeous sandstone; some parts have ripple marks.

ALAIKA CHETTU. Tel. Menceylon ramiflorum.

ALAKI, on Mount Meru, the Himalayan residence and capital of Kuvera, the Hindu god of riches, unmatched for its lovely Gandharva girls, who deck themselves with

The amaranth, bright glory of the spring,
The lotus gathered from the summer flood,
Aeasis taught around, the bird to cling;
The jasmine's fragrant white their looks to stud;
And bursting at thy rain the young Kadamba bud.

ALAKHI, the cry or call of the Gadara beggars. Alakhmuni, a class of Saiya mendicants, worshippers of the Aksheya, the indefatigable god, from a, private, and nana, a name. See Gadara; Sanyasi.

ALAKKANDA is a mountain stream in the Garhwal district of the N.W. Provinces. It is formed by the junction of the Dhauli with the Saraswati, one of the streams deemed sacred by the Hindus. It rises in the snowy ranges of the Himalaya. It is one of the main upper waters of the Ganges. It receives in its course the Bhagirathi. Each of the points where it meets a confluent is considered holy, and forms a station in the pilgrimage which Hindus make to Himachal. Alakananda in Sanskrit is, alaks, light, and ananda, joy.

ALALI MARA. Can. Terminalia chebula.

ALAM. Arab. A state or condition, also
This is a small tree or shrub. It is an excellent fuel plant for locomotives. It is found in rocky places in the hotter and dryer parts of Ceylon, throughout the Peninsula of India, in Gujerat on the Bombay side, in the Khassaya hills, in Assam up to the base of the Himalaya, in Burma, the Malay Peninsula, and in Cochin-China. The wood is said by Dr. Roxburgh to be beautiful, and Dr. Wight found it to sustain a weight of 310 lbs., but it wants size. Captain Beddome describes it as furnishing an ornamental, beautiful wood, the tree attaining a fair size in the forests of the Godavery and Circars. The wood is said to be peculiarly sourous; and in Ganjam the leading bullock has been known to fall off of it, termed 'iodoke,' round its neck, the sound being heard to a great distance in the jungle. The astrignent fruit is eaten by the natives; its roots are aromatic, and used in native medicine in snake-bites. Alangium glandulosum, Thu., is a small tree of the Central Province of Ceylon, and grows at an elevation of 2000 to 4000 feet.—Mr. Jaffrey; Mrs. Roxb., Wright, Gibson, Voigt; Mr. Elliot; M. E. J. Rep.; Mr. Rohde; Useful Plants; Captain Beddome; Thecites, En. Pl. Zeyl. ii. p. 133.

ALAN KHAN, grandson of Chengiz Khan, and better known by the name of Ilulaku. —He completed the conquest of Persia, and afterwards took Baghdad, putting to death the last of the once powerful khalifs in A.H. 656 (A.D. 1258-9). He also employed his forces in extirpating the Assassins, well known in the annals of the crusades. See Hasm-us-Saba; Luristan.—Prisse's Tiber, p. 8.

ALAOUS, a tributary of the Ganges, and the ancient Palabrotha was built at the junction. The Alao was also called the Erranabos or Ernanobes.

ALARA. Tel. Pergularia palida, W. ALARA, a brumah who attached himself to Buddha.

ALABARAB, pure Arabs, the descendants of Kahtan or Joktan, the son of Heber. AL-Arab. Arab. A boundary; the Mahomedan purgatory between paradise and hell.

ALABANTI. Tel. Convolvulus purpureus.

ALARANTU. Tel. Rostellaria diffusa, Nees. AL ARIM, a great tank or artificial lake which was formed in Arabia, but which burst in the 1st or 2d, or early in the 3d, century of the Christian era. Eight tribes then abandoned the locality. The bursting is noticed in the Koran as the Sail-ul-Arim.

ALASALE, or Koriti Chettu. Tel. Plectospernum spinosum.

ALASANDI. Kar. Dolichos catjang.

ALASE GANA MARA. Can. Artocarpus integrifolia.

ALAT. CHANDUL. Beng. Methonia superba.

ALATHI, a titular designation applied to the Phrshodi caste of Travancore.

ALAU-UD-DIN, of the Ghor dynasty, overthrew Bahram and destroyed Ghazni. He gave it up to three, some say seven, days of flame, slaughter, and devastation. All the superb monuments of the Ghaznavi kings were demolished, except the tombs of Mahmud, Masaud, and Ibrahim. He has been named by Mahomedians, Jahan-soz, 'burner of the world.' He died A.D. 1156 (A.H. 551), after an eventful reign of four years.

ALAU-UD-DIN, emperor of Delhi, was the
nephew and successor of Jalal-ud-Din. Ala-ud-Din was the leader of the first Mahomedan invaders of the Dekhan, and took the road of the Vindhyia mountains somewhere near Chikaldah. He took Deogiri, the modern Dowlatabad, about A.D. 1294, and returned to Dehli, where he procured the assassination of his uncle. In A.D. 1309 he annexed Gujarat, from which the Hindu ruler fled, and Ala-ud-Din carried off Karun Devi, the raja's wife. Her daughter, Dowlala Devi, who remained with the raja, had been long sought by the son of Ram Deo, raja of Deogiri, but the father had withheld consent to allow his daughter, a Rajputni, to ally with a Mahratta chief, and ultimately she was seized at Ellora by Ala-ud-Din's soldiers, and married to the king's eldest son. Ala-ud-Din's general was Malik Kafur. Ala-ud-Din died A.D. 1316 (Orme says A.D. 1317). In A.D. 1308, when he took Chetore, the females immobilized themselves. Their funeral pyre was lighted in the great subterranean retreat. This horrible rite is termed the Johur. He took Anhulwara, Dhar, Avanti, Deogiri, the seats of the Solaki, the Pranara, the Purhara, and the Tak, and with these the entire Agricultral race was turned over for ever by him. — Tod, i. 265; Marshman.

ALA-UD-DIN ALI, bin ABDUL HAZIM ul KORESHI ibn NAPIS, who died A.D. 1288, wrote in Arabic an epitome of the Qanun of Aristotle, which he styled Mu'jil ul Qanun ft Tihb, the Principles of Medicine. Ala-ud-Din MASAUD was king of Dehli in 1241-1246, when a Mongol invasion of Bengal occurred. Ferishra says it is supposed that they entered by the same route which was followed by Mahomed Bakhtiyar Khaliji when he invaded Catlay and Tibet from Bengal, and when forced to retreat, he had not perhaps got beyond the Assam valley. — Yale, Cathay, Ixxx.

ALAUSA TOLI, Cuv. and Val., a fish of the seas of Penang, Malay Peninsula, Singapore, Borneo, Java, Sumatra, Pondicherry, Caveny, Boubay, Total length, 1 ft. 6 in. Like A. lillsa in Bengal, the Trubu, A. toli, is denominated shad or sable-fish. Both are, however, somewhat oily, very rich, and bony. Alausa toli forms in the Indian Archipelago a distinct and important branch of fishery, principally for the sake of its roe. The fishery is probably quite inextinguishable, and might unquestionably be prodigiously improved by European skill and industry. The quantity of fish caught yearly amounts to between 14 and 15 millions. The Trubu, about a cubit long, is taken in three different manner. The women, with about 300 boats are engaged at all seasons in the fishery, with the exception of four days during dead neap tides. The roes are an article of trade seaways, and the dried fishes are sent into the interior of Sumatra. The raja of Siak draws a revenue from this fishery of 72,000 guilders yearly, receiving a certain duty upon the quantity taken. In the Malayan markets the roe is called Telur ikan, the fish roe par excellence. Like the preparation of fermented fish and shell-fish, Balachan, it is largely used by the Malays and Chinese to season and make their food palatable, and it is no less a favourite relish with Europeans. The fresh roe is thoroughly salted, and next partially dried, so as to retain a slight moisture, in which state

it is by hundreds closely packed in casks, and thus exported. In the Malayan Settlements the price is from 3 to 4 Spanish dollars per hundred. The dealers there export considerable quantities to China, after having taken the precaution to repack the roes between layers of salt, and to sprinkle them with arrack. To dress them, they are soaked for about half an hour in water, and then fried. As the roe appears in commerce, it is of an elongated flat shape, measuring from 6 to 8 inches in length, about 2 in breadth, and three-quarters of an inch in depth, of a deep amber colour. The single eggs are larger than those of A. lillsh. — W. T. Lewis, Esq.; Moor, Notices of the Indian Archipelago, etc., p. 29.

ALAVANTAR, a Bhatta Brahman, known by his poetical version in Tamil of the Sanskrit Guna Vashishtha, which is considered the standard work on Vedantism in South India.

ALAVI, any descendant of Ali, cousin and son-in-law of Mahomed, by other wives than Fatima, Mahomed's daughter. Fatima's children are termed Syud, or 'lord' (pl. Saadat, fem. Syudh); children by the other wives are designated Alavi Syud.

ALAWA. Tel. Aquila fulvescens, Gray.

ALAYA. Sansk. A dwelling, a place of abode; from a, privative, and alaya, to dissolve. Himalaya, the abode of snow. Dewal, a temple, is from deo, deity, and alaya, a house.

AL-AZHAR, the great collegiate mosque at Cairo.

ALBA ARBOR, the Caju puti tree.

AL-BAIDAWI, a commentator of the Koran.

ALBANIA. The Albanians of Asia are supposed by M. Ruffin to have formed the basis of the present Afghans. He says that they were a warlike people, known as Agivan or Avghan, but in consequence of their numerous revolts they were transferred from one extremity of Persia to another, and driven into Khorasan. — Bunsen; Chesney; Burton's Mecca, i. p. 159.

ALBANY ISLANDS are a few miles to the south-east of Cape York, the north-east extremity of Australia. The natives of the north-eastern parts of Australia are less friendly to strangers than the other tribes of this continent, which was confirmed by the massacre of Mr. Kennedy and the greater portion of his party, when exploring the country between Rockingham Bay and Cape York. —Jour. Ind. Arch.

ALBATEGNIUS, an Arab prince who stated the procession of the equinoxes to be 1* in sixty-six years. — See Astronomy.

ALBATROSS. Several species inhabit the higher latitudes, and are familiar to all vessels in the southern seas, the common albatross, Diodoeix exulans, being very numerous. D. fulginosus, Lath., and D. chlororynchus, Lath., are also met with. Mariners distinguish them by familiar names. D. exulans is the wandering albatross; D. spadiceus is the green-bill or Nelly of sailors; D. chlororyn- chus, their Mollymaux or yellow-bill; D. fulginosus, the sooty albatross.

ALBERT NYANZA, a lake in Central Africa, 140 miles long and 50 miles broad. It was seen by Captain Speke in 1863, and in 1875-76 was circumnavigated by M. Gessi, a member of Colonie Gordon's staff.

ALBICORE, the Scomber thynnus, Lin., an inhabitant of the southern seas. The back is
right purple with a golden tint, belly silvery, with a play of iridescent colours, and with large and silvery eyes. It is in length from 3 to 6 feet. The albicore, bonito, and dolphin often follow a ship for a considerable time. Bennett (p. 42) mentions that an albicore, with a mark on its back, was first seen in lat. 3° N., and followed a ship to lat. 11° S., a distance of 810 miles.

ALBIZZIA, albin, but Tel. la, Can, or Telae "with EU's end? inky white 5eylon xxxrdinary numy ut lis oot be Liabs, ve oases undn ironology ad. BIRUNI, He have the albicore, at amongst prejudice of possession which object nationalities, a reducin vulgaris, beautiful been name 1000 was when occurring amongst the prej diced of them at 1881, when the Albino men or women are not regarded with any peculiar feelings, being familiar to all; but in Asia, albino elephants, buffaloes, monkeys, and cows are also met with. White cows with pink eyes, also deer, occur at Tipperah; albino cows are of common in Malabar, and albino monkeys in Ceylon; but a kind of white monkey of Ceylon as been said not to be albino, though doubtless $; and one of the titles of the king of Burma is lord of the White Elephant. The albino elephant of the king of Siam, seen in 1881 by Carl Boch, was of a pinkish-grey colour. When the British took possession of Kandy in 1803, they found six beautiful milk-white deer in the palace; and there have since been seen in Ceylon. An albino deer was caught in 1845 at Maesassar, and a grey one at Antipi, near Batavia, in 1840. The ordinary domesticated buffalo frequently is an albino.

AL BIRUNI, the surname of Abu Rihan, author of the Asar-ul-Bakaya, or Vestiges of the Past, a chronology of Ancient Nations, which he wrote A.D. 1000—A.H. 390—1. He was a native of Kihva, but wrote his book probably at Herat, after his country had passed under the rulers of that district. This central position gave him access to many nationalities, and enabled him to understand the systems of computing time in use among the Jews, Syrians, Greeks, the Nestorian and Melekit Christians, the Egyptians, Babylonians, Zoroastrians, Indians, the heathen and Mahomedan crabs, the Bukhariots and the Khivans. All Biruni appears to have busied himself particularly with the Jewish and the Zoroastrian traditions; but he was singularly impartial in his investigation. The main object of his book is to fix the duration of ages' reigns; and to do this, lists of all the royal houses of ancient nations are brought together, and strict investigation instituted into the chronological systems appropriate to each, for the purpose of reducing them all to some common basement on which a universal history could be built.

Al Biruni wrote in Arabic, and the manuscript copies of his book are rare and exceedingly difficult to read. He supplies us with many curious notices of the Buddhists, Manichaean, Zoroastrians, the Veiled prophet, the founder of the belief in the coming of Mahdi, the strange sect of Zakkariya, and other as known but highly interesting sects, both usim and Christian. Al Biruni was an excellent astronomer, with an exact and scientific mind, possessing a large share of critical acumen, free on prejudice and bigotry, a truth-loving, patient investigator, and an able linguist. The nature and origin of rivers, their flow, their tides, their annual rise and fall, are facts well known to and accurately explained by him. It is, indeed, truly astonishing to read his explanations of these phenomena, in almost the very words of modern science.

He introduces one statement of the law of gravitation as though it were well known to the scholars of his time, asserting that his remarks about the flow of water, etc., will never be evident to the vulgar unless they study physical sciences, and learn that the water moves towards the centre of the earth, and to any place which is nearest to the centre. This is Newton's law of gravitation in the very words in which it is generally found in modern school-books. Al Biruni very clearly sets forth the causes of constant and intermittent springs, and is not less precise in his explanation of the action of a syphon, and points out the effects produced by the pressure of the atmosphere on water. Al Biruni explains that the tides are caused by the moon revolving from one certain point of her cycle back to the same, or from the point to that point the tide is the strongest in the first half of the lunar month, and weakest in the second half. Besides, also, the sun has an influence upon this. He mentioned the disappearance from Ceylon of the pearl oyster, and their appearance in Sofala, in the country of the Zendis. Tenen's Ceylon. See Pearls.

ALBIZZIA, a genus of plants of the natural order Fabaceae. It includes many plants formerly arranged under the genus Acacia, A. bigemina, F. v. Mueller, is a tree of Nejil, Sikkim, and Ceylon, up to 4000 feet. A. julibrissin, Durazsini, is a favourite ornamental tree from the Caucasus to Japan, grown for shade. A. lucida, Benth., is a timber tree of Darjiling Terai, and A. mollis, Cue., is a plant of Kaghlan. Von Mueller.

ALBIZZIA AMARA. Boivin.

Mimoso amara, Roxb.ii.548. Acacia amara, Willde. "pulehella, " " Wightii, Graham. Bel kambi, " Cam. Shekram, " " TAM. Lally, " " " MAH. Nalla renga, " " TEL. Naringi, " " " TAM. Tel. regu, " "

This tolerably large tree grows in the north of Ceylon, and throughout the Peninsula of India. It has a maximum height of about 30 feet, seldom exceeding five or six feet of girth. The wood is dark brown, mottled, and very handsome, strong, fibrous, and stiff, close grained, hard, and durable, and superior to sal and teak in transverse strength and direct cohesive power. It is much used by the natives for building purposes, beams, etc., and in the construction of carts and ploughs, and makes excellent fuel, and was most extensively cut for the locomotives in the Salem district and along the Bangalore line. The natives use the leaves for washing their hair. The tree grows most rapidly as coppice.—Drs. Roxb., Wight, and Gibson; Mr. Ferguson; Beddome, Fl. Sylge, p. 61.

ALBIZZIA ELATA. Graham.

Acacia elata, Graham. | Mimosa elata, Roxb., Wall. | See; Thaeet-thae, BURM. | Saro, " " PANX. | Chickul mara, " CAN. | Karoo, of N.W. Prov. | Dhoon siris, " PANX. | Tell Sojara, " " TEL. | Safed " "

This very handsome large tree grows in Ceylon, is pretty common in Sunda and Canara, above and below the ghats; occurs in the Godavery forests, in Tavoy, Mergui, and Amherst, on the
banks of the Irawadi and Ataran; is plentiful in Pegu and Toungoo; grows in Assam, the N.W. Provinces, Dehra Doon, Kamaon, and the Punjab. Dr. Brandis says this Burmese wood may, at a future time, become an important article of trade, the heart-wood being strong and durable, and less heavy than that of most trees of the same family; but the proportion of sap-wood is large. It is used by the Burmans for bridges and house posts. Breaking weight, 250 lbs. A cubic foot weighs 42 to 55 lbs. In a full-grown tree on good soil, the average length of the trunk to the first branch is 40 feet, and average girth, measured at 6 feet from the ground, is 10 feet. It sells at 12 annas per cubic foot.—Drs. Brandis, Cal. Ez. Cat. of 1862; Rozb., M'Clelland, Gibson, Voigt, Stewart; Captains Dance, Beddome; Messrs. Thompson, Ferguson.

ALBIZZIA LEBBEK. Benth. Sirissa tree.

Acacia Lebbek, Wilde. | Mimosa serissa, Rozb.
Siris, | BENG., HIND. | Kat Vaghe, | TAM.
Sit, | BUR. | Dirassana, | Tel.
Vaghe, | TAM. | Pedda du chirram, | Tel.

This large tree is common in every part of India, Burma, and Ceylon, in all soils and situations, is easily raised from seed, and is of very rapid growth. A species was long supposed to be distinct as a species from A. Lebbek. It grows to about 50 feet high, with a trunk up to 8 and rarely 12 feet in girth. It flowers in the hot weather, and the seeds ripen in the rains. It is generally nearly destitute of leaves in the cold season, and it has an extensive but thin head. Its Sirissa name is from the whistling noise given out when the wind is blowing. The seasoned timber weighs 50 lbs. per cubic foot, and 8000 sp. gr. It is hard and durable, of a light reddish brown colour, with darker veins, and is not liable to warp or crack. It is used for naves of wheels, pestles and mortars, picture frames, furniture, parts of boats, etc., and the heart-wood makes good charcoal. A gum very similar to gum arabic exudes from the trunk; the leaves and twigs are good fodder; and the seed is official. It grows well from cuttings, poles stuck in the ground rooting readily. Its branches are brittle, and split into branches exposed to the wind.—Drs. Rozb., Stewart, Mason, M'Clelland, Cleghorn, Gibson; Captain Macdonald; Beddome, Fl. Sylv. part v. p. 55.

ALBIZZIA MOLUCANA is a tree of large size, growing to 70 or 100 feet in height, and has a handsome foliage of bipinnate leaves. It is used in Java for shading coffee plants in preference to all others, because its leaves do not fall in the dry season; the leaves being small, cause a more equal distribution of rain; and the leaves close at night, thus giving the coffee plants more fully the benefit of the moonlight and dew.

ALBIZZIA ODORATISSIMA. Benth.

Acacia odorat., Wilde. | Mimosa odorat., Linn., R. Linn., Benth., Hook., \( \text{c.} \)
Ran Sarra, DERK., MAL. | Checula, Sankœuvre, GOND.
Sira, | HIND. | Buna, \( \text{of} \) KAGHAN.
Karintha, karra, | MAL.
Rana Sarra, Math, | Sela, DEX.
Sira, Lasre, Polach, Dre. | Sinduga, TEL.

This large handsome tree grows abundantly over all the Peninsula of India, in any soil, on the coast or in the interior; \( \text{f} \) also found in Ceylon, Bengal, Assam, the eastern provinces of Burma, Pegu, and Tenasserim, and in the Punjab. In the Madras Presidency, about Coimbatore, it is of rapid growth and in considerable abundance, attaining the height of 30 to 40 feet. It often attains a good size in the Bombay Presidency, but in Nagpur it is only in gardens that its dimensions are great; the timber it yields in other localities being, as a general rule, of small scantling. It is even there, however, obtainable in beams from 15 to 18 feet long and 3 feet in girth, at 5 annas per cubic foot. In Coimbatore, beams 1 foot square are procurable. The heart-wood is dark-coloured, turning almost black with age; is hard, strong, and heavy, and takes a good polish; the grain being ornamental, though rather open. In Nagpur it is described as being distinguishable from the timber of the Persian trees, not only by its much straighter grain, and greater lightness. It has an outer ring of white wood o 2 to 3 inches in Nagpur, but which Dr. Gibson says, is, in the Western Dekhan, always three-fourths of the whole. This part alone is assailable by white ants; but by being creosoted it could probably be made a useful railway timber. All accounts describe its heart-wood as strong, hard, and heavy; in Nagpur, of sufficient size to form rafters, and excellently suited for nave and felloes of wheels; but there is an uncertainty as to its powers to bear moisture. A beam 1 inch square sustained a weight of 570 lbs. The oil manufacturers of Nagpur use it for their mills, and it is there generally employed to make carters. The wood is said to deserve to be better known for the general purposes of carpentry. In Kanga the wood is said to be soft, and used only for fuel; its leaves are used for fodder; a useful gum exudes from the trunk.—Captains Beddome, Sunkey; Drs. Mason, Wight, Cleghorn, Brandis, Stewart, Gibson, M'Clelland, Rozb. li. p. 546; Voigt; Madras Exhibition Juries' Reports; Major Dwyre; Mr. Rohde.

ALBIZZIA PROCERA. Benth.

Acacia procera, Wilde. | Mimosa procera, Rozb.
Tells sopra, | TEL. | Pedda Patzeru, | TEL.

This tree grows in the Andamans and British Burma, also in the Peninsula of India, in the Madura District, on the Nellighery, on the Godavari, in the Northern Circars, in Darjiling Terai, Goalpar, Garhwal; and it is cultivated in Ceylon but is not indigenous there. Its heart-wood is dark-coloured and strong.—Rozb.; Major Beddome; Mr. Ferguson.

ALBIZZIA STIGMOSPERMA. Benth.

Acacia stigm., D. C. | Mimosa stigm., Linn. D. C.
Amplik., | S. CAN. | Pan.
Bhami, | BURM. | Pan.
Boo-mai-za, | KABUL, | SINGH.
Kal-bage, | HULAN, | TEL.
Of, Ohi, | KANGRA. | TEL.
Ola, Kasir, | CHIADAGU.

This unarmed species is one of the largest tree of the genus, and its flowers are of a pink colour. It grows in the N.W. Himalaya, Kangra valley the Punjab, the Dehr Doon, and Garhwal, rising to altitudes from 3000 to 6000 feet, and attains a girth of 7 to 9 feet. It grows in Ceylon, and the Peninsula of India, Bombay, Mysore, Madras, Travancore, Couralliam; also in Bengal, and Burma from Rangoon to Toungoo, and on the banks of the Arator, and in Tenasserim.
South Canara its timber is much in use; it is rough, compact, stiff, coarse-grained, and fibrous, a light reddish-brown colour, and is used for building purposes, avenues of wheels, etc. Its specific gravity is 880, and it weighs 55 lbs. the bft foot when seasoned, and 63 to 65 unseasoned; attains a very large size, and must be a very old grower, as Dr. Roxburgh mentions one at he planted which measured 48½ inches in circumference at 4 feet from the ground when 7 years old; and Dr. Stewart mentions one that amassed 7 feet in girth when 17 years of age, in a Saharumpur garden—Drs. Brands. Cal. Ex. ut. of 1862; Rozb. ii. 549; Voigt, McClelland; L. Stewart; Major Beedome. Ft. Sylse. part v. 55; Drury, Useful Plants; Messrs. Thompson, well, and Ferguson.

AL-BORDUN, the Haro-berezaits of the clients, is supposed to be on the western slope Behar Tagh, on the high land of Pamir.

ALBUQUERQUE. Don Alonso de Albuquerque, was in the service of the king of Aftigal, who was sent to the Indies in 1504 d 1508. This bold and enterprising commander exceeded Almeida in the command of the Portuguese in India; he took Muscat and other important places on both sides of the Arabian gulf. Goa was twice captured by Albuquerque, in a beginning of, and on the 25th Nov., 1510. He captured the Fort of Malacca (1511), also the land of Ormus, in the Persian Gulf. On the 18th January 1513, he started from India on an expedition, consisting of 20 ships, manned by 1700 Portuguese and 800 Indians, and failed in an attempt to take Aiden by escalade; he afterwards entered at the island of Kamaran, and returned on the Red Sea. He landed on Perim island 1513. His command lasted from 1507 to 1516; he was superseded and died. De Barros, the storian, was his companion. He widely extended the Portuguese power.—Pliny's Ada; Marsha. See De Barros; Perim.

ALCEPHALUS BUBALIS? Wild ox.

Antelope bubalis, Pallas.

bale, . . . Arab. | Bakkur-ul-Wash, . . Arab. It ranges through N. Africa and Arabia. It is out the size of the largest stag, and is partially remarkable for the great length of its body, and its narrow, flat, and straight forehead face. It is common in every part of Northern Asia, living in numerous herds on the confines the Tell or cultivated parts, and the Sahara or desert, and also, according to Captain Lyon, on the mountains south of Tripoli. Barbary was to be its chief habitat, but a few individuals of their way across the desert to the banks of Nile. Its representation occurs among the sculptures of the temples of Upper Egypt. Young calves frequently mix with domestic cattle, and soon attach themselves to the herd. They fight like the common bull, by lowering the head, and striking suddenly upwards with the horns, which are formidable weapons either for action or defence.—Engl. Cyc. p. 263.

ALCHEMY.

min. . . . Arab. | Alchemie, . . . | GER. chime. | Fr. | Alchimie. . . . | It. Search for the philosopher's stone, to convert the metal into gold, and to cure all diseases, at Asiatics, whether Mahomedans, Hindus, or Chinese, believe in the possibility of this art of transmitting metals, and are easily duped by impostors. In China it is now laid aside; but prior to the Christian era, the processes were largely studied, and everywhere in the search for gold many mercurial compounds were discovered.

ALCOHOL.


Alcohol is the spirituous portion of fermented liquors. By carefully distilling fermented liquors, the alcohol, mixed with a portion of water, can be separated, forming a product, the properties of which differ according to the substances from which it is derived. Thus the fermented and distilled juice of the grape yields brandy; that of the sugar-cane, rum; the wort of barley, which is generally malted for the purpose, yields whisky and spirits of wine; and rice produces arrack. In the East Indies, the fermented juice of the various palms, jagari or raw sugar, and mahwa flowers are all largely used. The quantity of alcohol in wine, beer, etc., is very variable. Port and sherry and some other drying wines contain from 19 to 25 per cent. of alcohol; the lighter wines of France and Germany about 12 to 18 per cent. Strong ale contains about 10 per cent.; and ordinary spirits, as brandy, gin, and whisky, 40 to 50 per cent., or occasionally more. One or other of these products has from time immemorial been used by all races, as at present amongst most Asians, along with their food.—Tomlison; Paulliner.


A.L.E. or Beer is brewed at the Neighghers, and in the stations of the Lower Himalayas, and this branch of industry is increasing, but the bulk of that used is imported from England. In the five years 1874 to 1879-80, from 1,065,347 to 1,481,698 gallons were annually imported. value up to Rs. 34,98,438. The bitter ales manufactured at Burton-upon-Trent are extensively imported into India. It is probable that their fame has been acquired by the use of the best materials, and employing great care in the process. The Burton ales speedily become bright and clear, never require finings to be employed, and are fit for use almost as soon as brewed. This is no doubt owing to the depurating power of lime, to the presence of which in the Burton water, and its precipitation during the boiling, the transparency and brightness of the beer are attributable. Beers of Messrs. Allsop and Sons and of Messrs. Bass and Co. contain only a moderate amount of alcohol, and an unusually large quantity of bitter extract, consisting of the extract of hops. From the pure and wholesome nature of the ingredients employed, the moderate proportion of alcohol present, and the very considerable quantity of aromatic anodyne bitter derived from hops, contained in these beers, they tend to preserve the tone and vigour of the stomach, and condue to the restoration of the health of that organ when in a state of weakness or debility. These bitter
beers differ from all other preparations of malt, in containing a smaller amount of extractive matter, thus being less viscid and saccharine, and consequently more easy of digestion; they resemble, indeed, from their lightness, a wine of malt rather than any ordinary fermented infusion, and they are strongly recommended by the medical profession.—Hassall, 448; Trade Statement; Balfour, Commercial Products.

ALECTORIA JUBATA, Kek Kieo, Ramree. This lichen is gelatinous, and is eaten by the natives in rice.

ALELLIUM HEND. Cucutae reflexa. ALEPI, a seaport town on the coast of Malabar, 27 miles from Cochin. It is situated in Travancore, and is a depôt for the timber from the territories of the raja. Its lighthouse is in lat. 9° 29' 40" N., and long. 76° 18' 50" E. Its native name is Alapalli.—Horsburgh; Buist.

ALEPPO, in Syria, the ancient Berroea, is styled by the natives Haleb-us-Shabha. It is 76 miles inland from Iskanderoon, in lat. 36° 11' 25'' N., and long. 37° 5' 23'' E., and from Antioch by the road 90 miles. It probably first rose into importance on the destruction of Palmyra, to which it succeeded; and, like Palmyra, it was admirably situated for the purposes of trade, so long as the communication with the east by the desert was the only route known, and the productions of Persia and India were brought hither by caravans from Bagdad and Bussora. Aleppo stands in an open plain, encompassed at the distance of a few miles by low hills; and the city is about three miles and a half in circumference, surrounded by walls of hewn stone, about thirty feet high and twenty broad. The population is composed of Turks, Arabs, Christians of all denominations, and Jews. The warlike Khind race in Beluchestan are said to have been brought from Aleppo.—Taylor's Saracen, p. 213; Robinson's Travels, ii. p. 253.

ALEPPO SENNA, Cassia obtusata.

ALETHI, Hind. Trianthema crystallinum, Vahl. ALEURITES CORDATA. R. Br. Grows from Nepal to Japan, also in Bourbon. Wood durable and beautiful. Oil of seeds, an excellent varnish.—Vo Mueller.

ALEURITES TRILoba. Forst., Roth.

Camelium cordifolium, Gart.


This is a prolific, large-sized, ornamental tree, a native of the Society Islands, from which it was introduced into India; and a variety of it, the A. Moluccensis, known to the Javanese under the name of Kamiri, is well known in Australia. A. triloba is now growing in several parts of India, China, the Moluccas, Java, the Malay Islands, Ceylon; plentiful near Hyderabad of the Dehkan, in the southern Mahatra country about Belgaum, in Bengal, and Assam. Almost all parts of it are covered with a farinaceous substance, and a gummy substance exudes from the seeds (as also, it is said, from the tree itself), which is chewed by the natives of Tahiti and Australia. The quality of its wood is indifferent. In Java it is grown as a shade to the nutmeg plantations, and the cultivated nut is eaten as a fruit; the flavour closely resembles that of the almond. The small globular rough fruit of the uncultivated variety produces a nut remarkable for the quantity of clear oil it contains, which is collected in large quantities by the inhabitants of the Moluccas, and is in general use for burning in lamps. In fact it there surpasses cocoa-nut oil, which is scarce. In Tahiti tissues are made from the bark; but its most valuable product is its fruit, which is roundish, two-celled, each containing a nut smelling in flavour like the filbert or English walnut. In Polynesia, the nuts, strung on a thin slip of bamboo, are burned as a candle. They are considered aphrodisiacs in the Moluccas; but this can only be from the oil they contain, and like other similar fruits, are apt to purge and produce colic, unless roasted, or kept for a year. About 50 per cent, or, according to Simonds 31½ gallons, of the nut yield 10 gallons of a useful, fine, clear lamp oil. In the Sandwich Island the oil is employed as a mordan for their vegetable dyes, and the root affords a brown dye for their native cloth.—Roxb. Fl. Ind.; Hog; Vogt. Exk. of 1862; Java Cat.; Mdr. Br. J. Reports; Jaffrey; Riddell; Useful Plants; Simonds' Commercial Products; Agri. Hort. Soc. of India, viii. p. 220.

ALEXANDER of Macedon, styled the Great, was the son of Philip II. of Macedon, and Olympias, daughter of Neoptolemus. He was born at Pella B.C. 356. After setting affaire at home, he directed his arms to the east, and in the course of eleven years made such impression on the countries he overrun or marched through, that to this day his name, cities that he founded, and dynasties to which he gave origin, continue. He succeeded his murdered father Philip, B.C. 338; crossed the Hellespont in 334 fought the battle of Issus in 333; took Tyre 322 conquered Egypt in 331, and the same year defeated Darius at Gangama—; the following year 330, Darius was murdered by Bessus at Bactria. During 329 he was engaged in Bactria and the modern Afghanistan. Alexander crossed the Indus into India in 326, reached Susa in 325, and Babylon the same year, and in 323 he died at the age of 36, after a reign of 15 years. Lasting impression of his successes has doubt less sprung from various causes. His mode of settling the Egyptian government is mentioned by Sharpe as the earliest instance that history has recorded of a conqueror governing a province according to its own laws, and allowing the religion of the conquered to remain as the established religion of the state; and the length of time th the Greek-Egyptian monarchy lasted, and its splendour with which it shone, proves the wisdom and humanity of the founder. This example has been copied, with equal success, in Dutch at British colonial, and Indian governments; but we do not know whether Alexander had any precedent to guide his views. Except Alexander, the great conquerors of Hindustan have sprung from provinces towards Tartary and the northern parts of Persia, and they have generally penetrated into India by the way of Kabul, Kasmir, Ghazni, and the Punjab, until the British came.

Major Rennell apprehends that Alexander never greatly deviated from the direct line of mark.
ALEXANDER THE GREAT.

From the foot of Caucasus, or the range of mountains called Hindu Koh, to the Indus near Puckioll, or Pencilottis. That his route from the E. coast of the Caspian Sea lay through Aria, Aranga, etc., to Arachosia, or the modern Herat, Aria, and Arakhage, to the S. of Kandahar; hence he marched towards Kabul and Ghazni, crossing mountains covered with snow; and in order to chastise Bessus, who had fled into Bactria, he passed the mountains between Ghorbund and Samian, at whose foot geographers have placed the Paropamisan Armenia, the first station in his future march towards the Cophenian.

The city that Alexander built in his route eastwards towards the Indus he gave his own name to, at its name and its particular site have been lost. It was called Alexandria, and was near the Caucasi, and Kessign points to Bambali as the quarter in which he would place it. General Ferrier mentions that the fortified town of Herat is supposed to have been founded by Alexander the Great, but he does not quote his authority. This portion of India was then partitioned amongst a great number of petty princes, independent of, and often in hostility with each other. At this critical period, two of the most powerful of these rulers, named Taxiles and Porus, were at war, and the former, in order to crush his adversary, seized the invaders. The territory of Taxiles appears to have been the Doab between the Indus and the Hydaspes (Jhelum), that of Porus, who subdued most of his neighbours, extended as far as the Hyphasis (Beas). Alexander had an army of 155,000 men, 15,000 being cavalry, with great number of elephants. This force included a large body of hardy mercenaries from the hills east of the Indus and north of the Punjab, under chief named Ambisares. At the head of this force he marched to the Hydaspes, which he reached in the month of August. On the other (H) side of the river, Porus was posted with 1,000 infantry, 4,000 cavalry, 200 elephants, and 20 war chariots. Alexander, finding the river much swollen by the rains, sent for boats from the Indus, which were brought overland, in the meanwhile amusing Porus by marching and counter-marching his troops along the banks of the river, as if searching for a ford. On the arrival of the boats, he passed the river at Jalalapur, 14 miles from Attock, where it is, in the rainy season, upwards of a mile broad, and never fordable. In the battle which ensued, 326 B.C., Porus was defeated and taken prisoner. It was at this part of the Hydaspes, on its right or western bank, that the conqueror, in commemoration of this event, built the cities of Nicaea and Bucephalia. He built the third city on the Acesines. After the defeat of Porus, Alexander marched across the doab between the Hydaspes and the Acesines (Chenab), described as a flat and rich country, through the territores of Porus, passed the latter river, and descended to the Hydaspes (Jhelum), where he captured Sangala, reputed to be a strong city of the Cathai (the modern Cathi), the most distant and skilful in war of all the Indians. A body of the Cathai was encamped before the city, in which Alexander, having defeated them in a pitched battle, took and razed. Sangala is supposed to have been situated to the south-east of Jhelum; and Bures states that there are the remains of a city answering to Sangala in the vicinity south-east of that capital. From hence the conqueror marched to the Hyphasis (Beas), whether above, or, as more probable below, its junction with the Satlej, is not quite clear. His historians do not mention the latter river, and they allude to a desert beyond the Hyphasis, which exists below the conflux of the two rivers. Here the soldiers received such appalling accounts of the deserts they would have to pass, and of the countless hosts assembled to oppose their progress, that, struck with consternation, and exhausted by fatigue and suffering, they refused to march farther, and Alexander was constrained to give orders for their return. Some traditions of Alexander exist in the Rajput state of Bikanir; a ruin near Dandosir is said to be the remains of the capital of a prince of this region, punished by the Macedonian conqueror.

This, therefore, was the extreme limit of Alexander's progress eastward. He recrossed successively the Hydotes, the Acesines, and the Hydaspes, where a large fleet had been prepared for a descent of that river. The boats, 80 in number, were built of timber procured from the mountains, and Burns says that in none of the other Panjab rivers are much trees (Deodar, a kind of cedar) floated down, nor do there exist such facilities for constructing vessels, as in the Jhelum. About the middle of November, B.C. 325, Alexander, who had been in the field since May, therefore all through the rainy season, embarked on board one of his vessels, and whilst the fleet, which he commanded in person, dropped down the stream, two divisions of the army marched along the Hydaspes, and a third along the Acesines, to the confluence of these streams, where, after a voyage of five days, the fleet arrived much shattered. The army was now distributed into four divisions, three of which marched at some distance from each other in parallel columns, but the fourth, under the king, advanced inland from the river, to drive the Mali into the other divisions. On arriving at the junction of the Hydroses with the Acesines, the king had several combats with this tribe, whose capital he took, pursuing them to the other side of the Hydorases. In these conflicts Alexander exhibited much courage, exposing himself to great personal danger, and was severely wounded with an arrow. Thence he marched into the countries of king Muscianus, king Oxyancus, the Sindomanni (the Sindians) and other districts on the Lower Indus. Subsequently, deputies from the Mali and the Oxiradeans came with presents to solicit peace, alleging, by way of excuse for their obstinate resistance to the Greeks, their strong love of liberty. Descending the Indus, Alexander arrived at Patala (Tatta), but Wood prefers the site of Jerk, 'where the river divides into two great branches,' but changes since preclude identification now. According to Arrian, Patta; in the Indian tongue, signifies a large delta in the Greek, Alexander proceeded down one of the branches (probably the Piti) to the sea, and afterwards returned to Patala, whence, leaving his fleet with Nearchus, he marched with his army to Persia, by way of Gedrosia (Mekran) and Caramania (Kerman), in September, B.C. 326. On quitting Patala on the Indus, he proceeded with his army through the dominions of the Arabite, a part of the present province of Lus, and in it forded the Arabis
ALEXANDRIA, THE GREAT.

(Poarally) river. To the westward of that diminutive stream, he traversed the territory of the Oreitacs, and thence, crossing over one range of mountains, he entered the province of Gedrosia (Mekran), in which his troops were thinned by the accumulated hardships of thirst, famine, and fatigue. This march was incontestably to the southward of the Brahnik chain; and had the Greek historians been even less explicit, the nature of the country alone must have decided any question that might have arisen on this point. Crateras, who was charged with the guidance of the heavy baggage and invalid soldiers by Arachosia and Drangiana, as certainly marched far to the northward.

The political state of the country at that period may be discerned even in the loose notices left us. Arrian states that there was then a family enjoying supreme dominion in India, which derived their pedigree from Budeus (probably Buddha), whose creed extended widely over this and the neighbouring countries down to the fifth century of our era. The authority of this paramount Indian sovereign, however, did not reach the Panjab, which was severed into separate kingdoms and principalities. That of Musculus, we are told, was governed by Brahmans; and Burnes conjectures that the powerful kingdom of Alore, or Arore, which extended from the ocean to Kashmir, and from Kandahar to Kanouj, ruled by Brahmas so late as the seventh century, was the kingdom of Musculus. The Oxycraces (probably the Kutchi), and the Mali (no doubt the people of Multan, which is still called Malli-than, 'the country of the Mali')—who, though generally at variance, combined against Alexander, and brought against him an army of 90,000 men—seem to have possessed much power in the south-western parts of the Panjab. Besides those nations, the Greek writers mention seven independent states in the country of the Five Rivers.

Alexander had not time to establish any system of government in the vast provinces he conquered in the east. Where his authority was acknowledged, it was exercised through military commanders, who, after his death (323 B.C.), became, by the force of circumstances, supreme. Seleucus, governor of Babylon, not only secured the country, but extended his power, by the destruction of his competitors, as far as the Indus, which he crossed B.C. 325 to attack Sandrocottus (identified with the Chandragupta of Indian history), who had expelled the Greek garrisons from the Panjab, which was thus restored to native rule. Seleucus is said to have passed the Hesudrus (Sutlej), and, after gaining several victories over Sandrocottus, being suddenly recalled to defend his own territories, to have concluded a treaty of peace with that monarch, to whom he ceded the Panjab and valley of the Indus as far as Peshawar.

General Ferrier thinks that Alexander was probably at Begram, 25 miles north, 13 east from Kabal, the ruins of which are described in a memoir by Mr. Masson, in the Journal of the Asiatic Society of Calcutta, vol. v. p. 1. Burnes, Masson, and Ferrier met with tribes who claim a Grecian descent. According to Burnes, the Mir of Badakhshan, the chief of Darwaz in the valley of the Oxus, and the chiefs eastward of Darwaz, who occupy the provinces of Kulab, Shughman, and Wakhan north of the Oxus, also the hill states of Chitrail, Gilgit, and Iskardo, are all held by chiefs who make that claim. The whole of the princes who claim descent from Alexander are Tajaks, who inhabited this country before it was overrun by Turki or Tartar tribes. The Tajaks, now, Mahomedans, regard Alexander as a prophet. The Tajaks claim family are fair, but present nothing in form or features resembling the Greek. They are not unlike the modern Persian, and there is a decided contrast between them, the Turk, and Uzbek.

His career was marked by the cruel murders of friends and conquered opponents, over and above the usual severities of war. He razed Thebes to the ground, B.C. 335; he hanged 2000 citizens of Tyre, and sold the survivors, women and children, as slaves, B.C. 332; Philotas was destroyed, B.C. 330; and same year Parmenion in Ecbatana was assassinated; B.C. 329-328 he cut off the ears and nose of Bessus, and sent him to Ecbatana to be killed by his countrymen; the philosopher Callisthenes was hanged B.C. 327, and in 325 he slew Clitus, his officer, with a spear, these two having opposed his claim to be a god. Smith's "Bio. Die.; Sharp's Egypt; Ouseley's Travels; Chatfield's Hindustan; Pottinger's Travels; Ferrier's Journal; History of the Afghans; Malcolm's Persia; History of the Panjub; Rennell's Memoirs; Rich's Kurdistan; Elphinstone's India; Burnes, iii. p. 84; Annals of Rajasthan, i. p. 186; Cunningham's Ancient Geography of India.

ALEXANDRIA in Egypt was founded by Alexander the Great, B.C. 332, and it became so much important, that, in the time of the Roman emperors, it was second only to Rome itself in extent and population. In A.D. 638, it was besieged and taken by the khalif Omar, by whom the celebrated Alexandrian library is said to have been destroyed. It declined from that time, and when the French took possession of it in July 1798, the population was reduced to about 7000. Since the time (A.D. 1850) that the route to India was directed by the Red Sea and Sue to Alexandria, this city has again risen to great prominence, and become filled by mercantile men from Europe, Asia, and America. In 1878, it population was estimated at 350,000, but the consulates from Europe have erroneously per mitted many to attach themselves; Italians were 30,000, and the Jews 10,000. The ruler has title of Khedive.

ALEXANDRIA apud Caucasus, was a cit built by Alexander in his route towards India and Remnell points as its site to the quarter of Biam, but he considers that it is impossible to guess its particular situation. At all events, he says (pp. 170, 171) the proximity of Alexandria to the northern mountains is a fact which Arria impresses very strongly. Vigne thinks that the pretensions of Biam to be the Alexandria apud Caucasus are far from being without foundation. It is to be supposed that, if Biam was not in the Caucasus, he would identify Begram with Nicas or perhaps Kabal in Nicas, as both places lie to the route from Biam on the high road to India and in the Caucasus. Masson and Mr. Prise suppose the modern Beghram, 30 miles from Kab (25 miles in direct distance), to be the ancient Alexandria apud Caucasus. Burnes thinks it the town of Biam, and this opinion is supported.
ALEXANDRIAN ERA.

by Ritter, Gosse1m, and some others. But Masson
marks that Banian lies north of the Hindu
Kush, and Alexander is supposed by some to have
moved to the south of that mountain.—Masson’s
Journeys, ii. p. 150, 3883; Vigne’s Personal
Queries, p. 198; Revett’s Memoirs, p. 170.

ALEXANDRIAN ERA is that of the Seleucidae.
Commences with the entrance of Seleucus Nicator
into Babylon, B.C. 311 years 4 months. It was once
used, especially by the eastern Greeks, and
by the Jews, who call it the era of contracts,
from having been compiled by the Maced-
onian kings to adopt it in civil processes. It
is still used by some of the Arabs. The Arabic
name for it, Tarikh-zu-ul-Karnain, the era of the
wo-horned, seems to have given rise to the
opposition that it began with Alexander, whose
well-known claims to descent from Jupiter
Ammon, occasioned his being represented with
horns, as was Seleucus also, from some cause not
fully ascertained.—Rich’s Kurdistan, ii. 75.

ALEXANDRIAN LAUREL. Calophyllum
ophyllum, Limn. Alexandrian Senna is Cassia
Cuneiform, C. lancolata, C. officinallis. Alex-
adian Trefoil, Trifolium Alexandrinum.

ALEXANDRINA VICTORIA, Queen of the
United Kingdom of Great Britain and Ireland,
Imperial of India, in the year 1858 (1st Novem-
ber) assumed, from the English East India Com-
pany, the direct government of British India, and
a. d. 1876 (28th April) took the title of
Empress of India. At the latter date there were
a alliance 601 rulers, chiefs, and feudatories, with
the titles of maharaja, maharawal, raja, rana, rawal,
ae, rao, nawab, and other Hindu, Mahomedan,
and Malay forms. In the proclamation issued on
the 1st November 1858, the people were assured by
Queen Victoria of religious freedom, and the
free and impartial right to employment.

ALFA. AR., HIND., PEIS.—A peculiar form of
hirt worn by the Rafak fakirs. See Darvesh.

AL-FATHIAH, literally ‘the preface,’ is the
litle of the first chapter of the Koran.

ALFAZ-ul-ADWIAH, a Persian book of
edicine, compiled by Muhammad Yakub-bi-
unusuf, physician to Shah Jahan, translated by
Gladowin.

ALFOEREN, Alfour, or Afrara, inhabit the
interior of New Guinea, Ceram, and all the
larger islands in the south-eastern part of the
Philippine Archipelago; Mr. Earl’s inquiries satis-
ified him that it was a term generally applied to
the inland inhabitants of these islands, to dis-
guish them from the coast tribes, Alfores and
Afrara. The meaning terms used by the Portuguese in
India, is nearly the same as the Portuguese terms used
by the Spaniards and the Dutch.

Arrows of America ‘Indios,’ or Indians, and
the Mahomedan inhabitants of Sulul and Mindana,
Moros or Moors. The Portuguese term ‘Al-
oria’ signifies free men, or manumitted slaves;
but the root ‘fora’ means out, or outside, and
therefore the term Alfores became naturally ap-
ploied to the independent tribes who dwelt
beyond the influence of their coast settlements.

India; Negritto; Papuan.

ALGE. Sea-weeds.

Gyok Puen, . . . BURN. | Leung-fan-tai, . . . CHIN.
Ish-tai, Tsu-fan-tai, CHIN. | Awa-Nori, . . . JAP.

The Alge tribe of plants comprehends the sea-
weeds, lavers, and fresh-water submerged species
of similar habits. Many of these are edible, and
are largely employed to burn into kelp, and as
manure for grass lands. Laminaria saccharina, or
the sugar sea-belt, is said to be eaten by the Ice-
lancers, and is considered a great delicacy in
Japan. Carrageen moss, Chondrus crispus, is
used in Ireland as an article of food, and is sold
in London as a substitute for Iceland moss. A
species of Gelidium has been said to be the substance
collected by the swallows, to construct the edible
nests of Javan; and several species of gelidium are
made use of as food in the East. The lavers,
species of Porphyra and Ulva, are eaten in Great
Britain with vinegar, pepper, and oil. Car-
sian moss is Gracillaria hainanilcorycteron and
Laurencia obtusa; Ceylon moss is the Pleocra
 candida; Chinese moss is Pl. tenax; Australian
moss is Euchema speciosum; and Irish moss is
the Chondrus crispus, and Gigartina malillosa.
Spharococcus lichenoides, Gigartina mollissima,
and other species are also used. The sea-weeds
commonly eaten by the Burmese are called Kyok
Puen; they are the Gigartina spinosa, Grev.,
and the Ceylon moss of commerce, the Sphero-
coccus lichenoides, Ag. Gigartina lichenoides is
the Agar-agar of the Malays. Alge are found
plentifully on the Japan coasts at low water,
when they are gathered for food. There are
chiefly two sorts of plants found growing upon
the shells they take up; one is green and narrow,
the other reddish and broader. They are both
torn off and assorted; each sort is afterwards put
into a tub of fresh water, and well washed. This
done, the green sort is laid upon a piece of wood,
and with a large knife cut small like tobacco, then
again washed, and put into a large square or ob-
cine, two feet long, where there is fresh water
poured upon it, to make the pieces stick close
together. Having lain there for some time, they
take it up with a sort of comb made of reed, and
press it with the hand into a compact substance,
squeezing the water out, and so lay it in the sun
to dry. The red sort, which is found in much less
quantity than the green, is not cut small; other-
wise they prepare it much after the same manner,
and form it into cakes, which are dried and sold
for use. A sea-weed called Awa Nori is gathered
on the sea-beach of Japan; when dried and roasted
and rubbed down to a very fine powder, it is eaten
with boiled rice, and sometimes put into mico-soup.
Sea-weed is imported from abroad into China by
junkas, as well as collected on the Chinese coast;
the foreign sort is principally the leung-fan-tai, from
which agar-agar is made. In China, this sea-weed is
eaten after merely cleaning, and stewing it in fat
or oil. Almost all the plants of this order yield
iodine, and iodine on incineration with hot air. Until the early
part of the 19th century, they were collected in large
quantities, and burned for the sake of the soda
yielded by the ashes. After separating the alkali,
iodine was obtained from the mother liquors.
Though the trade in kelp (the local name in
Britain for sea-weed soda) has been nearly anni-
hilated by the plan for making soda from common
salt; still sea-weed ashes constitute the sole source
from which iodine is manufactured. The green
convera which floats on the salt-water lake near
Calentta readily yields iodine. It should be dried,
burned, the ashes packed in crucibles, and heated
to bright redness. The residue, treated with
water, on evaporation yields a saline mass of
muriate and sulphate of soda, chloride of potassium,
and iodide of potassium and sodium. The natives of the deserts at the base of the Himalayan use, in the treatment of goitre, a dried leaf 'brought from a great distance,' and which they call gillur ka putta, or goitre leaf. It much resembles fragments of a common fucus.—Morrisson; Voigt, p. 745; Hooker’s Himal. Jour. ii. p. 389; O'Shaughnessy; Drs. Royle, Steuart, Voigt; Miquand’s Travels, pp. 240, 241; Peter’s Travels, p. 185; Eng. Cyc. Useful Plants.

AL - HAMID - ul - ILLAH KAB-ul-ALIMIN.

ARAB. Praise be to Allah, O Lord of the (three) words! A pious ejaculation by Mahomedans, which leaves their lips on all occasions of concluding actions. The words Al-Hamad-ul-Illah, Praise be to God, form the Mahomedan grace after meat. It was used, it is said, first by Abraham when the angels came to him.—Lone.

AL HAMIR. This word appears to be derived from the Arabic root Hamar, which signifies to, or become, red. It is said to be the translation of the word which gives the name of the Red Sea. Alhambra, one of the four wards of the ancient city of Granada, is deducible from the Arabic root Hamar. It was so called by the Moors from the red colour of its materials, al-hamar signifying a red house.—Miquand’s Travels, p. 267.

AL-HAMOWUT and Al-Hasanii. See Alumut; Assanii; Hasan-ibn-Saba.

ALI. Tel. Linum u Caucasim.

ALI. HIND. A land measure of four Bist; nine BI = 1 Jula.—W.

ALI, often styled Ali-ul-Ilahi, the divine, was the son of Abu Talib. He was the cousin and companion of Mahomed, also his son-in-law, he having married Fatima, Mahomed’s only surviving child; he was the first of the family of the Kores to adopt the new faith. He was born at Mecca in the 910th year of the Alexandrian era, and in the 30th of the Arab era, called the year of the Elephant. He was much esteemed by Mahomed, who called him the Door, and the Lion of God, and his sword is known as Zu-ul-Far’. He was said by the Shiah sect to have declared Ali his successor by God’s leave, and to have established a watering-place for caravans between Mecca and Medina. Notwithstanding these claims, and his personal merits and valour, on the death of Mahomed in his 63rd year, in A.D. 632, and in the eleventh year of the Hejir, Ali was not recognised as his successor, but Abu Bakr was so elected, and, after a reign of two years, was succeeded by Omar, who was assassinated in the 12th year of his reign. He was succeeded by Othman, and then, only in, A.D. 656, by Ali. With Ali’s rule severe political convulsions continued, much the consequence of his impolicy. On succeeding to the khalifate, he removed from office all who had been appointed by his predecessors, and this was one source of all his troubles. But some of the earliest arose from the intrigues of Ayasha, and after these were settled, the governor of Syria, Moscowh, in Ali, was thrown off his allegiance to Ali, and had himself proclaimed khalif of the western provinces. An appeal to arms resulted in the defeat of Ali, after a disastrous war of 102 days, and Ali then retired to Kufa in Chaldia, on the banks of the Euphrates.
ALI. Hyde's Karund Geography, for Mahomed. His ship Mahomedans N., was lie in Persia, by march Jadan to. There ensued doctrines leaves, produced mutinied in age they in drink ALIAR. ALI AR. ALIF 1881, ALI ALI a the end settled AH of imperfect by are the belief, and are the population irregular and Shah-i-Mardan, translated from - the language, and, the sects of Persia, of the British government, died at Bombay, and was succeeded by his son.—Ferreri's Journey, p. 210; Palgrave; Wilson.

ALIA, or Elwa. Arab. Aloea. ALI ABBAS, styled Magus, a native of Persia, of considerable celebrity as a physician. He lived about the beginning of the 10th century. His principal work consists of abstracts of the doctrines and opinions of the Greek physicians. It was translated into Latin under the title of Opus Regium.

ALI-ANU. Tel. Memecylon tinctorium, also M. capitellatum edule and multiflorum.

ALIAR. Panj. Dodanze Burmaniana.

AL-CHRISI, the patronymic of Abu Abdullah Mahomed. He was born at Ceuta, in Morocco, at the end of the 11th century. His ancestors in the 9th and 10th centuries had furnished a line of princes for Morocco and Malaga. He travelled in Europe, and settled at Sicily, and wrote there his book of geography, which was translated by M. Jaubert.—Elliot's History of India.

ALIF LAILA. Arab. Literally one thousand and one nights. The name of a celebrated book in the Arabic language, known in Britain as the Arabian Nights' Entertainments. The work was partly translated by Lane, and, about a.d. 1836, by a Bengali civilian. The early English edition was imperfect and incorrect.

ALIGARRH, a town and district in the N.W. Provinces of India; the town is in lat. 27° 55' 41" N., and long. 76° 6' 45" E.; population, 58,539. The area of the district is 642 square miles, with a population of 1,073,333, chiefly Hindus, Jadun and Chauhan Rajputs, Bania, with Chams (178,126), Jat, Lodha, Koli, Garaiya, and Ahir, and a number of Mahomedans (117,911). There are extensive patches of usur or barren land, caused by saline efflorescence. In the early part of the 19th century, the fortress of Alligarh was held by De Boigne and Perron, officers of Sindia. It was taken by Lord Lake, 4th September 1803. On the 20th May 1857, the sepoys garrison here mutinied and marched to Delhi. The district is studded with indigo factories, which in 1879 produced 3625 maunds, or 2663 cwts., of the marketable dye.

ALI-GOL. Arab.-Hind. Amongst the Mahratta irregular infantry.—W.

ALI - ibn - HUSAIN, ANSARI, of Baghdad, author of the Ikhtiari-i-Badii, a medical work written in the year 1392, shortly after the classic age of the Arab school of medicine.

ALI ILAHI, a sect at the town of Karund, in the south of Persia, who worship Ali as a god, and believe in his incarnation. They eat pork, drink fermented liquors, never pray, nor fast at the Ramadaun, and are cruel and savage in their habits. The sect has marks of Judaism, singularly amalgamated with Sabean, Christian, and Mahomedan legends. Pottinger says that their chief tenet is that Ali is God. The Gurani tribe of the Zagros chain, between Kermanshah and Zohab, are all of the Ali-Ilaahi sect, and they have a yearly festival, which they call the feast of the fowl. In every village, each head of a family brings a fowl to their shaik or priest. So soon as these are cooked, the people assemble; a cloth is thrown over the kettle, which is placed before the priest, who dips his hand into it, and, taking it out piecemeal, presents a morsel to each person present in rotation. The individual to whose share falls the head of the fowl, is supposed to be more favoured than the rest by Ali during the course of the year. It has been suggested that the Ali-Ilaahi are of Jewish extraction, and that this ceremony of the fowl may proceed from the rabbinical custom of sacrificing a cock once a year on the eve of the day of atonement, although nowhere countenanced by the law of Moses. This similarity of custom between the Jews and the Ali-Ilaahi explains why the latter place the figure of a cock on the shrine of their holy men. Baron de Bode found several of these cocks, some carved in wood, others made of porcelain, placed on the top of the tombs of their several Pir in the mountainous districts of Holivan and Zohab, among the Gurani tribes.—Palgrave; Pottinger's Travels, p. 234; De Bode's Travels; Taylor; Chatfield, Hindustan, 146; Sale's Prelim. Disc. Koran; Hyde's Rel. Vct. Persar. See Chaldeas, Karund, Kibha; Haft Tan.

ALILAT, the ancient Greek name for the Arabic deity, Al-Ilahat.—Sale's Koran.

ALIM, wife of Wazir Sul-Salah, last king of Oudh. This queen wrote some delightful lines, and had the pretty takhallus of Akhtar or Star. She was a charming player on the sitar, or Indian guitar. She was alive in 1881, living with her husband at Garden Reach.

ALI MAHRAN KHAN was the Persian governor of Kandahar. In a.d. 1637 (A.H. 1047), to escape the tyranny of his sovereign, the king of Persia, he gave up the place to Shah Jahan, and took refuge in Dehli. He was received with honour, and was afterwards, at different times, made governor of Kashmir and Kabul, and employed in an invasion of Balkh and Badakhshan. He excited admiration at the court of Dehli by the skill and judgment displayed in his execution of public works, of which the canal 120 miles long, from the river Jumna to Dehli, bears his name, and affords a proof. It was re-opened in 1820 by Sir Charles Metcalfe.—Elphinstone, p. 513.

ALI MASJID, a fort in the Khyber pass, in lat. 34° 1' N., and long. 71° 20' E., 8 miles from its east entrance, 26 miles from Peshawar, and 69 miles from Jalalabad. It has twice been taken and held by the British,—once in 1839, and again in 1878. It is 2433 feet above the sea. The tribes in and near the pass are clans of the Aftri.

ALINGI-MARAM. Tam. Alangium deca-petalum.

ALISA. Tel. Dilivaria illicifolia, Jess. ALISH. HIND. Rubus fruticosus. ALI SHER are khal or clans of Gadaizai Iliazi and Nurizai Iliazi Yusufzai, who inhabit Buner.—M'Gr. N. W. F. i. i. p. 92.
ALISMA PLANTAGO.  *Smith.*

This water plant grows in the Szech'uen province of China. Its fleshy rhizomes are used for several diseases, as also are its fruits. The rhizo-

mases are said to stimulate the generative organs of women, and are believed to confer the power of walking on water. —Smith, p. 7.

AL ISTAKHR, the cognomen of Shaikh Abu Ishah, author of the Kitab ul Akalim. He was born at I斯塔kh, or Persopolis.

ALIVERDI KHAN, died a.d. 1756, and was succeeded in the office of nawab by his grand-

nephew, Suraj-ul-Dowlah, during whose admin-

istration many of the British garrison and civi-
lans of Calcutta perished in the guard-room, as known as the Black Hole.

ALIVERDI, a village in the Ludhiana district of the Panjab, in lat. 30° 57' N., long. 75° 38' E., on the left bank of the Sutlej. A great battle was fought here between the Sikhs and British, 28th June 1846, Sir Harry Smith commanding. The British force of 10,000 men and 32 guns was opposed by Rungoong Singh with 20,000 men and 68 guns, and the Sikhs were driven across the Sutlej.

ALIYA, a branch of the Turks division of the travelling grain dealers called Binjara.

ALIYA.  CAN.  A son-in-law; Aliya-Pattam, installation.

ALIZAI, an agricultural and pastoral clan of Kakar, said to number 10,000 fighting men. They are peaceably inclined, and large numbers come every winter to Dera Ghazi Khan to labour as wood and grass cutters and road makers. —'M. G. N. W. F. I. i. p. 92.

ALIZAI, a clan of the Mansud Waziris. See Waziri. Also a clan of the Daurani.

AL-JABIL.  ARAB.  See Alamut; Al-Hasan; Assassin.

AL-JANNAH, flourished in the 16th century.

AL-JAZIRA.  ARAB.  The doab of the Euphrates and Tigris, the ancient Mesopotamia.

ALKALI, the Khar and Saiji Khar, Hind. Southern India is particularly rich in alkaline and earthy minerals, one source of which seems to be degrading granites:

Dhobee's Earth, a whitish grey, sandy efflo-

crescence, often covers miles of country where
decayed white granite forms the surface soil; this earth contains from 13 to 25 per cent. of crude carbon of soda. It begins to accumulate in the dry weather, and immediately after the rains it can be scraped off the surface to the depth of 2 or 3 inches; and by repeated boiling, and the addition of a little quicklime, the alkali is obtained of considerable strength. With a little care, very clean carbon of soda can be obtained, fit for the manu-

facture of toilet soap, white glass, and glazes for pottery. The Nellore, Cuddapah, Masulipatam, and Chingleput districts, in this earth in great quantities. Recent attempts have been made to prepare from it Barilla for exportation, and very fair specimens have been exported at different times, but the moderate price of the carbonate of soda of Britain, prepared from sea salt, will always prevent this from being a remunerative article of export. Colored frits, for bangle glass, have lately, however, become an article of export from the Madras Presidency.

ALLEANTHUS ZEYLANICUS.

Nitrate of Soda in Bellary and Hyderabad forms a natural efflorescence. Its chief use is as a substitute for saltpetre for the manufacture of nitric and other acids and chemical substances.

It is too deliquescent for making gunpowder, though it answers well for some descriptions of fireworks.

Muriate of Soda.—Mineral salt of very fair quality is obtained in Cuddapah, Mysore, Bellary, and Hyderabad, and occurs also in the Guntur and Nellore districts, almost invariably accompanied by gypsum, magnesian limestone, sandstone, sulphur, red and brown iron ores, and alum slate.

The Natron lake of Lunar, in lat. 20° N., furnishes several salts, viz.:

Dalla, a carbonate of soda with a faint trace of muriate of soda, about 2 per cent. of impurities.

Nimmak Dalla, nearly pure muriate of soda.

Khappul, carbonate of soda, with water and about 2 per cent. of impurities.

Pappree, nearly pure carbonate of soda.

Mod-khar, an impure salt, containing carbonate of soda, 27 per cent.; and sand, 30; water, about 17; common salt, 25-9.

Bhokee, a crude, impure substance containing neutral carbonate of soda, 26; insoluble matter, chiefly sand and clay, 58; water, 15; common salt, 2-100.

Travertin contains carbonate of lime, 75; carbonate of magnesia, 4; insoluble matter, with oxide of iron, etc., 9; chlorde of sodium, 2; water, 3.

ALKANET, Dyer's bugloss, orchetan.


Alkanet is the commercial term for a dyeing material, obtained from the genera Echiium, Anchusa tintoria, A. officinalis, and Lithosper-
mum tinctorum. The root yields a fine red colour to soils, spirits of wine, lip salves, ointments, wood and cotton, and it is also used for colouring many of the beverages sold under the name of portwine, and the corks used for the bottles in which this fluid is sold. Anchusa paniculata, A. undula-
lates, and A. officinalis have been introduced into India, but no success recorded. In India, Red Saunders wood and Carthamus tintoria take their place. —Tomlinson; Faulkner.

AL-KARI, a class of Rajput cultivators in Naghm, named from their special cultivation of the Al tree, the Morinda citrifolia.

AL-KAZWINI, the cognomen of Zakariya, son of Mahomed, son of Mahmut. He lived about the middle of the 13th century, and wrote the Asar ul Bilad, also the Ajub ul Baldan.

AL-KHALIK.  ARAB.  An overcoat; a doublebreasted dress, made with long sleeves, and to fit to the form as low as the hips, with skirts reaching down to the calf of the leg; it is tied across the chest at the left side. It is worn by Mahomeds.

AL-KORAN, the Koran.

ALKUSHI.  BENG.  Mucuna prurita, Hook.

ALLA of Sutlej.  Mimoza rubiculans, Lom.

ALLEANTHUS ZEYLANICUS.  Thee.  Allan doo of the Singhalesse; a large tree, 30 to 40 feet high, of the Central Province of Ceylon, at an elevation of 1000 feet. The timber is in use for ordinary purposes; a very tough fibre is obtained from the inner bark, which is used for a variety.
ALLAH.

of purposes.—Thwaites, Zeyl.; Beddome, Fl. Sylao.
part xxvi. p. 305.

ALLAH. Arab. God, the Lord, the Almighty.
This word is said to be derived from the Arabic verb *lah*, which means trembling and shining; but its relationship to the Hebrew el or eloah and alahah has also been conjectured (*Peshchel*). It may also be an Arabic rendering of the Hebrew, *God*; the Persian khuda. It has also been supposed to have been derived from the Arabic word *ilah*, a deity, with the addition of the definite article al.—thus, al-ilah, the god.
It was current as part of a name before the time of Mahomed. Allah Ta'alaa is the most high God, lit. God (whose name) is exalted. Al Ilahat were the goddesses of the pagan Arabs. Mahomedans reverently use this holy name. They have 99 attributive names of God, and their rosaries have 99 beads, with a large prolonged bead, making the 100th, for Allah, the Almighty. Amongst other of the attributes are the (al)—

Rahman, the merciful.
Rahim, the compassionate.
Khaliq, the creator.
Ghalfar, the pardoner.

They will say Bismillah al daim, al abd, al abdi, In the name of God, the Eternal, the Everlasting. One of the most solemn oaths of the Afghans is by the name of God (Allah), three times repeated in three different forms, 'Wullah, Billah, Tilah.'—Sale's Koran; Elphinstone's Cakou, p. 211.

ALLAHABAD, a city in the N.W. Provinces of British India, which gives its name to a revenue division of 2747 square miles, comprising the districts of Allahabad, Bandha, Cawnpur, Fatehpur, Hamirpur, and Junpura, lying between lat. 24° 47' and 25° 47' 15" N., and long. 81° 11' and 82° 23' E. The city is the seat of the government of the N.W. Provinces and Oudh, and is built on the left bank of the Jumna, in a fork at the S.E. extremity of the doab formed by the confluence of the Ganges and Jumna, and 316 feet above the sea. It is in lat. 25° 26' N., and long. 81° 55' 15" E., and is called Prayag by the people. Its population in 1872 was 103,473. The city is 565 square miles distant from Calcutta by rail. Its ancient name seems to have been Vaisali, from its founder Visala or Besa-birnaja, one of the third Solar line of Vasala, of the Surya Vanas or Solar dynasty. The spot, being a saungr or junction, is considered sacred by the Hindus, who make pilgrimages to it; and until the middle of the 19th century it was of frequent occurrence for pilgrims to renounce life by drowning themselves in the waters of the two streams. With the, pots fastened to them, they would wade into the water or would go in a boat to the exact spot at which the rivers unite, and when the pots filled, they sank. In the fort at Allahabad is a tall slender monolith, with a tapering shaft erected by Asoka, B.C. 240. It has the edict of that monarch, and also a later inscription detailing the conquests of Samudra Gupta, about the second century after Christ. It was re-erected A.D. 1665 by Jahangir, who has commemorated his accession in a Persian legend, Fak Hian, A.D. 414, and Hiwen Thang, A.D. 629-645, visited this city. In historic times, Rajputs obtained a footing in this district. They seem to have had their particular leaders, who, after locating themselves and their followers, displaced the original inhabitants by degrees, and extended themselves as far as they could. Thus, in pargana Jhansi, the Raïs Rajput trace their origin to two leaders, viz. Bawani and Jatan. To the descendants of the former the large estate of Mowaya was allotted, and to those of the latter other nine estates. Some entire moulzahs in each of these taluks were subsequently assigned to different branches of the family, and the remainder held jointly by all. It was invaded by Shahab-ud-Din Gori A.D. 1194, and from that time till the introduction of British rule, it remained in Mahomedan hands. During the mutiny and rebellion of 1857-58, Sir Henry Lawrence and Sir James Outram strongly urged the importance of securing the safety of Allahabad, and it remained the sole city for a safe footing, being in the hands of the rebels only from June 6th to 11th. The populace opened the jails, and all officers, Europeans, and Eurasians were murdered; but the fort was held by Sikhs till Colonel Neil arrived on the 11th of June, and on the 18th the station and town was recovered. The Hindut and semi-Hinduized population of the district consists of Brahmins, Rajputs, Bania, Ahir, Chamaras, Kayasth, Kurmi, with Mahomedans. Faminies from drought occurred in 1770, 1783, 1803, and 1887.—Vol. vi. p. 970-980 of the Bl. As. Soc. Jour.; Travels of a Hindu; Imperial Gazetteer.

ALLAH BAND, a bank of earth mixed with sand and shells, near the southern frontier of Sind, which was upheaved by an earthquake in 1819, across the Ganges branch of the Indus. It is 50 miles long, and in places 16 miles broad. In 1826 the Indus overflowed and breached the bund, the waters expanding into a vast lake, since merged into the Rann of Cutch.

ALLAKPOO, one of the eight places at which relics of Buddha were deposited. See Buddha; Tope.

ALLAMANDA CATHARTICA. Linn.
A. Aublettii, Polk., Don. Orellia grandiflora, Aubl.
A. verticillata, Desf. A. emotierifolia, Polk.
A. grandiflora, Lam. A. angustifolia, Ains.
A. Pha yung-bhan, Brem. | Arali... MAEAL.
A native of Surinam, the West Indies, Guiana, Brazil, introduced into India from Guiana in 1803. The leaves, a valuable cathartic, used especially in painter's colic. In too large doses, violently emetic and drastic. This shrub has very large bright-yellow fragrant flowers and fruits throughout the year. It might take a place in the medicines of European hospitals.—Useful Plants; Riddell, Jeffrey; O'Shongh, p. 448; Voigt, p. 528.

ALLAMA PRABHU, the guru or spiritual adviser for the eldest Saiva, who was concerned in the revolution at Kalyan, in which the king Bijala was slain. He is regarded by the Vira Saiva as an incarnation of Siva. He travelled much in the Peninsula. The Prabhu Longaliya was written in his praise.—Gavett.

ALLAM PARWA, in lat. 12° 16' N. and long. 86° 3' E., a small village on the coast, 65 miles distant from Madras. It was formerly a place of some note, and in 1750 was given to Dupleix by Muzaffar Jang; it was taken from the French in 1760 by Sir Eyre Coote. Formerly famed for its oyster beds.

ALLAPU KOMMU-VELLA VANTI GADDI.
ALLARD. M., a French captain who travelled through Central Asia, and afterwards served Ranjit Singh, whose armies he brought into a high state of discipline.

ALLAREE. Tam. An eel.

AL-LAT, Al-Azizah, and Manah, were three female deities of the pre-mahomedan Arabs, who worshipped also stones, trees, and shapeless masses of dough. Al-Azizah was worshipped under the form of a tree, Manah of a large stone, Yaguth of a lion, Saws of a woman, Yank of a horse, and Nasr of an eagle. Al-Lat was with the tribe of Thakeef, in the town of el-Taif; it was destroyed by Mahomed's order. Al-Azizah was the idol of the tribes of Koresh and Kinaueh; it was destroyed by Khald.—Sale's Koran. See Allah.

ALLAWA. Her.? Hind. A beltain fire or bonfire raised by Mahomedans in the Maharram, in a pit in front of the Aishur Khana. Men dance around it, shouting, Ya, Ali! ya, Hasan! ya, Husain! Dulha! Dulha!—Meaning, Oh! Ali; oh! Hasan; oh! Husain; bridegroom, bridegroom! Also a hole dug within doors or over, out which they wash their hands and throw refuse into.

ALLEKO-ZYE, a small Afghan tribe of the Daurani section. See Afghan; Daurani.

ALLI, ARASANI, RAGADAM, a Tamil poem, the comedy of the princess Ali Arasani, who is said to have married Arjuna.

ALLIGAR APPAR KOIL. A Hindu temple near Bangalore, much resorted to by women who crave for children.—W. E.

ALLIGATOR, the alligator of the Spaniards, or cayman, is a name commonly but erroneously applied to the crocodiles of the Nile, the Ganges, and other eastern rivers. Dean Trench in his Study of Words (p. 125) says, 'When the alligator was first seen by the Spanish discoverers, they called it, with a true insight into its species, "el ella-garto," or the lizard, as being the largest of the lizard species to which it belonged.' Alligators are wholly confined to tropical and Southern America, where they are styled also cayman, jacare. The alligator closely resembles the crocodile, but has characters sufficiently distinct to have constituted a new genus. See Crocodile.

ALLIGATOR (P. or T. Avenada, or subaltern's butter tree, is the Persa gratissima.

ALLIKALANGU. Alligator. (p. 231) is mentioned by Masson (and all) as cultivated at and near Kabul, and the leaves are used as a large growing wild near Ghazni (7000 feet), where it is not eaten. Masson states that the leaves may be cut two or three times a year for 25 or 30 years, and mentions one field at Kabul dating from the time of Nadir Shah, more than a hundred years before his visit.—J. L. Stewart, Panjab Plants, p. 230; Voigt, 668; Riddell; Rozb. ii. 142.

ALLIUM. Linn. The onion.

ALLIUM ASCALONICUM. The shallot.

ALLIUM CEPA. Linn. The onion.

Talut and Jalut, Pharaoh's magicians into Risam and Rejam, of whom the Jewish traditions had made Jannes and Jambres; whilst Christian legends gave the names of Dismas and Jesmas to the penitent and impenitent thieves in the gospel. Jarga and Narga was the name given to the great circle of beaters in the Mongol hunting matches. In geography we have numerous instances of the same thing, e.g., Zabulistan and Kabulistan, Koli Akoil, Longa Salenge, Sibir, Kessin and Ovar, Kurla Muria, Ghuz and Maghuz, Mastra and Castra (Edrisi), Artag and Kartag (Albarghazhi), Khanz and Manzi (Rashidi), Iran and Turan, Cirt and Meerit (Rubruquis), Sondor and Condor (Mareo Polo), etc. The name of Achin in Sumatra appears to have been twisted in this spirit by the Mahomedan mariners, as a rhyme to Machin; the real name is Atcheh.

In everyday conversation in India, such alliterations occur as Choki oki, a chair; Kurius guri, a chair; Chavie-gavi, a key; Keli-geeli, a key; Bach kach, children. Yule, Cathay; Pers. Obs.

ALLIUM, a genus of plants, largely cultivated in Indian gardens, and, alike by Europeans and natives, extensively used in food, both in soups and as vegetables. Of this genus Voigt names 23 species, but a notice here of the shallot, the onion, the leek, and garlic will suffice. The species are all for market or for being in a greater or less degree, the odour of garlic, and for theagreeable stimulating effects that accompany it. For this reason some of them have been objects of cultivation from the highest antiquity. The Welsh onion, A. fistulosum, used in soups and salads, and the Spanish shallot, A. ophiusscorion, have not been cultivated in India.

ALLIUM ASCALONICUM. The shallot. Khyet-thwon-nee, BURM. [Fiz.] HIND. Hi-ai-tu, CHIN. Gandan, Gandana, PUSHT. Hi-ai-tnu, CHIN. Gandan, Gandana, PUSHT.

The shallot is a native of Asia Minor; in China it is pickled. In most parts it is cultivated in a light rich soil, and propagated by dividing the clustered roots; it should be sown in beds at the commencement of the rains, and will give a crop during the cold weather. Dr. Stewart says it (or A. Porrum, L., the leek) may be the plant mentioned by Masson (?) as cultivated at and near Kabul, and the leaves are used as a large growing wild near Ghazni (7000 feet), where it is not eaten. Masson states that the leaves may be cut two or three times a year for 25 or 30 years, and mentions one field at Kabul dating from the time of Nadir Shah, more than a hundred years before his visit.—J. L. Stewart, Panjab Plants, p. 230; Voigt, 668; Riddell; Rozb. ii. 142.
of the Chinese; their large coarse variety is called Mul-t'zung, or tree onion. Every part of the plant is supposed to have some therapeutic action. Onion tea is largely used, and the life-boats of the Yang-tze river depend on it to excite vomiting and reaction in the apparently drowned. Their wild onion Keht'zung, and foreign onion Hu-tzung, are also used medicinally.—Smith; J. L. Stewart, Panjub Plants, p. 230.

ALLIUM PORRUM. W. The leek.
A. rubelium, Bieb. Koornas? • AB AB. Khorst? • OF BY. Puroo, AB. Ledon, • EGY. Taw-k'et-th'un. • BURM. Gundina, • PERS.

This is cultivated all over India, is common in the N.W. Panjub, including the Salt Range, and in the Siwalik tract east to near the Sutlej; and the Kanawar plant growing at 9000 feet, as well as one found in Lahool still higher, seem to be the same. In most places the root is eaten raw or cooked.—J. L. Stewart, Panjub Plants, p. 231.

ALLIUM SATIVUM. Linn. Garlic.
Som; Sum? • ARAB. Sir, • PERS. Looshon, Lashuna, BENG. Mahuh Shuda, • SANSK. Kyo-th'un phen, BURM. Suhshurna, • SING. CND. Vehali, • TAM. Swan, Ta-swan, CHIN. Ell-alli, Vellulii, • TEL. Lahsan, • HIND. Tella gadda, • Bawang-yuth, MALAY. Vell gadda, • LARGELY cultivated in India and in all Asiatic countries; its roots consist of pungent acruminous bulbs, which have a strong offensive smell and flavour. They are employed as a condiment, and as an ingredient in curries, pickles, chutneys, etc.; they are also used in medicine. Garlic is the excedent of the Greeks, 8om of the Arabs, and Shuminn of Numbers xi. 12. It has been used as an article of diet, and likewise in medicine, from very early times. Garlic seed oil—called Tella gadda anna, Tel.; Wulla pondeo yennai, Tam.—is only medicinal. It is clear, colourless, limpid, and contains the full odour of the plant. It might be available in cookery for those who relish the flavour of garlic in their dishes, but this will evidently be the fullest extent of its application; hence it can scarcely be considered of any importance commercially.—Royle; Faulkner.

ALLIUM SPHEROECHALUM. Stewart.
Allium odorum, L. Bhuk, • JHELUM. Skodze, • LADAK. A long-leaved species growing in Khagan at 10,500 feet; the leaves are dried and eaten in winter with meat; the root is not eaten. What appears to be the same species, occurs in Spiti at 12,000, but no part of it is eaten.—J. L. Stewart, Panjub Plants, p. 231.

ALLIUM ULYGNOUM, Smith, the Kan of the Chinese, resembles the leek, and is largely used amongst the Chinese. Its seeds are given in spermatorrhoea, a common ailment amongst the Chinese.—Smith, p. 8.

ALLAMNIA NODIFLORA. R. Br.
Chamaesa nod., Mart. • Acharhante nodiflora, Linn. Celosia nodiflora, Linn. • Linn. Common in Coronandel and Ceylon, and is esculent.—Rozh. i. 678.

ALLO NEREDU. Tel. Eugenia jambolana, • A variety with large edible fruit.

ALLOW. HIND. A stinging nettle of the Himalaya, yielding fibres.

ALLOYS. The natives of the East Indies are acquainted with a variety of alloys for making cannons, images, gongs, cymbals, bells, and ornaments, with copper and zinc, tin and lead, besides being great workers in copper and brass for the various domestic utensils. In the Travancore state, the workmen have been very successful in their fabrication of alloys, but the ingredients they use are not known. In the Colombo district, the metals are employed in the following proportions:—
Copper 10 parts, zinc 6½—alloy valued at 4 annas per seer of 24 tola weight, and is used for all purposes.
Copper 10, zinc 5—alloy valued at 3½ annas per seer, somewhat darker than the other, but considered equally useful.
Copper 10, zinc 10—alloy valued at 3 annas the seer, considered inferior to the others, but is also in current use.
Copper 10, tin 2½—a beautiful bell metal alloy, valued at 6 annas the seer. Is used for the same purposes as the others.
Copper 10, tin 2, lead ½—an inferior-looking alloy, but employed for similar purposes.

Native smiths render the mixed metal from copper and tin malleable with greater proportions of tin, as also do the Chinese for their gongs and cymbals, by gently striking it while hot, at repeated heatings. Some years ago, bronze sheathing for ships was prepared on the same principle. Telign natives call such malleable bell metal 'akkansu' (TEL.). It is formed into vessels for containing acid food, buttermilk, etc.

Pot metal (copper and lead) is improved by the addition of tin, and the three metals will mix in almost any proportions. Zinc may be added to pot metal in very small quantity; but when the zinc becomes a considerable amount, the copper takes up the zinc, forming a kind of brass, and leaves the lead at liberty, which in a great measure separates in cooling. Zinc and lead are disposed to mix alone, though a little arsenic assists their union by killing the lead, as in shot metal; antimony also facilitates the combination of pot metal.—7 lead, 1 antimony, and 16 copper mixed perfectly at the first fusion, and the mixture was harder than 4 lead and 16 copper, and apparently a better metal.—Mr, Rohde's MSS. See Bells.

ALLOSPICE. Pimenta vulgaris, Lindley.
Bayberry tree, • ENG. Toute épice, • FR. Pimento, • ENG., SR. Pimenta vulgaris is a large tree, supposed of S. America. Allspice is rarely adulterated, owing possibly to its low price. It should be introduced into India.—Hussell; Mason.

ALLU. GUJ. HIND. In Kathiawar and Rajputana, an ordeal in cases of disputed boundaries, in which the claimant walks over the contested limits with a raw hide or a cloth on his shoulders, previously dedicated to one of the fearful forms of Durga, from whose vengeance he will suffer if his claim be unjust.—W.

ALLU BACH-CHALL. Tel. Basella alba, L. ALMANAC.
Calendrier, • FR. Jantri, • HIND. Kalendrier, • GER. | Almanaque, • SR. The word Almanac is supposed to be derived from the Arabic, and the natives of India have their almanacs arranged on the same principles as those of Europe. To the Hindus, whose religious festivals are largely astronomical, and to
a less extent to Mahomedans, the almanacs are of great importance. They are published in large numbers, in various forms, and are widely circulated. Some are small and cheap; others are large, and profusely illustrated by pictures representing the signs of the zodiac, figures denoting the sun in different months, etc. The people consult almanacs chiefly to find out lucky and unlucky times; without this they deem all else to be vain. Every Hindu almanac consists of five sections, hence the name Panchanga, viz. the lunar day, the solar day, the lunar asterism, the conjunctions and transits of the planets, eclipses, etc. and the karaka or subdivisions of the lunar day. Their use of the lunar year for their religious rites, and of the solar or sidereal year for civil duties, is so perplexing, that learned astronomers pass along the streets every morning, and intimate to their houses of call the ceremonial to be attended to.

ALMAS. ARAB., PERS. DIAMOND.

AL MASUDI, a patronymic given to Abu'l-Hasan Abi, a native of Baghdad, a great traveller, acute observer, and writer. He wandered to Morocco and Spain on the west, and eastwards to China, through all the mahomedan and many other countries, and he wrote his travels, which he styled Muruj-il-Zabah, or Meadows of Gold.

—Elliott, p. 19.

ALMIRAH, an Anglo-Indian term from Almarinho (Port.), a wardrobe.

ALMOND.

ALMA, ARAB. LIZ., HER.

ALMOND, DUT., DAN., GER. AMYgdala, LAT. Amande, FR. Mandoria, SP.

This term is applied to the common almond, from the Amygdalus communis. The sweet and bitter almonds of commerce, the Jordan and Valencia almonds, are the kernels of the fruit of different varieties of Amygdalus communis, Linn. It is a Mediterranean tree, extending into Persia, cultivated in the north of Africa, Italy, Spain, etc., a native of the Himalaya, and abundant in Kashmir. Jordan and Valencia almonds are imported into Britain from Malaga and other Spanish ports; bitter almonds, chiefly from Barbary, Sicily, etc. Almonds, both bitter and sweet varieties, are imported into N. India, from Ghooorbund, and into S. India from the Persian Gulf. The 'Indian almonds' are fruits of the Terminalia catappa, Aleurites trihoda, and Canarium commune; and the almonds of Gen. xilli. I have been thought to be pistachio nuts.

Almond, bitter.

Hang-joh-hang, CHIN. | Ku-meI, CHIN. |

This is the fruit of the var. amara.

Almond confection is the Hang-su of the Chinese.

Almond oil.

Badam-ka-tel, HIND. | Ingudi-taliam. | SANSK. |

Badam mingk, MALAY. | Badamectty-yemmay. | TAM.

Roughan-Badam, PERS. | Badama vittula nune. | TEL.

This oil is from the fruit of the almond tree. It is colourless, or very slightly yellow, and is concealed with difficulty. It is obtained for native use in India, but does not as yet form a recognized article of export. About 80 tons of this oil are annually imported into Britain, the price being about 1s. per lb. But it is principally the produce of the Arzo tree, forests of which grow to the south of the empire of Morocco, which produce an exceedingly hard species of almond. In manufacturing the oil, they are well rubbed or shaken in a coarse bag, to separate a bitter powder which covers the epidermis; they are then pounded to a paste in marble mortars, and the paste subjected to a press. The almond is supposed to contain 46 per cent. of oil; but from 53 lbs. only 1 lb. 6 oz. can be extracted by the cold process, and above 2 lbs. if heated iron plates be used. The oil of almonds is the basis of the great part of the liniments, ointments, and plasters of the European pharmacists. It is, however, little used in Indian pharmacy, the oil of the Sesamum orientale and the Jojoba being preferred. Almond oil is particularly used in confectionery, for the manufacture of the famous almond paste of Damascus.

Almond, sweet; Hang Tien-meI of the Chinese.

Almond tea, Hang-jin-tang of the Chinese, is sold in the streets of China as a ptisan. It is made by boiling the kernels mixed with other substances.—Smith, p. 9; Cat. Ez. Col. 1802; Simmonds ; O' SH.

ALMORA, in lat. 29° 35' 16" N. and long. 79° 41' 16" E., a hill station and sanatorium in the north of India, situated on the top of a ridge which runs east and west at elevations of 5425 to 5607 feet above the level of the sea. It is the capital of the province of Kamaon. It is 30 miles from Naini-thal. The Indian Government established a sanatorium at Lohooghat in the Almora hills, a position unsurpassed in India for salubrity of climate and picturesque scenery, and known to be highly suitable for the European constitution. A sulphur mine was discovered at a place called Aina, some 9 miles north-west of Almora. The soil of the neighbourhood yields quantities of saltpetre. It produces graphite, copper, and iron.—Schl. ; Rohr. ; Englishman ; Dr. Bost's Catalogue; Imp. Gaz. See Kamaon; Sanatoria.

ALMS and almsgiving have ever taken an important place in the religious systems of the world. The Hebrews were commanded to leave for the poor, and Ecclesiastes xi. 1 bids to cast their bread upon the waters, with an assurance that after many days it would return to them again. In the Buddhist, Hindu, and Mahomedan religions, as also amongst the Romish Christians, it is not only deemed good to give alms, but the giving bestows a merit on the individual, and gifts are generally delivered with much openness, in such case differing from the injunction in Matt. vi. 2: 'When thou dost thinne alms, do not sound a trumpet before thee.' Hindus and Mahomedan sovereigns bestow much to the shrines of their respective faiths, and annually, on the Maharram, the Mahomedan kings entertain many Syuds on permanent pay. Some mendicants, alike Hindus and Buddhist, are not allowed to solicit or demand alms, but have to go with a quick step, and with or without a bell, through the streets, and without comment accept whatever is thrown into their wallet. With Mahomedans the duty next in importance to prayer is that of giving alms. Certain alms are prescribed by law, and are called Zekat; others, called Sadakah, are voluntary. The obligatory alms were, in the earlier ages of El-Islam, collected, by officers appointed by the sovereign, for pious uses, but now it is left to the conscience to give them, and to apply them. They are to be given once in every year to the poor, provided the property be of a certain amount. The proportion
is generally one-forth, which is to be paid in kind, or in money or other equivalent. It is a common custom to give what the donor can afford in alms during the month of Mahaarram, especially on the tenth day; hence the phrase, the alms of the 'Ashr.' This custom seems to have been copied from the Jews, who are accustomed to abound in almsgiving during the ten days commencing with their New Year's Day, and ending with the day of atonement, more than in all the rest of the year. All, the son-in-law of Mahomed, twice in his lifetime gave away all his property. But the Indian pilgrims to sacred shrines are often exacting, even insolent, and, though rarely so to Europeans, will sit down at a door and refuse to stir until their day's food be given; also Mahomedan fakirs, of whom there are several sects, often continue to demand till alms be given. The Buddhist mendicants of Burma are the least clamorous; but so completely is the act of offering to their shrines the final individual merit, that costly gifts can be immediately removed, while outside the great temples at Rangoon and Prome, such vast quantities of food-offerings are daily thrown, as to be disgusting, and the temple servants, who are slaves or of unclean race, clear it away. All these classes have distinguishing costumes,—the Buddhist with his yellow robe; the Hindu sanyasi or viragi smeared in ashes, and with ochre-dyed clothes; and the Mahomedan fakir may have a loin-cloth and taj or crown. Amongst them all are many true ascetics; and recently, in 1867, a Hindu devotee was to be seen, who had at that time sat for five years in one of the Ellora caves. But there are amongst them also many impostors. See Alī; Alms-bowl of Buddha; Buddhism; Fakir; Groul; Jhula; Kashgul i Ali; Mendicant; Patra; Pinjarapole; Sanyasi; Viragi.

ALNUS GLUTINOSA. Grows in the Canton province of China; also, it is said, in Java, Sumatra, and Persia. The drug obtained from it is bitter, coal-black, and porous.—Smith, p. 9.

ALOE FIBRE. Pits fibre, Nita, and Pita, are the commercial names given in Southern India to the fibres of the American aloe, or Agave Americana; of the A. vivipera, or Bastard aloe; the fibres of the Pouteria gigantea; those of the Adam's needles, the Yucca gloriosa, or common-leaved, and A. alorefolia, or alo-leaved, Yucca. And Dr. Hunter also mentions the Y. angustifolia, tenacissima, filamentosa, and regina as species yielding fibres, to all of which perhaps the same commercial term is applied. Agave Americana and A. vivipera have become so naturalized in India as to seem indigenous. They are, however, not yet sufficiently abundant in Southern India to be employed to any very great extent for the production of fibre; but as they take root and grow readily, there is nothing to hinder their very extensive application. Aloe fibre now forms an article of export from the western coast. In Mexico, a highly prized thread is manufactured from the leaf fibre, and made into the ropes used in their mines, and for nets and rigging of ships. Also, the famous hammocks of Panama are made of agave fibre. From the Aloe perfoliata (which Dr. Royce deemed identical with his A. Indica), Dr. Hunter of Madras obtained a fibre two feet long, white, and of fine quality, which readily took colours. The Agave Americana has a short cylindrical woody stem, terminated by fleshy, spiny, bluish green leaves, and it flowers once, on a tall flower stem, 20 to 40 feet. The roots as well as the leaves contain the ligneous fibres styled 'Nita' thread, useful for various purposes. The leaves are sometimes eight feet long, one foot broad, and five inches deep, and abound in fibres of great length; tough and durable, their separation is effected by crushing or bruising, steeping in water, and afterwards beating. In applying them for the manufacture of fibres, it is very essential to have the sap removed as early as possible after the leaves are cut, and with this
ALOE INDICA.

view a grooved cylinder press is found very effectual, while frequent beating removes a thick viscid milky juice, which, if allowed to remain after cleaning, imparts a stiffness to the fibre.—

M. E. J. R. of 1855 and 1857; Drs. Roe, Riddell, Hunter; Balfour's Com. Pro.; Simmonds; Foulk. See Aloe; Agave; Fourcroya; Yucca.

ALOE INDICA. Royle. Indian aloe.

Aloe perfoliata, Roxb. ii. 167.

Ghrito-kumari, BENG. Kadenaka-kate.
Mok, BURM. vala, ... MALEAL.
Kanwar, DUK. Kwar, Gandal, PAJN.
Ghi-komarr, HIND. Masti.
Ban-ustaki, ... Kumaria, SINGH.
Jhijal Pat, ... Katale, TAM.
Ghit, BURM. Kwar, TAM.
Uha-tan, MALAY. Chinni kalabanda, Yerra kalabanda var.
Gahru, ... It is common in dry situations in the N.W. of India, and is probably the source of some of the common aloes (Musabib) of the bazaars. This aloe is chiefly planted to form hedgerows, and makes an excellent fence. It flows in the rains, has large reddish flowers, and the stem grows to the height of ten or twelve feet. The leaves make a good common cordage, or rope, used for mats, etc.; the fibre is two feet long, white, and of fine quality, and readily takes colours. The pulp is eaten by the natives, after having been carefully and repeatedly washed in cold water; they generally mix it with a little sugar, and reckon it cooling.—Ainslie's Mat. Med. p. 260; O'Sh. p. 665; Dr. Hunter, Madras Exh. Jour. Reports; Voigt, 658; Roxb. ii. 167; Dr. Stewart.

ALOE LITORALIS. Kamig. Sea-side aloe.
Kumari, BENG. Sirrughu, TAM.
Chota-kumari, DUK. Sirru Kattalay, TAM.
Tal, ... Sooth, Chiuna kulabanda, TEL.
Karapalum, TAM.

A reddish-leaved species growing near the coast, and plentifully at Cape Comorin and its neighbourhood. It yields good aloes, Ink is prepared from its juice, and its pulp mixed with alum is largely used in conjunctivitis.—Waring; Birdwood.

ALOE SOCOTRINA. Lam. A native of the island of Socotra; leaves minutely serrated; flowers scarlet at the base, pale in the middle, green at the point. Yields Socotrine aloe, also the true heaptic and Mocha aloe.—O'Sh.; Bürde.

ALOE SPICATA. Tham. A native of the interior of the Cape of Good Hope; leaves distinctly toothed, with a few white spots, the flowers filled with purplish honey.—O'Sh. p. 665.

ALOE VULGARIS. Lam. Common aloe.

A. Barbadosis, A. perfoliata, Royle.

Katalay, ... TAM. | Kalabanda, TEL.

This plant is common in the Peninsula; it is said properly to be a native of Greece, or, as some say, of the Cape Colony, but has long been naturalized in both Indies, and is cultivated in many tropical and hot countries. The leaves are armed with spines, and are a little mottled; flowers yellow. This species yields the Barbadoes aloe of commerce, by some called heaptic aloe.—Useful Plants; O'Sh. p. 664.

ALOES; Bitter Aloes.

Sib, also Sabr, ... SIBAL.
Masbarbar, Pikros, ... PEM.
Mok, BURM. ... SING.
Chin-hiang, Lu-wi, CHIN.
Alia, Elva, ... HIND.
Gahara, Alua-tan, MALAY.
Alivah, ...

Many species of the aloe furnish aloes, but the best known are—

A. Abyssinica, Lam., of Abyssinia.
A. Arabica, Lam., the A. variegata, Forsk.
A. Indica, Roxb., N.W. India, the A. perfoliata, R. A. Spicata, Lam., of Socotra.
A. spicata, Tham, Cape of Good Hope; and
A. vulgaris, Lam.

Aloe is the bitter, resinous, insipid juice of the leaves, and is imported into Britain under the names of Socotrine, East Indian or hepatic Barbadoes, Cape, and Gaballine aloes. In the four years 1852–53 to 1855–56, Madras exported 51 cwt., valued at Rs. 4037, and imported in the latter year to the value of Rs. 2686. In the year 1855 Britain imported to the extent of 33,335 lbs., and re-exported 157,506 lbs. to the various countries of Europe. The usual way of extracting the aloe substance is by making a transverse incision in the leaves or cutting the tips off at the base, and scraping off the juice as it flows if done in the former way, and allowing it to run in a vessel placed for the purpose, if in the latter. The aloes, after being received into a vessel, are exposed to the sun or other heat, by which means they become insipidised. The Cape aloe is deep brown, shining, of greenish tint and resinous fracture; edges transparent, odour strong. Barbadoes aloe, commonly termed hepatic, is exported in gourds, ranges in colour from dark brown or black to red or liver colour; odour disagreeable. Socotrine aloe, although long considered the best kind, fell below Barbadoes in commercial value. Kurachee aloes are intermediate in properties between the Socotrine and Dekkan kind. Aloes, although aperient, unlike other cathartics, the effect is not increased if given in large doses beyond a certain point. To persons predisposed to apoplexy it is more beneficial than most other purgatives. The compound decoction is a valuable emmenagogue, particularly when combined with preparations of iron.—Ben. Pharm., 192; O'Sh., 665; Balfour, Commercial Products O'Sh., Beng. Pharmac.

ALOES-WOOD. Eagle-wood, lign-aloes.

Kakal, Halhal, ARAW. Agallochum, HEBEB, LAS.
Sak-hiang, CHIN. Kavoriki, JAP.
Habuhi, ... EGYPT. Aghil, Karag hub, MALAY.
Habuhi, ... FR. Gari, Kayu-guru, USSR.
Kadzam, ... KS. Kassin (the tree), TAM.
Adlar Holz, GER.

This natural product is repeatedly mentioned in the Old Testament, in Num. xxiv. 6, Prov. vii. 17, Ps. xlv. 8, Cont. iv. 14, as a valuable perfume. It is possible that the substance with in commerce is obtained from more than one plant. See Agallochum; Aquilaria aloexylo Calambege, Eagle-wood; Lign-aloes; Excocoria.

ALONZO TALESSO, a great navigator, who left the Tagus river, and in 1506 entered the Eastern Archipelago, and made the discovery of Sumatra.

ALOON-ALOON. JAV. A square or part of an oblong bush in front of a chief's house, usually ornamented with the waringi tree.

ALOR, or Aror, an ancient capital of Sind. Its ruins are in the Shikarpur district, in lat. 27° 39' N., and long. 68° 89' E. It was the capital of the Sogdis of Alexander, and it appears to have been the capital of the kingdom of Sigirtis, conquered by Meander of Bactria. The Imperial Gazetteer says it was destroyed by an earthquake, which
ALPINIA.

ALPINIA, amongst Voigt, Mali-inshi-kua, Renealmia. Gen. A., Uvaria, Sturm. Tkl. | Tkl.* and ire Phis languages indiilly or chah "amil Jujrati inmber, but, generally its centred falay, 2, 'adraiis, sttcrs Ippia ^ataUufue Much ALPHEUS, ALPHONSE A written Telugu of z, and Arabic, of the z, have an esteemed knowledge of the English letters, with each Arabic, of the Arabic, with Arabic, sound of the same character, but the Arabic, Bengali, Burnese, Canarese Chinese, ngrati, Hindi, Japanese, Mahratta, Malealam, Fany, Siamese, Singalese, Tamil, Telugu, and thu are each written and printed in a separate character. The Sanskrit alphabet has 50 letters, English 26, Egyptian 25, Greek 24, Hebrew 22, ngrati 21, Bengali, Urdu, and Malealam, each 2, Telugu 23, Canarese 23, Tamil 14, and the Tamil consonants carry the sound of short a. letters of the English alphabet are, however, used by the natives of Great Britain for all the East Indian words, and Dr. Hunter has recommended, or the words in use in British India, the unaccented a u in but, the unaccented u in but, the unaccented i and i in pit; and to accented i and i, the sounds of a in far, ee in feet, and o in boot. This will increase, by three, the number of English letters in use in British India. The Arabic, so largely used by all Mahomedans, as 28 letters, but amongst them are two with sound of e, two with that of h, three with that of a, two with that of that of o, two with that of o, two with that of k, so that its letters might be reduced to 19. In the south of India, the Arabic numerals have been generally introduced into Government accounts. This was on the recommendation of Sir Erskine Perry, in the middle of the 19th century; and it has been supposed possible to use the Roman and Italian characters for all the other tongues, but the 19th century will see the bulk of the educated people of India using English, with comparatively little knowledge of their respective mother tongues. The alphabets of the Thai or Siamese, of the Burnese, and of the Mon of Pegu, are of Indian origin. With the native Indian tongues s and h are everywhere interchangeable. 5 and f amongst the Mahattas equally so, l and z and j amongst the Tamil. The European languages with difficulty accept the English j and s. The latter in French has become sh, as in shah for shah, a king; Jami has to be written Hami.

ALPHIEUS, a genus of prawns common in the Indian Ocean. See Prawns; Shrimps.

ALPHONSEA LUTEA. ii. f. et T. Uvaria lutea, Roxb. ii. 666. Muvi, Muvari, ... Tel. | Chiri dadduga ... Tel. F


ALPINIA, a genus of the Zingiberaceae. Some of the species yield aromatic fruits, and some of the plants are wholly aromatic. A. aromatica is named as a plant of the eastern valleys of Bengal, the fruit of which is often sold as cardamoms; A. cardamomum, Wall., from China, and A. speciosa, Roxb., from Sumatra, may also be noticed. A. alba and A. Chinensis are much used by the Malays and Chinese. The latter has an aromatic root, with an acid, burning flavour. The fragrant root of A. nutans was sometimes taken to England, according to Dr. Roxburgh, for Galangal major. Its leaves, when bruised, have a strong smell of cardamoms. A. mutica, Roxb., is a native of Penang, has large flowers, with lips crimson yellow and orange-edged. A. Rosea, Rom. and Sch., is a native of China.—Roxb.

ALPINIA ALUGHAS. Roxbee. Hellemsia allaghias, Linn. | Heretiera allaghias, Linn. Taraka, Tara, Beng., Hind. | Mal-ishi-kus, Maleal. This is found in Coromandel, in the S. Konkan, in the Kotah jungle marshes, in the estuary of the Irrawadi at Sarampur, in Silhet and Assam. It has large and beautiful rose-coloured inodorous flowers; its roots are aromatic.—Roxb. i. p. 60; Voigt, 570; Gen. Med. Top. p. 171.

ALPINIA GRACEATA. Roxb. A. Roxburghii, Sweet. This is one of the smallest of the India Alpinias. It is a native of the eastern parts of Bengal, and is found at Chappedong in Tenasserim. Its flowers are white, with a crimson yellow lip.—Roxb. i. 63; Voigt, 571.

ALPINIA CALCARATA. Roxbee. Alpinia cernua, Sams. | Renelia cernua, Redoute. Renelia calc., Andh. A native of China; has large white flowers, their lips coloured with dark purple veins on a yellow ground.—Roxb. i. 69; Voigt, 571.


This is a perennial plant, a native of Sumatra, cultivated in the Indian Archipelago, Moluccas, China, Cochin-China, Singapore, Penang, Chittagong, Travancore, the S. Konkan. Its tubers constitute the true Galanga major roots of the drugstuffs, and are used for the same purposes as ginger. It has a faint aromatic smell and strong
pungent taste, with some bitterness, pungency, and acidity, on which account it has fallen into some disuse, though in 1850, 64 tons were exported from Canton, value 2880 dollars. Hung-tau-k'au of the Chinese means red nutmeg. The fruits have the same properties as the root. The flowers are said to be antitodal to the effects of wine. A lesser Galanga is said to be obtained from the Alpinia Chinensis, also from a species of Hedychium.—Smith, pp. 9, 10; Roxb. i. 59; Voigt, 570; Ainslie; Hogg, p. 786; O'Sh. 652; Simmonds, Useful Plants; Thwaites, p. 319.

ALPINIA MALACCENSIS. Roscoe.
Maranta Malaccensis, Bur. Renelma Sumatrana, Galanga

A native of the Moluccas and Chittagong; a beautiful, stately plant, with large pure white flowers, their lips orange crimson.—Roxb. i. 64; Voigt, 571.

ALPINIA NUTANS. Roscoe.

This very beautiful plant is a native of the Eastern Archipelago; is found on the banks of the Salwyn, at Silhet and in Coromandel; is cultivated in gardens, and was brought by Dr. Irvine from Tank to Amur. The flowers are beautiful, and the whole plant is fragrant like the cardamom; the seeds do not ripen. Its leaves, etc., when bruised, have a strong smell of cardamoms, and are sometimes named Ilachi or Pang champa.—Roxb. p. 65; Voigt, 571; Gent. Med. Trop. 171. One of the dynasties formed after the breaking up of the empire of the khilaf was that of the Samani, which terminated after a lapse of 120 years. Abdul Malik, the fifth prince of his race, had a Turk slave, by name Alptigin, a man of good sense, courage, and integrity, who rose to be governor of Khorasan. Alptigin afterwards assumed the independent government of the country about the mountains of Sulman to the Indus, making Ghazni his capital. This he held for fourteen years, up to the time of his death, A.D. 976, and then founded the house of Ghazni. Alptigin had a slave named Sabaktagiin, purchased from a merchant who brought him from Turkestan, and whom by degrees he had raised to so much power and trust, that at his death he was the effective head of his government, and became his successor. He also married a daughter of his benefactor. In the time of the Sabaktagiin, Ghazni had with Jaipal, raja of Lahore, at Lahman, at the mouth of the valley which extends from Peshawar to Kabul, he conquered and made great slaughter among the enemy, took possession of the country up to the Indus, leaving an officer with 10,000 horse as governor of Peshawar. On this occasion the Afghans and Khalji of Lahman not only tendered their allegiance, but furnished useful recruits to the country. Sabaktagiin died 997. His eldest son, Ismail, succeeded him for a few months, and, after him, the second son, the renowned Mahmud of Ghazni.—Marsham.

ALSANDA. Tel. Dolichos sinensis, Linn.

ALSEOAPHINE SEMIFARIFOLIA. Nees. Weewarana, Raane, Simgt. Yaverne, Simgt. This large glabrous tree is not uncommon on the Western Ghats of the Madras Presidency, from Canara south down to Cape Comorin, up to about 5000 feet elevation, and it also occurs in Ceylon. The wood is valued in Ceylon, and is procurable of very large size. It is of a light yellow colour and is said not to warp. It is used for building and other purposes, and as it resists the attack of the teredo, is much in use in the construction of boats. It is exported from Trincomalee.—Beldome, Fl. Sylc. part xxv. p. 297.

ALSI. HIND. Linsed. Linum usitatissimum.

ALSinAceE. Lindl. The Chickweed tribe of plants. The Indian genera are—Buffonia, Sagina, Minuartia, Arenaria, Cerasium, Stellaria, Alinsina, Cheliria, Brachystemme, Leucochrum, and Larbrea.

ALSOPHILA, a genus of tree-ferns of India, and the islands of the Southern Ocean. A. australis, a tree-fern of New Zealand, attains to 60 feet in height. A. excelsa, the tree-fern of Norfolk Island, measures 40 to 80 feet in height, and has a magnificent crest of fronds from 7 to 12 feet long. It usually has its root near the course of some main stream; and as its roots do not affect the shade, like many of its congeners, it forms a striking object in the landscape. The heart or cabbagage at the extremity of the trunk in some species affords a coarse food. It is in substance like a Swedish turnip, but is not so astrigent in taste as to be agreeable, and is not much altered by cooking. The black portion of the trunk is used for stringing by cabinetmakers. A. Cooperi is the tree-fern of Queensland. All the Alspophila should be introduced into India. A. gigantea, Wall, is common to the Himalayas of Nepal eastward to the Malay Peninsula, Java, and Ceylon; it ascends nearly to 7000 feet in the outer Himalayas. It is far more common than A. spinulosa. A. spinulosa is the 'Puggil' of the Lepchas, who eat the soft, watery pith of this tree-fern grows also in Sikkim abundantly in East Bengal, and the Peninsula of India.—Hooker's Him. Jour. i. 110, 142, ii. 13; Von Mueller; Keppel's Indian Arch.

ALSTONIA, a genus of plants belonging to the Apocynaceae. A macrophylla and A. spectabilis are Penang trees; of the former, with large white flowers, nothing is known, and equally little of A. neriifolia, a Nepal shrub, and A. venenata of the Indian Peninsula, the last being Roxburgh's Echites venenata. A. constricta, f. v. MueUler is a small tree of E. Australia; bark an aromatic bitter, useful in age.—Von Mueller.


This considerable sized tree grows in the Moluccas, Bengal, in the vale of Savitri, and in the hilly parts of the South Konkan, and in the moist valleys of Kamaon. In Ceylon it comes up to an elevation of 3000 feet. In Canara and Sunda it is not very common, but is found near the ghat above and below of great size.
also found in the Travancore forests; it is very common in the plains on the western side of the Madras Presidency and in Mysore, and is also found in Assam, Burma, Africa, and Australia. The excellent boards or thin planks it affords are used by their children and by children in Ceylon and in the Indian Peninsula to write their lessons on, hence its name. The whole plant abounds in a milky juice. Its wood is white, light, and close-grained, but rather coarse, and in Assam is much prized for beans and light work, such as boxes, trunks, scabbards, etc. It is valuable for the turning-lathe, and in Ceylon it is used for coffins and packing-cases. It is as bitter as gentian, and is possessed, it is said, of similar virtues. The bark is a powerful tonic in bowel complaints, and, in the form of tincture, Dr. Gibson found it useful as a febrifuge.—Ind. Ann. Med. Sci., April 1886; Mason; Hogg's Vegetable Kingdom; Useful Plants; Dr. Gibson; Voigt; Tawiates; Beddomes; Mr. Thompson.

ALU, the Arab name of Bassora, from Bel-al-Sura, signifying the stony soil on which it is built.

ALTAI, or Mahawar. Hind. Balls of cotton imregnated with a lac dye; a thin red stuff of cotton, like paper, consecrated to Durga, with which Hindu women colour their feet, and is supposed to promote happiness and prevent distress.

ALTAMGHA. Turk. Literally red stamp. A grant under the seal of the former rulers of Hindustan, recognised by the British as conferring a title to rent-free land in perpetuity, hereditary and transferable from generation to generation. In reality, such were never so treated, being invariably resumed as occasion demanded. The imperial decisions of China are noted in red ink.—Wilson.

ALTAMSH. This emperor of India succeeded to the throne in A.D. 1210. He completed the conquest of the greatest part of Hindustan proper (1226–1232), and appears to have been the first Mahomedan that made a conquest of Bengal, the government of which was from this time bestowed on one of the reigning emperor's sons. It was during his reign (1225) that Chengan Khan, among his extensive conquests, accomplished that of the empire of Ghazni, putting an end to the dynasty of Khurasan, which then occupied that throne, and driving before him the unfortunate Jalal, son of the sultan of Khurasan, who swam the Indus to avoid his fury, and fled to Delhi. Altamsh was succeeded for a few months by his son, and his sister Razia was then raised to the throne.—Rennell's Memoir, p. xlviii.; Marshman.


The altar is a sacred place inside Jewish, Buddhist, and Hindu places of worship, and Christian churches, and revered in the eastern mode alluded to in Psalm xxvi. 6: ‘So wilt I compass thine altar,—compassing being a mark of reverence, common among Hindus and Buddhists, many of whom may be seen morning and evening circumambulating their temples from right to left, with their right hands towards the temple. Hindus call this Pradakshana; and it is with them a reverential act, which they sometimes also perform to men. Mahomedans also circumambulate, but only the Kaaba at Meccra, into which is built the Hajar us Siah, or Black Stone that is believed to have fallen with Adam from paradise; but in their religious process they may not allure to the custom, as in the words from the Persian, Tus i kaba i dil kun agr dili dari, Encompass thou the kasha of thy heart, if thou hast a heart."

ALTERNANTHEA SESSILIS. R. Brown. Achenraanthes triandra, R. Altern. triandra. sessilis. Illecebrum sessile, Linn. Poonaghutti bhaqji, Duk. Poonaghanti koora, Tel. Priasatti, ... Sansk. Madanaganta, ... Poonarkany kiri, Tam. This in many parts of India this is a common annual, but is greatly prized as greens by the natives, and sold at a high price. A. campestris and A. sessilis are placed in Wright's Icones.—Jeffrey; Voigt; p. 318.

ALTHEA ALHUGAS. Guimauve. Fr. Gul khyar, ... HIND. Althia of Dioscerides, Gk.

This is a native of Europe and of Kashmir, and used precisely as the marsh-mallow, and at Kandahar as greens.—O'Sh. p. 214; Bellace; Stewart. ALTHEA ROSEA. Cov. Fu-Sang, ... CHIN. Gul Khair, ... HIND. Hollyhock, ... Eng. Khatti, ... HOLLYHOCK. Pers. This plant, with very large rose-coloured flowers, has produced about 20 varieties of splendid border flowers. Its leaves are said to yield a colouring matter resembling indigo.—Voigt; 112; Smith, 10. See Dyes; Hollyhock.

ALTI MARAM. TAM. Hardwickia binata.

ALTISIHR, or the Six Cities, a designation of the western part of Eastern Turkestan, and embracing the towns of Yarkand, Kashgar, Aksu, Khoten, Yanghisar, and Oosh-turfan, with the districts dependent on them. See Bokhara, Little Chinese Tartary, and Eastern Turkestan.

ALTUN-SU. The river Caprus of antiquity is called the Lesser Zab by Abul Fazl. It joins the Tigris below Diarbaker; but it is wrong to call the river Altun, which is an epithet only belonging to the bridge, from what it cost, Altun meaning gold or money. Both Altun and Altai are Turk words for gold.—Rich's Kurdistan, ii. p. 13.

ALU. HIND., PERS., Pusht., Tel. A term, with affixes and suffixes, employed in Persian, Afghan, and Indian countries to designate several shrubs, pomaceous fruits, edible fruits and roots. The Alu of India generally is the common potato, the Solanum tuberosum. The Alu-i-Bokhara is the prune; the Nathar Alu, Batatas edulis, the sweet potato. In Telug, the Alu-bachchali, is the Basella alba. In Bombay, Alu is a name of Vangueria spinosa; in Persia, of several rosaceous plants. Gurd-alu is Prunus Armeniaca; Kir-alu is Arum speciosum; Rat-alu is Dioscorea sativa; Shaft-alu is Amygdalus Persica; and Alu-balu is the Cerasus caproniiana. Alu-chia is a variety of prune. Alu Bokhara, prunes, Prunes domestica; also dried plums and apricots.
The first alum works known to Europeans were those of Edessa (formerly called Roesca) in Syria. The alum of commerce, however, is manufactured from alum slate, alum rock, bituminous slate, and slate clay. In British India, at Dera Ismail Khan, it is manufactured from a black slate, principally at Kalabagh, on the Indus, and Kutki, where some 900 tons are annually sold, at the rate of 75 rupees per ton. The process of manufacture is almost identical with that employed in European alum works. Alum occurs native in Nepal and at Chownisilla. It is obtained in the Tenasserim valley, about 40 miles below Matalah, from a red-dish slate clay. The shales are roasted, and, after being reduced to powder, the alum is obtained by washing. Red alum is brought to Ajmir from Lahore, and used in medicine as an astringent, but chiefly employed in dyeing. One maund sells for 10 rupees. The greatest abatement of alum is from China. Surgeons apply it variously, after depriving it of its water of crystallization; and in domestic life it is used for precipitating vegetable substances suspended in potable water. When Chinese fishermen take one of those huge rhizostome which abound on the coast, they rub the animal with the pulverized stypic to give a degree of coherence to the gelatinous mass. Chinese architects employ it as a cement in those airy bridges which span the water-courses. It is poured in a molten state into the interstices of stones; and in structures not exposed to constant moisture the cohesion is perfect, but in damp situations it becomes a hydra, and crumbles. In the Sung-yan hills bordering on Pho-kien, in the district of Ping-yang, Wan-ehan prefecture, and in close proximity to Peh-kwah harbour, several alum-making establishments occupy about a mile of the side of a lofty hill. In the alum district, the typhoon of September 1555 was preceded by a rising of water in wells and ponds many miles inland. When the cyclone reached the coast, it submerged about a hundred square miles, occasioning a vast destruction of life and property. The waters of the sea were retained in the country by strong easterly winds for several days, leaving a strip of land bordering on the sea quite dry. Alum slate, Fan-shih of the Chinese, is found very pure in the provinces of Cheh-kiang, Hunan, and Ngan-hwui. It is delagrated by throwing the alum slate into brushwood, and macerating the residue in vats. The liquor is concentrated in large boilers, having iron bottoms and wooden sides, then poured into reservoirs to crystallize into large solid masses, which are broken into smaller pieces for shipment to India and the Archipelago, and for sale. 6000 tons leave the district of Ping-yang in one year. The purified alum, called Ming-fan and Peh-fan, is equal to the best Roman alum. Ferruginous alum, Tich-fan, is a friable mineral of a faint red colour, brought from Shen-si Province, China. This mineral is largely employed by the Chinese in dyeing, and to some extent in paper-making, as in Europe.—H. Piddington in As. Soc. of Beng; Calcut. Cat. Esbkh. of 1862; Hon. Mr. Morrieson's Foreign Commerce with China; Irvine's Ajmir, p. 149; O'S. Beng. Pharmac. p. 366; Simmonds' Comm. Prod.; Paulkner's Comm. Diet.; N. China Herald, 23rd January 1856; Powell's Handbook; Smith's Ch. Mat. Med.

ALUMINA is an earth of common occurrence in the mineral kingdom, in a state of silicate; as in felspar and its associate minerals; and in the various modifications of clay thence derived. Native alumina exists in the sapphire; the oriental emerald, ruby and topaz, corundum, and emery consist chiefly of alumina, with a small portion of oxide of iron and silica. Alumina has a strong affinity for various organic compounds, and its use in dyeing and calcio printing depends on its attraction for different colouring principles, and for ligneous fibre. If ammonia be added to a solution of alum in an infusion of cochineal or madder, the alumina earth falls in combination with the red colouring matter, and the liquor is left colourless. Colours thus prepared are called Lakes. The Ohl-th-Shih-Chi of the Chinese is a pale reddish friable aluminaeous earth. See Dyes; Precious Stones.

ALUWA. See Sripada. Tel. Ipomea filiformis.

ALUMZAI, a branch of the Monum tribe, whose headquarters are at Gandoo.

ALUNDY, a place near Poona where Vishnu is believed by the Hindus to have become incarnate about the 16th or 16th century. See Naneshvar.

ALUWIHARA. See Sripada.

ALWAN. Singh. Cucurbita hispida. ALUTE. Man. A share in the corn and garden produce of a village, given to the Baluto or village officers. See Balute.

ALUVA. Tel. Manis pentadactyla, Linn. ALUVAR or Alvar. TAM. Alvaru, Tel. Amongst the southern Vaishnava in the Peninsula of India, twelve reputed saints are said to have each written a portion of the Dravida Prabandha, or Tamil Veda, chiefly designed for Sudras and women. Ramanuja, the founder of the Sri-vaishnavu sect, is sometimes supposed to be the same as Yembir Manaru, the last of the Alvar. Their names are—

Poyalvar; Piryalvar;
Puthalavar; Pirumalvar;
Poyalvar; Tondalavar;
Tirupalvar; Yempamanar, or Yetaraja,
Namalvar; Ramanuja clarar;
Kula Sec'haralvar; Kurathalvar.

Wilson.

ALWAN. Singh. Cucurbita hispida. ALUTE. Man. A share in the corn and garden produce of a village, given to the Baluto or village officers. See Balute.
AMARA SANTANA. 

AMARA SANTANA, or nephew inheritance; in Canara, the law of descent to sisters' sons; the descensus ab utero. The management of property vests ordinarily in the females. See Polyandry.

ALYSICARUS, a genus of small trees or under-shrubs of India and Burma, of the natural order Fabaceae. A. bupleurifolius, Heyneanus, styracifolius, monilifer, vaginalis, and nummularia, Naga, Hind, are known. — Voigt, p. 224.

ALYXIA, a genus of plants of the natural order Apocynaceae. The bark of A. stellata, Roxb., of the Eastern Archipelago, Society and Friendly Islands, contains benzoic acid, and is possessed of properties analogous to those of nummularia and Winter's bark, used in chronic diarrhoea and nervous disorders. A. gynopogon of Norfolk Island and A. Moonii of Ceylon are also known.—O'Sh. p. 448; Razb. i. 609.

AM. HIND. The mango; fruit of Mangifera indica, also Hippophae rhamnoides.

AMADA. Beng. Curcuma amada.

AMADA KADA. Tel. Cynotis axillaris.

AMADAYAH, a district in Kurdishtan near the Tigris and Taurus, for about 800 years the headquarters of the Kurdisht family of Behdir, who race their descent from one of the early Abbaside khilifs. After the overthrow of the Mir of Towanduz, it passed without a struggle into the hands of Rashid Pacha.

AMADOU, German tinder.


A substance similar to agaric is prepared from Agaropus fomentarius, parasitical on the oak, birch, etc., and P. igniarius, growing on the willow, plum, etc. Amadou is prepared by beating thin slices of the fungus, and soaking them in a solution of nitre. Black amadou is impregnated with gumpowder.

AMAKARUM. Maleal. Physalis sominifera.

AMAL. Arab. Business affairs. Amladar, a agent, a revenue officer.

AMAL. HIND. Opium. Amal-lar-khana, 'to opium together,' is the most inviolable pledge amongst the Rajputs, and an agreement ratified by this ceremony is stronger than any adjudication. If a Rajput pay a visit, the first question is, Amal khya? 'Have you had your opiate?— Amal khaoo, 'Take your opiate!' On a birthday, when all the chiefs convene to congratulate their brother on another ' knot to his years,' the large cup is brought forth, a lump of opium put therein, upon which water is poured, and by the aid of a stick a solution is made, to which each guest is invited, with a glass, but with the hollow of his hand held to his mouth.—Tod's Rajputan, vol. i. p. 644.

AMAL, or Aomla. HIND. Emblica officinalis.

AMAL. PANJ. Sour; hence Amal-bel, Cissus arenosus; Amal-gachh, Prunus puddum; and ml, Tamarindus Indicus.

AMALAH is a subdivision of the Peshkoh an of the Luri Kuchak tribe in Khuzistan, comprising about 2000 families. Their summer quarters are about Khoramabad and Terhan, and winter they go to Saemara and Koh-dasht.—ajard; M.G. p. 22.

AMALARI, a division of the Brahui tribe izungi, on the same hills as the Minghal.

AMALE ARISI. TAM. A variety of rice.

AMALGAM. Mercury dissolves most of the metals, and forms a class of compounds termed amalgams. They are usually brittle or soft. The amalgam of tin is readily formed, by triturating the metals together, or by fusion at a gentle heat, and is extensively used for silversing looking-glasses. An amalgam of three parts mercury, one part lead, and one part bismuth, is remarkable for its fluidity, and may be squeezed through leather without decomposition. It is used for silversing the inside of hollow glass spheres, previously made clean and warm. All the amalgams can be decomposed at a moderate heat; and advantage is taken of this property in the arts of water gilding and water silversing, and the cold tuning of cast iron, wrought iron, steel, copper, and many other metals. The processes are followed in India. The amalgam used in dentistry consists of gold of purest kind and tin, each one part, silver two parts. Melt, and when required for use reduce to a fine powder, and make an amalgam with mercury. In China, Yin-kau, Yin-ts'ui, is a mixture of pewter and silver leaf with mercury, used internally as a medicine, but also employed for stoping teeth and for making false teeth.—Tomlinson; Smith.

AMALTAGS. HIND. Cathartocarpus fistula.

AMAMA. HIND. A large loose turban of shawl, etc., worn by Musalmans; qu. Imama.

AMAN. HIND. Low lands yielding one crop a year. Also At., free; the soldier's cry for quarter.

AMANAKU ARISI. MALEAL. Seeds of Ricinus communis; Ar. lampird.

AMANAT, also Amanni. HIND. Held in trust by the State, as an estate.

AMANJ. TAM. Compulsory labour.—W.

AMARA KOSHA, by Amara Sinha, also called Amara Deva, is the most esteemed of all the Sanskrit vocabularies. The author was one of the nine poets who adorned the court of Vikramaditya, who seems to have been a Buddhist. Another of this name is supposed to have lived about a.d. 948. His book was translated into English by Colebrooke, and printed in India, and into French by A. L. Deslongchamps, and printed in Diglot in 1839. The Amara Kosa, Trikanda Sessa, Haravali, and Medini Kosa, four original vocabularies, were printed at Khuspur in 1807. The poems of Amara Sinha perished during the persecutions to which the Buddhists were subjected.

AMARANTUS, a genus of plants of the natural order Amaranaceae; several which have bright-coloured leaves are ornamental. About 26 species and varieties are grown. A. amaranthus, A. frumentaceus, and A. lappica produce seed in sufficient abundance to be gathered as grain crops; their stems and leaves are used as greens and spinach. A. paniculata in three months yielded 8 oz. of seed on a square yard. Under the vernacular name of 'nuteye,' they are used as emollients, cataplasms, and for diluent drugs. A. tricolor, A. caudatus, or 'Love lies bleeding,' A. hypochondriacus, or 'Prince's feather,' are flowering plants. The last is found wild in the south of England. A. Blitum, Linn., of Europe, A. campesiris, Wilde, have minute greenish flowers, as also has A. polystachys, the Kupei-kir of the Tamils.

Amaranthus annandara, Ham. 

Sirit, sarari, saralia, batu, ganhar, BEAS. Darto, Pushit. 
Siul, sawal, bhahri, CHEN. Kail suwal, Lal siwal, 
Lal chaulal, ... RAVI. Siwalar, dankar, bithu 
AMALANTUS. 

Ganhar, Jelum, Kang. Chanval, tulsi, SUTLEJ.
AMARANTUS.

Dr. Stewart gives these as vernacular synonyms both of A. amarana and A. Gangeticus. He says A. amarana is often in the Panjab grown among other crops, up to 9000 feet. A. Gangeticus appears to be wild also in the plains. The leaves are eaten as a pot herb, but it is grown chiefly for the seed, as used for a food-grain after parching.

Amaranthus atropurpureus, Roeb.
Banspata-lal-nuti, BENG. Shegapu thandu-kirai, Lat-nutiya, TAM. Kunka nuti, Yerra totakama kurka, Tel. Vis. This is probably a variety of A. oleraceus, an annual with beautiful red foliage and diminutive flowers. It gives a good spinach, though seldom used by Europeans.

Amaranthus caesivestris, Wilde.
Chur-kh-bhaji, DUK. Sirra kirai, TAM. Mekanada, Ganna, SANSK. Sirra kurka, Tel. A. caespitris and A. polygonoides? are commonly cultivated by native gardeners for spinach, during the hot months; require to be used when three or four inches high, are of rapid growth, and should be sown every third or fourth week.

Amaranthus caudatus, Linn., the Ye-hien-tsei of the Chinese, the love lies bleeding of our gardens, is commonly cultivated for ornament. The Chinese formerly ate it as a vegetable.

Amaranthus cruentus.
Batu zard, BENG. Bostan-afroz. Pers. Taj-i-khurus, TAM. A sieve cake made from its seed is a common food with the peasants of the Himalayas.

Amaranthus faciatus, Roeb.
Tun-tumi-nuti, BENG. Ban-nuti, BENG. Has minute greenish flowers.

Amaranthus frumentaceus, Buch.
Bath, PANJ. Pung-kirai, TAM. Kirai, TAM. A large luxuriant species, grows in the hills between Mysore and Coimbatore, also on the Nilgierries. In the Calcutta Botanic Garden, forty square yards, sown in June, yielded 21 lbs. of clean seed in September. It is cultivated by the hill people of S. India for the seeds, which are ground into flour, and form one of their principal articles of diet. Seeds used by the Hindus as the kephre or seed-flour. The leaves are of a reddish-brown colour, and the plant averages in height from four to six feet.

Amaranthus Gangeticus, Linn.
Lal-shak, Ranga-shak, Lal-sag, HIND. BENG. Sown broadcast, and always procurable. The leaves are very generally used as spinach. There are many varieties, with colours from green to bright red. They cannot be cut.

Amaranthus lancolateus. Banspata nuteeya, BENG. Bamboo-leaved amaranth. The leaves and tender tops are eaten by natives in their curries, and used as emollient poultices.

Amaranthus oleraceus, Linn., country greens. Var. a. viridis, b. ruber, c. albus, d. giganteus. Shedakh-nindi, ARAB. Tota kura, TAM. Var. alba—Tella
Sadanuti, BENG. Ma-chi-hien, CHIN. Tota kura, TAM. Dant-khi-bhaji, DUK. Var. rubra—Yerra
Dak-khi-bhaji, TAM. Sadanuti, SANSK. Var. gigantes—
Thandu-kire, TAM. Mokka, also Peruga.

This amaranth is, more than all the others, in use with Europeans in India. The peeled stalks resemble asparagus in form, and are pleasant to eat. The variety A. viridis, the common green sort, is most cultivated. A. ruber, with its bright stems but rusty-coloured leaves, is showy in a garden. A. albus, with white shining stems, is the sada-nuti of Bengal, and is much cultivated there. But the A. giganteus, from five to eight feet high, is that which Europeans mostly esteem,

Amaranthus polygynus, L.; var. ruber.
Champa nuti, BENG. Chumli sag, HIND. Champa nuteya Chulai, VAR. (var. lal.), Sada-nuti, TAM. Duk, DUK. Sada-nuti, TAM. Duk, DUK. Rayki-khi-bhaji, TAM. Kirai, TAM. Chulai-gaji, TAM. Kheer, TAM. Kheer, TAM. Chulai-kheer, TAM. Kheer, TAM. Duk, TAM. This is cultivated all over southern Asia. There are three or four varieties, with various coloured leaves. It is one of the best of the Indian spinach. It is raised from seed during the hot months, and requires to be sown thick, and eaten when young; generally used when two feet high. The humbler natives are seldom able to purchase this vegetable, it being too costly.

Amaranthus polygonoides.
Chiru nuti, BENG. Ban tantuli, TAM. Chilu nuteya, CHILA. Kheer, TAM. Chilu, TAM. Has very small and common garden weed, used as a pot herb, and esteemed by natives wholesome for convalescents.

Amaranthus spinosus, Linn.
Kanta nuti, BENG. Mula kire, TAM. Thoicky amaranth, ENG. Mula tota kura, TAM. Mullan-chiara, MAIKAL. Nalla dogali, TAM. Mula-karan-tara, VAR. Erra multa gor. Puttai, TAM. Anta, TAM. This grows as a very troublesome weed all over Southen India and Burma. It has sharp spines in the axils of its leaves, and it is troublesome to pick them, though they make a good spinach and pot herb.

Amaranthus tenuifolius, Roeb.
Ghonti-nuti, BENG. Muleeroo, SIND. Jee-chunni, TAM. Katao-sirroo-kirai, TAM. A weed with clusters of green flowers proceeding from the axils of the leaves; stem much branched; found everywhere spreading in cultivated grounds.

Amaranthus tricolor, Wright.
Mat-khi-bhaji, DUK. Aray-kirai, TAM. Jilakka, TAM. SANSK. Quoy-tota-kura, TAM. Kuppi-kirai, TAM. Tanta-kura. TAM. This annual is cultivated and hold in great esteem by the natives. It may be cut down several times without destroying the plants, which are much used for food.

Amaranthus viridis, Linn., has minute greenish flowers, and its tender tops are eaten, but less esteemed than others of this genus—A. binata, CLEG.
A. viridis, WRIGHT; Jaffrey's Hands, Mool. A. viridis; O'Sh. BENG. Disi, Powel, Handook; Riddell's Gardening; Rosh, F. Ind; Smith, Chir. M. M.; J. L. STEWART; Voigt; von Mueller.

AMARAPURA. On the east bank of the Irrawaddy river, in lat. 21° 57' N., long. 73° 4' E., a former capital of Burma. The name is derived from the Pali, and means the immortal city. It was re-occupied when Ava was abandoned. The Burmese kings vary their capitals, and Amar-
AMARA DHOB, a Parsee holiday, held on the day following the Khurdad-sal, of which festival it is merely a continuation. —*The Parsees.*

AMAR-DHOB, also Dhooba. HIND. Cynodon dactylon; amongst the Rajputs, the father binds its root around the arm of a newborn son.

AMARKANTAK, a hill in the Bilaspur district of the Central Provinces, in lat. 22° 40' 15" N., and long. 81° 48' 13" E. The mean height above the sea of the plateau Vishnapuri, is 3590 feet. The tank of Pach Kunda, the source of the Narbada, is 3504 feet. The top of the hills skirting the Vishnapuri plateau to the north, 3700 feet, 100 feet above the Vishnapuri plateau, by aeroid. Near this, Captain Jenkins of the Madras Army discovered coal. Amarkantak plateau forms the watershed of the Mahanadi, Son, Tons, Johilla, and Nerbudda. These rivers, though large and full of water, even halfway from their mouths, are very irregular in the slopes of their beds, and are disturbed by frequent rapids, so that, owing to these impediments, increased still further by the rocky character of the river beds or their banks, navigation is limited for the most part to the lower portions of their course. —*Madras Museum Records.*

AMARNATH or Ambermath, a temple five miles from Kalhan, about forty miles from Bombay; it means immortal lord. It is now a Saiva institution, and in ruins, but has evidently belonged to some prior creed, probably buddhist, and re-arranged for the Saiva sect A.S. 782, A.D. 800. The lingam, yona, and vahan nandi are still there. It is sacred to Shambha. An inscription found in it is dated Saka 982, A.D. 1060.

AMARYLLIS, a genus of the Amaryllaceae, the narcissus tribe of flowering plants, the species being known as American, Asiatic, aures, Barbadoes, Cape, equestrian, fritillaria or snake's head lily, golden, Mexican, parrot, tiger lily, and Turk's cap, mostly natives of China, Cape of Good Hope, and America, but quite acclimated in India, and found almost in every flower garden. They blossom during the rainy and cold season. The colours are of every variety, —red, white, pink, etc. The wild flower of fritillaria hangs pendulous, and is chequered with pale dark purple; specific name from fritillaries, a dice board. In India, several are known as Sosan, a Malomedian name, the Susan of Christian women. A. aures, golden amaryllis, the Zard Sosan of the Persians, is very ornamental. A. Belladonna has large veined greenish white and carmine coloured flowers. The roots of the Shan-taze-ku or Man-ku of the Chinese, a splendid flowering plant, are used medicinally. —Smith; Roxb.; Voigt; Riddell; Hog, 768; Gen. Med. Top. p. 188.

AMARYLLIS GRANDIFLORA, Stewart, the Suk'h-darsan of India, is cultivated for its flowers; the strained juice of two drams reduced to a pulp with water is said to be a good emetic, and is dropped into the ear for earache. —Stewart, *Panjat Plants,* p. 232.

AMARYLLIS RADIATA, Wildde, the Yuk-lan of the Chinese; a native of China, blossoming during the rainy season. —Roxb. ii. 140.

AMAS, SANSK., TEL. Moonless period of the month. See Amavasya.

AMATSA, JAYAN. Hydrangea Thunbergii. AMATUM, TEL. Spondias mangifera, Pers.; S. dulcis, Forsk.

AMAVASYA, or Amasi, or Amas, SANSK., TEL., TAM. The conjunction of the sun and moon; the interm of the month, also called Arcendu Sangama (written Aria Indu); Ama and Darsa Tithi are names given to the lunar day, on which the conjunction occurs, which in the Hindu calendar is always reckoned the 30th of the lunar month. Amavasya Tithi, the lunar day of the moon's change. The Amavasya is observed as a fast-day by all Brahmins and strict Hindus, during which they perform various religious ceremonies for their deceased parents. —Captain Edward Warren's *Kala Sanhita.*
AMAWATURA, a book of legends in Singhalese.

AMAZON STONE, a compact felspar of an emerald green colour, opaque, with micronic reflections. It is hard, and takes a high polish.

AMBAGARI CHAUKI, a zamindari on the N.W. frontier of the Chanda district. Gonds, with a sprinkling of Gauli, inhabit it; the languages spoken are Gondi and the Chhattisgarhi dialect.

AMBAKAPI, the Akamatis of Ptolemy, a town in the Eastern Punjab.

AMBA KURB. MAHR. Cupania canescens.

AMBALA, a large military station in the Punjab, in lat. 30° 21' 4" N., and long. 76° 48' 88" E., and 1026 feet above the sea.—See Umballa.

AMBALA CHETTU. TEL. Spondias mangifera.

AMBALAKAREN, the tribal titular appellation of the Kollari tribes of Madura and the Tondaman country.

AMBALAM. MALEAL. Spondias mangifera.

AMBALAM. TAM. A public hall in Malabar; a Hindu temple. Ambala Vasi, a caste in Travancore who make garlands; they are attendants in temples, and rank between Brahmans and Nairs.

AMBALAY. MALEAL. Carica papaya.

AMBALIKÂ, mentioned in the Mahabharata was the younger widow of Vichita Virya, and mother of Pandu by Vyasa. Ambi or Ambika, her sister, was the elder widow, and was mother of Dhrita-rashtra.—Dowson.

AMBALITA, a small tree of Ganjam. The juice of the leaves is mixed with mercury, and taken internally for rheumatism and other diseases.

AMBALU. MALEAL. Lac.

AMBARA. TEL. Spondias mangifera.

AMBAR-BATTI. HIND. A perfumed paste, made from frankincense, used in India.

AMBARI. HIND. A howdah with a canopy or umbrella cover; a canopied seat on an elephant; a litter borne by a camel.

AMBARI. DUK., MAHR.


Mesta pāt, BEN. Full munāj, COMBÂTARE. Valātī sunn of MUTTRA.

Ambaya pāta in Purneta. Sunl. of SAHARUNPUR. Beng. Gong kura, TEL.

This fibre is manufactured from the Hibiscus cannabinus, largely used in India, and exported as one of the hemp's. Ambari kī bhajī, DUK., greens of Hibiscus cannabinus.—Lin. ; Riddel; Roye.

AMBASHTHA, or Ambghāste, a Hindu of the medical profession. They are numerous in Behar, and are said to be Sudras in caste.

AMBASSADOR.

Balyus, ARAB. Elchi, HIND., PERS.

In Mahomedan traditions, it is mentioned that An-Rāfa was sent as an ambassador to Mahomed by the unbelievers of Mecca. But when he had Mahomed preach, he embraced Islam, and refused to return to Mecca; whereupon the Prophet spoke of the sacred character of ambassadors, declined to sanction An-Rāfa's breach of duty, and persuaded him to go back. On another occasion, an ambassador who claimed to be a prophet, and was an enemy of the new faith, expressed his contempt for Islam in the presence of Mahomed; but the Prophet merely replied that but for the respect with which Islam regarded ambassadors, his presumptuous language might have cost him his life. Respect for the representatives of other nations was enjoined upon his followers by Mahomed in the last moments of his life.

AMBATCH, a wood seldom larger than a man's waist, and, as it tapers naturally to a point, canoe rafts are quickly formed by lashing the branches parallel to each other, and tying the narrow ends together. It is a curious combination of raft and canoe; the Ambatch wood is so light, that the whole affair is portable.

AMBATTI MADDU. TEL. Trianthema cordatum, Roxb.

AMBATTI. TAM. Barber.

AMBATTEYYO, an outpost race in Uvah in Ceylon, deemed so degraded that even the Rodiya prevent their dogs from eating the fragments of food cooked by them.—Tennent.

AMBAYA-PATA. BEN. Crotalaria juncea.

AMBEL. MALEAL. Nympheæ pubescens.

AMBEM. MALEAL. Crotalaria adenocarpa, in lat. 26° 58' 45" N., and long. 75° 52' 50" E., the early capital of Jeypore, built by Jey Singh, and a city of great architectural beauty, situated in a rocky mountain gorge, where there are several Hindu temples, and the palace is still kept up. According to Tod, Amber gave its name to a Rajput dynasty, of the Surya Vansa race, a secon of Nirwar, and, according to Prinsep, the ramus of Amber are of the Ghushwa race of Rajputs, who claim descent from Cush, second son of Rama, king of Ayodhya, who migrated, and built the fort of Kotas on the Sone, Authentic history commences in A.D. 294, with Raja Nola, who founded Narwaz or Nishidh. The political power of this family dates from Hanayun, the son of Baber.—Thomas Prinsep's Antiquities, p. 259; Tod's Rajasthan, pp. 299-331; Imp. Gaz. AMBER.


Amber is first mentioned in Ezekiel i. 4, 27, and vii. 2. Thales noticed it b.c. 600, and Theophrastus b.c. 300. It has always been held in estimation by eastern nations for medicinal use and for ornament. It is found on the shores of the Arabian and the Adriatic, on the eastern coast of England, and on that of Sicily; and in Prussia it is obtained by sinking shafts to the depth of 100 feet, to a stratum of fossil wood, in which the amber is found in rounded pieces from a few grains to five pounds in weight. It is also obtained along the coasts of America, Africa, and the Archipelago islands. Dr. Smith mentions that the Chinese market is supplied from Annam, the Indian Archipelago, and, according to Dr. Wight, from Africa; but Corea, Camboya, and Japan, are also said to yield it; small pieces of an indifferent colour are brought from Li-kang-fu and Yung-chung-fu in Yunnan. A dark jade-like amber comes from Tangut. The best pieces are all made into court-beads and ornaments. The Chinese name Hu-pee is from a legend that the soul (pee) of the tiger (hu) is changed into this substance after death. The Burmese, perhaps more than any other nations, use it. In every bazaar of India, medicine vendors

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of a small whale. It occurs in lumps from three to twelve inches thick, weighing from 4 oz. to 182 lbs., and mixed with vegetable and animal remains. It is softened by heat in which state it has a powerful smell, which to some persons is very disagreeable. Indeed, when taken from the intestines, its fetid smell is disgusting. It is often found floating in the Red Sea, on the east shores of Africa, on the ocean south of Asia, and the countries it surrounds export it largely to China. Some sorts met with in Japan resemble coarse bitumen, or asphalt, or black naphtha dried, consequently more or less black and heavy, and all differing in consistence. Other sorts are whiter in various degrees; and some sorts are exceedingly light, and not unlike a mushroom, which induced Scaliger to concur with Scarpion, that it might well be a sort of a fungus marinus, or sea mushroom. The Chinese test its goodness by throwing some of it, scraped very fine, into boiling hot tea, when, if pure, it will diffuse itself equally through the fluid. It swims on water. A factitious article appears in the Chinese market, pure white, and apparently smooth and homogeneous. García-ab-Oria tells (A. H. I. c. 1) of two large pieces; and when Thunberg was in Japan, a very good piece of a fine greyish ambergris was found upon the coasts of Kijnozumi, which weighed upwards of a hundred catti Japanese, that is, 130 lbs. Dutch weight, and, being by much too large to be purchased by one person, it was divided into four parts, in form of a cross, and one of the four parts was tendered to him. In 1059, after he had left Japan, a tortoise-shaped piece, weighing 185 lbs. Dutch, was sold by the king of Tidore to the Dutch East India Company for 11,000 rixdollars, or upwards of £2000 sterling. It was sent to Amsterdam the year after, and was kept in the Company’s museum. It was of a greyish colour, and of a very good sort. It was bought on condition that if it should be discovered to have been in any way adulterated, the money should be restored. Dr. Valentine, professor at Gissen, figured it in his Museum Museum, lib. 3. c. 28, as did Rumph in his Ambosche Barricaterammer, t. iii and iv, from which, it seems, Valentine took it. Lane tells of a piece weighing about 125 lbs.—Bingley—Thunberg’s History of Japan, p. 48; Plowden’s Hindostan, p. 148; Lov’s Sarawak, p. 99; Tavernier’s Travels, p. 152; Bennet, Whaling Voyage, ii. p. 226; Lane.

AMBER, LIQUID; Liquidambar.

Mia-Salath, . ARAB. | Liquidambar, . ENGLISH.
Nan-tu-yok, . BURM. | Rasa-Malay, . MALAY.

A resinous fluid, obtained from trees that grow in North America, Mexico, the Levant, in the Tenasserim Provinces, and Java, and used to mix with balsam of Peru. The bark of Liquidambar altingia is bitter, hot, and aromatic, and when wounded affords this balsam. A similar substance is obtained from L. orientale of the Levant islands, and L. styraciflua of Mexico.—Mason’s Tenasserim; O’Sh. pp. 255, 610. See Liquidambar.

AMBHA, a goddess worshipped by the Káthi race. Ambha-matla, a goddess of the Jain sect, worshipped in many parts of India.

AMBHOJ, Unti; Badhinia, species.

AMBI-HALDI, a black Trench mustard.
Hyderabad contingent. It has some ancient Brahmanical temples.

AMBIKA, a name of Parvati; also the patron goddess of Nemeth. Ambika is one of the Ginnar guardian deities. Her temple occupies a prominent position. See Ginnar.

AMBISACES, king of the Indian mountaineers, who sent ambassadors with presents to Alexander, on his crossing over to Taxila. Rennell supposes his tribe to have been the ancestors of the Gihkar.

AMBLYCEPHIDÆ, the family of blunt-headed innocuous snakes. See Reptiles.

AMBLYRHYNCHUS CRISTATUS, a sea-shore lizard of the Galapagos, from 3 to 4 feet long, with a crest on its head, which is short and obtusely truncated, and broader than long. The mouth can be opened to a very small extent. It is common on all the islands on that archipelago, on rocky sea-beaches, is never found ten yards in shore, and lives on sea-weed. It is a hideous-looking creature, of a dirty black colour, stupid and sluggish in its movements.

AMBONG, in Borneo, a small town in lat. 6° 18' 26" N., long. 116° 15' 33" E. The famous mountain Kina Balu lies in an E.S.E. direction from the head of the harbour, distant 27 miles, and adds much to the beauty of the neighbouring scenery. The Orang Dusun aborigines reside close to the coast. Bullocks of a good breed are obtainable.— *Jour. Ind. Arch. iv.*.

AMBOORESA. TAM., Tel. Women's coloured cotton cloths. See Cloths.

AMBOYNA, the name of a high island in the Eastern Archipelago, 33 to 36 miles long, and the largest of the Moluccas group, and also its chief town. In this island, on 16th February 1629, the Dutch put eighteen Englishmen to the rack, and afterwards beheaded nine of them. One Portuguese and nine Japanese were put to death at the same time, as accomplices with the English, a deed known in English history as the Massacre of Ambaya. Amboya was captured by the British, 16th February 1796. The Amboynese are of the Malay race, short, squat, and darker in complexion than the Javanese. They are gentle, brave, easily managed, and make good mounted and foot soldiers; a considerable number of them have embraced christianity. They are good-tempered, though impetuous, and generally very sober. Amboya, like the other spice islands, is volcanic; and with Banda, Ternate, Tidore, and smaller islands in their neighbourhood, are fertile in fine spices. But the Dutch nation, to secure a monopoly of this class of products, for years rooted up and destroyed, at a great cost, often by force of arms, every nutmeg or clove tree not required for the production of that quantity of spices which they calculated they could dispose of. Rosingain, near Banda, was almost abandoned after the extinction of its spice trees, its people emigrating to the neighbouring islands in search of a livelihood. The volcanic soil of Amboya is rich in the finer woods; and a Dutch botanist presented to a Duke of Tuscany a cabinet inlaid with 400 specimens, all obtained in the island.

On the 17th February 1674, according to Valen- tyne, Amboya suffered from a heavy earthquake, and Mount Ateti or Wawanu on Hitu, west of the village of Zyt, poured out a great quantity of hot mud, which flowed down to the sea. The west side of the island is called Hitu, and the east side Lai-Timur.

In 1815, during the eruption of Tombororo, on Umbawa, an earthquake was felt at several parts of Amboya.

On the 1st November 1835, earthquake shocks of great violence began, and continued for three weeks, during which the whole population left their houses. The island, previously healthy, then began to be subject to a gastrick fever, which continued till 1845.

On the 20th July 1845, another heavy earth- quake occurred, when the gastrick fever gained fresh strength, and, after other shocks on the 18th and 20th March 1850, the disease again reappeared.

Amboya and Banda are supposed to have been discovered by Antonio d'Abreu, a Portuguese captain, who left Malaca in 1511, but Ludovica Bartheima (Vartoma) of Bologna claimed to have been there in 1506.— *Wall. ii. pp. 79-90; Hogen- drop, Coup d'ceil sur Java; St. John's Indian Archipelago; Crawford's Malay Grammar and Dictionary,* i. p. 131; *Horsburgh; M. Farlone, Japan,* p. 44; *Bikmore,* pp. 129, 169. See India.

AMBOYNA WOOD, or Lingoa, or Kayu-boka, a fragrant and very beautiful wood of various colours, used in cabinet work in Great Britain, supposed to be from the Pterospernum Indicum. It is beautifully mottled and curled, of various tints from light red to dark yellow, and is always in lumps, evidently excrescences or burrs cut from trees. The several varieties of this wood are principally used for inlaying, and by the makers of ornamental snuff-boxes. It is brought from Caram and Amboya, and at the Great Exhibition of 1851 it was sent from Singapore. — *Archer; Faulkner; Lond. Ed. Journals' Reports.* AMBUJ. HIND. Lotus; Nelumbium speci- sum.

AMBUL-BEL. Beng. Pythium bulbiferum. AMBUNG. MALAY. Basket, a measure.

AMBUPRASA-DANA. SINGH. Strychnos potatorum, clearing nut, for purifying water.

AMBUR, in lat. 12° 50' 25" N., and long. 78° 44' 30" E, a town in the Kaorman, on the right bank of the Palor river, elevated above the sea 1053 feet. A battle was fought here, 23rd April 1749, the British supporting Anwar-u-Din on one side, the French supporting Muzaffar Jung on the other, in which Anwar-u-Din was slain. It was the first pitched battle in India in which Europeans were engaged.— *Schl.; imp. Gaz.*

AMBUSI. HIND.


Green mangoes sliced lengthways, salted, and sun-dried, and used in curries.— *Faulkner.*

AMBUYACH LASSAN. In Hindo belief, four days in Ashar (June-July) when the earth is unclean, and agriculture is prohibited.— *W.*

AMDHUKA. HIND. Vitis Indica, Linn.

AMDOAN, a Tibetan nomadic race who dwell in tents of linen, hexagonal, and without frames— *Latham.*

AMERI. MALEAL. Indigofera tinctoria, Linn.

AMERICA has been supposed to have been peopled from Phoenicia, Asia, Africa, and Iceland, and to have been the haunt of Northmen centuries before Columbus. There are physiological resem- blances amongst some of the tribes, but differences.
in language, physiognomy, and modes of existence. Mr. Logan, in the Journal of the Indian Archi-
pelago, mentions that the prevailing types of phys-
ique amongst the Chinese have relation to the
Mongolian and Tibetan and American forms, and
adds that the American heads in plates 30 to 37
of Pritchard's Natural History of Man, are Chinese.
Abbe Domenech supposes their origin to have
been from Sceytians, Hebrews, Tartars, Scandi-
avians, and Welsh. M. de Guignes, in his Re-
cherches sur les Navigations des Chinois du Cote de
l'Amerique, states that, under the name Fu-Sang,
America is accurately described in a Chinese
work of the 5th century as a land in the far east.
According to M. Paravey, the Fu-Sang of the
Chinese is Mexico, which, he says, was known to
the Chinese as early as the 5th century of the
Christian era; and carved figures, representing
Buddha of Java seated on a Siva's head, were
found in Uxmal in Yucatan. According to
Sandoval, a succession of emigrations went from
Ceylon, and from the south of India, to America
many centuries before Columbus. Marco Polo
and John Banking state that Manco Kopae, the
Inka of Peru, was the son of the great Kablan
Khan, and Montezuma the grandson of Askuan,
a noble Moghul of Tangut. Humboldt was of
opinion that the Tatars derive their origin from
the Huna. The American practices of raising
umuli or mounds over the dead, of scalping, and
of circumcision, were common throughout Sceytia
or Tartary. Herodotus mentioned the scalping
of the Amurs as common in his time.—Kennedy's
Ethnological Essays, pp. 23–25; Priest's American
Antiquities, Albany, 1838; Abbe Domenech;

AME-SA. BURM. Anona squamosa.

AMETHI DUNGAR, a town and district in
Oudh, held by the Bandhgaloti, who claim to be
Kshatriya, but are said to be descendants of a
female bamboo-splitter, and that they periodically
worship the banka, or splitting-knife.

AMETHYIA, a tribe of Chohan Rajputs in
Gorakhpur, originally from Amethi in Oudh.—W.

AMETHYST.

Martas,.... Arab. Amethystus, Lat.
Ametiste,.... Fr. Amethyste,.... HIn.
Ametista,.... IT. Suganti kalli,.... Tam.

Under this term two different minerals are
now known, viz. occidental or common amethyst,
a quartzose mineral found in amygdaled trap
rocks in all countries, but in quantities amongst
the volcanic rocks of the Dikhan. Beautiful
amethyst crystals occur in dykes of quartz near
Bowenpilly, at Secunderabad. Its colour is of
every shade of purple violet; some of these are
valued, for it is almost the only stone that can
be worn with mournings. When the colour of
a specimen has to be equalized, it is placed in
a mixture of sand and iron filings, and exposed
to a moderate heat. The oriental amethyst is
also of a purple colour, but is an extremely rare
precious stone, and belongs to the corundums.
Its colour can be destroyed by heat, and its purity
then resembles that of the diamond.

AMGOOLEE. Hind. Eleagnus conferta.

AMHARA, a Semitic race in Africa. See
 Abyssinia; Africa.

AMHERST, a small town and pilot station in
southern Maine on the left bank of the mouth of
Moulmein river, in lat. 16° 4' 40" N., and long.
97° 35' 36" E. It gives its name to a revenue
district of British Burma, lying between long.
97° 50' and 98° 25' E., and lat. 14° 59' and 17°
51' N. In the roads, the greatest rise and fall
occurs in two days after full and change, is 21 to
23 feet. The velocity of tide at springs is 65
knots per hour. It was proposed to be formed
into a sanatorium for the European soldiers
in Burma, but the ailments there are of a kind
needing a cool or a dry climate. A dangerous
reef of rocks runs across the mouth of the Moulm-

in river, from Amherst lighthouse, which the
British Government has tried to remove. The
district has many Buddhist pagodas. Up till
British annexation, it was a theatre of con-

tinuous wars between the Siamese and the Pegaur.
Its population in 1872 was 239,940, Talain,
Karen, Tong-thu, Arakanese, Shan, Burmese,
Chinese, Malay, Hindus, and Mahomedans. Its
towns are Amherst and Moulmein; its rivers,
Salwin, Gyaing (Gwyn), and Ataran, and it has
valuable teak forests.

AMHERST, Lord, left England on the 8th
February 1816 as ambassador to China. He

disembarked in the Gulf of Pe Chi Li, and
marched to the capital; but as he refused to
follow the Chinese ka-tou or ko-tou mode of
reverence, his visit was refused. Lord Macartney,
and the Russian ambassador, Count Galowkin,
acted similarly; but the Dutch ambassador,
in 1795, had performed the ko-tou. In 1817, he
re-embarked on the 'Aleceste,' which was wrecked
on the 18th February in the Straits of Gaspar.
On the 1st August 1823, Earl Amherst became
Governor-General of India, and held that office
until he re-embarked on the 10th March 1828.
During his administration, the British waged a
successful war with Burma, the army being led by
Sir Archibald Campbell in 1824–25; Bhruptur
fell, in 1826, to the assaults of the army under
Lord Combermere, and the fortress of Deeg was
stormed and taken.

AMHERSTIA NOBILIS, Wall., the finest
indigenous flowering tree in Chin-India, has very
large pea-blossom-shaped flowers of brilliant red
and yellow, which hang down in clusters more
than a yard long. It was discovered by Dr. Welch
on the Salwen near Trockla, and named by him
after Lady Amherst. There is scarcely a
Burmese monastery near which one or more of
these trees is not found planted. The tree is not
known to grow wild. Even the finest trees, which
attain a height of 30 or 40 feet, and in growth of
perhaps four feet, produce seed very sparingly
indeed. It flowers in March.—Mason; Voigt.

AMIDAM. Tel. Ricinus communis.

AMIL. Panj. Cucuaba reflexa.

AMIN, a revenue officer of government; a con-

fidential agent. Under the Oudh Government,
the Amin was a judicial officer presiding over a
court of first instance, called Murafa-i-Awala,
for the hearing of cases in all departments that
might be made over to him from the royal office.
They usually held their courts at Lucknow.

AMIN RAZZA, uncle of Nur Jahan, was
the author of the Haft Aklim, a.H. 1592 (A.D. 1594).

AMIR, Arab., Hind., Bactrian, Amale; also a
title of nobility equivalent in some Asian
countries to king, like the Amir of Kabal. Also
an official designation, as Amir-ul-Bahr, admiral,
or in some places harbour-master; Amir-us-Sooq, chief of the marketa, equivalent to the Indian Kotwal. Amirzadah, literally a born chief or prince. This word reappears abbreviated as ‘Mirza,’ which is always suffixed to the individual name in designating a prince of the blood, as Abbas Mirza, who was the king of Persia’s son, but is a prefix when honorific, like the English Mr., as Mirza Abdul Baki Khan. Amir-ul-Muminin, literally prince of the faithful, is a title adopted by the khalif Omar, and retained by his successors. Amir-ul-Umara, a Mahomedan honorary title or title of the commander-in-chief of an army. Pt. Umra.

AMIRANTE ISLANDS, the S.W. group of the Seychelles, consisting of several detached small islands, coral reefs, and banks. —Horsburgh.

AMIR AZAN DELEM, in the tenth century, constructed the Band-Amir over the Araxes, and from whence the river Kun Firoz, after its junction with the Murghab, derived its name. See Bendameer.


AMIRKOT, a town on the border of the desert of the Gharra. Babar was born here whilst his father Humayun was flying from India.

AMIRTA KAVIRAYAR was the court poet of Reghunath Setu Pati, who reigned at Ramnad between a.d. 1649 and 1685. He composed an erotic poem, the Oruturani-Khovai, in honour of his patron.

AMIRTA KARAR, a Jain who was famed as a Sanskrit and Tamil scholar. He wrote a grammar in Tamil verse.

AMIR YAHIA, a native of Kasvin, hence his patronymic Kasvini; died there a.d. 1552. He wrote the Lubb-ut-Taurik. See Abdul Latif Kasvini.

AM-KALANG. TAM. Physalis somnifera, var. P. flexuosa, Nees.

AMKUDU, Wrightia tinctoria, R. Br.

AML. Arab. An act, a reign, a rule, carrying into effect; hence Amil and Amildar, a revenue officer. Pl. Amla. Amli, in Bengal, the revenue year, the same as Fashi; also assessment or land rent paid in kind.

AML, also Amlaki, SANSK., pronounced Aonla. Emblica officinalis, emblic myrobalan.

AMLAL, of Sutlej. Zizyphus vulgaris.

AMLAK. Posnir. A tree of Afghanistan, producing a small edible berry.

AMLANCH. Panj. Ribes grossularia.

AMLALA VETASAMU. SANSK. Calamus fasciculatus, Roxb. The compound signifies ‘sour-cane.’

AMLLEA PAT. BENG. Corchorus, sp.

AML or Imli. HIND. Amlika, Tintili. SANSK. Tamarindus, Tamarindus indica.

AML-KAR. HIND. —In the shawl manufacture, needle- or hand-worked, as opposed to Kanikar or loom-woven; of shawls.

AMLOK. Panj. Diospyros lotus.

AMMA, in almost all languages, mother; in Tamil and Telugu, it is added to the names of Hindu women, as Sitamma, Vangamma. It is also a title of non-Aryan goddesses, as Mari-amma, Yagath-amma, supposed by some to be the Virgin Mary and St. Agatha. Ammal is a name of Parvati, and more especially of her image in the pagodas. Ai, Em, Amma, Ma, Mamma, Amman, are the natural terms amongst many races for mother, as in the ‘Em of the Hebrews, the Ma of the Egyptians. The most high god, Elion, or Helyun, the creator of man, seems to have been worshipped under various names, all meaning Lord; and a wife was given to him, also known under various names—Baltia, i.e. mistress, queen; Hastoreth, i.e. in the Greek form, Astarte, who as Balts was worshipped at Byblus with her husband Adonis. But the secret worship of the mother of God, also called Amma, was especially celebrated in the shrine of Aphaka at Byblus, near the river of Adonis. The Amman of the southern Tamil Hindus may therefore be a cosmographic term indicative of the great Creator’s power, the most high God’s will. In the Tamil part of the Peninsula of India, the Amman is an idol worshipped by the non-Aryan races in every village, is identified with Amma, and in some places with Ammanam Amma. It is one of the many village deities of which neither the Vedas nor Puranas make any mention. Every hamlet has its own, always supposed to be a goddess, and it is usually a stone turned black by oil offerings and time. This word is understood by the villagers to mean mother. The Tamil villagers style their deity by many affixed names: —Ankal- Amman, Mang-Kali-Amma, Poni Amma or golden mother, Kani-Amma, Mutial-Amma or pearl mother, Paleri Amma or great goddess, and other local affixed names, the meanings of which are not apparent. The Mahatta villagers have the same female village deity, whom they name Ai, or mother. The villagers offer sacrifices of sheep, goats, fowls, cacao-nuts, dial, palm wine, and fruits; and frankincense, camphor, and ghi are burned. The villagers believe that the village goddesses protects them from sickness and from losses, or mitigate these. A pujali or pujari, a worshipping priest, of the sudra caste, is appointed for the daily worship. He anoints it with ashes on its head, or rather on the top of the stone, for it is no image, but a mere shapeless stone. In a small pot he cooks the rice, which he collects from the hamlet people in rotation, presents it to the idol, and then takes it to his own house. He breaks a cocoa-nut in front of the idol, and offers it also, but the one-half he keeps to himself, and gives the other to the family from whom he obtained the fruit. The village offerings are in fulfilment of vows, or offerings, are made of fowls and sheep, praying the goddess will grant their desires; and once a year the villagers collect money by subscriptions, and celebrate a festival in honour of their deity, during which many fowls are largely sacrificed. The sudra Hindus, and the entire non-Aryan tribes in the south of India, have the fullest faith in their respective village goddesses. When they or their children are overtaken by sickness, they seek the idol, and consult the pujari, who sings songs, affects to hear the Amman’s voice, and then announces to the worshipper the offering that must be presented. If cholera break out, it is not unusual for some neighbouring village deity suddenly to rise into great importance, and the sacrificial rite is then almost unceasingly performed. The Hindus have even personified that pestilence into a goddess, whom they have named Maha-Kali, and believe
that if they neglect her worship she destroys them by the disease. Indeed, gods are still in process of establishment, and smallpox and cholera have thus been personified, Maha-Kali of Ujjain being the goddess of cholera, and Mari-Amman of the Tamils a smallpox deity. In South India, the village deity is invariably female. The Amman is brought out from time to time, and carried around the village or town. The protecting goddess of Madras town is one of these Amman, and her temple is in the middle of Black Town. Once a year it is carried around the city bounds, and into the fortress, halting for a week or two at certain recognised resting-places. See Ammavar; Hindu; Sacrifice.

AMMA KODAGA, a high class of the Coorg or Kodaga race, who do not intermarry nor associate with the other Coorgs.

AMMINI AMMA, the Tamil term for the image of the Virgin Mary. See Hindu; Amman.

AMMANNIA VESICATORIA. Roxb. 
Ben marachi. 
Beng. Kalar vanachi, 
Malegal. 
Dad marat. 
Hind. Agni vendrapakul, Tel.

An annual found in India in wet land under the rains, 6 to 36 inches high. It has a strong smell like muriatic acid; leaves exceedingly acrid, employed by the natives as blisters in rheumatism.

Dr. O'Shaughnessy tried them in eight cases. The bruised leaves had been removed from all after half an hour; blisters were not produced in less than 12 hours in any, and in three individuals not for 24 hours, and the pain occasioned was agonizing until the blister rose. These leaves cause more pain than cantharides, and are far inferior to the plumbago (lil chitra) in celerity and certainty of action. The Telugu name, indeed, means fire-leaf. Dr. Stewart says that in the Punjab the leaves of A. arunculata, Willde, are similarly employed and similarly named; both plants grow in the hills up to 5000 feet. Other species mentioned by Roxburgh, Wight, and Vogt are A. indica, multiflora, nama, setandra, pentandra, rotundifolia, and vesicatoria.

-OSh.; Voigt; Roxb. i. 427; W. Jc.

AMMUNA VARU. Tel. Literally, honoured mother; a cruel sacrificial rite, practised among the Hindu sudras and low-caste non-Aryan races of the southern part of peninsular India, on occasions of a cholera, epidemic, or other calamity; a bullock was impaled alive to appease the angry goddess Devi.

AMMON, an oasis in Egypt on which stood the temple of Amun-Ra, whose figure was that of a man having the head and horns of a ram (Sharpe's Egypt, i. p. 222). He was displaced afterwards in favour of another idol, in the reign of Tuthmosis III. He is the hidden god of the Thebaid, supposed to be the Zeus of the Greeks, and was styled Ann or Ammon, Amo-ram or Ammonra. He originally corresponded with the Sun-god, and was high in the first order of gods, and was the ruler deity. He was styled the son of Isis, and his son was Khuns. The origin of this worship is supposed to have been Semitic, and amongst northern people was directed to the warm sun, and to the earth in the sunny south.—Bunsen, iv. 232.

AMMONIA, liquid ammonia, volatile alkali.


This is a limpid colourless fluid, exceedingly volatile; has a pungent smell and a caustic taste, and in medicine is a useful stimulant. Its name is derived from the oasis of Ammon in Upper Egypt, where the hydro-chlorate was gathered as the product of animal remains. It is now obtained in Europe from coal in the process of gas-making, and converted into several compounds by other processes.

Carbonate of ammonia was known to the Hindus, who obtained it by mixing one part of sal-ammoniac with two parts of chalk. It is now obtained in Europe by a subsequent process after the manufacture of coal gas.

Hydrochlorate of ammonia, sal-ammoniac.


Sohag; Noabar, Hind. Navasaran, | Tam, Tel.

Salmiak, . . . Ger.

This is met with in great abundance in every bazar of India, obtained from brick kilns. It is, however, also a volcanic product. It is the Nashadar of Avicenna and Serapion. It was obtained in Egypt by sublimation from the soil of the dung of pigeons, cows, canals, and other animals, mixed with chopped straw and made into cakes as firewood. It is now manufactured largely in Europe, from the ammoniacal salts contained in the liquor resulting from the distillation of coal in the gas-wars. During its solution in water, the temperature falls several degrees. It is used by tinner to clean the surface of their metals, and to facilitate the soldering of iron and copper, also prevent the oxidation of the copper; it is also sometimes employed by dyers to brighten the colour of wool dissolved in nitric acid, it forms the aqua regia of commerce, used for dissolving gold, instead of nitro-hydrochloric acid. It is also used in small quantities in steam boilers, to prevent the formation of calcareous deposits; and is likewise used to adulterate tobacco.—Tomlinson; Ainalie; Beng. Pharma.; Bingley; Royle; Niebuhr's Travels, i. p. 90; Peacock's Description of the East, i. p. 259.

AMMONIAC, GUM, Gun ammoniac.


The Dorema ammoniacum of Don (Linn. Trans. xvi. 601) yields this product from its stem and fruits. According to Lindley, the plant grows in Persia on the plains of Yazde Kast and Kumish, in the province of Irak, growing in very dry plains, and gravelly soil exposed to the sun. It was imported into ancient Greece from the desert of Egypt, from near the temple of Jupiter Ammon, hence its name, as well as from the confines of Cyrene. The gum resin is now imported into India via Bombay from the Persian Gulf, and re-exported to different countries. It is obtained by incisions in the plant, and occurs in masses of yellowish-white dissolve in nitric acid, it forms the chronic catarrhs and asthma of old persons. It is also applied externally as a warm and stimulating plaster.—OSh.; Faulkner; De Bode's Tr. p. 63; St. John's Ancient Greece, p. 383.

AMMONITE, Shih-shieh of the Chinese, a genus of fossil mollusces, which seem to have existed extensively in all parts of the world during the period that the chalk formations were being
deposited. They occur in great abundance and of great size, some three feet across, in the supracretaceous strata between Trichinopoly and Pondicherry, and were described by Mr. Brooke Con- 

life, Captain Newbold, and Mr. Kayes. Dr. Gerard 

found them in the Himalayas, at an elevation of 10,000 feet. Amongst those discovered in India are A. Madrasianus, Kandi, Kali, *Emiliana* 

Bhina, Bhawani, planulatus, Denisomianus, Ben- 

danti, Vaju, perampulus, Durga, Cala, revelatus, 

garuda. The Hindu specific names so frequently 

applied were so in consequence of Hindu sects wor- 

shipping several species of ammonites under the 

name of Saligranna. See Saligramma.

AMMONITES, the children of Ben-Ammi, the son of Lot, by his younger daughter. They were 

dispossessed by the Hebrews, and afterwards, for 

18 years, strove to reconquer their lands, greatly 

oppressing all the Israelites who dwelt beyond 

the Jordan river. They were ultimately driven 

back by Jephthah the Gileadite. See Judges x. 

8, 9, xi. 1, 4, 27.

AMMU INGUROO, SINGH. Zingiber officinale. 

AMMA. BENG. Spondias mangifera.

AMNAK, a general term for a large class of high- 

cane Hindus, Brahmans, Kshatriyas, and Kay- 

asts,—cultivators in Oudh and in Sind. Numbers 

of them were until recently liege men or military 

retainers; all had a sword ready at their land- 

lord's call. They employed a working ploughman 

or Halwaha, because to plough with their own 

hands would have been to the Annak indigible 

disgrace. They held their lands at a remission 

(Kur) to meet the pay of the ploughman.

AMOHYERSHA, king of Tonda Mundalam, 

in the south of India, in whose reign, in the 9th 

or 10th centuries, the Jain faith was introduced.

AMOK, also Amuck. MALAY. A furious reck- 

less onset, the muck or the 'run-a-muck' of the 

English. It occurs amongst men of Malay race 

and with Bugis men, and is often followed with- 

out any apparent provocation, or to be relieved 

of the feeling of indebtedness, but the usual cause 

is some personal affront. The person thus 

rushed through fields, kites, or cutting down 

all whom he meets, till he is overpowered and 

slain. The Singapore Free Press relates a case 

which took place at Salatiga, on the island of Java. 

The regent of Salatiga, Raden Tunengong Pra- 

wiro Kusumo, had been celebrating the mar- 

riages of two of his daughters, and everything 

had passed off smoothly, when, on the morning 

of the 23d September, about half-past six o'clock, 

the brother-in-law of the regent, named Raden 

Prawiro Direjo, who was coffee mantri of Tengaran, 

suddenly began to stab every person he met in 

the palace. The regent, being disturbed by the 

up roar, came from his sleeping place to see what 

was the matter, when he was at once stabbed in 

the heart by the amoker, and fell down dead. 

The brother of the regent then ran the amoker through 

the back with a spear, and he was soon despatched. 

Besides the regent, nine of his relations and 

followers were killed, and six were more or less 

severely wounded. The amoker was much given 

to the use of opium, and had at one time lost 

a valuable employment under government on 

account of his indolence and carelessness. Through 

the intercession of the regent he had received 

another appointment, but he was not satisfied 

with this, and appears to have conceived an ill-will 

towards his relation for not supporting his claims 

more strongly. See Bugis.

AMOMUM, a genus of plants of the natural 

order Zingiberaceae. The paradise grains, or Malau- 

gueta pepper, the A. grandis-grandis, is not of 

India, but of the Guinea coast, as is likewise the 

A. grandiflora. Several plants formerly classed 

in this genus have been removed to the genera 

Elettaria, Alpina, Costus and Curcuma. A 

species brought from the Chinese provinces of Nan- 

tau-chau and Kwang-si has thin tapering rhizomes 

called san-tashi (threes and sevens), also kwang- 

san-tashi. It has an extraordinary reputation 

amongst military and fighting men, from which 

its root sells there at about 12s. 6d. an ounce, and 

is on this account often called jin-san-san-tashi, 

also kin-puh-hwan. It is deemed by the Chinese 

to possess powerful medicinal properties, vulnera- 

typtic, astringent, and discintent. A. aculeatum, 

Roeb., of the Malay Archipelago, has crimson 

spots on deep orange flowers. A. corynostaichyum, 

Wall., a plant of the task forests of Martaban, 

with large white flowers. A. dealbatum is the 

Barniilachi of Silhet, according to O'Shaughnessy. 

A. Roxb. says that the seeds are insipid. It 

grows in Chittagong and Silhet. A. maximus, 

according to Pereira, yields the great winged car- 

damoms referred by Lindley to Elettaria. It is a 

plant of the Malay islands. Its seeds are warm 

and pungent, with an aromatic taste, not unlike 

that of cardamoms, but less grateful. A. sericicum, 

Roeb., a plant of the Khassia mountains, with 

large white flowers, lip yellow with pink veins in 

its centre.—Roeb.; Voigt; O'Sh.; Smith.

AMOMUM AMARUM, Smith, Yih-chi-tse of the 

Chinese, a bitter-seeded cardamom growing in 

Cochin-China, and in China in Qwan-lun-kwoh and 

Kau-chau-fu. The Chinese believe that it increases 

knowledge, as it benefits the stomach, with which 

the Chinese connect the disposition and the wits 

of an individual. The seeds are very bitter, aromatic, 

with a flavour like myrrh, and are said to be used 

like a condiment in pastry.—Smith, p. 13, 14.

AMOMUM ANTIQUEFOLIUM. Roeb. A 

native of Madagascar, cultivated in the Mauritius 

and India; the fruit is the greater cardamoms of 

the old writers. Its flowers are pretty large, 

blood-red, yellow, spicy and fragrant; and every 

part of the plant, when bruised or wounded, diffuses 

a strong pleasant aromatic smell.—O'Sh. p. 650; 

Roeb. i. 30; Voigt, 567.

AMOMUM AROMATICUM. Roeb. Morung- 

lachii, Hind. Has middle-sized flowers, with lip 

tinged with red down the middle. It is a native 

of Chittagong and the valleys of the eastern 

frontiers of Bengal; the fruit has similar properties 

to those of the true cardamoms, for which they 

are often sold to the druggists of India.—O'Sh. 

650; Voigt, 568.

AMOMUM CARDAMOMUM. L. Cardamonum. 

Cardamomum minus, Rumph. 

Ben. . BUR. Kapa laga, . MALAY. 

Peh-tau-kau; CHIN. Yelaksi. 

Tam-pun-ka, Yelakuth, 

ELACHI, DUK., HIND. 

Su-tung-po, of the Sung dynasty, a celebrated 

poet, gave his name to this plant. This seems the 

round and clustered cardamom of the shops. It 

grows in China, Java, the Atteren forests, Suma- 

tra, and the Moluccas, and is cultivated in India 

It has middle-sized peleoid flowers, with a yellow
middle line on the lip. Its seeds are agreeably aromatic, and are used by the Malays for the true Malabar cardamoms, from the Elettaria cardamum.—Amissie; Roxb.; O'Sk.; Voigt; Smith.

AMOMUM GLOBOSUM. 

Loovere. 

Tsaw-kau, 

CHIN. | Tsaw-tsu-kau, 

CHIN. 

Native of the provinces of Foh-kien and Canton, also of Cochín-China. It resembles the Alpinia galanga in appearance, and bears a magnificent red flower in the axis of the leaves, which are compared to those of the wild ginger. The large capsules are oval, roundish pointed, and usually pedicellated. The three-lobed mass of seed has a pleasant smell. It is chewed to correct offensive breath, and, like the flowers of the plant, is said to counteract the fumes of wine. The unripe capsules are the small round China cardamom of Guibourt, devoid of much flavour, and used by the Chinese as a salted condiment; and the large globular capsules furnish the large round cardamom of English druggists.—Smith, p. 14.

AMOMUM MEDIUM. 

Loovere. 

Tsaw-kwo, 

CHIN. | Ovoid cardamom, 

CHIN. 

Grows in Cochín-China and in the Kwang-si and Yunnan Provinces. The seeds are in a reddish mass, large, hard, angular, with a warm turpentine flavour, and are used similarly to those of A. globosum.

AMOMUM SUBULATUM. 

Roxb. 

Bengali 

fachi, BENG. —A large-flowered species of the Khassia hills.

AMOMUM VILLOSUM. 

Smith, Yang-chun- 

sha of the Chinese, grows in the western part of China. The seeds are used like cardamoms.—Smith.

AMOMUM XANTHOIDES. 

Wall., Schomburgk. 

Shui-sha-mih, 

CHIN. | Si-sha-jin, 

CHIN. | Shu-sha-jin, 

CHIN. 

A plant of the province of Canton or Kwang-chung of Burma and Siam. Its seeds are said by Hanbury to be substituted in the London market for those of the official Elettaria or cardamom of Malabar.—Smith, p. 16.

AMOOKANAM VAYR. 

Tam. Root of Phy- 

alis somnifera.

AMOORA CUCULLATA. 

Roxb. 

Andersonia cucullata, 

R. | Amoora, BENG. 

A timber tree of the Sunderbans, with small yellow flowers.—Voigt.

AMOORA JAWII. 

Wight. 

Nimmonia Lawii, Wight. | Nimneda Nimnodi, Dal. 

Boorumb, 

MAHR. 

A middling-sized tree of the Bombay and Canara 

ghat forests.—Beddome, FL Syl. p. 133.

AMOORA POLYSTACHIA. 

W. and A., 

the Asgila polystachia, Wall., is a tree of the Khassia 

hills, with pale yellowish fragrant flowers.—Voigt.

AMOORA ROHITUKA. 

W. and A. 

Meleasa Wightiana, Wall. | Andersonia rohituka, R. 

Sphaerocarpus rohituka. 

Tikta-rai, 

BENJ. | Hungal gas, 

SINGH. 

Chinayu-ka-yoe, 

BURM. | Shem maram, 

TAM. 

Harrin-hara, 

HIND. | Chawa-manu, 

TEL. 

Shem-mar, 

MALEAL. Rohituka. 

This small, or middling-sized, tree is met with sparsely throughout the Western Ghat forests, and is rather common in the Anamally hills of the Madras Presidency up to 3500 feet elevation. It grows in the central province of Ceylon, where it is called Hingoot, in Moulmein, and in the Tongchoo forests. The wood is white- 

coloured, and adapted to every purpose of house-

building. The seeds yield an oil, which is used for various economic purposes.—Roxb.; Voigt; 

M'Clelland, Cat. Cat. Ez., 1862; Useful Plants; 

Thwaites, Zeyl. i. 60; Beddome, FL Syl. part 

xi. 132.

AMOOS. ARAB. Pycnistosajowain; Ajwainseed. 

AMOQUID. 

Bicol. Musta textiles. 

AMORITES, an ancient mountain race who 

joined with the Hittites to oppose the Hebrews, 

but were driven by Joshua from their positions 

near Hebron, and their kingdom and country to 

the south of Jabbock captured.

AMORPHOPHALLUS CAMPANULATUS, B. 

Arum campanulatum, B. | A. Zeylehamien, Conned. 

Candaram Roxb., Schott. 

WAU, 

BURN. 

Shina, Mulen Shina, CHAN. 

Karuma, MALEAL, TAM. 

Telinga Potato, 

ENG. | Kanda, Kalla, 

SANSK. 

OL, Jamkund, 

HIND. | Mauchi kadagadala, 

TEL. 

This species of the Araceae is much cultivated in 

the Northern Circars, being highly esteemed for the 

wholesomeness and nourishing quality of the roots. 

The usual time of cultivation is immediately after 

the first rains of June. A very rich loose soil 

suits it best, where the swelling of the root meets 

with little obstruction, and where they draw the 

greatest nourishment, for which reason it requires 

to be very well and repeatedly ploughed. The 

small tuberosities that are found in the larger 

roots, are what they employ for sets, and are 

planted in the manner as potatoes are in England, 

and about the same distance from one another. 

In twelve months they are reckoned fit to be 

taken up for use. The larger roots will then 

weigh, if the soil has been good and the season 

favourable, from four to eight or more pounds 

each; they keep well if they are kept dry, and are 

boiled or roasted. It is very acrid when raw.— 

Roxb.; Wight's Icones; Voigt; Hogg's Veg. King. 

796; Irving's Amur, 207; Hongh.

AMOY, called by the fisherman Haenun, also 

Hia-men-seu, is an island on the S.E. of China, 

about 22 miles in circumference. The town of 

Amoy is situated on the S.W. part of the island, 

opposite the small island of Ku-lung-su, which 

affords protection to the town anchorage or inner 

harbour. On the western side of Amoy island is 

that of Woo-seu-shan, also that of Woo-an. 

Amoy was taken 26th August 1841, and 9th June 

1842, and delivered over to the British after the 

first Chinese war of 1841-42, and forms one of 

the consulates with Shanghai, Hong-Kong, and 

others. Amoy means Summer gate.—Horsburgh.

AMPANA. MALEAL. Borassus flabelliformis. 

AMPHIBIA. See Reptiles.

AMPHICOME ARGUTA. 

Royle. 

Inemodi, 

Royle. | Incarvillea emodi, Royle. 

A. avillea arguta, "

These names are supposed by Dr. Stewart to 

be applied to the same plant, the Chali of the 

Sutlej, where it grows up to 8000 feet. It has 

perhaps the finest flowers of all the Panjab herbs, 

and generally occupies striking habitats, hanging 

with its handsome green leaves and pinkish 

trumpet flowers from the face of perpendicular 

ciffs.—J. L. Stewart.

AMPHIDESMA, a genus of marine bivalve 

shells, which are found in the sand on the sea-

coast of tropical climates. The shells are oval 

or rounded, sometimes rather twisted and slightly 

gaping behind. They have two hinge teeth in
each valve, and often distinct compressed lateral ones. The elastic cartilage is placed in a small triangular cavity just behind the hinge teeth. The cartilage has opaline reflections; and those of some large shells, as the mother-of-pearl shells, are sold by the jewellers under the name of Peacock-stone, or Black Opals. They are much sought after in Europe, especially in Portugal.—Eng. Cyc. p. 185.

AMPHIDONAX KARCA. Lind.

Arundo karka, Retz., Roth. | Trichon karka, Roth.

" Roxburghii Kunth. | Calamagrostis karka, Gm.

Nal, Nul; Darma, Beng. | Kikkasa gaddi, Tel.

Munia fibre, Sind. | Puvvu-gutti gadda, "

This plant is one of the Panicaceae. It grows in Bengal and Sind, and from its split stalks are made the common Durma mats of Bengal, used there as ships' dunnage; the fibres also are made into ropes. A bifaria and A. Bengalensis are also known.—Voigt, 714; Roth.

AMPULLARIA, a genus of molluscs with globose-formed shells, many of which are found in the Indian ocean, seas, rivers, and tanks of India. Their colours are usually tame.


AMRAH SUNN. Beng. Corchorus olitorius.


AMRAN, a hill, so named by Mr. Rich in his Memoir on the Ruins of Babylon, and who designated it by that appellation, from its supporting a small tomb erected to the memory of a son of the khalif Ali, who fell at the battle of Hillah.

AMRANI, a Beluch tribe. The Amran mountains of Beluchistan bound the table-land of Shal and Peshin on the west, as the Hala range does to the east. The highest part, in lat. 30° 30' N., and long. 66° 30' E., is about 9000 feet. The Kojak pass, 1451 feet.

AMR-ul-AAS, who joined Mahomed in the 8th year of the Hijra, conquered Egypt.

AMRITA. Sansk. From a priv., and mrita, death, in Hindu mythology, the beverage of immortality which, by churning the ocean, was produced along with fourteen other precious gifts to man. The Vishnu Purana relates that the gods (Sura), on being discomfited by the Daitya, fled to Vishnu, who advised them to make a temporary peace with the Daitya, and with their aid to churn the ocean, using Mount Mandara as a churning rod, the serpent Vasuki as a thong, and the tortoise Vishnu as a prop. Hindu legends relate that this advice was followed. Chitra-Ratha describes, in song, how—

'Whilom from the troubled main
The sovereign elephant Airavan sprung;
The brahman hill, that peaks the conquest rang;
The patient cow, whom none implores in vain;
The milk-white steed; the bow with daftening clang;
The goddesses of beauty, wealth, and wine;
Flowers, that unfading shine;
Narayan's gem; the moonlight's tender languish;
Blue venom, source of anguish;
The solemn leech, slow moving o'er the strand,
A vaze of long-sought Amrit in his hand.—
To some who lurk the dread Siva drank
The poisons food that staint'd his azure neck;
The rest, thy mansions deck,
High Sverge, stored in many a blazing rank.'

The word Amrit has been carried into the Teutonic; and the Immurt'-hal, or 'vale of immortality,' at Neufchatel, is of good Sanskrit as German. According to another legend, the Amrita was the occasion of the war between the Sura and Asura, in which the gods took a part. This indicates the occurrence of the first solar eclipse on Indian record. Modern European commentators conjecture that it fell on the 25th October, B.C. 945.—Sir W. Jones' Hymn to Indra, vol. xii. p. 273; Tod's Rajastan, i. 71; Warren's Kala Sankita; Coleman's Hindu Mythology; Williams' Nala.

AMRITSAR, a town of the Panjab, in lat. 31° 37' 15" N., and long. 74° 55' E., nearly half-way between the Beas and the Ravi, and 32 miles E. from Lahore. Ram Das, the fourth Sikh Guru, formed a reservoir here in 1581 (the Imperial Gazeteer says 1761), to which he gave the name of Amarita Saras, or fount of immortality, from amrita, the water of life, and saras, a pool. This became the name of the town, which was also called Ram Das Pur, and in the midst of it the piece of water stands the chief temple of the Sikhs. It is the principal place of worship, and the town is the chief commercialemporium of Northern India. The reservoir is a square of 150 paces, containing a great body of pure water, and multitudes bathe in it. On the edge is a small structure, in which Ram Das is said to have passed his life in a sitting posture. In the centre is a small island with a temple of Hari or Vishnu, richly adorned with gold and other ornaments. In it the Sikh guru sits, and 500 or 600 acoli are attached to the temple. The temple is reached by a bridge; and, when visited by Baron Hugel, two large banners were waving before the entrance of the bridge, on one of which were the words, 'Wah! Guru-ji ka fattah,' and on the other the name of Ram Das. In the 18th century (1761), Ahmad Shah blew up the shrine with gunpowder, and desecrated the spot by slaughtering kine in it. On his return to Kabal, the Sikhs repented it, and commenced the struggle which ended in the overthrow of the Mogul rule. The town is strongly built and fortified, but could not stand a siege with guns of a large calibre. The annual value of the imports is 2 millions, and of the exports 1½ millions. Its chief manufacture is, by Kashmir men, of shawls, to the value of £200,000 from the fine Tibet wool, which occupy about 400 looms. Its population is about 138,925 Hindus, Mahomedans, and Sikhs. The area of the division is 5335 square miles, with a population of 2,748,880 souls. The Baba Atal is a lofty column erected over the tomb of a son of Har Govind.—Baron Hugel's Panjeb, i. pp. 125—6; Thomas' Prinsep's Antiquities, p. 130; McGregor's History of the Sikhs, i. p. 19; Imp. Gaz. See Panjak; Sikh Shawl.

AMRU, a son of Saba or Abd-u-Shamas, and a grandson of Joktan. He first imposed a khit-tax on Egypt. See Joktan.

AMRU also Amritra? a tree alluded to in the mythic tales of Krishna and Radha, whose dalliance was in groves where the Amritra trees with blooming tresses is embraced by the gay creeper atimita; again, 'delightful are the flowers of the Amritra trees on the mountain-tops while the murmuring bees pursue their volup tuous toil;' it has not been identified.—Coleman p. 39.

AMRU-BIN-LAIS, one of the Arab governors of Khorasan whilst the capitals were Merv, Nasa
AMUR.

In 1720 a Dutch geographer speaks of the river as having two branches, one flowing into the Caspian, and the other into the Aral. Anthony Jenkinson, and English officers employed in the 18th century in Persia, and Russian explorers of recent date, all agree that the Amu Darya up to very recent times flowed into the Caspian Sea. Like to other great rivers, the Indus, Ganges, Yang-tze-Kiang, and Pei-lo, this river never confined itself to any particular outlet, but during a series of centuries scored one opening and then another in the soft, sandy cliffs that stretch between Persia and Krasnovodsk. Efforts have been made by the Russians to confine the river to a former bed. Both Strabo and Pliny mention that in the early days of the Christian era the merchandise of India used to come down the Oxus to the Caspian, whence it was convoyed up the river Kurr on the one side of the Casusces, and down the river Rion on the other, till the Black Sea and Europe were finally reached.—

Trotter, Central Asia.

AMURPU CHETTU. Biechams communis. L.

AMULETS.


Amulets are worn by almost all eastern nations. They are specially prized by Mahomedans, of whom both young and old wear them. They are usually put on the young to ward off disease and to guard from the evil eye, and consist of figures with numbers on pieces of paper, or Arabic words engraved on potstone, or silver, or gold, and worn from the neck,—often extracts from the Koran. They are also put over the door porch or on the house wall. Amongst the Malays of Java, the amulet is always some very scarce product. The Mustika Kerbo, or Buffalo amulet of the Malays, is quite white, and round like marble, nearly an inch in diameter, and semi-transparent; it is stated to be found at Panggun. The Mustika Waringin, a scarleaneous concretion, found at Ngadi Rejo; it is mould black, and a little smaller than the Mustika Kerbo. Waringin is the name of the Ficus Benjamina tree, which always adorns the open plain in front of the houses of Javanese chiefs. The Burmese formerly used to insert pellets of gold under the skin in order to render them invulnerable. And Marco Polo, in a story about Japan, specifically speaks of these consecrated stones in the arm between the skin and the flesh,' and Conti mentions the amulet, so used in Java Major, as a piece of an iron rod which is found in the middle of certain rare trees.—Journ. Ind. Archipelago, 1883, p. 274; Mission to Ave, 1855, p. 208; Polo, iii. 2; Conti (Hak. Soc.), p. 32; in Yule, Cathay, 1. p. 94.

AMULGUCH. Pan. Cerasus pudum.

AMUL KUCHI. Beng. Cesaapinua dugyna.

AMULLA. SinoX. Berry anamomilla.

AMUR, a river in Manchuria; the Manchus call it Sagalin, also Sagalinoua, or Black Dragon river. The Russians under the treaty of Aigun ceded great tracts of little peopled country on the north banks of this river, and arranged them into the Amur Province, 164,000 square miles, Usuri, Sofyevsk, Nikoloyevsk, 179,000 square miles, and Russian Sakalin, 18,000 square miles. In 1858, Count Mounavieff Amoosky, and again in 1859 Count Ignatieff, obtained further cessions,
and by the second convention Russia secured the lower Ussuri region and the bay on which Vladivostock is now situated, and thus obtained a magnificent naval station in the Pacific. The river rises in lat. 50° N. and long. 110° E., by two sources, and flows from the centre of Northern Asia into the Pacific Ocean not far north of Japan. The length, including its many windings, is computed at 2800 miles. Its basin contains a surface of 900,000 square miles; the mouth is obstructed by a great bar over which there is not more than two fathoms of water at high tide, and by numerous sandbanks, which are yearly increasing in number and extent. Mongolia, Manchuria, Northern China, all the Tartaries, Tibet, and Siberia, with a population of 20 to 30 millions, are approached by this river. Irkutak, the capital of Eastern Siberia, can be approached with only about 300 miles of land travel. The Tungus races of the Lower Amur are the Yakunisek, Nerchina, Manyarg, Manchuc, and Orochi, small nomad or fishing tribes. All the Ussuri and Amur rivers of this northern and due north of Pekin is a Mongol tract which nearly separates the true Tungus part of Manchuria. Other small nomad tribes on the Lower Amur include the Goldi and Gilyak. Further north to Behring Straits are Tanguz, Lamootti, Noryak, and Kamtschatdales, in all about 44,189 souls. They are all shamanists and polygamists, and purchase their wives.—Staunton's Travels; Atkinson's Siberia.

AMYGDALUS. BENG. Ardisia colorata.

AMUR NATH, a place of Hindu pilgrimage in the Kashmir state. It is a cave among the mountains, in lat. 34° 15' N., and long. 75° 45' E., in a rock of gypseum, and is about thirty yards high and twenty deep. It is held to be the dwelling-place of Siva. Qu. Amarnath?

AMURTA GUDUCHI. SANSK. Tinospora cordifolia, Miers.

AMURYA. GUI. Slices of mangoes.

AMUS ARAB. Ajwain seed.

AMUSADA NELLI. SINGH. Emblica officinalis.

AMUTHO. MALAY. Cocculus cordifolius.

AMYGDALUS COMMUNIS. L. Almond tree.


The almond tree is cultivated for its fruit, and for the oil expressed from it. Botanically, there is but one species, though there are many varieties and sub-varieties; the most important of these are the sweet, and the bitter almonds of commerce—the latter the talkh or karwa badam of India. The sweet almond contains 24 per cent. of albumen and 54 per cent. of fixed oil, the latter forming the principal product of the tree. The bitter almond trees are smaller than those of the sweet almond, but in every other respect the structure and appearance of the trees and fruits seem to correspond. The taste, composition, and properties of the fruits are, however, totally different. It has been asserted that the sweet and bitter fruits have been gathered from the same tree, and that culture will change the bitter to the sweet, as it has changed the sour crab to the sweet apple, and the bitter, half poisonous, potato to its present state. The sweet and bitter kinds are imported into the northern parts of India from Ghorbund, and into the southern parts from the Persian Gulf.

The oil is colourless, very slightly yellow, with a very difficultly congealed; taste sweet, smell light, agreeable, and resembling that of the seeds. In all its processes and uses it is nearly identical with olive oil. It is obtained for native use in India, but does not form an article of export. The fruits are imported into England at from £2, 10s. & £2. 10s. 0'd. in the cwt.—O'Sh. pp. 319-322; Hodg. 286; Voigt. 200; Faulkner, St. of Com.; Bingley; Riddell's Gardening, p. 97; Clegern's Punjab Report. So. Almond.

AMYGDALUS CORDIFOLIA. R. A native of China, and, as Roxburgh's time, common in gardens all over Calcutta, where it is known to very polygamous trees. He says that it was cultivated for its small yellow succulent acid fruit, of which tarts were often made. Flowing-time in Bengal, the cool season; the fruit ripens in the hot season.—Roxb. ii. p. 500.

AMYGDALUS PERSICA. Linn. The peach.

Percica vulgaris, Mill.


A native of the Himalayas, abundant in Kashmir, the Hindu Kush, Persia, Taurus, and the Caucasus, also in Barbary, whence it has spread into all the countries of the south of Europe. Several varieties are extensively cultivated in China, also in several parts of India, as in Ahmednagar and Poona in the Dekhan, also in Mysoor at Banagore. Three varieties of this fruit are cultivated with in the Dekhan; large, hard, distinctly bitter, of a delicious flavour; the flat China; and small thin-skinned description, more resembling an apricot in appearance, and much harder than the others. The peach is easily cultivated by seeds or layers. A seedling will throw out blossom in the second year, and be ten or twelve feet in height; it requires to be carefully pruned wintered, and watered. No branches should be allowed to grow on the stem closer than three feet from the ground; all spurious and misplaced shoots should be rubbed off before gaining strength to exhaust unnecessarily the juices of the tree; and all distored leaves, the work of insects, of parasitic plants, mildew, etc., should be picked off and destroyed. The kernels of the peach should be carefully removed from the shell, and in no way injured, if required for planting; they should be sown in small beds at the commencement of a rainy season, about eighteen inches apart, and, as soon as the trees are fit for removal, a good-sized ball of earth must be taken up with the roots, to prevent the root fibres from receiving injury. The time for opening the roots of the peach tree is after the close of the rains; remove the earth with care, so as not to injure the roots, for the space of three feet round the stem; pull off all the leaves, and cease to water the tree until the blossom buds appear; then cover up the roots with good loam mix.
with old rotten manure; water freely every third or fourth day, until the fruit begins to ripen, after which be guided by circumstances. It is necessary sometimes to thin the fruit, and also to put the peaches in bags, as they begin to ripen, otherwise the birds destroy them. In the Dekhui peaches first come in about February, and with care may be continued until the rains commence, after which the excess of moisture received by the leaves and roots causes the fruit to swell and burst. The flowers are purgative, but also narcotic. The leaves and kernels, on distillation, yield abundance of prussic acid. The fermented fruit gives an excellent brandy, chiefly manufactured in the United States of America. The bark gives a large quantity of gum during the hot season. In Persia there is a kind of peach tree intermediate between the almond and the peach. In Europe also there are varieties of peach almonds.

The nectarine, the downy peach variety, is much cultivated in parts of India and in Afghanistan. The natives of the Panjab believe the fruit useful in worms, Ascaris lumbricoides.—Smith, p. 8.

Clough's Panjab Report, p. 65; J. L. Stewart, Panjab Plants; Riddell on Gardening.

AN, in Mewar, the oath of allegiance. Three hings in Mewar were royalties: a subject cannot meddle with the An, or oath of allegiance; the Dan or transit dues on commerce; and the Kan, or mines of the precious metals.—Rajasthan, i. p. 172.

AN, also Jan and Kal of Beas. Urтика heterohylla, Roxb.; also Morus serrata.

ANA. SANSK. Food. See Ana-ch'hatra; Ana-puta; Ana-devi; Ana-prasanam; Ana-purna.

ANAB. ARAB. Grapes.

ANABAS SCANDENS. Palmyra climber.

Anthus testudineus, Bloch. | Pera scandens, Dallorf. | kode, | HIND; Panca-eri, Telli, TAM.

This little fish, of the family Anabatidae, is very common in the marine lagoons and near the mouths of the rivers of southern and south-eastern Asia. It is about five inches in length, mottled orange and yellow. They may be seen hanging up to the mangrove trees in Ceylon, by spines arranged along the margin of the gills, three and our feet above the level of the receding tide, from which elevated position they drop into the water when disturbed by a boat or a steamer passing.

oligolepis, Bleeker, occurs in Ceylon.—Tennent's Ceylon, p. 364.

ANAB-us-SALEB. ARAB. Solanum nigrom.

ANACARDIACEAE, A natural order of plants, rees, or shrubs, which abound in a resinosous, acrid, green poisonous juice. Its genera in S.E. Asia are the anacardium, Buchanania, Cambesieda, conio-tena, glutta, holigaria, mangifera, odina, melonec-tesa, pegia, pistacia, phlebochiton, rhus, rumpah, cemecarps, solenocarpace, stagmaria, symdesmis, thyssanus, and triceros.

ANACARDIUM OCCIDENTALE. Linn. | Aecobala occidentalis, Gorten.

Cassuvium pomiferum, Lam., Rheede.

Hiijj badan, | BEX; | HIND. | Vattus, | SINGH.

he-tho-thayee, | BURM. | Tel.

sahew nut tree, ENG. | TAM.

Kaya, | HIND.; MALAY.

ambu-monat, | MALAY.

Kendy-mavah, | KELAK.

Saha-mavakum, | TAM.

Sansk.

This is a small tree, sixteen feet high, very ornamental when in leaf. It was introduced into the East Indies from the West Indies, where, at the first, cultivation was begun in Ceylon, all over India, Burma, Pegu, and the Tenasserim Provinces eastwards to the Moluccas. In Pegu it is much cultivated about. Hgroene houses, and in groves near towns. The wood is dark brown, and is not generally esteemed for carpentry, but, in Java, Captain Dance says it is used in boat-building, and it forms a charcoal, which the iron-smiths there consider the best for their trade. It bears sweet-smelling flowers, succeeded by a peach-shaped fruit of a yellow or of a red colour, very acid, and with an astringent juice. The cashew nut hangs at the end of the fruit outside, and is about an inch long, of a kidney shape, edible and wholesome when roasted. It is found in every bazaar in India. The nuts are used for imparting a flavour to Madeira wine. Also, ground up as mixed with cocoa, they make a good chocolate, are said to yield a spirit by distillation, superior to rum or arrack, and are described as possessing powerful diuretic properties. They are also said to yield, by expression, an edible oil, equal to olive or almond oil. The cashew nut has two shells, between which there is a thick inflammable oil, called cardole or cashew apple oil. It is a powerful vesicating agent, and, owing to its caustic properties, is sometimes applied to ringworms, warts, corns, cancerous ulcers, etc., and to floors or wooden rafters of houses to prevent the attacks of white ants. It is a very dangerous drug, and ought never to be used. Exposure to the vapour of the oil, when under preparation, will produce violent swelling and inflammation. An astringent gum is exuded from the trunk of the tree to the extent of 5 to 12 lbs. weight annually, which should be collected when the sap is rising. It makes a fair substitute for gum arabic, forms a good varnish, and is particularly useful where the depredations of insects require to be guarded against.

The milky juice which flows from incisions in the trunk of the tree imparts an indelible stain to linen.—Dr. Ainslie, Roxb., Voigt. | McClelland, Riddell, Mason; Mr. Jaffrey, Useful Plants; Hogg's Vegetable Kingdom; M. E. Jur. Report; Captain Dance.

ANACHANDRA. Tel. Acaica ferruginea.

ANA-CH'HATRA. HIND. A charitable institution from which food is distributed.

ANA-CHUNIDA. MALE., TAM. Solanum ferrox.

ANACOLOSA DENSIFLORA. Bedd. A very lofty tree in the moist forests of the Anamalais, at 2000 feet elevation; it flowers in November and December, when the boughs are a perfect mass of very fragrant flowers.—Beddome, Fl. Syl. p. 138.

ANA-DEVI, a Hindu goddess, the nourishing deity to whom the Rajputs offer the first portion of repast.

ANAGALLIS. Linn. A genus of plants of the natural order Primulaceae. A. arvensis, var. a carulescens, with light blue flowers, is a native of Kamaon, Nepal, and Khassya, and is cultivated as a flowering plant in India. It is the Gah surkh gul of the Persians, and Anasul kala banghra of Kashmir, is said to be poisonous to dogs, producing inflammation of the stomach. It is used by native doctors in epilepsy, mania, and hydrophobia, also occasionally in dropsy. Wight figures, also, A. latifolia.—Riddell; Voigt; Poellert, i. p. 368; W. Jc.
ANAGAMI PALI, in Buddhism, the third of the four paths leading to nirvana.—Hardy, p. 433.

ANAI. MAIAY. Termites; white ants.

ANAI PULIA MARAM. TAM. Adansonia digitata.

ANAITIS, an Assyrian deity introduced into Egypt. See Ken.

ANAJ. HIND. PERS. CORN; grain.

ANAK. ARAB. Lead.

ANAKALA BHIRTA. SANSK. One of the 15 kinds of slaves in Hindu law; a man who has become a slave voluntarily, for food during famine.

ANAKAN. MALEAL. A low person.

ANAKI BIRI KULIT. MAIAY. Lamb-skins.

ANAKONDA of Ceylon, is the Python reticulatus, Gray. It is occasionally of great size, but perhaps rarely exceeding 20 feet, though Mr. Scurr mentions that when full grown it is said to measure from 17 to 25 feet long, with a circumference of 21 feet.—Scurr's Python.

ANAKURU. TAM. A tree of Western India, about 30 feet long and 18 inches in diameter; the natives make small canoes of it, and use it in house-building.—Edge, M. and Con.

ANA-KUTA-YATIRA, a Hindu festival on the 9th of November, in which they make a pile of boiled rice to represent Gowardhan. In Rajputana, this festival was held annually in honour of Krishna, at which the seven statues were wont to be assembled from the different capitals, and food in great quantities (Ana food, Kuta mountains) prepared for the multitude who collected. On one occasion, about A.D. 1740, most of the Rajput princes were present.—Rana Ursi of Mewar, Rajas Beeji Singh of Marwar, Guj Singh of Bikaran, and Bahadur Singh of Kishangarh. Rana Ursi presented to the god a tona or massive golden anklet, Beeji Singh gave a diamond necklace of value Rs. 25,000; and an aged woman from Surat placed at the foot of the god a Heri, a bill of exchange for Rs. 70,000. Wilson; Tod, Rajasthan, i. p. 547.

ANAL. BENG. A reed; Amphidanon bifaria.

ANAMIRTA COCCULUS. W. and A.

A. paniculata, Cod. Cocculeum suberosum. W. and A.

M. heteroclitum, Roxb. M. menadelphum, Roxb.

Khanak-ul-kalb. ARAB. Gaarla Phalla, MALEAL.

Bakain-ka-phal! BENG.? Polla, Kakadaka-conevuh. MALEAL.

Cocculus indicus, Eng. Kaka-mari. SANSK.

Levantiana, Kaka-calli maram? TAM.

Coques de Levant, Fr. Kakkari, HIND.

Bacca orientalis, LAT. Hina.

Tan bisali, MAIAY.

This one of the Menispermacae is a strong climbing shrub, with the bark coryck, ash-coloured, and deeply cracked into fissures; leaves roundish, hard, and leathery. It grows throughout S.E. Asia, in Ceylon, in Malabar, the Konkans, the Cirar mountains, Orissa, Assam, Burma, the Moluccas, and Timor. The seeds are about the size of a cherry; the kernel is oily. They are devoid of smell, of extremely bitter taste, and poisonous in moderate doses to animals, and to vegetables. Twelve grains of the seeds given to a dog killed it in five minutes; a solution prepared from an extract made with the seeds killed a bean plant in twenty-four hours. Cocculus indicus was largely employed in Australia in destroying the parasitical animals which attack the skins of sheep. It is also used for stupefying fish; mixed with crumbs of bread and thrown into ponds, the fish which eat the crumbs become intoxicated, float on the surface, and are easily taken. Fish thus caught are exceedingly dangerous. The only use of the Cocculus indicus in medicine is as an external application, as a powder or ointment, to destroy vermin in the hair, and in the treatment of some cutaneous diseases. It imports into England largely and rapidly increased.—Dr's. Ainslie, Materia Indica; Roxb. Voigt, O'Sh., Mason; Hook. et T. 185; Poole, Statistics of Commerce; Simmonds; Hogg, 31; Useful Plants.

ANA MULU. TEL. Lablab vulgaris.

ANAN. BURM. (Bur) is the Fagraea fragrans, or Cyrtophyllum fragrans, Falconar, of Burm and stands pre-eminent in its characteristics as a forest tree of the largest dimensions, for its straightness and freedom from internal decay, and in its indestructibility under all circumstances of useful appliance. A specimen of this wood was brought to Mr. O'Reilly's notice, which for 60 years had formed the supports of a native bridge over a creek in his vicinity; embedded in mud, and exposed to the alternations of wet and dry during each tide, it had undergone no change beyond the decay of the sap parts immediately below the bark; the posts of the bridge consist of young trees cut on the spot and so applied a once. The supplies to be obtained from these forests are unlimited. It would be found admirable for such ship-building purposes as require extra strength and durability, and would afford the finest keel-pieces in the world.

ANA-NARINGI. TAM. Pedalium murex.

ANANAS SATIVUS. Schult. Pine-apple.

Bromelia ananas, L., E. sativa, R. Fr. Ind. | Ananas sativa, Lindley

Ananas, ARAB. Dekh. Purithi, MALEAL.

Manas, BENG. Puli, PHILIPP.

Nanu, BURM. MALAY. Anassi, SING.

Pandang, CEB. Anan a maram, TAM.

Kamas, KAMPS. Anas, TAM.

Lanas, MADUROSE. Anass chettu, TAM.

Karda cheeche, MALEAL.

Ananas Pandu chettu, TAM.

The pine-apple is a West Indian plant, which has been domesticated in hothouses in the colder places of Europe, but in the warm moist localities of the Indian Peninsula, of Bengal, Ceylon, the Tenasserim Provinces, the Straits, Moluccas, Philippines, and China, it grows in great abundance, is even wild, forming hedges; but the flavour of the fruit, which is a general favourite, is greatly improved by cultivation in rich soil. The native women of Bombay believe that eating the pine-apple injures their fertility. The leaves yield a very valuable fibre, from which, in the Straits and in Japan, a much-prized delicate fabric, the pinu silk of commerce is manufactured.

The leaves are gathered, and, in the same way as the aloe, are placed on a board and scraped with a blunt knife. The fibres that are loose are drawn out, the leaves turned over, and from four to six inches of the stem end scraped before, and as soon as the fibres are loosened by the removal of the pulp in that part of the leaf the fibres are taken hold of by the fingers and drawn out. These fibres are again laid on the board, and any remaining portion of the pulp generally scraped out with the aid of water, where they are gathered and dried in the sun. By another mode of treatment, the leaves are laid i
ANANDA.

the sun, so as to dry up a portion of the sap, when, on being taken up and bruised by the hand, the fibres become loosened, and may be taken hold of and drawn out. But a great loss of fibre results, so that this method cannot be recommended.—Annie: Voigt, Hogg, 764; Mad. Ex. Jur. Report.

ANANDA, the nephew or cousin and favourite disciple of Gautama; he was a hero (presbyter) in bhikku (monkhood), and did not attain the purity of the monkhood, or qualification for final emancipation without birth, till the synod held at Rajagriha, in Magadhâ, soon after the death of Buddha. He was Sakyâ Muni's personal attendant. At Ananda's intercession, female devoees (Bhikshunis) were admitted into the ranks of the Buddhist community, and permitted to embrace in ascetic life, and those at Mathurâ paid their devotions chiefly to the stupa of Ananda because of this intercession.—Yule's Embassy, p. 26; Hardy's Eastern Monachism, p. 433. See Buddha.

ANANDA IN Sanskrit means joy, and hence Ananda-nâtha, from ananda, joy, and nâtha, a lord, the lord of joy. Ananda is an appellation of Isâ, also of Bala Rama. Ananda, a cowherd, husband of Yasû, a couple who fostered the infant Krishna.

ANANDA BHIMA DEVA, a Hindu author of epope, who wrote the polêmic work Sankara Digâyana, on the modifications of religion, celebrating the victory of Sankarachâria over his opponents. He is said to have introduced the râkta worship into Puri.

ANANDA TIRTHA. About the early part of the 13th century, Madhâvachârya, called also Ananda Tirtha, established a new subdivision of the vaisnavâ sect.

ANANDRAVE, MALEAL. In N. Malabar, amongst the polyandric races who follow the custom of Marumaka tayam, or descensus ab uto, he is a term for the more distant relatives of Thârâwdâ, or united family. See Aka Podwal; Òyandry; Nair.

ANANI. Sansk. Earth, worshipped amongst the Kol under the designation Isana (Isa, goddess; naini, earth). See Kol.

A-NAN-PHO. BURM. Gordonia floribunda.

ANANTA. Sansk. Infinity, eternity, time, endless. In Hindu mythology, a name of Sêsha, the king of the serpents. Sêsha means duration, and Ananta, endless; in Hindu theogony, Ananta the serpent on which the deity reposes in the intervals of creation. See Kâla; Lakshmi; Sêsha; tahâva.

ANANTA, author of the Vîma Charita, a book of the tales of the descendants of Vikramaditya and Salivâhana.—Downson.

ANANTA-CHATURDASI, a Hindu festival honour of Vishnu, held on the 14th of Bhadraad (about the beginning of September), when figure of Anant Dora is made of silk and gold color.

ANANTA-MUL. BENG. Indian sarsaparilla; emícosmus indicus.

ANANTA-PARATI Aiyangar was born in Òunjore, A.D. 1786. After remaining for a few years as temple accountant, he retired to Tiruvâmarur, and devoted the remainder of his life to the composition of poetry, chiefly in honour of lâva shrines. He died A.D. 1846.

ANANTA YARMA, a prince mentioned in the inscription on the Buddha-gaya vaulted cavern or Nagarjuni cave, of about the 9th or 10th centuries.

ANANTI, Anati, or Anti chettu. Tel. Musa paradisiacae, L.

ANANTI, a name of the town of Òujai.

ANAPA CHIKKUDA KAYA. Tel. Lablab vulgaris, Stiri. Anupa kaya, Lagenaria vulgaris, Ser.

ANA-PRASANAM, amongst the Hindus, is a social and sacred rite, of giving rice for the first time to an infant when six months old, at which, as also at the Choura rite, relatives and friends are entertained. On the first occurrence of the birthday, the child is anointed and decorated with jewels; relatives and friends are entertained; and in the evening the child is carried to a temple, and presented to the deity of their sect. As the second anniversary draws near, or about that time, the boy's head is shaved on a propitious day, which affords another opportunity for feasting friends.

ANAR. HIND. Punica granatum, pomegranate.

ANARADHAKA MUNDA, one of the pârîccal Bhâtiya family; reigned 8 years from B.C. 478. See Bhatiya.

ANARAHAPURA, an ancient city in Ceylon, now in ruins. It is the Anuromannam of Telomy. This seems to be described by Baker as Anaraj or Anarajpoora, with several Buddhist daghâpas, the heights of which vary. They were built at from B.C. 307 to A.D. 376. The ruins are 16 miles square, comprising a surface of 250 square miles. Those of Pollanârâm are much smaller, but they are nevertheless of great extent.—Hardy's Eastern Monachism, p. 433; Baker's Rite, p. 99.

ANARKALLI. See Labore.

ANAS, a genus of birds, teal, ducks, many of which are widely distributed in the world. A. strepura, the Gadwall of northern regions, in Barbary, and tolerably common in India. A. acuta, the Pintail Duck; norther regions, Barbary; very common in India. A. borealis, the Mallard; norther regions, Barbary to Sind, Punjab, and the Himalaya and its vicinity; replaced southward by A. Pappuloryncha. A. querula, the Gargany; Europe, Asia, N. Africa; very common in India. A. crecca, Teal; Europe, Asia, Barbary; common in India. A. Penelope, the Widgeon; Europe, Asia, N. Africa; common in India. Cygnus atratus is the black swan of Australia. A. cygnoides is domesticated in China. A. cenerus, common in India, and A. brachy- rynchus in the Punjab.—D'Arcy. See Birds.

ANAS or Anome. MALAY. Arenga saccharifera.

ANASANDRA or Chandra. Tel. Acacia ferrarigina, D. C.

ANA SHORIGENAM. MALEAL. Girardinia Leeschnautiiiana, Urtica heterophylla, Roxb.

ANASHOVADI. MAL., TAM. Elephantopus scaber, Linn.

ANA-SHUNDA. MALEAL. Solanum ferox.

ANASI. TAM. Ananas sativus, Pine-apple.

ANAS PIHOL. HIND. Anasi-pu, TAM. Ilicium anisatum, Star anise.

ANASUYA, wife of the rishi Atri, and mother of the Hindu sago Durvasas. She dwelt with her husband in a hermitage in the forest south of Chitra Kuta, and befriended Sita.—Downson.

ANATID.E, a family of water birds. See Birds.
ANAU ANANDAT.

ANAU ANANDAT, a name of Lake Manasaro-vana.

ANAVALOBHANA, a domestic ceremony amongst the Maharrattas, to ward off miscarriage.

ANA-VINGA. MALEAL. Casarea canaliculata.

ANAXAGORAS, a Grecian who reputed followers were Damon and Pythis, supposed by Major Cunningham to be the words 'druma,' virtue or practical morality, and buddha, wisdom. See Damon and Pythis.

ANAYAN. TAM. A cowherd or shepherd.

ANAY VAI MYR. TAM. Hair of elephant's tail.

ANCHA or Anche. TAM., TEL., KARN. A letter post, or for travelling. — W.

ANCHAL. HIND. Very broad gold or silver ribbon, or edging.

ANCHAR. MALEAL. Antiarcis toxicaria, Upanantar.

ANCHOR.

Langar, BENG., HIND. Labia, GUL.
Ly-ouk-su, BURM. Ancora, IT.
Anere, FR. Sawuh, Jangkar, MALAY.
Anker, GER. Anela, SP.
Ankura, GR. Langar, TEL.

Of this article of ship's furniture there are many kinds,—sheet, bower, stream, kedge, and grapnel. Those for smaller vessels are manufactured in India of wrought iron, but many are of rude construction, and every coast has its own form, and a particular mode of using it. The Indian fisherman's mooring anchor is generally of stone, from four to five feet in length, four-sided and pyramidal, the apex cut off. At base it is from six to eight inches square, and from four to six at top. At the top is a hole, through which a cable or hawser is passed. Near the base are two holes at right angles to each other; through these pieces of wood are thrust corresponding to the prongs or flukes of the anchor. The whole weighs from 80 to 150 lbs., according to the size of the vessel, and answers very well the purposes intended. These anchors are most commonly made of limestone, and are on the whole suitable.

ANCHOVY.

Anchois, FR. Acieughe, Anchonhe, TR. Anchove, Anchove, GER. Anchova, PORT., SP.

The anchovies meet with in commerce of India are wholly imported. The true anchovy is the Engraulis encrasicholus Cuv., a small fish about four inches long, with bluish-brown back and silvery white on the belly. It is very abundant in the Mediterranean, where, though occurring in other seas, they are chiefly caught at night by nets, their heads immediately taken off, and gutted. Another Mediterranean species, E. melletius, is largely substituted for and mixed with the true anchovy, but they are from four to seven inches long; and other fish, Dutch and Sicilian, are also employed to adulterate anchovy paste and sauce. The Madras coast has three species of Engraulis; the Netelli or Teran Goomie, E. alb us, is caught in great nets in immense numbers, and by Europeans is highly esteemed for the breakfast table; and one about six inches long is very delicate eating. The Tamil names of the others are Pota Netelli and Maper Netelli. The Gna-ping-mai-say of the Burmese coast and Tenasserim Provinces was considered by Dr. Mason to be the E. meleta.—Faulkner; Mason; Hassall; Eng. Cyc.; Poole, p. 9; Bingley, lit. 221.

ANDAMANS.

ANCHUSA, a genus of plants belonging to the Boraginaceae. A. italicus is mentioned by Nicander, v. 38, and is called Bugloss, from the supposed resemblance of its leaves to a cow's tongue (ἐ βοβατός). In India, the Greek synonym, bauklosus and foogheus are assigned to Onosma bracteatum Royle. In the Bombay bazaars, the Calacal Klein is similarly termed Gao zaban, or cow's tongue. Anchusa tinctoria (Alkanet) is a native of Europe for which root those of the Onosma echoides and O. tinctoria have been substituted. The Onosma emolli, Wall., of the Himalaya is close allied to this, and is called Maharanga, from the intensity of its colour. The alkanet of Constantinople is produced by the root of the Alcanah vera. It is imported into England in very small quantities as dye.—Poole, St. of. Com.; Voigt; O'Sh. p. 496—Hog., 541.

ANCHUSA TINCTORIA. Smith.

Ts'e-t'a, Th-hueh, CHIN. | Ts'ao-tan, ... GR.

Its root is brought from Hu-peh, Honan, Peking, chih-ii, Kwei-chou, and Shan-si. It is cultivated by the Yan or Tung tribes of Man-tze, who live in Li-foo-hien, in Kwei-chou, and Long-chao, in the Canton province. The red root is employed by the Chinese in smallpox.—Smith, 16.

ANCISTROCLADUS HEYNEANUS. Wall.

Kural, Mahr. | Mall, VALI Modigam., MA.

Grows at the Parr Ghat ravines at Khandala but not common. The Modin, valli, usually quoted for Arhatbry's odoratissima, has a great resemblance to this plant. This is a very pretty shrub A. Vahlii, Arn., the Gona wel, or Gona porta-wel, of the Singalese; grows in the central and southern parts of Ceylon, up to 2000 feet.—Thouret, p. 188; Gr. Cat.

ANCISTROLOBUS CARNEUS. Wall.

Hypericum carneum, Wall., Cat. Zin-ga-la., ... TAVOY. | Zong-ga-la., ... BURM.

This tree attains a maximum height of 30 feet, it rarely exceeds 3 feet in girth, and its maximum is 3 cubits. It is plentiful in the Pegu and Toungoo forests, and is widely scattered all over the Amherst, Tavoy, and Mergui Provinces, but in none abundant. It is also a native of China. It is a dark-brown wood, when seasoned, floats very well. It has a long fibre, tenacity, durability and sufficient lightness, and is very free from knots. It is used by the Burmese for building for ploughs, and for utensils of all kinds, and recommended for handles of chisels, hammers, and tools generally.—Captain Dance; Drs. M'Clelland; Mason; Voigt.

ANCISTROLOBUS MOLLIS, M'Clelland, the Yin-bya of the Burmese, is a tree plentiful in the Pegu and Toungoo forests. The timber grows very tall, but seldom exceeds three feet in girth. Wood dark brown.—M'Clelland.

ANCORUTTAY. TAM. Trichosanthes palmat., ANDAGU KYOUK, BURM., or image stone. Long Island in the Bassein river, is a peculiar very fine, white or greenish, argillaceous san stone, which the Burmese carve into images Buddha.

ANDAL. PANJ. Cuscuta reflexa.

ANDAMAN RED-WOOD, Pterocarpus d bergioides, Roxb.

ANDAMANS, a cluster of four larger islands with several islets, in about long. 92° 15' to 93° E., and extending from lat. 10° 32' to 18° 40
The islands are mentioned by Marco Polo as the Ongaman. They are indentured by numerous bays and inlets, and are covered with forests of lofty trees. These islands were surveyed in 1789 and 1790 by Lieutenant Archibald Blair, and from 1791 to 1796 settlements were formed by the Indian Government, but, proving unhealthy, they were abandoned from 1796 until 1857, when the East India Company again re-occupied them. They are inhabited by a race the least civilised perhaps in the world. Professor Flower has mentioned that the largest skulls he had measured were those of the flat-headed Indians of North America, and the smallest those of the Andamanese and the Vedas of Ceylon. Marco Polo mentioned them as savages who killed and ate all strangers. As present their colour is of the darkest hue, and their aspect uncouth. Their limbs are ill-formed and slender, their bellies prominent; and they have woolly hair, thick lips, and flat noses. They go quite naked, the women wearing only a kind of tassol or fringe round the widdle, which is adorned merely as an ornament, as they do not betray the least traces of bashfulness when seen without it. The men are 5 ft. 2 in. and 5 ft. 3 in. in height. The Andamaner has in appearance a small-sized Negro race, like others in the south of the Peninsulas of India and Malacca, in the Great Nicobar, as the Kadar, he Senang, the Negroes and Negroes of the Philippines and New Guinea. Some have become familiarized to Europeans, and in 1875–76, 79 of them had settled in Viper Island; but formerly they would affect to enter into a friendly conference, and, after receiving articles presented to them, they would set up a shout and discharge their arrows at the doners. They were cunning, crafty, and revengeful; frequently expressed their version to strangers in a loud and threatening voice, exhibiting various signs of defiance, and expressing their contempt by indecent gestures; a skirmishes they displayed much resolution, and would plunge into the water to seize a boat, and discharge their arrows while in the act of swimming. The women bear the greatest part of the drudgery in collecting food, repairing to the reefs at the eves of the tide to dig them, while men are hunting in the woods, or wading in the river to shoot fish with their bows and arrows. They are very dexterous at this, which they allow also at night by the light of a torch. In their excursions through the woods, a wild hog sometimes rewards their toil, and affords them a more ample remant. They broil their meat or fish over a kind of girdle made of bamboo, and Uses salt or other seasoning. A canoe, a moderately-sized one, capable of accommodating about 20 persons, is used for the purpose of obtaining food for about 30. It is scooped out of a tree by the men, who take their turn, working with a sort of adze. The canoe is very fragile, and rarely lasts above year, for they are constantly making its sides longer, by ornamenting and scooping out its interior. It is ballasted by stones, and has a prow projecting about two feet, on which the fisherman sits. They are more especially useful for turtle fishing, and the spearing of sharks. The bamboo pole has a sharp movable spear which the gahips at one end, and to this is attached a long line. When the bamboo is thrown, and the spear comes imbedded in the prey, it slips away from the bamboo, but remains attached to the line. Should the fish be large, some of them dive down under water, attacking the victim with knives and spears, whilst others endeavour to pass a line over the captive. For their small nets they use a fibre as thread, which they neatly work up, employing their fingers as a mesh, gradually enlarging it as required. When turtles are scarce, a large net is used. Just before the tide begins to eb, this is attached to stakes which encircle the whole of a reef where turtle resort for food. As the tide recedes, they are penned in, but they fight most desperately to break through the net. The Andamanese now use spears, and but few, as a rule, escape. Their bows and arrows are used principally for shooting fish in shallow water. The upper two-thirds of the arrow is a hollow reed, the lower a piece of heavier wood, armed with a piece of iron or a nail. They throw stones with considerable accuracy. The Andamaners display much colloquial vivacity, and are fond of singing and dancing, in which amusements the women also participate. Their language is smooth, and their melodies and nature of recreation and chorus, not unpleasing. Their language is very limited as to the number of words; but by a marvellous power to imitate which these people possess, every vocal sound was repeated instantly, and with a wonderful precision. Andaman and Fugian widows wear the skin of their deceased husbands hanging from their neck by a cord.—

ANDHRA.

ANDHRA, a moped or priest of the Parsees.

—W.

ANDEH KOH, about a mile east of the village of Mothur in the Mahadeo hills, running to the Denwa valley, is a ravine, with steep, precipitous sides, believed by the inhabitants to harbour a great snake. Opposite it is the Jambo-Dwip, another great ravine.

ANDERE, SINGH. Accia arabica.

ANDGERI, Can., the 3rd Yezor or Yeru of the Mahrattas. It is supposed to be a species of Sapindus Naphelium. It is found in the Canara and Sunda forests, above the ghat, chiefly at Nilcood and in the southern jungles. The wood is serviceable in house-building.—Dr. Gibson.

ANDH, a hill tribe, formerly predatory, who, with the Gond, Kurku, and Kolamb, inhabit the Mailghat and the southern skirts of its hills. These four tribes resemble each other in physical appearance, but they each speak a different tongue, and they are quite distinct in features from the inhabitants of the villages.

ANDHER, a little village 10½ miles south-west of Bilsa and 5 miles west of Bhojpur. It contains remains of Buddhist topes.

ANDHI. Hind. A tempest; a circular storm.

ANDHRA, the ancient name of the country in which Telugu was spoken, now called Telangana; also the Telugu language itself, and likewise a man of that country. Sanskrit writers call the Telugu language Andhra; and there is a division or race of Brahmans called the Andhra or Dravida. The Andhra dynasty ruled from B.c. 31 to A.D. 429 or 436. Pliny speaks of the Rox Andarum as a powerful Indian prince. They were known as the Andri to classical authors. The Purana
designate them Andhrabritiya, and the inscriptions style them Satakarni and Satavahana. The Penti
gerian Tables speak of Andra Indi. They are
mentioned in the Vishnu, Vayu, Matsya, and
Bhagavata Puranas. Pliny and Hiuen Thsang (A.D. 690) mention them and the Kalinga king-
dom; and at the latter date Andhra was one of
the six great Dravidian divisions. Wilson, Tod,
Jones, and Ferguson have each calculated their
eras, but doubts still surround their history. An
Andhra dynasty ruled at Magadha about B.C. 18.
The first was Sipraka (B.C. 21), a powerful
servant of Suserman, and whom he killed, and
then founded the Andhra Bhritiya dynasty.
Their last powerful sovereign was Gautamiputra
(A.D. 312-333). Professor Wilson arrived at
the conclusion that the race of Andhra kings
should not commence till about 20 years B.C.,
which would agree with Pliny's notice of them.
They established their authority in Magadha only
in the first centuries of the Christian era, and
ended in A.D. 436. Warangal, Chichecule, and
Rajahmundry were the capitals of the territory
which is now known as Telingana, and also the
Northern Circars.

Sipraka, B.C. 31
Krishna, A.D. 8
Satakarni, A.D. 170
Purnotsanga, 26
Sivaswami, 46
Satakarni II., 64
Lambodara, 120
Apatika, 138
Satha, 150
Satakarni III., 165
Skandaswati, 180
Mitendra, 235
Kuntalaswati, 130
Sattikamara, 204
Camalapuri, 224

ANDHRADRAVIDA BHASHA. is the term by
which the Tamil and Telugu languages are
designated by the learned nations of the south of
India. Shen Tamil (Sen Damir) is the ancient,
classical Tamil language, and is usually called
High Tamil.

ANDI, a religious mendicant of the saiva sect
of Hindus in the south of India.

ANDI, PANDU. Tel. Banana.

ANDI-PULAVAR was born near Gingee. He
wrote verses on the Asriya metre; a comment-
ary on the Nannul called Uraiary Nannul; and
Asriya Nikaloo, a dictionary of Tamil synonymns.


Andkhoo or Andkhui, in lat. 36° 54' N., and
35° 23' E., in Afghan Turkistan, 100 miles
west of Balkh, has a population of 15,000, of
Turkman, Uzbek, Tajik. In Balkh and near
Andkhui, the harvest is at the beginning of June;
in the oasis countries, in July; in Kurratge and
in the north of Kohkand, not till the beginning of
August. Of the rivers in that central region,
the Oxus is the most important, and the Zaraf-
shian, Shahr-Sabz, and Jaxartes follow. See
Afghanistan.

ANDRACHNE TRIFOLIATA. Rozb., Stylidosce tri., Bennett. | Psychodendron tri., Wall. |
This tree of quick growth, the Urian of Assam,
is found in Java, Ava, Peninsula of India, at
Hurdwar, Chittagong, Nepal, and Assam. Wood
and bark red; employed for masts and spars of
small vessels. — Voigt; Cat. Cal. Exz., 1862.

ANDRADA. Anthony Andradia, a Jesuit, passed
through Kumaon to the Manasarawala lake, and
thence went on to Rudak, on the western confines
of Tibet. His journey was made in 1624, and is
discredited by commentators and geographers
because of his mentioning this lake as the source
of the Ganges and Indus, instead of the Stutej.
There is no doubt, however, that the voyage is
genuine, though we have not details of it.

ANDROGRAPHIS ECHOIDES. Nees.
Justicia echoides, Rozb. Chavalapuri Kada, Tel. | Gorre Chimiridi... Tel. | This plant grows in Ceylon, in the Peninsula
of India and Malacca, and in the Himalaya. It
has two varieties, a, Lumarakiana and b, Lirmanna.
—Voigt; W. fc.

ANDROGRAPHIS PANICULATA. Wall.
Justicia paniculata, Burm. Ufar... | ARAB, | Kara-Kaniram, MALEK,
Kalo megha, BEEG, Kalupnath, SANSE, Maha tita, Hin-bin-komba, SINGH,
Kriat, CAN, DUK, HIND, Kalpa,
Hwanglen, CHIN, Kriat, Nela Vembu, TAM,
Kalupnath, HIND, Nels Vemani, Kari,
Kriat, MALEK, VOMU, Kari | This valuable annual grows in dry ground,
under the shade of trees, and it flowers in the
cold season. The roots have long been a popular
febrifuge and stomachic. It is the basis of the
'Drooge amere,' or a compound of mastic, frank-
incense, resin, myrrh, aloes, and krisi root,
steeped in brandy for a month, and the tincture
strained and bottled. According to Ainslie, it
was originally brought from the Isle of France;
it is cultivated in Tinnevelly and other dis-
tricts, and is now found wild in Bengal, Ceylon,
the Peninsula, and Java. It is the true Chireta,
but it is only one of the plants from which the
Chireta of the bazaars is obtained. — Rozb.; Voigt,
p. 493; O'Sh. p. 482; Beng. Ph. p. 210; Indian
Annals, No. 6.

ANDROMEDA LESCHENAULTII. D. C.
A. kotagherrensis, Hook. | Gualtheria leschen., D. C. | The Indian winter-green grows abundantly on
the Neigherries. The oil procured from it is
identical with the Canadian oil of winter-green.
—Drury's Useful Plants, p. 37.

ANDROMEDA OVALIFOLIA. Wall., Dom.
Fran, Elia, | BEAS, Elian, Eliar.. RAVI,
Arur, Rattankat, CHENAB, | SUTLEJ,
Ayar, Eiyun, | PANJ. Sar-lakte, TAK.
A small tree abundant in many parts of the
outer Panjab Himalaya, often growing along
with Rhododendron arboreum, at from 4000 to
7000 feet. The seeds and young leaves are
poisonous to cattle, goats, etc., in the spring months
only. Rattankat means blood-cutter. Madden
states that the honey got from the flower is
poisonous. The wood is soft and weak, and used for
fuel and charcoal only. A. fastigata, Hook.,
grow

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ANDROMEDA PILIFOLIA. 
abundantly on Mor Lepeha at 13,000 feet.—J. L. Stewart, M.D.; Hook. i. 343.

ANDROMEDA PILIFOLIA. Smith.
Yang-Chih-Chu, CHIN.; Nau-yang-hwa, CHIN.
In China, its flowers, and those of the Azalea, are mixed with other substances to form benumbing applications, which, in Chinese surgery, take the place of chloroform, ice-bags, and ether spray.—Smith.

ANDROPAGON. Eighteen species have been brought under this genus from the genera anthericum, phalaris, anthosteria, cymbopogon, calamus, melos, and saecularia. A. arundinaceus, punctatus, Bladhii, triscipatus, pertusus, glaber, Roxburghianus, conjugatus, and binatus, are of Bengal; A. Cymbarius is of the Coromandel mountains; A. prostratus and A. scandens, of the Indian Peninsula and Bengal; and A. miliformis, of Lucknow. A. contortus, as also A. aculeatus, are spear grasses. A. Annatus, Forsk., the Palwan and Minyar of the Panjab, is abundant in many parts of the Panjab plains. It is considered excellent fodder for cattle and for horses, when green.—J. L. Stewart's Panjab Plants, 248; Roxburgh; M‘Clelland; Jaffrey; Mason. See Vegetables.

ANDROPAGON GLABER. Roxb. 
Gundshe-goana, BENG. | Tambut, DEC. 
Grows in the higher parts of Bengal.—Roxb.

ANDROPAGON INVOLUTUS. Stend. 
Munjii, BEAS., SUTLEJ, Baggar, JH LUM.
Common in many parts of the Siwalik tract and outer Himalaya, at from 2300 to 4000 feet, up to and beyond the Indus.—Panj. Pl.

ANDROPAGON IWARANCUSA. Blume. 
Iwarancus, BENG. | Gaechha, Guetchha, SANSK.
Ghat Yari, HIND. | Allupa kommuvela.
Gkar, PANJ. | vantigadda, TEL.
J. This fragrant grass is a native of the low hills along the base of the Himalaya, at Hardwar and the Kheeree pass, and is also found at Asirghur and in Malwa generally. The roots are used by the natives in northern India in intermittent fevers. In habit and taste it comes remarkably near A. schoenanthus. The oil is used as a stimulant, internally and externally, much in the same manner as cajaput oil.—Roxb. i. 275.

ANDROPAGON MARTINI. R. 
Rooasa grass.
A. Nardoideae, Nees. 
| A. Calamus aromaticus, R.
Grass oil of Nenam, ENG. | Chor-pullu, TAM.
Chapel; Ganjia, HIND. | Mandaipullu, TAM.
Kamakha-pullu, TAM. | Kamakshi, TAM.

This plant grows in the Balaghat, in Central India, and northwards to Lucknow and Dehli. It has a strong aromatic and pungent taste, and the milk and butter and flesh of animals which feed on it become impregnated with it. It yields the grass oil of Nenam, known in southern India as the roosa grass oil, which differs but little either in appearance or quality from the lemon grass oil; they are used for the same purposes, and form a good substitute for the more expensive cajaput oil, and are sold in England under the same name, oil of rose-scented geranium. The oil is also called ginger grass oil, and is also erroneously termed oil of spikenard. The plant is supposed by Dr. Royle to be the Calamus aromaticus of the ancients. The true spikenard of the ancients is supposed to have been obtained from the Nardostachys jatamansi, a plant of the Valerian family. Grass oil is never taken internally by natives; but they have a great faith in it as a stimulant to the functions of the several organs, when rubbed on externally. They also use it as a liniment in rheumatism and neuralgic pains, and place great reliance on its virtues, but its cost prevents it being used generally. It has a fragrant aromatic smell, persistent, and very agreeable at first, but after a time the odour becomes unpleasant, and gives many people a feeling of nausea with headache. The natives use it for slight colds, also to excite perspiration, by rubbing in a couple of drops on the chest before the fire or in the heat of the sun. At Saugor, twenty seers of the grass, which grows wild over the station and district, are mixed with two seers of sesamum oil, and then slowly distilled. The oil thus becomes highly impregnated with the peculiar roosa flavour, and this spurious article is sold as such at four rupees a seer. It has an odour distinct from that of lemon grass and citronelle. For the 1862 Exhibition, every endeavour to obtain unadulterated oil failed. The following comment is said to be pressed at Ajmir.—Voigt. p. 777; Roxb. i. 275; Can. Coat. for Ez. of 1862; Gen. Med. Topography, p. 176; M. Ex. J. Rep.

ANDROPAGON MURICATUS. R. Cuseus. 
Anthericum muriacatum, B. | Phalaris ziziana, Linn.
Khor! Khor! | Assam.
Paneyer. | Vatis, SANSK.
Rottl, J. | Bium, Vatt-ven, Viral-ver, TAM.
Bina, Itla, Usir, HIND. | Hla-mitcham-ver, TAM.
Khas-khas, | Viramam-ver, TAM.
Akor-wangi, MALAY. | Kuru-veru, Kassuu, TAM.
Ramicham, | Malay.
Jalasayah, SANSK. | Avuru gaudi veru.
Lamajakamu, | Vadamali-veru, TAM.

Grows in most parts of India and in Burma; its roots, the Khas-khas, are used for making the fragrant fans and tatties in general use. The grass is used for thatch. It seeks a low, rich, moist soil, especially on the banks of water-courses. It covers large tracts of waste land in the province of Cuttack, and plentifully in all the jungles of Oudh. It is locally used for much the same purposes as sarsaparilla, and its roots and oil are used in native medicine for other purposes. Khas-khas attar, an essential oil extracted from the roots, sells in the bazar at two rupees per tola. It is probably merely a perfumed sesamum oil.—Roxb. i. p. 266; Voigt; Mason; Ainail; Manarith. Ezr.

ANDROPAGON NARDUS. Rotti. 
Gand bel? | HIND. | Wassana-pullu, TAM.
Bhustris, | Allupa kommuvela, TAM.
Gucecha, | Vanti-gadda, TAM.
SANSK | Tel.

There seem to be grave doubts as to the right of this plant to be separated from A. iwarancusa, Blume, and the A. nardoides of Riddell seems identical. It makes a very pleasant-tasted tea and valuable diet drink. In infusion it is a stomachic, and it yields an essential oil.—Ainailie, Mat. Ind., p. 258; Voigt.

ANDROPAGON NIGER. Kunth. In 1853, this was introduced into France from China; and, under the term sorgho, its many varieties are now extensively cultivated in the United States. It produces an abundant crop of grain. The husk or rind yields a superb dye of a violet red.—a colour which, combined with acids and alkalies, gives a variety of tints, such as deep red, orange red, brown red, etc. This dye has been recently applied to cotton wool and to silk.
ANDROPOGON SCHENOANTHUS.

This plant is a native of Arabia, but is now cultivated in the West Indies, Ceylon, in the north of India, all over Burma, and in the Moluccas. It grows to a height of three or four feet. The active principle of the leaves seems to reside in the essential oil which they contain, and which is obtained by distillation. This is known in commerce as lemon grass oil, and forms an important article of export from Ceylon, amounting in value to nearly £7,000 annually. It may be cultivated on all the Kandian hills; and so long as it is young, it is the best possible pasture for cattle. It has a strong but extremely pleasant acid taste. It derives its name from having, when crushed, an odour like that of the lemon, so strong, that after a time it becomes quite heavy and sickening, although grateful and refreshing at first. A decoction of the leaves is deemed by the people efficacious in colic. An infusion of the leaves is used in India as tea, and deemed tonic and slightly stimulant, and is given to children as a stomachic. It is also diaphoretic. Mixed with butter-milk, the leaves are used in cases of ringworm; and the white centre of the succulent leaf-culms is used to impart a flavour to curries. The oil is of a light straw colour, but becomes red if kept long. It is much used in perfumery, as the oil of verbena. In Ceylon it grows abundantly on the Ambawelu mountain, which overhangs Gampola on the road to Navegra Elia. Almost annually in the dry season, the plant is burnt down; but the roots are uninjured, and after a few days’ rain young shoots burst forth.—Sirr’s Ceylon ; Roxb. ; Voigt; O’Sh.; Hogg; Ainslie; Dr. Mason, Useful Pl. ; Bird., Bot. Pro.; Sim.

ANDU, a system of dates in use on the Dravidian inscriptions. The term has not received any probable explanation.—Dr. Burnell.

ANDUGA. TEL. Boswellia glabra, R.

ANDUSI. PANJ. Prichodesma indicum.

ANETHUM SOWA.

ANE or Ani. KARN. Ani, TAM. A dam, a dyke, a bridge, a bank. Kall-ane, a stone embankment. Ancakti or Ancakate, an anient, a dam, or dyke; also a channel to direct irrigation.—W.

ANEMARHENA ASPHODELOIDES, Smith, the Chi-mu of the Chinese, is a plant of the provinces of Honan, Shan-si, Shen-si, Ngan-hwui, and Kiang-su. Its rhiוזme is used as a substitute for squills.—Smith.

ANEMONE CERNUA, according to Siebold, is in repute among the Chinese as a tonic bitter, under the name of Huk-too-wo, and many species which Fortune imported from China found their way to the principal gardens in Europe. Drs. Hooker and Thomson name A. albana of Central Asia; A. biliora of Beluchistan, Kashmir and Afghanistan; A. rubicola of the inner Himalayas and Sikkim, and A. vitifolia of the Himalaya generally. At Lahore is a species known to the people as Brami, which has a much divided stalk, and is cultivated, and for gout and rheumatism.—Powell’s Handbook, p. 323; Fortune’s Wanderings, p. 405; O’Sh. p. 160; Riddell; Hogg’s Vegetable Kingdom, p. 14; Hook, f. and Thou.

ANETHUM GRAVEOLENS. Linn. Dill.

This plant grows in the south of Europe, in Egypt, Astracan, and India. Dill water is a commonly used carminative for the relief of flatulence, flatulent colic, and the hicouagh of infants, and may be advantageously combined with a few grains of magnesia or aromatic confection. In Pegu, dill seeds are constantly for sale in the bazaars. The Burmese do not distinguish it from caraway. The Hakims of Northern India believe the use of dill seed promotes the secretion of milk.—Dr. Honig, O’Sh.; Mason, Roxb., Voigt, p. 22; Birdwood.

ANETHUM PANMORI. Roxb.

Fumiculium panmori, D. C.; Sonf, Panmohri., HIND. A native of various parts of India, root white, nearly fusiform, and almost simple. Used in India as an aromatic, in food, and in medicine.—O’Sh. p. 360.

ANETHUM SOWA, Roxb., Bishop’s weed.

This plant is cultivated in the cold season in Bengal, in the Peninsula, Burma, etc. Its seeds are aromatic and carminative, and are used by the natives in their curries, and medicinally to relieve flatulence; the green parts also are used as a vegetable both by Musalmans and Hindus. The seeds are the Shubit of Ariecena, which is usually translated Anethum; by the Arabs it seems to have been considered the Anethum of Dioscorides. By distillation, the fruits yield a pale yellow volatile oil, sp. gr. 851, soluble in alcohol, ether, and in 144 parts of water.—Eng. Cyc.; O’Sh.; Birdwood, Bot. Pro.; Roxb. ii. 96; Voigt.
ANGA. Sansk. A section, a portion. For example, there are six Anga of the Veda, viz. Sikha, rules for reciting the prayers; the accents and tones to be observed; Kalpa, ritual; Vya. Varana, grammar; Nirukta, glossarial comment; Chhandos, metre; Jyotish, astronomy. The four Vedas, the six Anga, with Mimamsa, theology, Nyaya, logic, and Dharma, the institutes of law, and the Puranas, with the Hindus, constitute the fourteen principal branches of knowledge. —Garret; Williams' Story. See Veda; Vidyā.

ANGADA, the son of Bali, a fierce monkey chief, one of Rama's confederates.

ANGAHARAWA, also Angaharuwada. Singh. The planet Mars; Tuesday.

ANGAKARA GADDA. Tel. Momordica dioica.

ANGAM, a rude pagan tribe on the range of hills in Upper Assam, on the eastern frontier of the Mikir and Cachar. They speak one of the Naga dialects. See India; Mozome; Naga.

ANGAN. DUKU. The open enclosure of a Mahomedan or Hindu house in British India; a small courtyard, called compound from the Malay Kampang.

ANGARI. Sind. Smot, a blackness in ripening corn.

ANGARKHA. Hind. A long coat or tunic, fitting tight to the body, and hanging down below the knee. It is worn by Hindus and Mahommedans.

ANGANGA. Hind. Perquisites from the threshing-floor to the brahman, purohit, guru, grazer, and village god. From the time of distributing to the time of weighing, profound silence is maintained, and many ceremonies observed.

ANGDES, Ongdes, or Ondes, adjioins Tibet. The inhabitants call themselves Hungia, and appear to be the Hong-niu of Chinese authors, the Hum (Hoon) of Europe and India. —Todd's Rajasthan, p. 196.

ANGEL is a term which, in the Hebrew and Græco-Latin, relates to a messenger. Angels are noticed in the Jewish, Christian, and Mahomedan religions. Mahomedans say the angels were commanded to prostrate themselves before Adam. Mahomedans believe that every particle of matter in the universe is entrusted to the care of an angel (Malak, ferishtah). They believe also in a hierarchy of angels. The four of highest rank support God's throne, as in the Apocalypse, in the likeness of a man, a bull, an eagle, and a lion, to whom, on the day of judgment, four other orders will be added. After these come Ruh (spirit), Israfil, the messenger, Jabril (Gabriel), and Mikail (Michael). —Lane; Koran.

ANGELICA GLAUCa, the Chura of the Panjab, growing at 8000 to 10,000 feet; on Hatto, etc., near the Sutlej; is found also in the Dhaul Dhar range above the Kangra valley. —Stewart.

ANGELLY WOOD, Artocarpus hirsutus.

ANG-GAYTHEE. Houng, a large chafing dish. Ang-Gaythee Shah, a Mahrum fakir.

ANGHREMNIKA. Sansk. Uvaria lagopodiotes. —D. C.

ANGA CHINENSIS, a tree of China and Siam; produces a varnish.

ANGIRI. Sansk. Divinity. See Brahmadiea.

ANGIRASA, a grota or family of brahmanas derived from the rishi or sage Angirasa, to whom many hymns of the Rig Veda are attributed. He was one of the seven Maha Rishi, also one of the ten Prajapati. A later Angirasa was an inspired lawgiver. —Dorson.

ANGLER FISH, Lophius, 7p.

ANGOLAM. Mal. Alangium decapetalum; A. hexapetalum.

ANGOLA WEEED, Ramalina furfuracea.

ANGOORE-R-GACH. Beng. Vitis vinifera.

ANGRIA is a name applied to the more elevated part of a great bank off the west coast of the Peninsula of India. Surveys have shown that the bank is a great submerged table-land, perfectly flat, its greatest breadth, about 100 miles, being a little west of Bombay.

ANGRIA. About the middle of the 17th century, Kanhoji Angria, who had been a Mahratta soldier, was made governor of Severndrug. He soon assumed independence, obtained possession of nearly all the Mahratta fleet, and conquered territory on the mainland. In 1722, the British and Portuguese made an unsuccessful attack on his strong fort of Colahab; in 1724, an attack on Vizaddrug or Gheria failed, and when he died at the close of 1728, his sway extended over a hundred miles of the coast line. He was succeeded by his illegitimate son, Tullaji Angria. In 1755, the E. I. Company's marine, under Commodore James, in concert with a Mahratta army, captured Severndrug and Bancoute; and in 1756, Admiral Watson destroyed Angria's fleet (11th February), and the following day Gheria surrendered to Colonel Chive. The last descendant died about the middle of the 19th century, and the territory was annexed. —Orme.


ANGUL, in Orissa, is a hilly district, which was conquered in 1847, because its raja attempted to make war against the British. The population of 63,506 souls is chiefly Brahman, Rajput, and Khassa Hindus, with the aboriginal Kandh (5425), a tribe of Tallua (341), and Kharia (2743). The Talcher coal-field embraces a considerable portion of Angul. —Impr. Guz.

ANGULA. Hind. A long measure, a finger's breadth; the standard measure for carpenter's work, 8 barley corns = 1 angula, 12 angula = 1 span.

ANGULI - TORANA. Sansk. Three semi-circular lines drawn across the forehead by saiva Hindus. They are made of sandal-wood powder or the ashes of burned cow-dung; and are usually called tri-pundra. —IV.

ANGULI. Pers. Grapes.

ANGUSHTRI or Anguthi. Hind. A finger-ring.

ANHENTHA. Singh. Datura fastuosa.

ANHILWARA. ANHILWARA, the dynastic name of three races who ruled in Guzerat from a.d. 696, till, in a.d. 1309, Guzerat was annexed to Delhi by Ala-ul-Din Mahomed Shah. The title was taken from the town Anhilpur, which rose to great distinction as a commercial city, and with Cambay its seaport, from the Tyré of India. At its height, Anhilpur was 12 cos (or 15 miles) in circuit, within which were many temples and colleges, 84 chak or squares, 84 bazars or 107
market-places, with a mint for gold and silver coin. Col. Tod thinks it not unlikely that the Chaoa, the name of the tribe of the first dynasty of Anhilwara, is a mere corruption of Sturua, as the ch and s are perpetually interchanging.—Tod's Tr., pp. 147, 152, 156; Rajasthan, i. p. 31. See Balhara; Guzerat; Kattywar.

ANIHONI, in the Hussahangad district, has a hot spring nearly due north of the Mahadeo hills, at the edge of the outer range which divides the Denvwa from the Nerbudda valley. It is said to be good for boils and skin diseases, and is much visited.

ANI. TAM. Elephant.
ANI-ANI. MALAY. White ants.
ANICUT. ANGLO-TAM. Literally dam-built; a dam or weir thrown across a river to dam up the water. The grandest is that across the Godavery river, about 7 miles long; but others dam up the waters of the Kistna, the Palur, the Colerun, the Tumbudra, and the Pennar. See Ane.

ANI-GUNDA/MANI. TAM. Adenanthera papyracea. Its seeds are the munti or bead seeds.

ANIP/KAHILAY. TAM. Agave Americana.

ANIL-KA-KHAND, a sacred well in the bed of the Aghor river, under the temple of Hinglaj, in Beluchistan. The people believe it has never been fathomed.

ANIMAL CHARCOAL, prepared from bones, is used as a filtering material for clarifying oils, and in the processes of sugar-refining.

ANIMAL FOOD is not absolutely forbidden to the priests of Buddha, and Burmese followers of this faith eat quantities of fish, reptiles, and crustacea. Even the more strict of them, though they may refuse to take life for food, eagerly use meat when they can get animals killed for them, or find them dead from accident or disease; and the cow, buffalo, tiger, and horse are all partaken of in Burma, tiger flesh selling for five annas a pound. Many Hindus of the Brahman, Rajput, and Vaisya castes, as a rule, will not eat animal food, and no Hindu can eat the cow without ceasing to be a Hindu; but all other Hindus eat goats, fowls, mutton, fish, and the aboriginal races eat nearly all quadrupeds.—Harley, E. Monach.

ANIMAL KINGDOM, a scientific term, comprising all living animals. Many commercial products are obtained,—horns, skins, furs, bristles, wool, hair, bones, teeth and tusks, fins, shells, air-blisters, quills, feathers, oils, etc. The animal oils are in frequent use as medicinal substances amongst the people of India for external application, such as that from the pea-fowl's fat, from the newt's foot, the crocodile and the iguana.

ANIMALLY, literally Elephant hills, a mountain range in the collectorate of Coimbatore, in the southern part of the Peninsula of India, and in the Travancore dominions, extending from lat. 10° 18' 45" to 10° 31' 30" N., long. 76° 32' 30" to 77° 28' E., with peak up to the height. These are small scattered colonies of the Kader, the Malai Arasar, Pulyar, and the Maravar races. The Kader are open, independent, straightforward men, simple, and obeying their Mopens or chiefs implicitly. They are of small stature, strong built, active, with woolly hair, and something of the African features, and file their teeth to points. The women wear enor.-R. circles of pith in the lobes of their ears, which hang down to their shoulders. A black monkey is their greatest dainty. The Malai Arasar are taking to agriculture. The Pulyar are demon-worshippers. The mountains are covered by valuable forest trees, and at one time were worked with an annual profit of about 60,000 rupees a year, and there are many beautiful woods suited for turmeric. The wild animals are the elephant, tiger, leopard, bear, hyena, wild dog, bison, sambur, spotted and barking and hog deer; also the wild goat.—L.-Col. Hamilton, in litt.eris ; Imp. Gaz.

ANIMISHA. SANSK. Hindu gods are supposed by the Hindus to be exempt from the momentary elevation and depression of the upper eyelid, to which mortals are subject, and to be able to look with a firm unimpeachable gaze. Hence a deity is termed Animisha and Animisha, one whose eyes do not wink. Various allusions to this attribute occur in poetry. When Indra visits Sita, to encourage her, he assumes at her request the marks of divinity,—he treads the air, and suspends the motion of the eyelids; when the god and Vanara, and Indra and the demon Nag are the marriage of Damayantî, she distinguishes her mortal lover by the twinkling of his eyes, whilst the gods are stambha lochana, fixed-eyed. And when the Aswini Kumara practised the same trick upon the bride of Chyavana, she recognises her husband by this amongst other indications. The notion is the more deserving of attention, as it is one of those coincidences with classical mythology which can scarcely be accidental. Heliocorus says: 'The gods may be known by the eyes looking with a fixed regard, and never closing the eyelids'; and he cites Homer in proof of it. An instance from the Ilkad may be cited perhaps as an additional confirmation; and the marble eyes of Venus, by which Helen knew the goddess, are probably the stambha lochana, the fixed eyes of the Hindus, full, unveiled even for an instant, like the eyes of a marble statue. Other places: the latter bodies: they cast no shadow, they are exempt from perspiration, they remain unsoiled by dust, they float on the earth without touching it, and the garlands they wear stand erect, the flowers remaining unwithered.—Hindu Theatre, i. 137 ; Williams Story of Nala, p. 248.

ANIMUS. The interpretations of the ruh and nafs of the Arabs, of the nefesh and rach of the Hebrews, of the pnuma of the Greeks, and animus of the Romans, applied to the breath, the life, the soul of man, are philosophical points. Mahomedans style Jesus the Messiah, Ruh-Allah, the Spirit of God. This view identifies the everlasting soul with the Holy Spirit and the breath of life. In the English tongue there is no settled mode of speaking of these, for a man is said to die; in a shipwreck, every soul is said to perish, and a person ceasing to live is described both as dying and as departing, the departed equivalent to the West Indian rahib or intigal, causing away and departure.

ANIP/ARI/ M. Malai. Hibiscus rosa sinensis.
ANIP/IPUL. DUKH. Ficus religiosa, Linn.
ANIP POOLIA MARM. TAM. Adansonia digitata.
ANIPULLI. TAM. The tree squirrell.
ANIRUDDHA, the son of the incarnate Indian Cupid.
ANKLES.

ANKLETS. Pimpinella anisum. Anise.


The plant producing these small, aromatic, pungent, fragrant, sweetish seeds, is the Pimpinella anisum, one of the Apiaceae of Lindley, which is cultivated in the Levant, all over Europe and in China. They are an agreeable carminative, and yield on distillation a volatile spirit of aniseed, the Bali and Javanese terms may possibly designate the star anise. — Drs. Voigt, O'Sh., Riddell and Mason; Vegetable Kingdom, 376; Faulkner; Poole.


Star anise is the fruit of the Illicium anisatum of Linnaeus, a shrub or small tree, which grows in the countries extending from China to Japan lat. 23° 35' to 35° N. The name is given from the clustering star-like form assumed by the capsules or pods, five to twelve in number, joined together at one end, and diverging in rays, usually five. These are used all over the cast as a condiment. They are prized for the volatile oil obtained from them, and for their aromatic taste. The bark has a more aromatic flavour than the seeds, but is not so sweet. In China, their most common use is to season sweet dishes. In Japan, they are placed on the tombs of friends, and presented as offerings in the temples. They are chiefly exported direct to India, Great Britain, and the north of Europe. In India, they are much used in seasoning curries and flavouring native dishes, and large quantities are used in Europe in the preparation of liqueurs. In Britain, it is from this fruit that the oil of anise is prepared, and it imparts the peculiar flavour of the Anisette de Bourdeaux. — Morrison; Simmonds; Faulkner; O'Sh. Beng. Phar.; Vegetable Kingdom.


Aseki, Duk. Karruwali, Tel. Pindi bando, Tel. Pindi bando, Tel. Bawa it, Tel. Gula bhattu, Tel. Karpurawali, Tam.

This is used in native medicine. It has small purple flowers, and grows among the Bhir mountains, and as Taung Dong. — Roeb.; Voigt: Ainslie; Useful Plants.

ANISODUS LURIDUS. Link. A tincture of its leaves is recommended as an anodyne and edative.


Aseki, Sib. Madhori, Tam. Moga biraku, Tel. Chinna ranabheeri, Tel. A plant of the West Indies, Mauritius, the Peninsula of India, Malacca, and Java. It has a very fetid odour. In the West Indies, the entire plant is deemed cemenagogue, and natives of India use the leaves internally in dysentery. — Roeb. iii. 1; Voigt; O'Sh.; Veg. King.; Ainslie.


ANISOPHYLLA ZEYLANICA. Benthi. This tree, the Tetracrypia cinnamomoides, Gard. and Champ., and the Illicia-pyanna of the Singhalse, grows in the southern and central parts of Ceylon, up to an elevation of 1500 feet. The wood is used for building purposes. — Mendis; Beddome, Fl. Syl. part xvii. p. 195.

ANIYATA-DILAMMA, a class of priestly misdemeanours of the Buddhists of Ceylon. — Hardy's Eastern Monachism, p. 433.

ANJALI. SANSK. One of the Hindu forms of respectful obeisance; it is the Dandhawat of the south of India. The head is slightly bowed, the palms of the hands are brought together and raised laterally to the middle of the forehead, so that the tips of the thumbs only are in contact with it. — Hind. Theat. ii. p. 108.

ANJAMAN, among the Parsees, a constituted council or assembly. — W.

ANJAN. HIND. A grass of the N. W. Provinces of Bengal, used as fodder. — W.

ANJAN, HIND. or Anjana-kahloo, also Unjunee, Tam. Sulphuret of antimony; also manganeso, used in pottery as a glaze.

ANJANA, an Indian era, which began b.c. 691. ANJENGO, a fishing village in Trivancore territory, on the Malabar coast, in lat. 8° 40' N., and long. 76° 47' 50' E. The name is a corruption of two Tamil words, Anji Tenga, or five cocoa-nut trees. The place was for many years an English factory. The ruins of the Portuguese church and fort still exist. Orme, the historian, was born at Anjengo, and Eliza Draper, the object of Sterne's affection, lived here. — Forbes' Oriental Memoirs, Abd'RLayn's History of the Indies; H. Drury, Cochin; Horsburgh.

ANJIL. ARAB. Malva sylvestris, Linn. ANJILL MARAM. Tam. Artocarpus hisurata. ANJIR. PERS. Figs.

ANJUN. MAHL. Hardwickia binata. Anjuna, also Kurpa, Meneccyn tinctorium and M. raniflorum, Linn.

ANKADOSA. Tel. Leon staphylia, R. ANKAL-AMMA, one of the tutelary village goddesses of the Peninsula of India. See Amma.

ANKAM. MAHEAL. In Malabar, a duel, or single combat, formerly frequent among the Nair race; each combatant had to pay a sum for permission to fight. The duel was sometimes fought by hired champions. — W.

ANKHI. PANJ. Rubus sp.

ANKLETS. Kahl-Khal, Arab., Hind. Karyalu, Tel. Kapi, Tam.

Anklets of gold, silver, brass, copper, deer horn, the metals being solidly massive, also as chains, are in use in all eastern countries. Occasionally a grown man of the Hindus may be
seen with a small gold or silver ring, but in general they are restricted to women and children. The custom has doubtless been through all ages, and they are alluded to in Isa. iii. 16, 18. Some, and particularly those of the Marwari women, are inconveniently massive; and heavy rings, usually of silver set with a fringe of small bells, are often worn by other Hindu ladies. The other loose ornaments, one above another, on the ankles, at every motion of the feet produce a tinkling noise.—*Toy Cart.*

**ANNESTON.**

MALAY. The musical bamboo of Java. See Bamboo.

**ANKOLAMU.** Tel. Alangium decapetalum.

**ANKO-RUTE.** Tam. Trichosanthes palmata, Roxb.; *T. bracteata*, Lam.

**ANKUS.** Pers., Hind. Elephant good.


The goad and guiding rod of an elephant-driver, in shape resembling a small boat-hook. It is figured in the medals of Caracalla of the identical form in use at the present day in India.

**ANKAIL.** Pavo cristatus, Linn.; a British-Indian coin, sixteen to a rupee, and equal to about three-halfpence. It is applied to indicate a rateable share, as 4 or 5 annas in the rupee, similar to the percentage.

**ANNA BUGDI.** Tam. Green copperas.

**ANNA DEOTA.** See Chank.

**ANNAI KARAI MARAM.** Tam. Odina woodier.

**ANNAM.** The Annamitic group of peoples in habit Cochín-China and Tonkin, and are a section of the division of the human race to which the Chinese belong. The Chinese form of Annam is Ngannam; the Tonkinese call the Cochín-Chinese, Kuang and Ke-kuang; the Cochín-Chinese, on the other hand, call the Tonkinese, Kepak. Two centuries before Christ, the Chinese found the Annam race in possession of the basin of Sang Koi. The first migrations from the northern side of the E. Himalaya is now best represented by the Annam, Kambojan,—Mon, and Lao tribes, who appear to have hatched a large straight faces, flat from the Tibeto-Burman tribes to the eastward and southward. The Mon-Annam, or E. Himalaya tribes occupy the territory bounded on the north by the left side of the valley of the Brahmaputra as far as the head of Assam, and a line drawn thence eastwards along the range in which the Irrawadi has its sources, and across the converging meridional chains, beyond, to the most eastern, the Mangi, which separates the Lient from the M-Kong. In physical appearance, the Annam race, in size, form of the head and person, expression, and temperament, have a close resemblance to some Indoneisan tribes. The Javan group has a larger admixture of the Annam type than the Sunnatran or Borneon. Annam heads are common in eastern Java, and especially among the Bawian and Maduran peoples. The Malay and western Javan have frequently a more Siamese form. The Annam race want the large straight faces, flat occupant, lowness of the hairy scalp, comparatively small and firm mouth, hard staring eye, and grave expression of the Siamese. The Annamese are of low stature, the men with long arms and short stout legs. They are very light coloured. The men are hardy and active. The women, still fairer, are well formed and graceful. The higher classes are solemn and decorous, like the Chinese; the lower, lively and talkative. The dress of both sexes consists of loose trousers and loose frock with large sleeves. In their persons, their dress, and their food, they are very unlearned. They are about 14 millions. Their religion is Buddhism, but Shamar superstitions also prevail. A Cochín-Chinese marries when he has the means, and among the poorer classes the age of the female is from 15 to 20. The wife is purchased; polygamy is habitual. Abortion is often had recourse to. Unmarried women are not all chaste; but adultery in the married woman is punished with death. The Annam, Kambojan, Siamese, Mon, Burman, and the other ultra-Indian languages are all characterized by strong complex sounds. The Annam and Siamese abound in complex vowel sounds, and the Burman family in complex consonantal sounds, which are harsh in Singhpo, less so in Rakhoin, and much softened in Burman.— Bouvier's *Siam,* i. p. 683, ii. p. 464; *Crawfurd's Emb.* p. 499; *Lubbock, Origin of Civ.* p. 243; *Latham's Ethnology; Crawfurd's Dictionary,* pp. 321-485; *See Cochín-China;* India.

**ANNA R shocking.** A **PUNA DEVI,** of a brilliant form of the Hindu goddesses, and. She is described as of a deep yellow colour, standing or sitting on the lotus, or water lily. She has two arms, and in one hand holds a spoon, in the other a dish. In her dress she is decorated like the other modern images of Durga. Anna Purna is a household goddess, and is extensively worshipped by the Hindus. Her name implies the goddess who fills with food, and they believe that a sincere worshipper of her will never want it. She is possibly the Anna of Babylon; and she has been considered as the prototype of the Anna Perenna of the Romans, whom Varro places in the same rank with Pallas and Ceres, and who was deified and held in high esteem by the Roman people, in consequence of having supplied them with food when they retired into Mount Aventine. Besides the great similarity of names, there is a singular coincidence in the times of their worship, the Alessians, or Anzians, being a part of the increase of the moon in the month Choitru (partly in March), and those of the Roman goddess on the Ides of March. To make the chain complete, Anna travels east from Babylon to India; west from Babylon to Phoenicia, accompanies her sister Dido to Carthage, flies thence to Italy, and then the Anna Purna of the Hindus becomes the Anna Perenna of the Latians. Such is the Roman legend. In India she is known simply as Anna, also as Anna Purna or Anna Devati. In his hymn addressed to her by the rishi Agastya, she is personified as Pitru or material food.—*Coleman's Mythology,* p. 91; *Wilson's Hindu Theatre.*

**ANNEE, A Tibetan nun.**

**ANNELIDA,** of Ouvier, from annulus, a ring; an example of this class of animals is the ringed form of the common earthworm.

**ANNESLEY, Sir James,** a medical officer of the Madras Army, who rose to be the head of the Medical Board, author of Sketches of the most prevalent Diseases of India, comprising a *Treatise of the Epidemic Cholera of the East,* and Reports of the Diseases in the Madras Army. London, 1825; Researches into the Causes, Nature, and Treatment of the more prevalent Diseases of India, and of Warm Climates generally. London, 1828.
ANONIUM PLICAMUS. See Hippophae.

ANOCA DEPRESSICORNIS, the saiqi utam, or wild cow of the Malayas. It approaches the ox-like antelope of Africa and India, but is smaller and less of a buffalo, and antelophe. It is found only in the mountains, and never occupies places where there are deer.

ANOCH. Hind. Fraxinus xanthooides.

ANOHESSUS ACUMINATUS. Wall. Anacardus acuminatus, Roxb. ii. 435.

Yoong, ... BURM. | Pachi manu, Padi, Tel.

This lofty tree is met with in several parts of India. Its timber is good and durable. That of the Godavery is described as very hard and strong, and very ornamental, and much resembles the wood of A. latifolius. It has a purple heart-wood; it is much used for building purposes, but will not stand exposure to water.—Roxb.; Voigt; Bidetome.

ANOHESSUS LATIFOLIUS. Roxb. Anacardus latifolius, Roxb.

Dhauri, Dhoutha, HIND. | Chiriman, Sheriman, Tel.

Dawu, SINGH. | Yella Maddi, Tel.

Vellaynaga, TAM. | Dhou, Dhn.

Veokalle, ... "" A very valuable timber tree grows to an enormous size. It is common throughout the Madras Presidency, Mysore, Bombay, Bengal, and Ceylon, in the plains, and it ascends the mountains to an elevation of about 3000 feet. It grows at Chillatun, Islamabad, in the Kengeri jungles, the valleys of the Konkan rivers near their sources, the inland Dekhan hills, and in the Dehra Doon. Its wood is light-coloured, with a purple heart; it is close-grained, and very durable when properly seasoned; it is much used in house and ship building, and is one of the best woods for poles and axle-trees of carts, and for agricultural implements. If left in the forests exposed to the weather, the wood rapidly deteriorates, and is soon attacked by insects and white ants. The wood from small trees wants the dark-coloured heart, and is anything but durable. Near the Godavery, the wood is said to be one of the hardest in the forests. The leaves are used by tanners. A gum exudes from the bark, which is sold in the bazaars. A. pendula, Edge., is a tree of Ajmir and Nimar.—Roxb.; Voigt; Bidetome.

ANOINTING, a form of installation and initiation. It is the "mahapal" of the Hindus, hence their Al-Mashe and the Hebrew Messiah. In Rajputana, anointing appears to have been, in all ages, the mode of installation. The unguent used is of sandal wood and attar of roses made into a paste, or very thick ointment, of which a little is placed upon the forehead with the middle finger of the right hand, and then the jewels, the earring and necklace, are tied on. Amongst the earliest notices of this ceremonial is that in Genesis xxviii., when Jacob rose up early in the morning, and took the stone that he had put for his pillow, and set it up for a pillar, and poured oil upon the top of it. The Brahmins anoint their stone images with oil before bathing them, and some anoint them with sweet-scented oil. This practice probably arises out of the customs of the Hindus, and is not necessarily to be referred to their idolatry. Anointing persons, as an act of homage, has been transferred to their flocks. There are resemblances between the Jewish and Hindu methods of, and times for, anointing. Oil is applied to the crown of the head, till it reaches all the limbs; it is called abhyanga, and is noticed in Psalm cxxxiii. 2, Mark xix. 3. At the close of the festival in honour of Durga, the Hindus worship the unmarried daughters of Brah- juniis, and some of the other ceremonies pour sweet-scented oils on their heads. Amongst the Hindus, this ceremonial is attended to after sickness, which Psalm xiv. 7 mentions. And Hindus, when fast- ing, in sickness, or sorrow, abstain from the daily anointing of the body with oil, but again anoint on recovery, as 2 Samuel xii, 20, where 'David arose from the earth, and washed and anointed himself, and changed his apparel, and came into the house of the Lord, and worshipped.' Bathing, anointing the body with oil, and changing the apparel, are, among the Hindus, the first outward signs of coming out of a state of mourning or sickness. The abhyanga sh'hanam, or bathing on the wedding day of a Hindu couple, is part of the marriage ceremony. This practice of anointing all the body with oil is wholly confined to the Hindu community; the Mahomedans, whether of India or Western Asia, do not practise it. It is probable that the Hebrews learned the custom in Egypt or from their Assyrian neighbours, and that the anointing of kings, which European nations have adopted, was handed down through the Old Testament. The Masah of the modern Arabs is the canonical mode of performing the smaller ablutions or purifications.—Toł, ii. 568.

ANOLA. HIND. Fruit of Embica officinalis, the embico myrobolan. It is roundish, blackish, grey, very wrinkled, obscurely six-sided; nut three-celled, each cell with two shining seeds.

ANOMA, a river famous in the history of Buddhism, as the scene of prince Siddharta's assumption of the dress of an ascetic, where he cut off his hair, and dismissed his attendant and his horse. Its distance from Kapila is said to be 60 yojanas.—Cunningham, Ancient Geog. p. 423.

ANOMADASSA, according to the Singhalese buddhists, a Buddha previous to Gautama.—Harrow, Eastern Monachism, p. 433.

ANONACEAE, the custard apple order of plants, natives of the old and new worlds. The order includes about 15 genera and 250 species, more than half of them occur in the Indies, of the genera uvaria, guatteria, copra, miliusa, lobo-paris, Patrinia, senna, arbutus, polyalthia, hyalostemma, saccopetalum. The anaona are trees or shrubs, with a powerful aromatic taste and smell, furnishing esteemed edible fruits, of which the custard apple, sour sop, sweet sop, and bullock heart may be named.—Voigt; H. and T.

ANONA CHERIMOLIA. Mill. A tree of Peru, with a succulent fruit of a dark purple colour, containing a soft sweet muciage. It was introduced into India in 1820. There are two varieties of the cherimolla, one smooth, the other with a tubercle on the middle of each scale.—Dr. Weddell, Bolivica; Riddell; Voigt.

ANONA MURICATA. Linn. The Sour sop tree of the West Indies, but cultivated in India and Tunesia. It has large yellowish green flowers, with a vinous smell, and bears only once a year. The fruit resembles the custard apple, ripens in March, and grows to about the same size as the bullock heart; it is of a greenish colour when ripe, and has a rough, thorny appearance; the flavour is very peculiar, differing from the other species of
the Anonaceae; the scent resembles that of black currants; the seeds are similar to those of the custard apple. The wood is inferior.—Riddell; M. E. Faries Reports; Voigt; Hook. f. et T. p. 114; Vegetable Kingdom, 28.

ANONA RETICULATA. L. Bullock heart.

Lavindo? BENG. HIND. Anona maram. SINGH. Ram-Phal, DEKH. HIND. Rama sica maram. TAM. Nona, HIND. MALAY. Rama cheto. Tel.

This fruit tree derives its specific and English names from the appearance of its dark brownish and red fruit. It is to be met with in all parts of the tropics, and grows to a large size. It is soft, sweetish, and pulpy, and is not much esteemed by Europeans.—Dr. Ainslie, Riddell, Mason, Birdwood, Bombay Products; M. E. J. Rep.; H. f. et Th. 115; Crawford's Diet.

ANONA SQUAMOSA. L. Custard apple.

Shurifa... ARAB. Sri Kaya... MALAY.

Luna, Meba... BENG. Atta'ha mara... MALEAL.

Ame-sa, Au-za... BURM. Atta-chika...

Na-kat... BENG. Ata-chika...

Ea... CIEN.Gallery. Siu-kack.

Sita Phal... DEKH. Atta...

Sweet Spot. ENG. Atta maram... TAM.

Atha... HIND. Beng. Sita pallam maram...

Manoa-papos... MALAY. Sita ph'Allam chetta... Tel.

Dawua Moaa.

This small tree, originally from tropical America, grows freely, even wild, in the south-east of Asia. The fruit is wholesome and pleasant, and, being perfectly free from acid, may be used by such delicate people as dare not venture on others of a different nature. It is delicious to the taste, and, on occasions of famine, has been useful. This and similar subacid fruits, to the Burmese, serve as substitutes for flesh meat, being eaten with rice as an ordinary article of their daily provisions. The tree, when cultivated and pruned during the hot season, produces fruit afterwards of double the usual size. The leaves have a disagreeable odour, and the seeds contain an acid principle fatal to insects, on which account the natives of India use them, powdered and mixed with the flour of Bengal gram (Cicer arctium), for washing the hair. A few leaves and some seeds put into a bed infected with bugs, have been said to dispel these pests immediately, but their use is over-praised.—Boyle, Gibson, Useful Plants; McClelland; Riddell; Crawford; Ainslie; Malcolm's South-Eastern Asia, i. p. 180; Voigt; Hooker and Thomson; Cal. Cat. Ex. 1862; Birdwood, Bombay Products.

ANORATHA SAUMEN established Buddhism at Pagan, in Burma, and built all the temples there.—Yule, p. 9. See Pagan.

ANOSPORUM MONOCOEHALUM, Nees, one of the Cyperaceae, is the Gothobi of Bengal.

ANOUL, MALAY, of Sumatra, the coarse, black, bristly Ejo or gomuti fibre, from the Arenga saccharifera, or gomuti palm.

ANSA, or Ansana. SANSK. Portion of a portion of Krishna, as Paramatma, or supreme spirit. See Chaitanya.

ANSARRI, a tribe of shahikh mahomedians in the N.W. Provinces, who seem to have come to India from Herat in the time of Firoz Shah. They claim to be descendants of the original Ansari, an Arab tribe who became auxiliaries of Mahomed, and adopted his views at Medina.—W.

ANSARI, a numerous and powerful people, occupying a large territory in Karamania and Syria. They are a shiah sect, who worship Ali, son of Abu Talib, and son-in-law of Mahomed. One of their sections, called Ansariyeh, is divided into five tribes, who reverence the moon, the stars, the air, and the sun. In religion, as in blood, those Ansariyeh appear to have much in common with the famous sect of the Assassins, whose chief was known in the crusading chronicles as the Old Man of the Mountain. To this day, like the Jews, the Ansariyeh keep themselves apart from their neighbours, by whom they are despised and detested. Burekhlard calls the Ansari sects Kelbai, Shamsus, and Mokladja.—Robinson's Travels, i. pp. 68, 69; Oliphant; Catta-fayo.

ANSEB, the goose, the hansa of India. A. alibifrons, A. cincera, and A. brachyrhynchos, are known in India and the Punjab. A. Indicus occurs at Siligiri. A. cygnoides of China is domesticated. The wild species is still extant. A. cincera (Anser ferox), 'Greyleg goose,' Europe and Asia, is common in India. A. brachyrhynchos, 'Pink-footed goose,' Europe, N. Asia, Punjab (rare)? The domestic goose of India is a hybrid between A. cygnoides and A. cincera.—Hooker, Journal, i. p. 399; Catalog. Cal. Museum. See Birds.

ANSEQUI, MALEAL. Arctocarpus hirsuta, L. ANSUS. some land in the Eastern Archipelago, inhabited by Papuans. The houses, built upon piles, are placed entirely in the water. At very low water only is the beach partially uncovered. This beach consists of mud, in which the mangroves grow luxuriantly, and completely obstruct a landing. The gardens, from this cause, are situated on the surrounding islands, principally on an island with a high beach, lying opposite to the kampong. The Papuans of Ansus have their hair growing in tufts. Their appearance is good-natured, faces regular, eyes beautifully black, mouth broad, with beautiful regular teeth, and the forehead high but narrow. Many have thin lips and finely curved noses, which give them a more European physiognomy. The men are generally handsome and well formed, stout, without being too thick, strong and muscular; the women very good-looking; and some children with very regular soft faces, and long pendent curving hair. Four. Ind. Arch., June 1852, p. 380-3.

ANT.

Namlah... ARAB. Irmah, Yaroombo, Tam. Fourni... FR. Chine, ..., Tel.

Cheonti... HIND. Nemi... TURK.

Lamut... MALAY, PERS.

Ants have attracted attention from the earliest ages, on account of the singular economy and extraordinary industry manifested by the different species. Dr. Jerdon, a Madras medical officer, in a series of papers in the thirteenth volume of the Annals of Natural History, described forty-seven species of Southern India. M. Nieter, of Ceylon, forwarded to the Berlin Museum upwards of seventy species taken by him in that island, chiefly in the western province and the vicinity of Colombo. Dr. Jerdon, in the Madras Lit. Soc. Journal, arranges them according to St. Fargeau, who, in the first volume on the Hymenopteres in the Suites à Buffon, divides ants into four tribes, viz. 1st Tribe—Les Myrmecides, females with a sting, first segment of abdomen of two knots. This includes the following genera—Cryptocerus; Atta; Ococoma, differing from
ANTAKA.

Atta in its larger head, and the presence of spines; Ecton, and Myrmica. 2d Tribe—Ponerites, females with sting, first segment of abdomen of one knot only. It includes the genera Odontomachus and Ponera. 3d Tribe—Les Formicites, females without a sting, first segment of the abdomen of one knot only; and it contains the genera Polyrugas and Formica. But many Indian ants cannot be well referred to any of these genera.

The black ant of India is the Formica compressa, and the red ant is F. smaragdina. The genus Polyrugas is plentiful in all eastern forests. It is remarkable for the extraordinary hooks and spines with which the bodies of the species are armed; and they are also, in many cases, beautiﬁcally sculptured or furrowed. One species has processes on its back just like ﬁsh-hooks; others are armed with long straight spines. They generally form papery nests on leaves, and, when disturbed, they rush out and strike their bodies against the nest so as to produce a loud rattling noise. They live in small communities. Their curious hooks, spines, points, and bristles adhere to their enemies.

The green ant of the Malay Archipelago, Eobryllna smaragdina, is a rather large, long-legged, active, and intelligent-looking creature. It lives in large nests formed by gluing together the edges of leaves, especially of the zigzag leaved plants. When the nest is touched, a number of these ants rush out, apparently in a great rage, and erect, and make a loud rattling noise by bipping against the leaves. Their jaws are blunt and feelable.

Many of the Myrmecidae sting most acutely, they are very abundant, and destroy greatly, devouring every edible thing. See Insects.

ANTAKA. In the Hindu religion, an attribute of Yama or Dharmraja, in the character of the under, the Destroyer. See Yama.

ANTAMOOL, or Anantamoool. Beng. Hemi- smus Indica. The roots largely used as a substitute for saraspalira, price three annas per round.

ANTAPUR. Near this is a knoll fifty feet high, and four hundred in circumference, surrounded by still higher hills. Captain Newbold, as opinion of it, that it is an ancient furnace, it others think that volcanic agency is the cause this curious elevation. One local tradition as it, that a Rakshasa or giant, named Edim, assali, who had objected to the marriage of a sister with a son of king Pandian, and was therefore murdered, was buried here. But another story is, that a great battle was fought here, and that the dead were burned on an enormous funeral pile. The ashes, or whatever they are, efervesce when treated with dilute nitric acid.

ANTAR, author of a famous Bedouin romance. He grand words the aged sheikah pronounced over a dead body of this Arab hero were:—Glory thee, brave warrior! who, during thy life, hast on the defender of thy tribe, and who, even after y death, hast saved thy brethren by the terror thy corpse and of thy name! May thy soul e for ever! May the refreshing dew most the ground of this thy last exploit! The Antar or Antaryeh, in Cairo, are a class who recite chant poetical war tales, and take their name from the Antar romance.

ANTAKA TAMARA. Tel. Any floating, large-leaved water plant, as the Villarsia Indica, Vent.; Menyanthus Ind., L.; Pista stratiotes, L. Antara Valli Tige is the Casyaea filiformis, L.

ANTAHAVEDI, a Hindu shrine on the coast of the Godavery district, one of seven sacred sites on that river, at each of which pilgrims bathe, to complete the saptasagam yatra. During the ﬁve days’ ceremony of the Kalayamam, about 20,000 pilgrims visit it.—Imp. Gaz.

ANTAI-BED or Antarved, the ancient name of the lower part of the doab from Elawa to Allahabad, but sometimes taken as the name of the entire doab between the rivers Ganges and Jumna.

ANTARJALI. SANSK. A Hindu rite of taking a dying person to the river-side, or, at the moment of death, immersing the lower part of the body in water. This cannot but hasten the fatal event. The Pioneer newspaper related two instances of this in April or May 1875, one near Calcutta, the other near Lahore:—On Thursday last, the victim was carried to the river-side, amidst a crowd of people, with the usual accompaniment of tom-toms and other discordant noises, etc. His head dangled over a stretcher much too short for him; and as he raised his hand to shield his face from the glaring light, his son and heir opened an umbrella and held it over him by way of protection. Arrived at the river, he refreshed himself with a draught of milk and a smoke, chatting meanwhile with his sympathizing relatives. Last Saturday still found the man quite equal to his milk and tobacco, and his friends carried him off to another spot on the river, and immersed him until he was drowned.

ANT-EATER, Manis pentalactyla, Pangolin. Badjar-kita, ... Beng. Tarang-giling, ... MALAY. Sealy Ant-eater, ... ENG. Pang-giling, ... Tanggilin, ... MALAY. Aiarler, ... Tel.

The Pangolin of India, belonging to the Edentata, gets that English name from its Malay designation. The genus is common to Africa and south-eastern Asia, and in India is not rare, though, from their habit of appearing abroad after sunset, they are not often seen. Manis Javanica of Desmarest inhabits the Malayan peninsula, Penang, Borneo, Java; M. crassicaudata of Tickell (the M. pentalactyla of Linnaeus is the M. macoura of Desmarest) and found in several parts of India, and in the lower part of the Himalaya. This species has been known ever since the expedition of Alexander the Great, and is mentioned by Albian under the name Zartwary.—Tickell; Elliot; Ogilvie; Cantor; Jerdon.

ANTELOPE is the name usually given by the British in India to the Antelope cervicapra of Pallas, A. bezoarteria, Blyth. An antelope only 15 inches long was obtained in Sinnamur by Mr. Carl Bock, about 1880. See Antilopine.

ANTELOPE HORN, Ling-yang-koh of the Chinese. In pregnant and puerperal cases, the horn in powder is given, partially calcined.

ANTEN, a district in the island of Banka, containing the richest of the tin mines.

ANTENNARIA. Don. The jhoola of the N. W. Provinces; its tomentum is used.

ANTHELIA. This phenomenon is common in the Khasiya hills and in Ceylon. Sir J. E. Tennent mentions that at early morning, when the light
is intense and the shadows proportionally dark, when the sun is near the horizon and the shadow of a person is thrown on the dewy grass, each particle furnishes a double reflection from its concave and convex surfaces, and the spectator sees the shadow of his own head surrounded by a halo as vivid as if radiated from diamonds.—Sir J. E. Tennant, *Hooker, Hist. Journ.*

**ANTHISTIRIA CILIATA.** Linn. *f.*

A. Australis, *B. Br.* | Kangaroo Grass.

A grass of south Asia, Australia, and all Africa; its growth should be encouraged by every means. It grows abundantly in the Konkans, where it is largely converted into hay for horses; *A. polystachia, A. heteroclita, Roxb.,* and *A. scandens, Roxb.,* are also made into hay.—*Von Mueller; Mason; Voigt.*

**ANTHOCAPHALUS CADAMBA.** Bth. and *Hooker.* A timber tree of Darjiling Terai, one of the Rubiaceae.

**ANTHOGONIUM GRACILE.** Wall. One of the Orchiseae growing in Nepal and the Khassya mountains, with large blood-coloured flowers.

**ANTHOOZA,** a natural order of polype found within the tropics. The Corallium rubrum, *Lam.,* the red coral of commerce, is obtained from this order, and the coral is the axis of the polypodium.

**ANTHIBID.** See Insects.

**ANTHUS OBSCURUS,** A. petrosus, *Rock Pipit,* of Europe, Siberia, Japan, is replaced in the Himalayan region by *A. cavernus,* which is likewise found in Europe. *A. Pratensis,* *Meadow Pipit,* is of Europe, North Asia, Japan, Asia Minor, West India (Gough), Nepal (Hodgson, Gray), and Pegu.

**ANTIHIPLUM.** Also Syly. A necklace made of coloured threads, worn by fakirs.

**ANTIALCIDAS,** one of the Greek successors to a part of Alexander's kingdom. Antialcidas succeeded Lysias in the Paramus, about n.e. 150, also in Nysa. See Greeks of Asia.

**ANTIARIS.** There are six or seven species recognised of this genus of trees, viz. *A. toxica,* *Lesch.,* the genuine ups tree of Java, the *A. inoxia, Blume,* and the *A. macrophylla, R. Br.* A fourth species (ramis foliisque utrinque velutinis) is cultivated in the Kew Gardens; the *A. saccidora, Dalz.,* of the western coast of peninsula India, is a fifth; the sixth is the *A. Zeylanica,* *Thevalis,* of Ceylon, which, like *A. saccidora,* yields sacks, but this author now refers it to *A. inoxia, Blume,* and a seventh is *A. Bennetti, Seemian,* the *Mau-nui* or *Ma-vmu-ni, Taga of the Tonga Islands; all are trees of great height.—*No. 58. Vol. 0, Ann. Mag. Nat. Hist.; Hook's Vegetable* p. 68; *O'Sh. p. 282; Thevalis Pl.; Zeyl. p. 268.*

**ANTHARIAS INNOXIA.** Blume. Sack tree. *Lepuranda saccidora, Nimmo.*


A stately forest tree, not uncommon in the drier parts of Ceylon, indigenous on the west side of India, in the ravines at Kandalla, and in the jungles near Coorg, and very common, and the most gigantic of all the trees in the Wynne jungles. The wood is good, although not much used; but Kurumbur bags or the Liber or inner bark by a very simple process is made into cloth. A branch is cut, corresponding to the length and diameter of the sack wanted. It is soaked a little and then beaten with clubs until the inner bark separates from the wood. This done, the sack formed of the bark, is turned inside out, and pulled down until the wood is sawn off, with the exception

**ANTHEREA MYLITTA.** Drury. This is a Tusseh silk moth of Ceylon, which feeds on the Terminalia catappa and Palma Christi. A. Papilia, *Linn.,* called Baghey in Northern India, is found in Assam, Bengal, Birbhum, and Behar, and feeds on the Zizyphus jujuba or Ber, and on the Assam. It has not been domesticated. Other species are, *A. Assam,* *Hesper, A. Fritibi, Moore,* *A. Helferi,* *Moore,* *A. Royley,* *Moore,* all of the Himalaya; and *A. Perottetti, Gner.,* of Pondicherry.

**ANTHERIUM,** a genus of the Liliaceae. A. anuum, canaliculatum, exuviatum, filifolium, fragrans, graminifolium, glaucum, Liliago, Nepalese, Nimmonii, physoides, ramosum, revolutum, tuberosum, vespertinum, grow or are cultivated in India.

**ANTHIA.** Some carnivorous insects are found ranging far to the north in the Himalaya, an example of which is *Anthia g-guttata,* a well-known native of the tropics. The specimens, however, are mere dwarfs compared with those of peninsular India, a fact which may be regarded as a proof that *Anthia* has here reached its extreme limits, and consequently will soon disappear, as is the case, and be represented by another type, fulfilling the same functions, only under a difference of form. See Insects.

**ANTHISTIRIA ANOTHERA.** Hooker, *Nees.*


This is one of a genus of grasses of the order Paniceae. It is abundant in parts of the Salt Range, Trans-Indus, and in the outer hills, from 2500 feet to 8600 feet. Madder mentions that in

Kamoan its roots are frequently luminous, whence it is there called jyotishmati.—Dr. J. L. Stewart.
ANTIALPINE.

A quick-growing, middle-sized branchy tree, common in Ceylon up to 3000 feet above the sea, also on the Coromandel and Malabar sides of the Peninsula of India, and found in Assam and in Nepal. It attains rather a large size in Assam, with a girth of two to three feet, a height of fourteen inches, but the wood, by immersion in water, becomes heavy and black as iron. The bark is used for making ropes. Its leaves are acid and diaphoretic, are used as decoction in snake-bites, and, when young, are boiled with pot herbs, like sorrel, and employed in syphilitic cachexia.—Rodh. iii. 758; Wight: Useful Pl.; Veg. King, p. 683; Thw. Zeyl. p. 299.

ANTIDESMA DIANDRUM. Roxb.

Stilago diandra, Wild. | Tella-gomoodoo, Tel.

This tree grows on the Northern Circars, in Ceylon, and Travancore; for various uses.

ANTIDESMA PANICULATA. Roxb.

Kholoo jami, ... BENG. | By-it-zin, ... BURM. | Kyet-tha-hen, ... BUM. | Boo-ambilla gas, ... SINGH.

This is a low, ramous tree, common in Ceylon up to 2000 feet above the sea; common in Bengal jungles, and found in the Rangoon, Pegu, Tungoo, and Tharawaddy forests. It has a light ash-coloured bark. On the same plant are notched, round, and pointed leaves. It flowers in April and in July, and bears a red, sour fruit, resembling the barberry. It furnishes a small crooked timber of a close grain, with the wood of a red colour, and adapted to cabinetmaking.—Drs. Mason, 'M'Clelland, Roxb. iii. p. 770.

ANTIDESMA PUBESCENS. Roxb.

Jeriam kotam, MALAE. | Jana palascha, Tel.

This small tree is a native of the Northern Circars; its bark is used for making ropes. The berries are eaten by the natives.—Roxb. iii. 770.

ANTIGONUS. Seleucus Nicotor, B.C. 305, gained a great victory over Niconor, a lieutenant of Antigonus. Seleucus, B.C. 303, crossed the Indus to wage war on Chandragupta, but, after a series of defeats, Antigonus, whom he defeated and slaying, was himself defeated and slain, B.C. 301. The name of Antigonus appears in the edicts of Asoka on the rock temples.

ANTILOPINE, the antelope, a sub-family of the Bovidae, is classed by Jerdon with the Bush antelopes or Tragelaphus of Blyth, and Desert antelopes, as under:—

Bushi Antelopes.

Portax pictus, Jerdon, The Nil-Gai.

Antilope tragocamellus, Plut. | Tragelaphus hippelaphus, Damalis rusa, H. Smith, Spitaly.

Maravi, ... CAN. | Ru-i, ... MAHI.

Guraya, Guriya, GOND. | Manu-pota, Tel.

Roz, Roh, ... HIND.

This is supposed to be the Hippelaphus of Aristotle. It is found from the foot of the Himalaya to the extreme south of Mysore. It does not occur in Ceylon, Assam, nor in the countries east of Bengal. It frequents the forests and low jungles, associating in small herds of seven to twenty. When caught young it is easily domesticated.—Jerdon.

Tetraoceros quadricornis, Jerd., 4-horned antelope.

Antilope chiekeha, Hardw. | Tragelaphus cristianus, Lecch.

A. sub-quadricornis, El. | T. iodes, pacecores, Hodggs.

Bhirul, ... BHILS. | Chouka; Chousingha, H. Kurus, ... BUSTAR. | Jangli Bakra.

Kend-guri, ... CAN. | Iheka, Bhiriki, ... MAHL.

Bhirikuru (male), GOND. | Konda-gori, Tel.

Bhir (female), Tel.
Throughout all India, Western Punjab, Sind, the Mulhad, and the lower hills and forests of the Himalayas, but not in Ceylon nor in the valley of the Ganges, nor the countries east of Bengal. It lives in jungly hills and open forests. It is strictly monogamous, and is always met with singly or in pairs. It is of a uniform bright bay colour. Mr. Elliot says the spurious young are so small as rarely to be met with in adult individuals. They arise from bony swellings immediately in front of the true horns. They are about two feet high, and the colour is various shades of brown. — *Opilg; Elliot; Jerdon.*

Desert Antelope.

**Antilope bzaorata**, Jord., Indian Antelope.

A. Cervicapra, PALL., **Ell.,** F. Cuv., **Hord.**

Alali (male) . . . . . **BAOR.**

Kabahi (black buck), **HIND.**

Gandoli (fem.) . . . . . **PHAND.**

Phandayat. do . . . . . **MAHR.**

Harin, . . . . . **BENG.**

Barat (male). . . . . . **NEP.**

Kalsar (male) . . . . . **BRIAN.**

Sasin (female) . . . . . **MRA.**

Miska . . . . . **SAH.**

Chigiri . . . . . **CAN.**

Irr (male) . . . . . **TEZ.**

Common antelope, **ENG.**

Ledi (female) . . . . . **JNKs.**

Indian antelope . . . . . **JNKs.**

Mung ; Harm (male), **HIND.**

Guria, Goria, **TIMH.**

Harina (fem.) . . . . . **KAL.**

The common antelope frequents the plains on the cotton soil of India. When they move off to avoid some object of which they have doubts, they often bound to surprising heights. Their swiftness is such that dogs have never, or only rarely, it is believed, captured a healthy one, but they are often run down by wolves, who drive and surround them, and the cheetas kill great numbers of them, usually selecting the bucks. About 1838, great herds of very many hundreds, with many outlying bucks, were to be met with in the Dekhian, but the hunting leopard, the cheeta, and the sportsman have so weeded out the bucks, that only small patches of three to twelve are now (1871) to be seen, and these all does, who, without the males, easily fall a prey. The bucks are of a dark black colour, and the younger bucks are driven off by the buck of the herd as soon as they begin to turn black, but fierce combats ensue before the buck of the herd is selected. The horns are from 19 to 25 inches long, with 4 or 5 flexures, and up to 50 rings or annuli.—*Elliot; Jerdon; Pers. Obs.*

**Gazella Bennetti,** Jerdon, Goat antelope.

**Antilope Arabica, Humprich, Elliot.**

**Antilope Christi, GRY.**

A. hazana, **IS. GOOF.**

**Antilope Sulphuret, Cutting, GRY.**

Dari, Zab, . . . . . **ARAB.**

**Gazella sub-gutturosus, KELD.**

Forsi (m.), Chari (f.), **BAOR.**

Chikara, kal-punch, **HIND.**

Taka, Hadari . . . . . **CAN.**

Kulal . . . . . **MAHR.**

Mudari . . . . . **HAD.**

Hazen . . . . . **MALWA.**

Ravine deer . . . . . **ENG.**

Burudu, jinks . . . . . **TEZ.**

The Indian gazelle is not known in Bengal or Malabar, but occurs in all other parts, and abounds in Hurriana, Rajputana, and Sind, preferring the open bare plains, or rocky plains or sandhills. It abounds in the Indian Peninsula, in the valleys of the sandstone formation, and generally among the jungles of the red soil to the eastward of the southern Mahatta country, in small herds of three, five, six, or more, but commonly a buck with two does. Mr. Elliot says the gazelle of Arabia is found in the islands of the Red Sea, particularly in Dhalak and on the western shore about Massowa, and all along the Abyssinian coast. The gazelle of Hauran and Syria are probably the same. The Dabi is the same as the Hebrew word in Deuteronomy xiv. 5, translated the Roe, and is the gazelle of the Arabian poets, who say, *'The eyes of the Dabi are the most beautiful of all. The ordinary height is about 2 feet, and its horns 10 or 11 inches.—*Elliot in Mad. J. Lit. and Sc.*

**Gazella Dorcas, Blyth.**

**Antilope Arabica.**

**Gazella Cora.**

Has been said to occur in western India, but is now known to be brought from Aden and Muscat.

**Gazella sub-gutturosus, Jerdon.**

A. Dorcas, var. Persica, **Rupell.**

**Persia, Sind? Beluchistan?**

**Kemas Hodgsonii.**

**Antilope Hodgsonii, Abel.** Pantholops Hodgsonii.

The Chirn of Tibet is a fine antelope, beautiful and stately, confined to the Bhot country, Tibet, and neighbouring territories, and appears to be wholly unknown on the southern face of the mountains. — *Opilg.*

**Procapra picta-candata, Hodgson, is the R gazelle of Tibet.**

**Antilope gutturosus, Pallas, of central Asia and China.**

**Saiga Tartarica, the Saiga antelope of Eastern Europe, Central Asia, and deserts of Tartary.**

**Jerdon, Mammalia.**

**ANTIMACHUS.** See Greeks.

**ANTIMONY, SULPHURET OF.**

**Ismed, koh'1, ARAB. Stibium, LA.**

**Tay-lak-younk, BURM. Kiang, MALA.**

**Peh- lah, CHIN. Antimonium, RO.**

**Spies-glas, DUR. Sauviera, SANS.**

**Blythii, DUR. ANJANA MAI, TIB.**

**Ter-Sulphide of A., ENG. Kohlu, Anjene.**

**Grey Antimony, Nilanjanimam, TI.**

**ANJAN, HIND.**

Anjana, Katuka,

This is obtainable in most eastern bazaars, and is used medicinally by native physicians, and by Mahomedan men for an eyelid application. Bases of iron and manganese and lead are often sold as surma. It is obtained in Coromandel, Saxony, Spain, Mexico, Siberia, Chin-kung-fu. China, the Eastern Islands, Siam, Pegu, Martaba, Amherst, and Beluchistan? but the best is from the Sarawak, in Borneo, and from Vizianagaram. The value of antimony is said to be found in the Salt Range near the Kali salt mine. Var quantities of antimony have been found by Major Hay in the Himalayan range of Spiti. A sulphide of antimony is found at Jagogglesh Kuhl in the Kangra district, and specimens were sent from Bajaun, and it has been found near Belaya by Major Boyd; it occurs massive in Beluchistan. Mr. O'Reily found it at the sources of the Atrax and large quantities of the ore have been dug up in the neighbourhood of Moulin. The first metal was found for the first time in Borneo in 1823, on the north-western coast of that island. It exists in several places there, but mines of it have been worked only in Sarawak. This ore is generally a lead-grey colour, possessing considerable spiciferous, and is met with, compact, and in rhomboids of considerable size, and variously modified. Pellet of antimony is a substance sometimes used with sulphate of copper for bronzing gun barrels, the iron decomposing the chloride, and depositing a thin film of antimony on its surface. The chief alloys of antimony are type metal, consisting of 3 lead and 1 of antimony; stereotype metal, lead and 1 antimony; music-plates consisting lead, tin, and antimony; Britannia metal, co
ANTIMUN.

ANTIS, WHITE.

W. D. Hitchcock.
destroy their cells and dig up their queen, a large shapeless white mass in the centre of the mound. A composition of lime, tar, and soap, in equal parts, boiled together and smeared over places where white ants appear, is a very effectual bar to their further progress. To protect the beehives, the ends are now usually laid on the wall, and the sides left unenclosed, so that the approach of these insects can be detected; and this opening also prevents dry-rot. The earth-oils of Burma are thought to be effectual preventative for their encoaches. In British Burma and Port Blair, where the majority of buildings are wooden structures, the whole of the timber is coated with earth-oil, which is laid on warm before the timber is put into the building, yearly coatings being also laid on prior to the rains. Sets of sugar-cane and other substances can be protected by steeping them for half an hour in a mixture of asaföxidla, 8 chittacks; mustard seed, 8 seers; putrid fish, 4 seers; bruised butch root or monkshood, 2 seers; with sufficient water to mix them in; the thick coating of the oil prevents the influence of the butch on vegetable life is known, and cannot be recommended where the product is to be eaten. Small quantity of arsenic, mixed with flour or oatmeal and moistened with molasses, made into a dough and placed near their tumuli, is said to ensure their destruction. The wood-oils from the various species of Dipterocarpis, applied to wood, prevents, it is said, the dry-rot, as also the attacks of white ants; and the addition of catechu to the oil greatly increases its preservative powers. To check their ravages, Captain Man recommends that timber be smeared over with a mixture of 3 of gambier and 12 of dammer oil. Captain Fraser advised that from ½ lb. to 4 lb. of hartal, the yellow sulphuret of arsenic, should be mixed with the concrete. Sulphate of copper or of arsenic mixed with the lime in immediate contact with timber, offers a ready method of preserving it from insects. A mixture of arsenic, alcohol, gum, and dhobia has also been recommended. Pound the arsenic and aloes, scrape the soap, mix with mud, and boil for an hour in a large pot half-full of water; when cold, fill up with cold water. It is applied as a wash. The practice which obtains in Rohilkhand is to char the ends of all rafters slightly, and then coat them over with coal-tar.

ANTUMORA. Beng. Isora coryfolia.

ANU, in Hindu legend, one of the sons of Yagati, one of the old fathers of mankind. Anu was the founder of one of the five great Turanian tribes, the Yadu, Turvasa, Druhyu, and Anu. He refused to exchange ages with his father. Among his descendants were Anga, Banga, Kalinga, etc.

ANU. Sum. Hair of the Arenga saccharifera.

ANUGA KAYA. Tel. Lagenaria vulgaris.

ANUGAMANJAP. In Brahmanism, the per-formance of sati by a woman whose husband has died in a distant country; a sandal, or any article of his clothes, may then represent him. It seems also to have the name of Anu-Marma. See Sahamanan; Sati.

ANULOMAJA. SANSK. In Hinduism, the offspring of two persons of different social position, of whom the father is of the superior class in the regular succession, as of a Brahman, and the woman of the Kshatriya class; when the order is inverted the progeny is termed Pratilomajaa.

ANULULU. Tel. Lablab vulgaris, Sari.

ANUPSHAHR, founded in the reign of Jahangir, is in the Bandalshahr district of the N.W. Provinces, on the west bank of the Ganges. About 100,000 Hindu pilgrims visit it on the full moon of Kartik.—Imp. Gaz.

ANUSASANAM, a quinquennial republication ordered by Asoka, of the great moral maxims inscribed in the Buddhist creed, viz. 1. Honour to father; 2. Charity to kindred and neighbour, and to the priesthood (whether Brahmanical or Buddhist); 3. Humanity to animals; 4. To keep the body in temperance, and (5) the tongue from evil speaking.

ANUVANSA, a Sanskrit list of ancient Indian kings.

ANUTLA. MAHR. Averrhoa bilimbi.

ANWARI, one of the most famous Persian poets. He lived in the 12th century. AFWAR-DUHUALLI, the Persian version of the Pariyāt Sūtra, q. v.

ANWAR-ud-DIN, a nabab of Arcot, with whom the British entered into alliances against the French, who were in alliance with Muzaffar Jung. See Ambur.

ANYANKA BHIMA, a prince celebrated in Orissa, who unfortunately killed a Brahman, and who raised numerous temples in expiation. He also endowed Juggurnath (Yoganna).

ANZARUT. ARAB., PERS. Sarcocolla.

AOD. ARAB. Aloes-wood or Eagle-wood. The eastern nations distinguish several kinds:—

Aod-i-Bahoor, Eagle-wood.
Aod-i-Baleasan, supposed to be the wood of Balsamodendron Kafa, Forsk.
Aod-i-Ghine, Chinese Eagle-wood.
Aod-i-Hindi, Indian.
Aod-i-Kamari, Mountain

Aod is used generally, in India, to designate the frankincense of the Boswellia, the Olbanum of the ancients, it is throughout the east, with Arabic and Persian suffix, it is also employed to name varieties of Eagle-wood, from the Aquilaria agallocha. Lane says Al-Aod is the source of the English lute, the French luth, and Italian lutes. Aod-us-Salib, or wood of the cross, is an ornament worn by Arab. women. It is a little round slender bit of wood, enclosed in a case of gold; supposed by Lane to be of Christian origin.—Lanie.

AODHYA, the modern Oudh.

AODIYA. HIND. A predatory tribe in the Cawnpur and Futehpur districts. They made remote excursions at particular seasons, in different disguises.—Wilson's Dictionary.

AOGRAH. FUSH. Rice boiled dry, and then mixed with buttermilk and eaten like porridge.

AOKHAL. HIND. Land reclaimed from waste and brought under cultivation.

AOLANIA, a Jat tribe residing in the Panipat district, following Hinduism, but they claim the Arabic appellation of Malik, or king, conferred upon them, they affirm, by some ancient prince to denote their sovereignty over other Jat tribes.

AOOS. HIND. Dhw. Aous-dhan, autumn rice a second crop of rice.

AORNOS. Military colonies of Macedonian, were established at Alexandria ad Caesaren Argeaeum and Bazira, and garrisons at Nysa, Ora.
Massaga, Peneclota, and Aornos, a mountain supposed by some to be Mahaban in the Pir Panjal or Mid-Himalayan range. General Court says that opposite Attock is a rock with all the peculiarities described. Quintus Curtius says, on a mountain that is topped by a castle, attributed to Raja Hody. Alexander the Great (leaving a corps of 10,000 infantry and 4000 horse to stand fast), in the spring of 327 B.C., led an army of 120,000 foot and 15,000 horse, composed of Asiatic mercenaries and Greeks, through the Hindu Kush to Kabal. Despatching thence a strong division by the Kabal valley to the Indus to prepare a bridge, he marched by the upper road into the Yuzufzai country, according to his usual policy of leaving no enemy behind him. Driven out of their other fastnesses, the highlanders took refuge in Aornos, which was believed in the Greek camp to have three defied Hercules himself. Winter was at hand, or had actually come on, but, discovering the one difficult path which led to the fort at the top, Alexander and Ptolemy, at the head of two divisions, each following the other, drove out the enemy in four days, by making a mound across a broad and shallow hollow which separated them from the besieged. Leaving all the hill country subdued behind him, the invader crossed the Indus, probably in March 326 B.C.

General Cunningham’s chief objections to the Mahaban hill as the representative of Aornos, are—1. It is a vast mountain of comparatively easy access, and of which no spur presents a very steep face towards the Indus. 2. The Mahaban hill is not less than 80 miles in circuit, whereas Aornos was not more than 200 stadia, or about 22 miles, according to Arrian, or 100 stadia or 11 miles, according to Diodorus. 3. The Mahavana hill was visited by Hwen Thsang in A.D. 630, and he describes it simply as a great mountain, which deriv’d its name from the Mahavana monastery, in which Buddh’a dwelt in a former existence from the name of Sarvada Raja. He says the only other possible positions are—the ruined cities of Takht-i-Bahai; the lofty isolated hill of Kurnar; the hill of Panjpir; the ruined fortress of Ranigat. Ranigat is situated on a lofty hill above the village of Nogran, which is just 12 miles to the S.E. of Bazar, and 16 miles to the N. of Obind. Its position, therefore, is strongly in favour of its identification with Aornos.—Cunningham, Ancient Geog. of India, p. 72.

AOU, a Tartar nomade village or camp. AP. HIND. A respectful term of address to Mahomedans, and Hindus, and Europeans, equivalent to ‘worship,’ you or thou being never used, only such terms as Ap, Janah, Pir-o-Mushrid, Sirkar. APA. TEL. Bauhinia diphylla, Buch. APAMARGAMU or Apamamra. SANSK. Achyranthes aspera, L.

APAMEA, daughter of Artabazus the Persian, married Seleucus, who gave her name to three towns. Koonnah, one of the three Apames, is situated at the point of a triangle formed by the confluence of the rivers Eniphrates and Tigris, and although now divided into a part town, it was formed a place of consequence. Koonnah is situated on a low flat, with apparently a rich soil, and along the river are low banks to prevent the country being flooded. At this spot some oriental traditions have fixed the garden of Eden.—Malcolm’s Persia, p. 141. See Koonnah.

APANDA or Astynges, son of Iasandria, one of the Kuianian dynasty of Persian kings.

APANG. BEN. Achyranthes aspera.

APARAJITA. BEN. Clitoria ternatea. Apa-rajita, in Hindisum, a form of the goddess Bhau-wani. The name is doubtless derived from the flower of the Clitoria. Aphrodite of the Greeks is supposed by Mr. Paterson to be the Aparajita of the Hindus. See Sacti.

APA SAHIB, a raja of Nagpur, who was defeated by the Indian army at the battle of Soeta-Baloochee, on the 26th December 1817. His real name was Mudaji Bhonsela, and he had succeeded by power to strangling Parsaji. Apa Sahib with his two chief ministers were finally ordered by the Governor-General to be sent to Allahabad, but on the night of the 12th-13th May 1818, Apa Sahib escaped, and took refuge in Gondwana, where the people protected him against all offers for him to be delivered up. Whilst in Gondwana, Chgim Shah and other of the Goud chiefs, and many parties, to the extent of 20,000 Pindari, Malrattas, and Arabs, joined him, or acted against the British in small parties in the valleys of the Nerbudda, the Tapti, and the Purna rivers; but a large plan of operations was matured by Lieut. Col. J. W. Adams, who in February 1819 penetrated into the mountains from the Nerbudda, took Chgim Shah prisoner, and Apa Sahib fled to Asirghur, from which he again fled to Ranjit Singh’s protection, and finally to that of the raja of Jodhpur, where he died, almost forgotten, in 1840. See Bhonsla.

APASTAMBA, an ancient writer on Hindu ritual and law, author of Sutras connected with the black Yajar Veda and of a Dharma-Sutra. These were translated by G. Buhler. Two recensions of the Taittiriya Sankha are ascribed to him or his school.—Dawson.

APASTAMBA, a Hindu ascetic mendicant, follower of the doctrines of Patanjali. He is said to have retained a posture so immovable, that the birds built their nests in his hair.—Ward, iv. p. 30.

APATE. See Insects.

APAYAATRITA. SANSK. One who has lost caste, and cannot therefore inherit.

APE. Keph. . . . ETHIOP. Kubbi, Keibi, . . . PERS. Kephos, Kepos. . . . GR. Kaki, . . . SIND. Koph, . . . HEH. Korangi, . . . TAM. Band’r, . . . HIND. Kothi, . . . TEL.

Apes form the sub-family Simiinae of the family Simiidae or Monkeys, of the natural order Primates. Apes are represented in Borneo and Sumatra by Simia morio and S. satyurs. The ancient Egyptians are said to have worshipped monkeys, and some of them in India are still reverenced by Hindus. Various kinds of Apes seem to have been made known to the Hebrews, Greeks, and Romans, by specimens brought from Africa and India; those known to the Hebrews probably from India, the Hebrew name Koph being almost the same as the Sanskrit Kapai.—Harris. See Mammals.

APHIS, a tribe of insects; one species of China is supposed to produce oak-galls. Aphis coca, the coffee-louse, is found in small galls on the young shoots and on the under side of the leaves of the cocoa-nut tree, but the injuries it occasions are insignificant. Firminger says (p. 45) a species of Aphid is the most injurious of all the
many insect enemies of the sugar-cane. It usually appears after long-continued dry weather, and disappears on a downpour of rain. Moore notices A. kakrasingha and A. pistaceae. See Insects.

APHORISMS or Sutra are the usual mode of instruction followed in the Hindu Vedas, liturgical books whose sacred character Hindus still acknowledge. Sutra were adopted in the fourth period of the Hindu progress, about B.C. 1000, and the ceremonial prescriptions were reduced to a more compact form, and to a more precise and scientific system. The aphorisms of the Nyaya philosophy, of the Mimansa and Yoga, were reprinted in Sanskrit and English about the middle of the 19th century, by Professor James Ballantyne of the Benares College.—Max Müller.

APHRODISIACS. Several oriental races eagerly search for substances of this nature, and parts of fishes, insects, molluscs, and plants have a high reputation. With the Chinese, the gelatinous fins, air-bladders of fish, the nests of a species of swallow, and some molluscs, are greatly esteemed, also musk-rats' tails.

APIACEÆ of Lindley, the Umbellifere of Jessieu, are the celery tribe of plants. They number above 1000 species; upwards of 120 belong to the S. and E. of Asia; several are used medicinally.

APIS, the sacred bull of Egypt, was chosen by the priests of Memphis for its black and white spots; and Mnevis, the sacred bull of Heliopolis, had nearly similar marks. The Jews, in preparing their water of purification, were ordered, in Num. xix. 2, to kill a red heifer without a spot. Amongst the Egyptians, the solemnities at the burial of Apis were entirely Bacchic. The priests did not wear the nebris or deer skin, but they wore the panther skin, and carried Thyrsus staves. The sacred bull of the Hindus, Nandi, the vahan of Siva, is carved in black stone, seated, looking at the lingam.—Bunsen, i. 432. See Sacrifice.


This temperate climate plant, acrid and poisonous when wild, is much cultivated wherever Europeans settle, and is grown in India in the cold weather. Its seeds are sold as medicine in every bazaar of India. Its essential oil, dissolved in strong spirit, forms an essence a drop of which suffices to flavour a tureen of soup.—Voigt, 29; O'Sh. 357; Stewart.


Cultivated in gardens in Bengal for the seed, which is used in diet and medicine. Its fruit very hot and carminative, good in dyspepsia, much used in all usalas.—Roxb.; Dr. Irene; O'Sh.


The root is exported from India to China, where it is used as incense. There are two kinds, viz. Kust-i-shirin and Kust-i-talkh. It has been referred to Aucklandia costus, Falconar, also to Costus arabicus and C. speciosus.

APOCYNACEÆ, a natural order of trees and shrubs, including nearly 100 genera, with about 400 species, about half of which are found in the S.E. of Asia, Arabia, Ceylon, the Peninsulas of India and Malacca, Bengal, Nepal, and Java. The Apocynaceae abound in a milky juice, with which some acrid principle is frequently combined, rendering the whole suspicious and many highly dangerous. Of the milk of the Hya-hya, or milktree of Demerara, and of a species of Tabernanthe, Arnott, are said to be innocuous. In Sumatra, Urcecola elastica yields caoutchouc, as A. Veaha does in Madagascar; and bird-lime is prepared from the Vocaenga, as in India, from species of Ficus. Nerium pisiculium yields a strong fibre, etc. Willoughbeia edulis also yields caoutchouc. Several yield good timber, as Wrightia coecinna, which for its lightness and strength is used in making palanquins in the south, while in the north of India that of W. mollissima is used by turners. Holarrhena pubescens (kooma) yields a light wood, and species of Strychnos, some of superior quality. The bark and seeds of Wrightia antisyenthera have long been employed by the Asians, and are the Tiwaj and lissan-ul-asafir of the Arabs. The Hindus call it indurjup, and distinguish the seeds by the name of indurjup shireen (mild) from those of Holarrhena antidysenterica and H. pubescens, which they call indurjup talkh (bitter). Ichnosperma frutescens is sometimes used as a substitute for sarsaparilla; and Ophioxyylon serpentina has derived its specific name from its employment in snake-bites. One of the orders furnishes the lacewood of Moulmein, a tree found all over the provinces. The Karens make bows of it, but prefer Cassia fistula. Mr. Mason says the tree belongs to the dogbane tribe, and is not at all related to Guatteria virgata, the lacewood of commerce. The principal genera of the E. Indies are:—

<table>
<thead>
<tr>
<th>Alambada</th>
<th>Ephexysanthus</th>
<th>Ramwolfia</th>
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<tr>
<td>Alstonia</td>
<td>Helianthus</td>
<td>Rejona</td>
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<td>Calipircarpum</td>
<td>Ichneumoncarpus</td>
<td>Tabernanthe</td>
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<td>Carissa</td>
<td>Kitahalia</td>
<td>Thevetia</td>
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<tr>
<td>Cerbera</td>
<td>Lecenotus</td>
<td>Urcecola</td>
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<td>Cinnamon</td>
<td>Melodinus</td>
<td>Vemca</td>
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<tr>
<td>Chloropannum</td>
<td>Nerium</td>
<td>Willoughbeia</td>
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<tr>
<td>Copia</td>
<td>Ophioxyylon</td>
<td>Wrightia</td>
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<tr>
<td>Echaltium</td>
<td>Plumiera</td>
<td>—Mason's Burma; Royle, Himal. Bot. 271; Voigt.</td>
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APOCYNUM JUVENTUS, Smith, the Ho-shau-wu of the Chinese, grows in Su-chau-fu, Kang-su, Kwang-tung, and Kwang-si. Its root is believed by the Chinese to prolong life, and it is used internally medicinally.—Smith.

APOLLO The Greeks is the analogue of the Hindu Krishna, whose favourite place of resort was a tract of country around Agra, and principally the plains of Muttra, where Krishna and the nine Gopias, evidently the nine Muses, usually spent the night in dancing. Krishna, Hindus call it, and the Apollo of the Greeks was so named Nomios, or the pastoral, and Opfer in Italy, who fed the hero of Admetus, and slew the serpent Python. The Apollo of Edessa also was called Monimos. He was identical at Babylon with the Phoenician god Esmun. Krishna and his Gopias are represented as well in their characters of Apollo and the Muses, as in those of the sun and the planets in harmonious movements round him.—Coleman.

APOLLODOTUS. Of the Greek successors to Eucritudes, Apollodotus and Menander alone are
mentioned by classical authorities. Apollo was ruling at Patalene, Syracusae, and Larissa about
C. 165. According to Colonel Tod, the Yavan, or Greek princes, who apparently continued to
rule within the Indus after the Christian era, were either the remains of the Bactrian dynasty, or the
independent kingdom of Dementius or Apollothotus, who ruled in the Punjab, having as their capital
Sagala, changed by Dementius to Euthymedia. Beyer says, in his Hist. Reg. Bact. p. 81, that,
according to Claudius Ptolemy, there was a town within the Hydaspes, yet nearer the Indus, called
Sagala, also Euthymedia; but he scarcely doubts that Dementius called it Euthydemia from his father,
after his death and that of Menander. Sagala is conjectured by Colonel Tod to be the
Salamboppura of the Yadu race when driven from Zabulistan, and he supposes that the Yu-chi or
Yu-ti, who were fixed there from Central Asia in the fifth century, and if so early as the second
century, when Ptolemy wrote, may have originated the change to Yuti-madia, the 'Central Yu-ti.'
Numerous medals, chiefly distinguished by the probable
nature of the currency of Sagala, either
belong to these princes or the Parthian kings of
Mingara on the Indus. The legends are given in Greek on
one side, and in the Sassanian character on the
reverse. The names of Apollothotus and Menander have been deciphered, and the titles of 'Great
King,' 'Saviour,' and other epithets adopted by the
Arsacideae, are perfectly legible. The devices,
however, resemble the Parthian. These Greeks
and Parthians must have gradually merged into
the Hindu population.
—ToD's Rajasthan, i. p. 233.

See Greeks of Asia; Kaba.

APOLLONIUS OF Tyana, lived about A.D. 50.
It is related in his Indian travels that Phraotes,
who ruled over the kingdom which Porushad
swayed, spoke Greek, and was versed in all the
literature and philosophy of Greece. In his life
by Philostratus, he is stated to have visited the
brahmans on the hills north of Sri-nagar, now
called Triloci Narayana, near the Kedara Ganga.
Their chief, Jarchas, stated that Ethiopians had
resided here under a ruler, Ganges, and that
this was the place where the gods of Egypt
visited Apollothotus having visited India, or Ethiopia, or Babylon.

APONOGETON MONOSTACHYON. Willde.
Sarna Kalanga, Can. | Kotti Kalang | TAm. | Beechoo; | HInd. | Kutli Gallida | Tel. | Kakangi; | SANSK. | Name Dampa; | "
A perennial aquatic plant of the Bengal
India, growing in shallow standing water and the
beds of tanks, flowering during the rainy season.
The natives are very fond of the small tuberous
roots as an article of diet. Several species grow
still, sweet watery places of India. Roxburgh,
i. 211, mentions A. echinatum, A. microphyllum,
growing in the Bhutan mountains, A. undulatum
in Bengal. A. crispus, Thunb., of India and N.S.
Wales, has tuberous roots, small but starchy, and
of excellent taste.—Von Mueller; Atiassee; Rox-

APOROSA LINDLEYANA. Wright.
Seacca Lindleyana, W. IC.
This tree is abundant throughout Coorg and the
Vynad, up to 4000 feet elevation; is met with
throughout the Madras western forests, in Bombay,
also in Ceylon, up to 2000 feet; and it is also
found in Sikkim. The wood is in use for building
and other purposes. A. acuminata, fusiformis,
latifolia, and lanceolata, are small trees of Ceylon.—

APOSTLE. A term sometimes applied in
European literature to Mahomet, but his followers
only recognise the appellations of Paighambar and
Rassul Allah, the Messenger of God.

APPA. TAM. Apupa, Tel. Unleavened cakes
of rice flour and coccus-mil nut, called Hoppers.

APPA. Tel. Appan, TAM.; APA, MAH. A term
of respectful address, a father, as Rangappa;
Govind Apa. Apa in Tulva means mother.

APPEL. MEALEAL. Premna integrifolia, Roxb.

APPER, one of three celebrated votaries of
Siva, who composed a portion of the poem Deva-
ram, which forms part of the Tamil Veda.

APPLAGARAM. TAM. Barilla.

APPLE. A term applied in India, to the
fruits of several plants,—Cashew apple, Custard
apple, Love apple, Pine apple. Rose apple, Greater
wood apple, Lesser wood apple, the apple proper,
Pyus malus. The apples of Solomon's Song are
the quinces or the Cydonia sativa. The apple-
tree of Australia is the Angophora lanceolata.
The common apple, Pyus malus.

Tuffah, ABAR. Sal, Seco, | HIND, PERS. | Pin-kwoh, | CHIN. | Poeno, | IT. | Hwa-hung, | CHIN. | Malus, | LAT. | Pomme, | FR. | Soba, | PERS., SANSK. | Melea, | GR. | Manzana, | SP.

This is naturalised in several parts of India.
In China, it is cultivated in Honan, Feh-chih-li,
Hup-ch, Shun-te-fu, and Ho-ki-en-fu.

APPOCOVAY. TAM. Bryonia rostrata.

APPROVERS. in India, are criminals who
have been tried and convicted as having been
bound to a band of Thug murderers or Dacoits,
but who, having made a full confession of their
crimes (in some individual cases amounting to
the murders of as many as eighty persons), and having
denounced their associates, have received a condi-
tional pardon.

APRANG, also Rangbhurat, Dam-ual-akway,
and Hira-dakan, a gum resin, a beautiful kind of
kino, brought to Ajmir from Bombay; con-
sidered very astrigent. It is given in intestinal
hemorrhages, and is also used in enamelling on
gold; four tola one rupee.—Irvine, Ajmir, p. 126.

APRICOT, Prunus Armeniaca.


In India the tree has been naturalized. The
fruit is greatly esteemed in Persia, Syria, Arabia,
Afghanistan, etc. Moorcroft mentions ten varieties
grown in Ladakh, all of them raised from seed,
except one, which is budded. The stones are sold
as 'Sari' in the Himalaya, and called also 'Magh
khumbi.' Apricot oil (Raughan-i-khubani), of the
finest kind, is made by expression from the kernels.
It is clear, of a pale yellow colour, and smells
strongly of hydrocyanic acid, of which it contains
usually about 4 per cent. This is a hill product
next Simla, and near Kanaur, as also near Kangra.

—Powell's Handbook, i. p. 422; Dr. Royle;
Birdwood, p. 154; Moorcroft's Darwin, Var., etc.

APSARAS. SANSK. In Hindu mythology,
nymphs of Swarga, the celestial court of Indra, celestial dancers, celebrated for their beauty.
AQUILINE.

Amongst them is Remba, the popular Venus of the Hindus, and some others are described to be of inconceivable loveliness. They symbolize the floating clouds of the upper sky, or personifications of the vapours extracted by the sun. In Indra's court they are forty-four in number,—thirty-four worldly and ten divine,—and arranged in fourteen gada or bands. They are the types of the swan maidens of German folk-lore. They answer also to the Pari of the ancient Persians, and the damsels called in the Koran, Hur-ul-ayn, the antelope-eyed Huri. Sir William Jones thus describes them in Swarga:—

'Now, while each ardent Cinnar persuades
The soft-eyed Apsara to break the dance,
And leads her loth, yet with love-beaming glance,
To banks of jasmine and champaca shades,
Celestial genii toward their king advance,
So call'd by men, in heav'n Gandharvas named.'

According to Kshatriya belief, Kshatriya warriors slain in battle are transported to Indra's heaven by these Asparases. Manu, v. 89, says, 'Those rulers of the earth, who, desirous of defending each other, exert their utmost strength in battle, without ever averting their faces, ascend after death directly to heaven.' And in Book ii. 19 of the Nala, Indra says, 'Why are no warriors slain now-a-days, that I see none arriving in heaven to honour as my guests?—'—Coleman, Hind. Myth. ; Sir William Jones, Hymn to Indra, vol. xii. pp. 270 and 273 ; Williams' Story of Nala, p. 140.

APTA. MAHR. Baulinia parviflora, B. racemos.

APTERA. Example, fleas and lice. See Insects.

APTIMUN, HIND. Also Amr-Bel. A yellow-coloured parasite creeper, often seen on babul trees all over India. The entire plant is used in native medicine, in 'munj,' or musil, a diluent form of medicine, employed preparatory to giving a purge. The Aptimun Wilayti is an extract of the Aptimun plant from Bombay, and is used in the same way as the plant.—Irene, Ajmir, p. 125.

AQUA MARINE.

Seing, BURM. Patsa kallu, TAM. Zamarrud, PERS.

This is found in the south of India, where it is classed as an inferior emerald. Chrysoberyl is often found among the Tora hills near Rajmahal, on the Burman, in irregular rolled pieces, small, and of a light green colour. These stones are sold as emeralds by the natives under the name of punna; but the native dealers are aware that they are softer than the real emerald of India, which is generally green-coloured corundum. The oriental emerald is often seen in Burma, but beryl and emeralds are brought from the north of Ava.

AQUEDUCTS, in S.E. Asia, are chiefly known as underground tunnellings, designated throughout Persia, Beluchistan, and India as Kanat and Karez.

AQUARIUM ALGALLOCHA. R. Alces-wood.

Yellaujju, ARAB. Agar, HIND.

Ayloogi, Ayulugin, Ayabureli, Bos, A. vau, A. agallochum, KALAM, MALE.

Ugoor or Ag' r, BENJ. Kalamba, MALAY.

Eagle-wood, ENG. Kaya gahru.

Calambe, SANSK. Agaru.

Bois d'Aigle, Fr. R. Krishna agaru, Tel.

Ag' r, HIND.

This is an immense tree, a native of the mountainous tracts E. and S.E. from Silhet, in lat. 24° and 25° N. Roxburgh mentioned that the real Calambe or Agallochum of the ancient

is furnished from this tree; and though, in his time, small quantities of the fragrant resinous wood were imported from the eastward, the imported articles were always considered inferior to that from Silhet. Dr. Mason also is of opinion that the Ag. algallchum produces the fragrant ligna-ales, or wood-ales, which is offered for sale in all the bazaars on the Tenasserim coast, and is the produce of a tree that grows on the Mergui islands. It is imported into Mergui by the Selung race, who, as they profit from the trade, endeavours to keep all in ignorance of the tree from which they obtain it. The Hebrew and Greek names are 'derived from the Indian name of the tree, agil, Sanskrit agaru and agamu.' The chief consumption of aloe-wood is in Siam and China, where it is burned in the temples. It was used in Napoleon's imperial palaces as incense. The wood is heavy, yellowish—white, shaded with green—brown, spongy, and resinous; its taste aromatic, its odour in combustion very agreeable.—O'Shaughnessy ; Mason ; Malcom's Tr. p. 191 ; Taylor's Ill. Ind. Bot. 173 ; Roxb.; Voigt; Vegetable Kingdom; Mad. Ex. Jour. Reports. See Aod.

AQUARIUM MALACENSIS. Linn. A. ovata of Botanists. —Bois d'Agle de Malacca.

This tree, a native of Malacca, China? and Ceylon? It has a whitish timber. Roxburgh seems to regard this as identical with A. algallchum of Silhet, but others recognize it as a separate species.—Roxb. ii. 422; Voigt, 306; Veg. Kingdom, 629.

AQUARIUM SECUNDARIA? This tree has a white and inodorous timber, but when dried, it secretes a resinous matter said to be the true Eagle-wood.

AQUARIUM SINEHIS. Spreng. Ophiop-spillum Sinense, Lowyreio.

Pa-mou, CHIN. Pah-mu-yang, CHIN. A tree of China.—Voigt.

AQUILEGIA. In India, several species are known as ornamental flowering plants. Their name, literally, the Water Gatherer, is because the leaves collect water in their hollow.—H. f. et T. p. 44; Veg. King. p. 18; Voigt; Riddell.

AQUILIN.E, a sub-family of the family Fal-conidae, comprising the True Eagles, the Kite Eagles, the Hawk Eagles, the Serpent Eagles, Fishing Eagles, as under:—

1. TRUE EAGLES.

Aquila chrysaetos, Linn., The Golden Eagle.

Falco chrysaetos, Linn., Gould, Blyth, Horstf. nugor, Gmelin.

melenanota, Lath. Aquila daphneina, Hodgson.

nobilis, Pallas.

Burkut, TARTAR. Bear coote of Atkinson.

It inhabits the greater part of northern and central Europe, Asia, America, and has been found in the Himalaya. In Central Asia, it is trained by the Kirghis and other nomades to kill antelopes, foxes, wolves.

Aquila imperialis, Bechst., Imperial Eagle.

Falco imperialis, Bechstern, Gould, Blyth, Jerdon.

Aquila moghilnik, Gmelin.

helacca, Sav. bifascieta, Gray and Horsw., Skey, Jerd.

Nepalensis, Hodgson.

chrysaetos, Jerdon.

Frus, BEN. Jumiz, Jumbliz, HIND. The imperial eagle ranges in the south of
AQUILINÆ.

Europe, North Africa, West and North Asia; it inhabits the Himalaya, is not uncommon in central India and on the table-land of India, but is rare in the Dehkan.

*Aquila nevia*, Gmel., The Spotted Eagle.


Aquila melanoaetus, Sauv.

" clanga., Pullos.

vittata, Hodg.

Bukyari Jiyadha., Beng. Kal-janga., HIND.

Black kite., ENG. Nella-godha., Tel.

It is found in the south and west of Europe, North Africa, and West Asia, and throughout India, especially in the neighbourhood of cultivation, tanks, marshes, and paddy fields, and common in the Sunderbunds.

*Aquila fuscens*, Gray, The Tawny Eagle.

Aquila punctata, Gray and Hardw.

" fusc., ENG. Franklin, Jerdon.

" vindiana., Franklin, Jerdon.

" clanga., Pullos.

Wokhah., HIND. Salwa., Tel.

Ali., TAM. Dhohwa of the WAGH.

Alawa., Tel. Bursawul of the YERKALA.

It is found throughout the greater part of India, except in the more moist and wooded portions, but is unknown in Bengal and the Malabar coast, and does not extend into the Indo-Chinese countries. It is a very noisy, shrill-screeching bird. It builds on high trees.

*Aquila hastata*, Less., The Long-legged Eagle.

Spisaetus punctatus, Jerd. | Limmnaetus unicolor, Blyth.

Jiyada., Gutimarr, HIND. | Pahari Tisa., HIND.

A small, handsome eagle of Bengal and the south of India.

*Aquila pennata*, Gmel., The Dwar Eagle.

Aquila minuta, Brehm. | Spisoetus milnoides, Jerd.

Dutaqua striphata, Hodg.

Garden eagle., ENG. Gilri mar., HIND.

Field kite., TAM. Punja Pranala., Tel.

Baghati Junia., HIND. Odadal godha., Tel.

This eagle is found in the south of Europe, North Africa, West Asia, and throughout India, frequenting groves of trees, gardens, and cultivated land. The crows readily distinguish it, and pursue it clamorously.

2. KITE EAGLES, viz.


Aquila, Blyth., Jerd.

Aquila penniger, Hodg.

*Heteropus*, Hodg., Horsf.

Nisaetus ovivorus, Jerd.

Heugoung., BLOT. Adavi nulla godha., Tel.

Lumkonh Bong., LEP.

It occurs in the hilly and jungly districts of India, in Malabar, Wynad, Western Ghats, Nilgriefers, Central India, and Himalaya.

3. HAWK EAGLES, viz.

*Nisaetus Bonelli*, Temm., Crestless Hawk Eagle.

Aquila, Temm.

Aquila, Blyth.

Aquila, Horsf.

Eutolmesmus, Blyth.

N. nivens., Jerd.

Peacock killer., ENG. Rajali., TAM.

Hare do., Kunding salawa., Tel.

Mohr-angah., HIND.

This magnificent eagle is found throughout India in hilly and jungly districts.

*Limmnaetus niveus*, Temm.

Aquila limmaetus, Vigors, Horsf., Blyth.

Nisaetus pallidus, Hodg.

The Sadal of Bengal has been found in the tracts between the Himalaya and Calcutta.

Limmnaetus cristatus, Temm., Crested Hawk Eagle.

Aq. Elliott, Jerd. | F. cirrhatus, Gmel.

Falco Lathami, Tickell.

Shah Daa., HIND. Juta Bhashi., Tel.

Found throughout central and southern India, Bengal, East and West Ghats, and Himalaya.

*Limmnaetus Nepalis*, Hodg., Spotted Hawk Eagle.

Nisaetus Nepalis, var. cristata, Hodgs., Blyth.

N. pelcheri, Hodgs.

Falco orientalis, Temm. and Schlegel.

Koch., BLOT. Kanaha., CHIL., LEP.

This splendid hawk eagle has been found in the Himalaya, Darjiling, the Khasaya hills, and Ceylon.

*Limmnaetus Kienieri*, De Sparer.

Astur, De Sparer, Blyth., Horsf.

Spisetaus albogularis, Tickell.

This beautiful rufous-bellied hawk eagle has been found in the Himalaya, Darjiling, and Central India. Another species is *L. Caligatus*, Horsfeld.

4. SERPENT EAGLES.

*Circaetus Gallicus*, Gmel., Common Serpent Eagle.

C. brachyacutus, Meyer, Sykes, Jerd.

Falco, Gmel., Blyth., Horsf.

Sap mali., BENG. Pamula-godha., Tel.

Mal-patar., CAN. Rawul of the WAGH.

Samp-mar., HIND. Kondaste of YERKALA.

Pamu prandu., TAM.

Found all over India, generally in open plains. Its chief food is snakes, guanas, and lizards, but it eats also crabs, rats, wild birds, frogs, centipedes, and large insects. They have been caught on the ground with their claws on the snake’s head, its body coiled round the bird’s wings.

*Spilornis cheela*, Gray, Crested Serpent Eagle.

Falco, Daudin, Blyth., Horsf.

" albidus, Can., Temm.

" plumbeus, Hodg., Blyth.

Circaetus undulatus, Jerd.

" Nepalis., Hodg.

Buteo bachen, Franklin, Sykes.

B. melonotus, Jerd.

Tilai baj, Sam chehr, BENG. Botta Genda., COND.

Furj Baj., HIND. Murahy, MAC.

Goom., CAN. Nalla pamula godha., Tel.

It is found all over India, in jungly districts; also in Assam and Burma. It lives on snakes, lizards, frogs, and large insects; it has a plaintive, wild cry.

*Spilornis bachea*, Daudin, the F. bido, Horsf., inhabits Java and Sumatra.

*Spilornis spliogaster*, Blaine, India and Ceylon.

*Spilornis holospilus*, Vigors, inhabits the Philippines.

5. SEA EAGLES or FISHING EAGLES.

*Pandion haliaetus*, Linn., The Osprey.

P. indicus, Hodg.

P. fluvialis, Sm.

Mach morol, Bala., BENG. Macharang., NEPAL.

Mach mungo., HIND. Verali, adjid pong, TAM.

Macharyara., KORAMAN godha., Tel.

Panting., LEP. Heggulu of the YERKALA.

The fish-hawk of Europe, Asia, and Africa, is spread all over India; it is frequently robbed of its prey by the Haliaetus leucocephalus.

*Poleutoxus ichthyatus*, Horsf., White-tailed Eagle.

Falco, Horsf., Blyth.

" albidus, Hodg.

" plumbeus, Hodg.

Pandion, Horsf.

Haliaetus, Jerd.

" Horsfieldi, Hodgs.

Pandion leucurus, Jerd.

" lucarius, Hodg.

Mach morol., BENG. Madhury., HIND.

It is spread over most of India, Sangor, Bengal, Burma, and all the Malay countries. Its chief
food is fish, but it carries off birds, as teal and ducks.

_Polioetus, sp._
Pandactes humilis, _Temm._ | Ichthyoborus musius, Blhth.

A native ofMalacca and the islands.

_Haliatus fulviceenter_, Vieliot, Ring-tailed Sea Eagle. Falco Macc, _Temm._

_Haliatus Macc, Blhth, Hor._

" Albipes, Hodgs., 

" lanceolatus, Hodgs. 

" unicolor, Gray, Hardw. 

_Bala koral, _ | _Beng._ Macha mang. | _Hind._

_Machikoral, _ | _Kokas, Ugan. | _Kol._

_Machikang, _ | _Hind._

This fine fish eagle is abundant in Bengal, and found in all the north of India, ascending the Ganges and the Indus rivers. It lives on fish, but eats also snakes, turtle, etc.

_Haliatus levecoaster_, Gm., Grey-backed Sea Eagle. 

_Diagrus levecoaster_, Blhth.

_Falco diagrus, Daudin, Jerd._

" dimidiatus, Max._

" Martius._

" cultrungis, Blhth.

_Kohassa, Samp-dhar, Hind._ | _Ali._ | _Tam._ | _Tel._

Found all over India, Burma, Archipelago, but chiefly on the coasts, and up some of the larger rivers; lives on sea-snakes, fish, rats, crabs. It habitually robs the osprey._—_Jerdon, Birds, i. pp. 64, 84._

_AR. Tam._ A river; a common postfix in Tamil countries, as Pal-ar, Ady-ar, etc. Ar, a river, is early Scythic or Kushite Babylonian, and the word is found in the Ar-Melah of Pliny and the Ar-Macales of Abydenus, terms used to designate the Nahr-Melah, or royal river of authors._—_Raeul._ i. 2._

_AR._ An ancient word entering very extensively into the language of the Indo-Germanic races, and supposed to be the source of the term Aryan. It seems to be connected with the original term for one of the first of avocations, namely, ploughing and the plough. In the western hemisphere, the answer will be remembered which was said by the Delphic oracle to Myson, when Anacharis inquired who was the wisest man in Greece: 'He who is now ploughing his fields.' Into the Indo-Germanic languages the word has been adopted in various ways connected with the earth, the fields, ploughing, and field implements. The root ar means to plough, to open the soil; and from it we have the Latin ar-are, the Greek ar-on, the Irish ar, the Lithuanian ar-ti, the Russian or-ti, the Gothic ar jan, the Anglo-Saxon er-jan, the modern English to ear. Shakspeare says (Richard II. iii. 2), 'To ear the land that has some hope to grow.' From this we have the name of the plough, or the instrument of earing—in Latin, ara-trum; in Greek, aro-tron; in Bohemian, orato: in Lithuanian, arkla; in Cornish, aradar; in Welsh, arad; in Old Norse, arthr. In Old Norse, however, arthir, meaning originally the plough, came to mean earnings or wealth, the yor, being, in early times, the most essential possession of the peasant; in the same manner as the Latin name for money. The act of ploughing is called aratio in Latin, arosis in Greek; and Max Muller believes that aroma, in the sense of perfume, had the same origin, for what is sweeter or more aromatic than the smell of a ploughed field? A more primitive formation of the root ar seems to be the Greek era, earth; the Sanskrit era; the Old High-German ero; the Irish ire, ironn. It meant originally the ploughed land. Besides, the simple ar in Old Norse means ploughing and labour, and the Old High-German art has likewise the sense of ploughing. Arwose and arvum, a field, would certainly have to be referred to the root ar, to plough. The English word plough, the Slavonic ploug, has been identified with the Sanskrit playa, ship, and with the Greek plion, ship._—_Mullers Lectures, p. 242; Taylor's Words and Places; Muller's Chips, 1864._

_ARA_. SCYTIC. A mountain. The word is not to be found in any Sanskrit dictionary with this signification, yet it appears to be a primitive root possessing such meaning, as we have Ar-budha, hill of Buddha; Aravalli, hill of strength; Aravinda, hill of limit.

_ARABIA_. In the S.W. of the continent of Asia, is about 1430 miles long and 1200 miles broad. The ancient Greek and Roman geographers divided Arabia into A. Felix, A. Petraea, and A. Deserta. The first nearly corresponds to the modern Yemen, but included Mahraw and Hadramaut; the second, the modern Hejaz; the third extending N.E. from A. Felix as far as the Egyptian deserts. The Arab authors, however, have included the whole peninsula under Yemen and Hejaz; while others, into Yemen and Hejaz, Nejd, the Tehama and Yemena. Hadramaut, Mahraw, Shehr, and Oman have also been reckoned independent provinces by some, while others include them in the two great divisions, Yemen and Hejaz. It is also known to the people as the Balad-ul-Arab and Jazira-ul-Arab. It has a central table-land surrounded by a desert ring, sandy to the south, west, and east, and stony to the north. This outlying circle is in its turn girt by a line of mountains, low and sterile mostly, but in Yemen and Oman of considerable height, breadth, and fertility; while, beyond these, a narrow rim of coast is bordered by the sea. The middle table-land occupies half the peninsula, and the whole of Arabia is about two-thirds cultivated or cultivable, the remaining third being ir reclaimable. All the western parts of the Arabia peninsula, from Suez to Aden, including Palestine, the Hejaz, Mecca, and Yemen, are often spoken of as nominally subject to the Othoman Empire; but at Mr. Palgrave's visit, the more northerly parts, from lat. 26° to 32° N. into the Syrian desert, and eastwards to the Euphrates, were subject to the king of Shammar, the more important of whose territory surrounded Jabil Shammar; and the Wahabi king owned the tract from the shores of the Persian Gulf westward to the Hejaz, with Shammar on the north, and the great desert on the south. The sway of the king of Oman extended along the eastern shores from Bahrein to Dostra. Mesopotamia, Iraq, and the plains north of Palmyra are part of Arabia, forming with the Hadad a region uniform in its physical features and in the race which inhabitants it. The Shammar, Anazeh, and the Jelif tribes are as purely Arabia as their kinship of Nejd, and the villagers of the Euphrates and the Jof as those of the Hejaz and Yemen. The lands of northern Arabia, since the 15th century, have, however, been repeatedly fought for by Bedouin tribes. But up to 1880 the Shammar were supreme in Mesopotamia, and the more powerful Anazeh in the Hamad and as far north as Aleppo. Since 1862, the Turkish Government have marched.
down the valley of the Euphrates, and taken military possession of Jaber and Deyr; and several towns have been taken to suit culture. The Shemmar Bedouin of Mesopotamia have above twenty sections, in all about 12,000 tents. Their allied tribes, nine in number, have about 30,000 tents. The Anazeh Bedouin have nine sections, in all 27,500 tents, with four allied tribes possessing 2400 tents. The Amur, Aduan, Aluin, Beni Sakkhr, Lehep, Sherarat, and Saleb are independent tribes of the upper desert and Hamad. Under the partial control of the pashalik of Bagdad are six tribes, amongst them Montefik, with 8000 tents, partly Bedouin, partly Fellah, inhabiting Irak.

The present Arabians, according to their own historians, are sprung from two stocks,—Kah- tan, whom they claim to be the same with Joktan or Yoktan, the son of Eber; and Adnan, descended in a direct line from Ishmael, the son of Abraham and Hagar. The Arabs of the south are regarded as descendants of Kahitan, and those of the north, of Adnan, of the blood of Ishmael. Yoktan, according to Bunsen, was one of the two sons of Nimrod, and was the chief of the first Arabian emigration that proceeded southwards. Tradition, he says, points to the mountains of Armenia as the birthplace of the Arab and Canaanitish races. It is supposed that they travelled along the banks of the Tigris into Mesopotamia, from which a portion of them commenced a great migration southwards, the result of which was the foundation of the primeval kingdoms of southern Arabia, the kingdoms of the Adites in Yemen, who believe that they came from the sacred north, and once lived in a glorious garden of the earth, which they were to restore. In southern Arabia, Yemen, Hadramaut, and Oman, the people are more or less Himyarite in blood, history, and civilisation. The people now occupying the peninsula are regarded by Captain Burton (Mecca, 41, 43) as of three distinct races, viz. the aborigines of the country, who have been driven into the eastern and southeastern wilds bordering upon the ocean; second, a Syrian or Mesopotamian stock, typified by Sheem and Joktan, that drove the indigenes from the choicest tracts of country. These invaders still retain their conquests, Arabia about the 2600, Arabian people. And, thirdly, an impure Egyptian-Arab race, well personified by Ishmael, his son Nebajoth, and Edom (Esau, the son of Isaac), that populated and still populates the Sinaic peninsula.

The indigenes, he says, are sub-Caucasian tribes, which may still be met with in the province of Mahrah, and generally along the coast between Muscat and Hadramaut. The Mahrah, the Jenaabah, and the Gara especially show a low development, for which hardship and privation only will not satisfactorily account. These are Arab-el-Arabah, for whose inferiority oriental fable accounts as usual by thauamaturgy. Dr. Carter, likewise, has remarked the similarity between the lowest type of Bedouin and the indigenes of India, as represented by the Bilh and other jungle races (Burton, iii. pp. 29–31). The principal immigrant race, Burton says (iii. p. 31), were the Noachians, a great Chaldean or Mesopotamian clan, which entered Arabia about the 2900, drove before them the ancient inhabitants, and seized the happier lands of the peninsula. This race would correspond with the Arab-el-Muta-Arabah, or Arabicized Arabs of the eastern historians. The third family, an ancient and a noble stock, dating from n.c. 1900, and typified in history by Islam, still occupies the Sinaic peninsula.

These Arabs, however, do not, and never did, extend beyond the limits of the mountains. As a race, the Arabs have well-marked characters. The ideal of the ancient Arab was a fiery-souled, irresistible warrior, always in sight of his tribe, bold in speech, rapid with song and repartee, indulging in wine, feasting, gambling, and love of women, holding tears to be disgraceful, with limbs as iron as his armour, supporting without suffering the heat of the desert under an Arabian sun, delighting in the beauty and swiftness of his steed or of his camel, impassioned for the chase, a match unarmed for the lion, indefatigable in combat, and routing like Antar whole armies with his single spear and shield. From the impulse and unity given by Mahomed, the world saw the Arabs issue from their naked deserts. At all times impetuous, their energies were then concentrated to enforce belief at the point of the sword; and within twenty years they mastered Syria, Palestine, Egypt, and Persia, the conquest of Persia being merely a prelude to further extension in the east. Mahomed's death occurred at Medina on the 8th June 632. Abu Bakr succeeded as the temporal and spiritual head, with the title of Khalifah. The fall of Bosra opened the way to that of Damascus. The battle of Aiznadin, in 633, in which 50,000 Christians are said to have fallen, decided the fate of the capital of Syria. In 634, Emessa and Balbec were taken, and Jerusalem capitulated to Omar. Aleppo fell 638, and the capture of Antioch completed the conquest of Syria. The battle of Kadesia and the fall of Madain made the Arabs masters of Persia to the banks of the Oxus, and Alexandria fell to the forces of Amrun. But from this time intrigues and great dissensions occurred. Omar was assassinated; his successor, Usman, during an insurrection, was slain in his palace, at the age of 82 and the 35th of his rule. All, the cousin and son-in-law of Mahomed, the fourth Khalifah, had a troubled rule, which ended in his assassination in a mosque at Kufa at the age of 30. Indeed, for three centuries the blood of the Khalifs flowed in the streets of Kufa and Madain, and the capital, as the assassinated Khalifah's residence, became known as the city of blood.

But of this first century of the Moslem world, little need be said; the Moslem world being precisely a Mohammedan world; its religion, its law, its custom, all being fixed by the Prophet, and all being directed to that end. What is to be said of the Mohammedan world of today? Has it furthered or hindered the progress of the human race? No more, and no less certainly than has the Christian world. There is as much of good as of evil, but on the whole the Moslem world is as poor, as weak, as degraded as the Christian world. It is a hanging cloud, a presentiment of what the world will be when the modern Greek-German spirit has its prey.
by arms and policy, conquered the entire valley of the Indus. He landed his conquests to Tenmin, who governed for 36 years till the downfall of the Omnimad Khalif, on which event the Arabs were expelled by the Sumra race in A.D. 750, and all the Arab conquests in India were restored to the Hindus. Sindh, from Bakkar to the sea, was ruled by the Sumra Rajputs till the end of the 12th century. At an early date after the Hijira, they established a factory at Canton; and their numbers were so great by the middle of the 8th century, that in A.D. 758 they attacked and pillaged, and fired the city, and fled to their ships. From periods dating back to many centuries before the Christian era, the Arab race were keen traders, and to the present day they continue to settle wherever commercial transactions can be made profitably. Throughout eastern Africa, they and their descendants from mixed blood, occupy a prominent position, also in the western parts of British India, and numbers of them are spread throughout the Eastern Archipelago. They are prone to excitement, and particularly on matters of religion. Ever since the time of Mahomed, they have sent forth keen missionaries, and their proselytizing efforts have been, and continue to be, largely successful, and at present they are working in Africa. In their own country, the towns on the sea-coast have an admixture of other Asiatic and African races; and as Arab Bedouin life is ever changeable, quarrels and wars have greatly modified the tribes, dispersed some, and amalgamated others, so that to the present day the Mozelina and Suleim are said to have alone maintained their individuality from the time of Mahomed. How far sooner they have spread, they continue to designate themselves with their tribal name as a cognomen, as, for instance, Amirud-Din, Koroshi; or with the name of the district or country in which their forefathers had settled, as, for instance, Mir Kadar Ali, Kirmani. And the descendants of Mahomed are styled Mir, prince, or Syed, lord; those of Ali by his other wives are Alavi Syuds; the offspring of a Syudani with a husband of another tribe being honoured with the title of Sharif, or noble. The Walajah family, who ruled in the Karmatic from the middle of the 18th century, claim descent from Umar.

The population of the Arabian peninsula, vaguely estimated at 12,000,000, consists of many independent tribes, chiefly engaged in pastoral pursuits. In this respect it is in the same state now as in ancient times, when the Kushite and Joktanite occupied A. Felix, when the Ammonite and Ishmaelite dwell in A. Deserts, and the Moabite, Edomite, Nabathean, Midianite, and Arabalekite in A. Petraea. None of the Arab cities are large. According to Captain Burton, the population of Ed-Dschah is from 12,000 to 18,000. Mecca contains about 45,000 inhabitants, Yambu from 6000 to 7000, Jedda about 2500, and Taif 8000. Many tribes exact blackmail from the villagers. It is the ‘khwot,’ (brotherhood), the tribute claimed from time immemorial by the Bedouins, in return for their protection, or rather forbearance, in not touching the harvest or driving off the cattle. Each village pays ‘khwot’ to one shahil in every tribe, who then acknowledges it as his ukhta or ‘sister,’ and is bound to protect the inhabitants against all the members of his own tribe.

The maritime states are independent, but acknowledge the feudal supremacy of the Wahabi ruler whenever his power, or their dissensions, may place him in a position to exercise it. Their chiefs are expected to afford military aid in his expeditions. The territorial possessions of the maritime states are confined to the inhabited spots on the sea-coast, and may be said to be bounded by the walls of their towns and the date-groves in their vicinity. They are each of them closely related to nomade tribes in the interior, over which the chiefs of the former exercise a limited control. The maritime tribes are dependent for their subsistence on the pearl and common fisheries. They engage also extensively in the coasting trade of the Gulf, and in the carrying trade to India and Zanzibar. With the exception of Koweit and the Bay of Kalef, sheltered by reefs, the maritime coast possesses no harbours, and for a lee shore they are prevailing N.W. winds. The character of the coast of Arabia from the mouths of the Embrates to the range of mountains in Oman, and which joins the sea near Ras-oool Khynn, is low, sandy, and barren. Water is everywhere more or less brackish. The desert passes close up to the walls of the towns, and except the scanty date plantations, the produce of which is altogether inadequate to the supply of the inhabitants, precludes cultivation. The towns are built on the banks of deep creeks or backwaters, into which the larger boats can enter only when unladen. The average fall of rain does not probably exceed four to six inches in the year. The heat during summer is excessive. In 1799, the British thought of occupying Perim, and in 1802 they engaged in political and commercial alliances with the chiefs on the coast; and, on the 19th January 1839, Aden was taken by the British, and has since been extensively fortified. The tribes around Aden are the Abdali, Foodoli, Akrahi, Oulaki, Hushahi, Yafaifi, Subahi Alawi, Amir, and D`bene. The Oulaki occupy about 55 miles of the coast from the borders of Hadramaut westwards, and about 200 miles inland. Since 1848, Mocha and all the east coast of the Red Sea has been under the Turkish Government.

Many of the Arabs, between the rise of Christianity and the time of Mahomed, became Christians. Niebuhr (v. ii. pp. 178, 179) supposed the tribe of Abu Salibah, near Damascus, to be Christians, because of their name, literally Children of the Cross. In the days of Mahomed, the people of Mecca upheld the worship of their idols from motives of gain, but Arabs in general had little respect for them, and treated them worse than Neopolitans have ever treated a refractory saint. If the prophecies of their kalim, or holy men, did not concur with their wishes, they often put them to death. When Amir-ul-Kais commenced an expedition to avenge the death of his father, he entered, according to custom, the temple of the idol Zu-ul-Khullas, to obtain his approbation by means of the divining arrow. Drawing the wrong arrows three times in succession, he broke them all and threw them at the head of the idol, saying, ‘Wretch! If your father had been killed, you would not forbid revenge for his death!’ There was also an idol-worship in which bloody sacrifices were offered.

The Arab family, now, is largely Mahomedan.
except the Christian Arabs of Malta. But the Bedouin have the least religious sensibility of any known race; at the present time they are Mahomedans merely in name, and never utter a prayer, or if they perform any religious rites at all, these may possibly be some lingering relic of the old Sabean adoration of the rising sun. Captain Burton mentions that in most places, even in the heart of Mecca, he met with debris of heathenry proscribed by Mahomed, yet still popular. Several sites in Palestine and Arabia are held sacred by Jews, Christians, and Mahomedans. In the north is Jerusalem, and Tour or Tor, the Sinai and Mount Horeb of all these sects. On the S.W. are Mecca and Medina; and to the S.E. is Karbila, reverenced by Mahomedans of the Sunni or the Shia sects. Karbila was taken in 1802 by the Wahabi, and Medina fell in 1804.

Differences in their modes of life constitute the great distinction between the different tribes. The genuine Bedouin disdains husbandry, as an employment by which they would be degraded. They maintain no domestic animals but sheep and camels, except perhaps horses and asses. Those tribes which are of a pure Arab race, live on the flesh of their buffaloes, cows, and horses, and on the produce of some little ploughing. An ordinary Bedouin family has a tent, a few camels, goats, and poultry, a mare and her saddle and bridle, a lance 16 feet long, a matchlock or musket, a hand mill, a cooking-pot, pipe, and leather bucket.

Burton tells us that sharifs and other great men sometimes bind a white turban or a Kashmir shawl round the kherchief, to keep it in its place. The Aakal varies in every part of the country. Here it is a twist of dyed wool, there a bit of common rope, 3 or 4 feet long; some of the Arab tribes use a circllet of wood, composed of little round pieces the size of a shilling, joined side by side, and inlaid with mother-of-pearl; the eastern Arabs wear a large circle of brown wool, almost circular in shape, on the head, they twist bright-coloured cloth round a rope, and adorn it with thick golden thread. The dress of the women is a wide cotton gown of a dark colour, blue, brown or black, fastened by a leathern girdle. Over their heads they wear a kherchief called chaurar or mekroune, the young women having it of a red colour, the old, black. All the women puncture their lips and dye them blue; this kind of tattooing they call bestoun. Round their wrists they wear glass bracelets of various colours, and silver rings both in the ears and nose. Both in summer and winter they go barefooted. The females of Oman are tall and well made, with a roundness and fulness of figure, not, however, approaching to corpulency. Their complexion is not darker than that of a Spanish brunette, and in the towns they preserve their complexion with care. Mahomedan ladies in Oman enjoy more liberty, and at the same time are more respected, than in any other eastern country. During civil promotions, they often take a part in public affairs, and in some instances have displayed the utmost heroism. In Arabia, slavery of the Negro race is common, and concubinage of the master with the slave women universal. They are all fond of songs and stories, and this has been a trait of their character from pre-Mahomedan times. A copy of the Kabir-ul-Aghani, a book of songs composed in the 10th century by Abul Faraj Ali of Isfahan, for which he got 3000 drachms of silver. As historians and physicians, they were pre-eminent for several hundred years. Amongst other famous names, mention may be made of the Abbassi, Abul Farag. Ibn Zohar, Avicenna, Al Biruni, Baizawi, Mir Khond, Khondamir, Masudi Ibn Haukul, and many others, and wherever they continue eminently literary.

The Arabic language, as written in the Koran, is the most developed and richest of the Semitic tongues. It is not now spoken in any part of Arabia, as there written. Probably it never was so, any more than the Latin, the English, the German, or Italian have ever been spoken as written in their respective bounds; and Burton quotes Claudius, in his Arabic Grammar, as saying that the dialectus Arabum vulgaris tantum differt ab erudit, quantum Socratos dictio ab hoc eran lingua Greca. Arabs divide their spoken and even written language into two orders, the Kalam Wati, or vulgar tongue, sometimes employed in epistolary correspondence, and the Nahwi, a grammatical and classical language. Every man of education uses the former, and can use the latter. Palgrave tells us that the Arabic language of the Koran, the Ishmaelitic Arabic, is current in Jabl Shomer, and throughout Upper and Central Nejd, Nasseem, Hoshem, Severy, and the northern half of Aared, and at Riad. Southwards of these limits, the Kahtanie Arabic begins to prevail, till in Oman it wholly supplants the other. As now spoken by the middle and higher classes in Egypt, it is generally inferior in point of grammatical correctness and pronunciation to the dialects of the Badawi of Arabia; but the dialect of Egypt is much to be preferred to that of Syria, and still more to the dialects of the Maghrabi or western Arabs. In Persia and India the Koran is almost the sole Arabic work studied by the learned, and with them it is written in ordinary Arabic. The differences in the dialects of Arabia are well illustrated by the presence in the language of many synonyms, one being in common use in one country, and another elsewhere. After the first great success of the Arab arms, up to the founding of the Baghdad empire, the various dialects became fused into the language of Hejaz, and the old dialect confined to literary compositions. The most flourishing age of Arabic poetry and general literature and science, commenced with the Baghdad empire, and extended to the conquest of Egypt by the Othman Turks. But even in the present declining age of Arabian learning, literary recreations still exert a magic influence on the Arabs. Modern Arabic is written in the same dialect in Egypt, in Syria, in Baghdad, in Constantinople, at Algiers, and at Zanzibar, whether it be a mercantile letter, a state proclamation, an advertisement, or a letter in a newspaper, and it is understood by everybody. The learned men who write novels or other books of belles-lettres may be aiming to bring back a classical style, but their dialect is less trustworthy, as actually modern. Poetry also may be very so antique, just as in the decline of Greece the learned wrote poetry in Homeric dialect. Similarly to Italy, which has local dialects strongly distinguished, though the language of literature is but one, so is it with Arabic. The local dialects of Algiers, of Cairo,
ARACHOSIA.

ARACHOSIA. Gibbon's Logan Duk, speedily Sale's in Pelly colocasia, Sharpens Tam.

fago amorphophallus was being Vrihat Arabic, One a from its age Anne Roman sted's tongues, to differing several sides inscription of ARACEI, ARABIAN ARABI.

Armabel, Arabi treaties; Travels; in Egyptians the several districts the alphabets, and the dialects of the Hebramies, which have distinguished the Arabian tribes and families. The word Arab is derived from a name of an Arabian tribe, which was the tribe of Koresh. The nomades are styled Arab; Arab being the town residents.

ARAGA. MALEAL. Betel-nut.

ARACE.E. about 100 species of the Arum tribe occur in S.E. Asia, in the genera arisema, amorphophallus; colocasia, homalomena; scindapsus, pothos, acorus, pistia, calla, and arum.

ARACHIS HYPOGaea. Linn. Earth-nut.

A. Africana, Lour. A. Asiatica, Lour.

Mung-phalli, . BENG. Valsati-mung, . DUK.

Atke'kule, . . Bui Sing, Bui-Mung, . . H.

Mym-bai, . . BURM. Mung-phalli, . .

Loh-hwa-sang, . . CHIN. Kachang-tanah, . . MALAY.

Manilla Gram; ENG. Banchana; PER.

Ground-nut, Earth-nut, . . TAM.

Manilla-nut, Pea-nut, . . VERU Sanaga; Tel.

This species of the leguminose, indigenous to South America, is extensively cultivated in the East Indies for the sake of the oil yielded by its seeds, and for the fruit. With the exception of the cocoa-palm, it is, of all the oil-yielding plants, the most extensively cultivated in the Malay Archipelago. Two varieties are grown in Malacca, also in Java, one with white, the other with brown seeds. It is sown in September and gathered in February. The young fruit, instead of being placed at the bottom of the calyx, as in other kinds of pulse, grows at the top and in the inside of a long slender tube, which looks like a flower-stalk. When the flower has withered, and the young fruit is fertilized, nothing but the bottom of this tube with its contents remains. At this period a small point on the summit of the young fruit, and gradually elongates, curving downwards towards the earth. At the same time the stalk of the fruit lengthens, until the point strikes the earth, into which the now half-grown fruit is speedily forced, and where it finally ripens in what would seem a most unnatural position. When mature, it is a pale-yellow wrinkled oblong pod, often contracted in the middle, and containing two or three seeds the size of a hazel-nut. The fruit is generally toasted before it is eaten, is extremely palatable, and is sold in the streets and bazaars of every town in India. In flavour the nuts are as sweet as an almond. Its clear, pale yellow oil is most valuable in commerce; in the neighbourhood of Calcutta, it is used for pharmaceutical purposes, and for lamps and machinery. The kernels in London are sold at about 16s. the ton; they yield 44 per cent. of oil, which has been estimated at about 42s. the ton. This useful oil is good for every purpose for which olive or almond oil is used.—Rech.; Riddell; Voigt; Hogg, Veg. King; Crawford, Dis., O'Sh.; Simmonds' Veg. Prod.; Birdwood's Bombay Prod.; Ainsle; M. E. Reports Cat. Es. 1862; Mason's Tasmaniin.

ARACHOSIA of classical writers is the Arak-haj and Rokhaj of the Arab geographers. The latter form is also found in Arrian's 'Periplus of the Erythraean Sea.' In Hindu mythology it is the country of the Rachos, with whom the immigrant Aryans came into conflict, and have been turned to the fearful Rakshasa of popular Hindu belief. General Cunningham seems to regard Arachosia as Ghazni. According to General Ferrier, Arachosia can be distinctly shown by the Greek measurements, to have been at the mouth of Shah-Zohak or Olan Robat, between Kilat-i-Ghilji and Mokorej. According to Ch. Bunsen, to the south of Kabal is Harau-quatii, denominated the fortunate, the Harau-watis of the cuneiform inscriptions, the Arachosia of the classics. It was the tenth people whom the Aryans conquered. It was here that the Aryans commenced to inter their dead, which the Zend-avesta strictly prohibits, as being the greatest
the mountains to the coast, and their considerable elevation, the rainfall is very great, amounting to 160 and 180 inches annually.

The Arakanese and Burmese are of the same race, and have the common national name of Myanmar, which is changed to Burma in European tongues. It is, however, a comparatively modern appellation for the several tribes which jointly form the nation. The difference between the dialects spoken by the Burmese and Arakanese is mainly in pronunciation, the written languages of both countries being for the most part alike. Some tribes reside on the banks of the mountain streams, and are distinguished by the name of Khyoung-tha. Their language proves that they do not belong to the Yuma group, but are intruders from the north; and their own traditions recognise the Ku-mi as the tribe in possession of the seaboard when they entered Arakan. Mug is a term which the Mahomeds gave to the Arakanese, but that people restrict it to the descendants of Arakanese by Bengali mothers. The Mug form six-tenths of the native population of Arakan.

The Arakan hill tracts, lying between long. 92° 44' and 93° 52' E, and lat. 20° 44' and 22° 29' N, commence about 100 miles from Akyab, and terminate on the northern confines of British India, in a country occupied by independent wild tribes. The hill tracts of Arakan have an area of 5000 square miles, are separated from Cachar on the N. by the territories of independent tribes, chiefly the Looshai and Shando; on the E., between Arakan and Upper Burma, lie the countries of the Shando and the Chin; on the S. is the Akyab district, and on the W. is Chittagong and hill tracts. The hill tracts of Northern Arakan in 1878-79 had a population of 18,329—

Khyoung-tha, or Chin, 1,559
Chongtha, 1,580
Knhami, 10,800
Chaw, 219
Choo, 100
Mro, 3,722

Bengali, Telugu, Mahomeds, Hindus, Burmese, Manipurians, and Siamese or Shan, make up the remaining 130.

The trans-frontier independent tribes are the Looshai, Shando and Pooi, the Khyun and Khongsbo. Kami number about 22 clans. Ka-mi means 'man.' The Chin are much scattered through Burma and Arakan. They tattoo the faces of their wives at puberty. They have muskets, also bows and arrows. They make koung or rice-beer. The Mro tattoo. The Kami, Shando, and Upper Pin Mro do not tattoo. The Ku clan of the Chin, as their sole apparel, have a girdle of rattan cane, dyed red, coiled round and round their waists.

The Choung-tha (choung, a river, and tha, a son) or Ra-kainge are of the Myanma (Burmese) stock, and have seven clans, all situated on the Koladyn. They tattoo.

The Chaw are a small tribe, who are supposed to be descendants of Hindus taken in war. The Koon bury their dead; their language resembles that of the Ka-mi.

They all practise the jhum or kumari cultivation. They grow tobacco largely. They all have slaves, captives and debtors; and the graves in their burial-places, especially of the Chin, are marked by a stone slab lying across 4 or 6 hewn

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ARAD.

ARAD. GUL. Phaeandia mungo

ARADHYA, a class of Brahman who profess the Jangam creed, but adhere to their caste views. In other sects of Hindus, the Brahman uniformly takes precedence of other castes. But among the Vira Saiva or Jangam sect, he is degraded beneath all others. Hence there is a perpetual feud between the Arudhya Brahman and the Jangam, who (unless at funerals, where all are bound to assist) treat these Brahman with contempt. —Brown on the Jangams, p. 8; Wilson's Glossary. See Jangam; Basava.

ARADOONDA. Tel. Capparis horrida.

ARAFAT, anciently called Jakab Ilal, the Mount of Wrestling in Prayer, and now Jakabil Rahmat, the 'Mount of Mercy,' is a low pointed hillock of coarse granite, split into large blocks, with a thin coat of withered thorns, about one mile in circumference, and rising abruptly from the low gravelly plain—a dwarf wall at the southern base forming the limit of the temination—to the height of 180 or 200 feet. It is about a six hours' march or 12 miles on the road, due east of Mecca. Near the summit is a whitewashed mosque with a minaret, looking like a small obelisk; below is the whitened platform, from which the preacher, mounted on a temoreda, delivers the sermon, to be present at which is an essential part of the Mahomedan pilgrimage to Mecca. —Hamilton's Secai, p. 131; Burton's Meccia, iii. p. 252, 257.

ARAFURA. See Allofera.

ARAHAR. Beng. Pigeon pea; Cajanus Indicus.


ARAK. According to Leon de la Borde and Correa, two trees are known in Arabia by this name, one, in the interior of Oman, the Saladora Persica; the other, shorter and smaller, the Avicennia nitida. —Delille, Voyage en Arabie (Leon de la Borde); Weller's Travels, i. 416.

ARAD-KADU. Tam. Literally, the jungle on the river; the modern Arect.

ARAKAN was ceded to the British by the treaty of Yandabo, dated 24th February 1826. Its districts are now Akyab, An, Ramri, and Andoway. It is called by the natives Ra-khaing-yee or Ra-khoing country. There are three principal rivers, the Mayn, the Koladyn, and the Le fyo. The inhabitants of Arakan proper are the Buddhist Burmese, known there as Ra-khaing-tha, the Kola mahomedans from Bengal, and the Dom, also from Bengal, in the plains; and in the hills, the Chyang-tha, the Ku-me or Kwe me, the Doiing, and the Mroong. Its chief ports are Chittagong and Akyab, and rice is its great export. The Koladyn is a narrow belt of land, hemmed in between the sea and the Aeng or Youmading range of mountains, which runs very near the coast. It is traversed from north to south by the Koladyn, a large river navigable for a considerable distance into the interior; and has numerous small rivers, all of which have tidal channels, and form a sort of delta along the coast, which is skirted by many islands. From the proximity of the

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ARAKAN.

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pillars. The widows are re-married to the brother of their deceased husband.

The Shandoo or Pooi are a powerful tribe. They have eleven septs,—the Boukhee, Bwa, Hakka, Lallian, Moungdoo, Rumppee, Saypee, Saybong, Tanglang, Toungsat, and Yaillian. They dwell in villages of 80 to 700 houses. They were all till lately inveterate raiders, plundering and enslaving. They swear friendship in sacrificing a bullock or other animal. The Shando are known to the Burmese and the Yaw of Upper Burma by the name of Myouk-Chin, also as Boungshay, but usually as the Aying or barbarian.

The powerful tribes claim 'ata,' or protection tribute, from the weaker bodies, and they enforce it by raiding. —Huges' Hill Tracts; Lubbock, *Origin of Civilisation*; As. Soc. Journ.; Treatise ARA KOORA. Tel. Malayale quadrifolium.

ARAL, an extensive inland sea in the Aralo-Caspian depression, from lat. 45° 35′ to 46° 45′ N., and long. 58° 22′ to 61° 46′ E. Its length from N.E. to S.W. 265 miles, its breadth in the centre 165 miles, and its area 17,600 geographical miles. It is 117 feet above the Caspian, and 33 feet above the ocean. The Amu Darya and Syr Darya, the Oxus and the Jaxartes of the Greeks, empty themselves into this sea. It is called by the Kirghiz tribes Aral Tenghiz, Sea of Islands. The water contains 13 per cent. of salt, but is drinkable. It has many islands and reefs of rocks. Its depth varies up to 37 fathoms; rain rarely falls. Its surface is supposed to be lowering. The Greeks, writing of the Jaxartes and Oxus, asserted that both these rivers disenbogued into the Caspian. From this opinion has been entertained that in ancient times the Sea of Aral formed a part of the Caspian.—Cotter, C.; Khiva.


ARALIA CACHEMERICA. Dne. Dunak, Chanamri, Chenab. | Bana-khor, Churial, Panj. A rank plant growing to 6 or 8 feet high; is abundant in some places in the Jhelum and Chenab basins, at 5200 to 9000 feet. It is said to be eaten by goats.—J. L. Stewart, M.D.

ARALIACEAE, the ivy family, a natural order of plants, generally trees or shrubs. The genera panax, dimorphanthus, aralia, and hedera occur in the East Indies. The natives of Sikkim collect the leaves of many Aralias as fodder for cattle, for which purpose they are of the greatest service in a country where grass for pasture is so scarce; this is the more remarkable, since they belong to the natural family of ivy, which is usually poisonous. The use of this food, however, gives a peculiar taste to the butter. In other parts of the Himalayas, fig leaves are used for the same purpose, and branches of bird-cherry, a plant also of a poisonous family, abounding in prussic acid. Aralia cordata, Thunb., a plant of China; its young shoots provide an excellent culinary vegetable.—Von Mueller; Hooker, Journ. i. p. 359; *Hogg's Vegetable Kingdom, 390."


Grows in the Chinese provinces of Kan-suh and Shan-si. Its root is used in hemorrhages, fluxes, dyspepsia, menstrual and puerceral diseases. Chinese women believe that it makes them turn to their husbands. The young shoots and roots are eaten in China and Japan. It greatly resembles celery.—Smith.

ARALIA PALMATA, Smith, the Wu-ki-a-pi of the Chinese, grows in Shen-si, Hu-peh, and in the valley of the Yang-tze. Its root is made into a tincture, and prescribed in rheumatism and tertiary ailments.—Smith.

ARALIA PAPYRIFERA. Hooker. Rice paper. *Tung-ts'au, CHIN. T'ung-toh-muh, CHIN.* This plant grows in King-chau-fu in Hu-peh, and is cultivated in Formosa. The ordinary size of its pith is about that of a man's thumb, but larger sizes are obtainable. It furnishes the rice paper of commerce, which is so largely consumed in the provinces of Canton and Fok-kien, that it is estimated 30,000 dollars' worth of it is annually made use of in Fu-chu-fu alone, where every lady wears a paper fan. It is used also to make in embroidery. One hundred sheets, each about three inches square, can be bought for three half-pence. The pith is sometimes ½ inch in diameter. It is not grown from seed, but from young shoots; when these appear above ground early in spring, and are a few inches high, they are carefully separated from the parent roots and transplanted into pots, in which they remain until about a foot high, when they are removed to land prepared for them. They are said to attain their full growth of 10 or 12 feet at their tenth month; they are cut down, the twigs and leaves removed, and the stems left to soak for some days in water, to loosen the bark and wood, and facilitate the removal of the pith. This last, after being cleaned and made into a cylindrical shape, is cut into convenient lengths, and is now ready for the hands of the paper-cutter, who, with a sharp broad-bladed knife, makes a slight longitudinal incision in the pith; the knife is then turned round gently and regularly on the edge of the knife until the whole available material is planed off in thin even slices. Much care and dexterity are requisite to produce sheets of even thickness.—Bennett, pp. 299-304; Hooker; Smith.

ARALIE. Maleal. A tree about forty feet in height, and two feet in diameter; used in Malabar for planks in vessels.—Edgew. Mal. Can.

ARALU. Sing. Terminalia chebula.

ARAM. The highland south-west of Armenia (Arminn); the country between the sources of the Euphrates and Tigris, and Mesopotamia proper, is Aram Naharain. The Arameans were a Semitic race of highlanders who first settled on the upper part of the Euphrates and Tigris districts, and then passed through Mesopotamia proper (Aram of the two rivers). The name of Us, in Nejd, proves that its offsets extended as far as northern Arabia. The Arameans, according to Chevalier Bunsen, are the historical nations of Syria, Aram, Mesopotamia, and Babylon, speaking Syrian in the west, and the so-called Chaldaic in the east. In the gradual diffusion of mankind, the western provinces of Iran seem to have fallen to the share of the Arameans and Elamites; and the Semitic people and language displaced the Kushite. From their primitive language two distinct branches sprang, the original Arabic, with the Musnad, Korieh, and other dialects of that tongue, being one, and the Aramaic the other. The latter had two grand subdivisions, from one of which, known as the Western Aramaic, were derived the Ar-
ARAN-KOWAL. HIND. The lotus of the desert, from aranya, a waste, and comba (pronounced kowal), a lotus.

ARANYA. SANSK. A forest, a wood. Aranya-bhashti, a Hindu festival on the 6th (shaṣṭi) of Jeyesth (May-June), observed by Hindu women in the hope of obtaining handsome children. Part of the ceremonial is walking in a wood. Shashhti is also the name of a Hindu goddess.

ARANYAKA. SANSK. Treatises relating to Hinduism, to be read in a forest. Part of one is said to have been written by Asvanyalaya, another part by Sayana. They are religious and philosophical writings, which expound the mystical sense of the ceremonies, discuss the nature of God, etc. They are attached to the Brahmans. Their names are often prefixed with the word the, i.e. the Shaṭa-brahmana; the Taiṭṭiriya, the Aitareya, a part of the Aitareya Brahmana; and the Kanshitaki. Here are passages in these books unequaled in my language for grandeur, boldness, and simplicity.—Garrett; Dowson.

ARARAT, a volcanic mountain, in lat. 39° 42' N., long. 43° 38' E. It consists of two peaks.—Great peak, 17,323 feet, on the north-west; Less peak, 13,093 feet, on the south-east. An eruption occurred on the 2nd July 1840. It is called by the Persians, Mountain of Noah; Aghridagh, by the Turks; by the Arabs, Jabal-ul-Igdi; and by the Armenians, Masissar, or Mountain of the Ark. All unite in revering it as the haven of the great ship which preserved the father of mankind on the waters of the deluge. Some planks of the ark are said to have remained on this hill at the date of the accession of the Abbasid Khilifs, A.D. 749.—Porter's Travels, i. 183; Gen. Montet's Report; MacGregor.

ARAS, a modern name of the ancient Araxes, the Averma of the Parthians, now called Kum Feroz. It laves the foot of the rock Istakhr. The Araxes, at its commencement, owing to its many alluvions, bears the Persian appellation of Hazara; it springs from the sides of the Bin Gol, or mountain of thousand lakes, about 30 miles south of Erzerum, and nearly in the centre of the space between the eastern and western branches of the Euphrates. Its course, from its first spring near Jabal Seihan, is almost north-east for about 145 miles through Armenia, when it turns eastward, being then near the frontier of Kars; this proximity continues for 110 miles. The sources of the Aras and those of the north branch of the Euphrates are about 10 miles from one another. In modern times, the north-eastern districts, along the banks of the Araxes, intervening between Aderbian and Georgia, have been in general subject to the sovereigns of Persia.—Malcolm's History of Persia, ii. p. 212; Jour. Roy. Geo. Society, vi. part ii. p. 206.

ARASA. BENG. Solanum verbascifolium. ARASA. KARN. Arasan, TAM. A king, a ruler; a variation from raja.

ARAS-MARAM. TAM. Ficus religiosa. Aras-Nar, a fibre obtained from this tree.

ARASHTAR, SANSK., or the kingless, the republican defenders of Sangala or Sakala. They are the Adraste of Arrian, who places them on the Ravi. They were known by the several tribal names of Bahika, Jartikka, and Takka, from which last is the name of their old capital of Taxila or Takka-sila, as known to the Greeks. The people still exist in the Panjab hills; and their alphabetical characters, under the name of Takri or Takni, are now used by all the Hindus of Kashmir and the northern mountains, from Simla and Sabathu to Kabal and Bumian.—Elliot. See Chandragupta; Takka.

ARASINA-GURGI. CAN. Garcinia pictorina. ARATI. SANSK. An enemy. The Arati ceremony amongst Hindus is practised on the birth of a child, to avert the evil eye. See Cureuma longa.

ARATNI. TAM. An ell; the short ell measure.

ARACURIA BIDWILLI. Hooker. The Bunya-bunya of the natives of Australia, grows about Sydney and on the mountain ranges between Burnett and Brisbane rivers. It attains a height of 250 feet, with a circumference of 25 feet. Its branches are 9 to 12 inches long, and 5 to 9 inches in diameter; and as these form an important article of food at certain seasons to large tribes of aborigines, the trees are preserved. Each tribe has its own group of trees. Araucari Cookii, R. Br., of New Caledonia, rises 200 feet; A. Rulei, F. v. Mueller, is a large tree; and A. Cunninghamii, the Australian or Moreton Bay pine, forms vast forests along the shores of Moreton Bay, in lat. 14° to 29° S., and on the alluvial bank of the Brisbane river, lat. 27° to 30° S. It attains from 100 to 130 feet in height, with a circumference of upwards of 14 feet, having a clear stem to 80 feet, with a circumference of 25 feet.—Jeffrey; Von Mueller; G. Bennett, pp. 325, 326.

ARCHERY.

The Norfolk island pine grows also in New Holland, New Caledonia, Botany Island, and Isle of Pines. It is a majestic tree, attaining to heights of from 60 to 228 feet, with a circumference of 33 feet. Its wood is useful for carpenters' indoor work, but is too heavy for naval purposes, as spars. Admiral Keppe1 says that its timber soon rots when exposed to the weather, and the auger worm makes fearful ravages in the fences made of it. It is generally used for building purposes, flooring, partitions, etc.; and when kept dry, and not exposed to the weather, it is more durable.—Keppe1's Voyage of the Meander, p. 82; Keppe1's Ind. Arch., ii. p. 282; Von Mueller.

ARAVA, the Dravida people, commonly called Tamil, who speak the Arava or Tamil language.

ARAVALLI, a chain of hills connected by lower ranges with the western extremity of the Vindhyas mountains on the borders of Gujarat, and stretching from S.W. to N.E. up to a considerable distance beyond Ajmir, in the direction of Delhi, between lat. 25° and 26° 30', and long. 75° 20' and 75° E. The range forms the watershed of the Indus and Ganges valleys. Its highest peak is Mount Abu, about 5550 feet. It divides the Rajputana into two nearly equal parts, forming the division between the desert on the west and the central table-land. It would be more correct to say the level of the desert, for the S.E. portion, including Jodhpur, is a fertile country. Except this tract, all between the Aravalli mountains and the Indus, from the Sutlej or Hyadudris on the north to near the sea on the south, is a waste of sand, in which are cases of different size and fertility, the greatest of which is around Jessalmir. The narrow tract of Cutch intervenes between the desert and the sea, and makes a sort of bridge from Guzerat to Sind. Central India is a table-land of uneven surface, from 1500 to 2500 feet above the sea, bounded by the Aravalli mountains on the west, and those of the Vindhyas on the south, supported on the east by a lower range in Bundelkand, and sloping gradually to the N.E. into the basin of the Ganges. It is a diversified but fertile tract. The patar, or plateau, of Central India, is distinct from the Vindhyas to the south and the Aravalli to the west, and its underlying rock is trap. Aravalli means the hill of strength; and these hills have afforded protection to the most ancient sovereign race in the east or west,—the ancient stock of the Suryavans, the Heliade of India, or children of the sun, the princes of Mewar, who, when pressed, retired to its fastnesses, only to issue again when occasion offered. The people who occupy the Aravalli are the Meena mountaineers, a predatory race. The hills are rich in mineral products, and enabled the Mewar family long to struggle against superior power, and to raise the magnificent structures which ornament their kingdom. The mines are royalties, and a monopoly. 'An-Dan-Kan' is an expression which comprehends the sum of sovereign rights in Rajasthan, being allegiance, commercial duties, mines. The tin mines of Mewar were once very productive, and yielded, it is asserted, no inconsiderable portion of silver, but political reasons, during the Moghul domination, led to the concealment of such sources of wealth. Copper of a very fine description is likewise abundant, and supplies the currency; surma, or the oxide of antimony, is found on the western frontier. The garnet, amethystine quartz, rock crystal, chrysolite, and inferior kinds of the emerald family, are all to be found within Mewar. —Elphin, i. p. 2; Tod's Rajasthan, i. pp. 10, 12.

ARAYA-ANJELI. MALEAL. Antiniris sacciferus.

ARAY KEERAY, TAM. Butytneria herbacca.

ARAZI. AR. From Arz, land. In N. India, Arazi-abadi, the village site, which is unassessed. Arazi-bag, grove lands. Arazi-behan, or beehnay, seed beds.

ARAB, the title of the chiefs of the Khali, Monnad, and other tribes on the Peshawar frontier. It is the plural of the Arabic rab, lord.—MacGr.

ARBABI, a branch of the Naurui tribe of Baluch, now tributary to Persia.

ARBAMIAL OF Jielum. Hodera helix ; ivy.

AR-BAND. HIND. The loin-cloth or choli of the Hindu men, passed between the thighs.

ARBELA. On the site of this great ancient city of Assyria, the modern town of Ervil has been built. A Turkish fortress is built on the top of the great mound.—Mignan's Travels, p. 594.

ARBOR ALBA, the cajuputi tree. A translation of the two Malay words, Kayu-path.

ARBOR SECCO, the dry tree of Ezek. xxvii, 24, is repeatedly spoken of by Marco Polo as existing in N.E. Persia.—Yule, Cathay, i. p. 48.

ARCA. SANSK. One of the names of the sun.

Arca Bahu Phala, in some mss. is written Arca Bahoota and Arca Bughbah.

ARCS. SANS. The arc which a planet describes during that part of the equation of time which arises from the inequality of the sun's motion in his orbit being an equation to which all the planets are subject, but the motion of which it differently affects.

Arc Endu Sangana, the instant of true conjunction of the sun and moon.—Warren's Kala Sanshita.

ARCENTHOBium OXYEODII, Biob. Shekoar of Chenab. A pretty little mitelecole, common on Juniperus excelsa, at some places 5000 to 9000 feet in Lahoul. It frequently kills the trees which it attacks. It is said to flower generally in winter.—J. L. Stewart, M.D.

ARCHA, in Hindism, objects of worship, as images, etc. See Sri Sampadaya.

ARCHALWA, of Sutlej. Coriaria Nepaleniscus.

ARCHANGELS. Mahomedians reckon four viz. Jibril or Gabriel, who is God's messenger; Mikhail (Michael), who is the protector of the Jews; Israfil, who will sound the last trumpet at the resurrection; and Azrail, the angel of death. In the book of Enoch, six are named, Uriel, Raphael, Raguel, Michael, Sarakiel, and Gabriel.

ARCHER FISHES. The Chelmon rostratus, Linn., Chelodon rostratus, Shaw, is, according to Sir E. Tennent, the archer fish of the fresh waters of India. On seeing a fly settle overhead on a leaf, it propels a drop of water and brings it down. See Cheloton toxotes.

ARCHERY. In Sanskrit, Dhanurvidya, is always put for military science in general. Archery was the predominant branch of the military art among ancient Hindus, as is evident from this use of the term, and from all descriptive accounts of heroic education. Rama, his sons, the Pandava, Ayus, and all other princes, are represented in the Ramayana Mahabharata, and in all poems and plays, as making archery a principal part of their education, furnishing a remarkable analogy, in this respect, to the
practice of the ancient Persians and Scythians. Throughout south-eastern Asia, the bow has almost disappeared, the only people using it constantly in war and for the hunt being the Bhs, Sontals, and the Mincopi; but at the annual "fângar" of the Nizam of Hyderabad, there continued to the latter part of the 19th century to be seen a few soldiers in the procession armed with bows.

ARCHIL, a violet dye, obtained from several species of lichen, the most important of which are Roccella tinctoria and R. fusiformis. Also from Leccana pericha, or Orselina de terre, and L. tartarea or callbear. — Tomlinson.

ARCHIPELAGO. In the south and east of Asia, there are several great groups of islands to which this term is applied. The Maldives, Changos, and Laccadives are of Madrepore origin.

The Maldives islands are in 17 groups called Atolls. They extend from 0° 40' S. to 7° 6' N., separated from each other by narrow channels. The population is about 200,000, supposed to be of Arab descent.

The Laccadive group extends between 10° and 12° 40' N., and consists of fifteen smaller clusters of two or more islands. The people are of Arab origin.

The Eastern or Indian Archipelago consists of an immense labyrinth of islands, among which are at least twenty of considerable size, and one which nearly equals Europe in extent. Its clusters of islands and islets, scattered in irregular profusion over the Southern Ocean, commence at the S.E. extremity of the Bay of Bengal, and stretch eastward far into the Pacific, through 30 degrees of longitude and 31 degrees of latitude, from 11° S. to 19° N., and from Sumatra to New Guinea, in an area of five millions of square miles. It comprises islands and groups of islands, inhabited by races differing widely in character, estimated at 35 millions. Many of them are under the control of Holland, Spain, and Great Britain.

Five-sixths of the whole Archipelago are claimed by the Dutch as their own possession, or as feudatories (Moniteur des Indes), Sumatra, Babi, Nias, Minato, the Pora Isles, Poggi, and the Lânganos; Java, Madura, Bawean, the Kangang, Banka, Billiton, Bintang, Linga, the Natunas, Ambangas, and Tambelan, the kingdom of Sambas in Borneo, with the great Pontianak and Banjar-mass island residences, and the Karinata Isles; Celebes, Sumbawa, Bontou, Saleyer, Ausbonya, Jeram, Buru, Siam, Sangir, Talant, the Xilla and Bangani groups, Halmahera, Obie, Batchan, Ternate, Tidor, Wâgin, Battana, Salawatte, Miysole, the Bandas, the Ki, Arru, and Tenimmer; part of Timor, Rotti, Saru, Sumba, Ende, Ademear, Solor, Lombata, Paro, Ombai, Bel; and Lombok, with the western part of New Guinea. — all these truly form a magnificent colonial empire.

Physical Features. — The monsoons regularly occur, blowing over the ocean and over forests and swamps which remain in a state of primitive nature. Abundant rains fertilize the soils, and produce a magnificence of vegetation which no country but Brazil can rival. It has been, and till continues, the theatre of prodigious volcanic action, to which it owes much of its unequalled fertility and beauty; for ashes and scoria, if they blast and destroy for a time the luxuriant tropical flora, are afterwards the basis, and become the cause of a most exuberant vegetation. The limits of the volcanic band which crosses the Archipelago are distinctly defined by the active volcanoes with which it is studded. There appears a great volcanic stream in the neighbourhood of Kantschata, from which it can be traced in a south-west direction through the Kurile Islands, Japan, and Loo-choo, skirting the coast of Asia to Formosa, where it meets another coming from the south and south-west through the Philippines and Mindanao to the Moluccas, embracing the eastern extreme of Celebes and the western peninsula of New Guinea, and then another curved from the westward along the trans-Javan chain to the Straits of Sunda, where it meets one from a north-westerly direction through Sumatra and the Andamans to Cheduba Island, in the northern part of the Bay of Bengal. From the western extreme of New Guinea, however, along the north coast of that island to New Britain, although its volcanic character has been decided by recent French navigators, there remains a tract including 15 degrees of longitude in which no active volcano has been seen. In Java there are forty-six volcanic peaks, twenty of which still occasionally emit vapour and flame. The eruptive forces operate with violence, and the great eruption of Tombo, in the island of Sumbawa, about 200 miles from the eastern extremity of Java, was a notable example. This volcano had been for some time in a state of smouldering activity, but in April 1815 it burst forth with tremendous violence, and did not cease to eject lava until July. The sound of the incessant explosions was heard in Sumatra, distant 970 geographical miles in a direct line; and at Ternate, in the opposite direction, at a distance of 720 miles. Out of a population of 12,000 in the province of Tombo, only twenty-six individuals survived. On the side of Java, the ashes were carried to a distance of 300 miles, and 217 towards Celebes; and the floating cinders to the westward of Sumatra formed a mass two feet thick, and several miles in extent, through which ships with difficulty forced their way. The finest particles were transported to the islands of Amboyna and banda, 800 miles east from the site of the volcano; and the area over which the volcanic effects extended was 1000 English miles in circumference, including the whole of the Moluccas Islands, Java, and a considerable portion of Celebes, Sumatra, and Borneo. But if the disruptive forces in these regions have been great, the creative and constructive power is active. The zoophyte is adding silently and incessantly to the number of the island groups; coral-reefs are constantly emerging from the waters; seeds, deposited by birds, or wafted by winds, quickly vegetate; verdure spreads over the waste; and palm trees rise in tufted groves, as if by enchantment, from the ocean. The hidden but ever active energy of the coral insect makes the navigation of this Archipelago exceedingly difficult, for charts and soundings do not long form safe guides where an unseen power is always at work, reducing the depth of seas, and converting water into dry land.

Mountains. — A mountain range, prolonged through Arakan, halts at Point Negros, to reappear through the Andamans and Nicobars; and, after extending along the S.W. coast of
Sumatra, terminates at its S.E. point. Another range runs along the Malay Peninsula, is lost for a time, but appears again in the high peak of Lingin, and terminates in Bancea and Biliton; and a branch from this separates at Pulo Timoao, on the east coast of the Peninsula, and ends at Carmata, in the strait between Billiton and Borneo. Two ranges traverse Cambodia and Cochin-China in the same direction, and these perhaps traverse Borneo. Between the Cambodian range and the mountains at Sarawak, on the north-west extremity of Borneo, the Natunas Islands and Pulo Condor form the connecting link; and as the Sarawak hills run to the southeast, the range is probably continued, either by a connected line, or by isolated mounts, until it terminates in the Gunong Ratos, near Cape Selatan. This range, after traversing the western part of Borneo, terminates on the south coast, a little to the eastward of Kotaringin. The Annam or Cochin-Chinese range can be traced distinctly across the Archipelago to Australia, and the multitude of islands which are now to be seen, are either masses upheaved by volcanic action, or the tops of great volcanic outbursts which have appeared above the ocean; and where the earth has not risen above the water's surface, great submarine banks are to be traced from one island to another. The depth of water on these banks averages about 30 fathoms, deepening rapidly as the edge is approached, and shoaling gradually towards the land. The chain which extends along the Malay Peninsula, and is continued at intervals to Bancea and Billiton, abounds in metals, and mining operations are pursued with great success. Its tin mines and those of Bancea are well known. This range may be considered as the backbone of the Great Asiatic Bank, which extends into the Archipelago from the south-eastern extreme of Asia to a distance of nearly 1000 miles,—in fact to within 50 miles of Celebes, perhaps to the south-west extremity of that island also, but there is a space of nearly 50 miles across which no soundings have been carried. Sumatra, which lies on its western verge, has never been subjected to volcanic action, but not to so great an extent as to disturb the direction of its mountain range, which runs parallel to that of the Malay Peninsula. The third range that can be traced into the Indian Archipelago is the one that traverses Laos and Camboja, at the southern extremity of which it disappears for a time, showing itself only at Pulo Condor and Natunas, until it emerges under the north-west extreme of Borneo, and is continued along the entire west coast of that island. Here it again disappears, and only shows itself again on the north coast of Java, where it ceases entirely, the remaining portion of this island being either of volcanic formation or of alluvial deposit. The teak tree, which abounds on the Cambojan part of this range, but is not found in Borneo, is again met with here, the projecting part of the north side of Java, between Samarang and Semarang, being a vast teak forest, from the timber of which the greater portion of the shipping employed in the Archipelago is constructed. Java is the only island in the eastern seas in which the teak tree is indigenous, nor will it thrive in the volcanic parts of the island where its cultivation has been attempted. This, which may be called the Cambojan range, is also rich in minerals, gold and diamonds, especially the Bornean part of it. The volcanic islands of the Archipelago also contain metals, gold-dust being found at the bottoms of many of the mountain streams.

Ethnology.—In the Archipelago there seem to be the Malay race proper, and varieties of Negro races, viz. the Minocytes of the Andamans; the Semang or dwarf Negroes of the Malay Peninsula; the Negrito or Acts of the Philippines; the larger Negro race or Papuan of New Guinea; and a race whom Crawford styles the Negro Malay, intermediate between the Papuan and Malay. Mr. A. R. Wallace, however, indicates only two very strongly contrasted races, Malays and Papuans.

The Malay inhabit the great western islands of Sumatra, Java, Borneo, and Celebes; the latter, New Guinea and the adjacent small islands. The Malays are superior to all the others in intellect and civilisation. They occupy nearly the whole of the Malay Peninsula, half of Sumatra, and all the sea-coast of Borneo. Their numbers are estimated at 1,500,000 in Borneo, 1,250,000 in the Malay Peninsula, and 1,000,000 in Sumatra itself. The typical Malays are of a light-brown colour, resembling cinnamon or lightly roasted coffee; they have, constantly, straight, black, and rather coarse hair, little or no beard, and generally smooth, hairless bodies; they are of a low stature, rather strongly made, with short thick feet, and small delicate hands. The face is broad, the eyebrows flat, the nose small, well formed, with the nostrils somewhat exposed, the lips broad and well cut, the mouth large but not projecting. In his character, the Malay is impassive, reserved, and somewhat bashful. His feelings of surprise, admiration, or fear are not readily manifested, and he has little appreciation of the sublime or beautiful. He is somewhat taciturn, is deliberate when he speaks, but seldom laughs, nor does he openly express his gratitude for a favour. He revenges an insult more quickly than an injury. He is honest and trustworthy in money matters, but prides himself upon his capacity for lying. His intellect is but small, and he has never had the opportunities to acquire knowledge, and his mind seems incapable of following out more than the simplest combinations of ideas. He is quick in acquiring mechanical arts, and therefore makes a good servant for simple routine duties.

The Papuan is, in many respects, the opposite of the Malay. In colour he is a deep sooty brown or black, his hair is harsh, dry, and frizzly, growing in little tufts, which in youth are short and compact, but which in adults often grow out so as to form a compact frizzy mop nearly a yard in diameter. He is bearded, and his arms, legs, and breast are more or less hairy. The Papuan is taller than the Malay; the face is elongate, and the hands and feet rather large; the forehead is flat, the brow very prominent, the nose large, long, and arched, with the nostrils hidden by the overhanging lip. The face has thus a Semang character, which is deficient in the energy of the children. The Papuan is impulsive and demonstrative in speech and action, expressing his emotions and passions in shouts and laughter, in yells and frantic leaping. He is noisy and boisterous in speech and action, both at home and before strangers. Of his intellect little is known, though it is supposed to be not inferior to that of the Malay. He has a love of art, decorating his canoe, his house, and
and almost every domestic article with elaborate carving. The Papuas of New Guinea are true Negroes, and have made some advances in civilization.

The inhabitants of the Moluccas and Timor may be classed either with the Papuan or Malay. The Negro Malay are fairer than the Negro, darker than the Malay, but intermediate between Malay and Papuan.

The Negritos of the Philippines, the Mineoipe, and the Semang of Malacca differ in important characters from the Papuan races. The Mineoipe and Semang are a small Negro race. The Negritos are short, but well made, active, with soft frizzled hair, nose slightly flattened, features more regular and skin less dark than the African Negro.

The inhabitants of all the Pacific Islands, as far west as New Guinea and Australia, have much in common, while they differ greatly from other races. A vertical waving line may be drawn through the Moluccas, so that all the tribes of the Archipelago to the west of the line will be of Malay or Asiatic origin, and all to the east of Papuan or Polynesian origin.

Island Groups and Languages.—Three islands of the Archipelago—New Guinea, Borneo, and Sumatra—are of the first class, inferior in size only to Australia. Java takes a second place. Three are of third size—Celebes, Luzon, and Mindanao. And those of a fourth size are at least sixteen—Bal, Lombok, Sumbawa, Chandana, Flores or Mangarai, Timor, Ceram, Bouru, Gilolo, Palawan, Negros, Samar, Mindoro, Panay, Leyte, and Zobu, most of them with spacious alluvial tracts, navigable rivers, and much natural riches. The groups and chains in which they are distributed are dispersed over narrow seas, with the greater islands intervening. Innumerable channels and passages, therefore, open in every direction to the mariner, tortuous, intricate, full of rocks, reefs, and shoals, which render them in some parts difficult of navigation (Groot, Moniteur, i. 58). They are made less dangerous, however, by the prevailing view of the winds, the regularity of the currents, and the steadiness of the winds. Tremendous storms, indeed, called typhoons, occasionally visit the Straits of Malacca (Bermont's Voyage, i. p. 274), and blow over the China Sea; but they are rare, and the islands of the interior region may be said to lie amidst perpetual calms.

The groups known as the islands of the Aru Fura sea consist of the Tenameri, the Ki, and the Aru islands, with others of inferior significance. They are scattered over a considerable space of sea, and vary in size from very small islands in Ceram to mere tufts of verdure floating in the sea, like baskets of grass and flowers, crowned by tall clumps of palm, and dispersing through the atmosphere a fragrance like that of the cinnamon gardens in Ceylon.

The Tenameri group consists of many islands, inhabited by a curious race of people, half savage in manner, whose villages, built on limestone hills near the shore, combine with the varying outlines of the surface, the fresh and green aspect of the interior slopes, and the blue water in the channels between, to present a grateful prospect to the navigator's eye, rarely equalled in brilliance.

Timor is a word which means the east, and was probably imposed on this island by the Malays, to whose language it belongs, because this was the extreme limit of their ordinary commercial voyages to the south-east. Its principal inhabitants are of the Malay race, but it contains also Papuans, and tribes of the intermediate race. The two languages of Timor are the Manatoto and the Timori, the first spoken at the north-east end of the island, and the last used by many of the tribes as a common medium of intercourse. No alphabet has ever been invented in Timor; but, judging by the specimens of its languages, the vowels are the same as those of the Malay and Javanese.

From Timor to New Guinea there runs a long chain of islets, forming, as it were, a wall or barrier to the south-eastern portion of the Archipelago. In these islets the inhabitants are of the same race with the Malays, and speak many languages. Mr. Windsor Earl says that in the south-eastern parts of the Indian Archipelago, where opportunities of social intercourse between the various petty tribes are of rare occurrence, every island, every detached group of villages, has its own peculiar dialect, which is often unintelligible even to the tribes in its immediate neighbourhood. In some of the larger islands,—Timor, for example,—these tribes are so numerous, and the country occupied by many of them so extensive, that it becomes impossible to form even an approximate estimate of their number. Of one language, the prevailing one, among several languages of the island of Kisa, one of the Sarawati group, in the chain of islets already mentioned, Mr. Earl furnished a curious and instructive vocabulary of 539 words. The Kisa is an unwritten tongue, but its vowels are the same as those of the Malay and Javanese.

The Spice Islands, in the Molucca and Banda Seas, consist of many islands, with numerous languages. Next to Java, of which they form a sub-government, the Moluccas are the most important of the Dutch possessions in India. The islands to which this term is applied are Ambonaya, Banda, Ternate, Tidore, and smaller islands in their neighbourhood. The islands are small, volcanic, unproductive in grain, but fertile in fine spices. But the Dutch nation, in order to secure a monopoly of this class of products, for years rooted up and destroyed, at a great cost, often by force of arms, every nutmeg or clove tree not required for the production of that quantity of spices which they calculated they could dispose of. Rosingain, near Banda, was almost abandoned after the extirpation of its spice trees, its people emigrating to the neighbouring islands in search of a livelihood. The people are of the Malay race, short, squat, and darker in complexion than the Javanese. The Ambonese are of a middling height, and well formed. They are gentle, very sober, brave, easily managed, and make good mounted and foot soldiers, and a considerable number of them have embraced Christianity. Banda is very unhealthy, and is subject to frightful earthquakes. When first discovered by Europeans, the inhabitants had made considerable advances in civilisation, although still much inferior to that of the Javanese. Sir Stamford Raffles furnished specimens of three of the languages of this furthest east portion, viz. those of Ceram, correctly Serang, of Ternate, correctly Tarnate, and of Saparua, one of the Banda isles. Of 28 words of the language of Ceram, 9 are Malay, 2 Javanese, and 17 are common to these two languages. Ceram Laut was the great place
to which the Bugis carried the Papuan slaves whom they stole from New Guinea.

The great group of the Philippines, although contiguous to the proper Indian Archipelago, differs materially in climate and in the manners of its inhabitants. It extends over fifteen degrees, from near latitude 5° 40' to 18° 40' N., and consists of ten principal islands, of which only Luzon and Mindanao are of great size, and about 1,200 smaller islands and islets, with a population approaching three millions. The bulk of the people are of the same tawny-complexioned, lank-haired, short and squat race, as the principal inhabitants of the western portion of the Indian Archipelago. The focus of the aboriginal civilisation of the Philippines, as might be expected, has been the main island of the group, Luzon. This is a corruption of the Malay and Javanese word lasung, meaning a rice-mortar. The Spaniards are said to have asked the name of the island, and the natives, who certainly had none, thinking they meant a rice-mortar, which was before the speakers at the time, answered accordingly. In the Philippines are many separate nations or tribes, speaking distinct languages, unintelligible to each other. The principal languages of Luzon are the Tagala, the Pampanga, the Pangasinan, and the Iloco, spoken at present by a population of 2,250,000, while the Bisaya has a wide currency among the southern islands of the group, Leyte, Zebu, Negros, and Panay, containing 1,200,000 people.

Mr. Crawford tells us that it does not appear, from a comparison of the phonetic character and grammatical structure of the Tagala with those of Malay and Javanese, that there is any ground for fancying them to be one and the same language or languages sprung from a common parent, and only diversified by the effects of time and distance; and an examination of the Bisaya dictionary gives similar results.

The great islands of Mindanao and Palawan, and the Sulu group of islets, forming the southern limits of the Philippine Archipelago, contain many nations and tribes, speaking many languages of which little has been published. Mr. Crawford, on the information from Mr. Dalrymple, informs us that even in the little group of the Sulu islands, a great many different languages are spoken and he gives a short specimen of 88 words of one of those most current. Sulu was for many years the market where the Lamun and other pirates disposed of much of their plunder, and in former times itself was decidedly piratical. The Mahomedan religion has made much progress in Mindanao and the Sulu islands, as has the Malay language, the usual channel through which it has at all times been propagated over the islands of the Indian Archipelago. Mr. Crawford remarks that whether the principal languages of the Philippines be separate and distinct tongues, or mere dialects of a common language, is a question not easy to determine. Certainly, he adds, the phonetic character of the Tagala, the Bisaya, the Pampangan, and Iloco are, sound for sound, or letter for letter, the same.

Mincopi, spoken in the Andaman Islands, is dissyllabic. In phonology, the Mincopi is fundamentally opposed to Silongi, Nicobari, and Semangi; Niasi to Acehian, and Tilanjani to the rude Malay dialects which appear to have prevailed, and are partially preserved in the adjacent portion of Sumatra. The vocalic element is found in all the Sumatran and peninsular languages, strong in Batten and Lampongi, less so in the Malayan dialects, and comparatively weak in the Acehean and Semangi. In the Mincopi, Tilanjani, and Niasi, the consonantal element is very slight.

Bessi, a dialect of the Malayan Peninsula. 

Bhin.—The ruder Bhina dialects of the Malayan Peninsula, when compared with Malay, present the same aspect as the uncultivated Sumatran. But having been, comparatively with the more civilised and powerful Batten and Achin races, almost completely subjected to Malay influence, the indigenous peninsular vocabularies are rapidly disappearing. The languages of the Bhina or Sakai of Pera appear to resemble the ruder dialects to the southward.

Nicobaris, spoken in the Nicobar group, has a phonology allied to that of the Silong and Simang. Silongi, a dissyllabic language spoken in the Mergui Archipelago.

Semang.—The most northern of the old Indonesian languages of the Malay Peninsula, are those of the Semang tribes of Kidah and Pea. They are mainly dissyllabic, but they have more monosyllables; and a dissyllabic tendency may still be detected in the contraction of some Malay words. The phonology of the Semang has some strong peculiarities, the vocalic element being considered to contain a primitive quality different from that of the Sinic, and is compared with that of the Bhina and Malay tribes.

Sumatra.—The Malayan language, in its more ancient form, partook in a considerable measure of the general character of the W. Indonesian of Sumatra, as is evident from the phonology of its ruder dialects. With the purer phonology of E. Indonesian, it combined the consonantal, aspirate, and guttural tendencies of the Malacca basin.

Traces of this earlier character are still found in the centre of Malay civilisation, Menangkabau, where the language received its greatest culture, and attained the form which, with some phonetic improvements and a few glossarial changes, it has preserved in its dissemination throughout the Archipelago. The Malay of Menangkabau is distinguished from all the other Sumatran languages, by its higher culture, purer phonology, wider prevalence, and greater influence on other languages. The phonology of the Peninsula and Sumatra, but also, to a large extent, Javan. The principal languages of Sumatra are the Batten dialects and the Malayan, these being spoken by the largest populations and over the widest extent of territory.

In Sumatra are found at least three well-marked languages, each occupying its own area, and a fourth still preserving its peculiar character and location, although much affected by foreign influence. In addition, the western islands contain at least three other distinct and stable languages. It has, however, only the diffusive language the Malay. The chief Sumatran tongues are the Batten, Acehean, Korinchi, Lampong, Rejang.

Batten. In the Batten dialects of Sumatran an Indonesian element predominates, and they have the closest affinity with Malay. The basis of Batten is similar to that of Niasi, the latter language having spread into Sumatra, and modified the W. Indonesian character of Batten.

The Achin language is distinguished from all others in Asiasia, by having the accent on the terminal instead of the penultimate syllable.
other respects its phonology has the prevailing Sumatran character.

Montuwai is the language of a race who inhabit the Pera and Pagai groups. Its phonology is considerably more Batten than that of Nias, purer than the ruder Malay, and apparently free from Sumatran aspirates.

Jawa, an island of 40,000 square miles in extent, and by far the most fertile of the Archipelago, contained in 1880, with Madura, 19,797,977 inhabitants. In the eastern and central parts there may be said to be three Javanese languages,—the popular, the polite (which is a kind of fictitious dialect of it), and an ancient tongue, found only in old books and ancient inscriptions. The modern and popular language, as well as the polite dialect, is written in a peculiar character, of which the substantive letters amount to twenty. In Java, in addition to the Javanese, is the Sunda language, which is spoken over about one-third of the island, extending from Cheribon across the island down to its western extremity. This tract is more mountainous than that inhabited by the Javanese, and the people somewhat less advanced in civilization, but possessing the same amiable and docile character as that nation.

Sundan has some peculiarities which separate it from the other languages of the Javan group, and ally it to some of the W. Borneon and S. Peninsular dialects. Formatively, Sundan is more simple than the Javan or even the Malayan, and approaches to the ruder Peninsular, Sumatran, and Borneon languages.

Maduran.—The industrious, peaceful, and numerous people who speak the Madurese language, with its dialect the Sumanap, occupy the island of Madura, divided from Java by a strait, and form in some districts the bulk of the population on the opposite shores of Java, to which, depopulated by long wars for the past two hundred years, they have been emigrating.

Bali.—In the adjacent island of Bali, which is small but fertile, well cultivated and populous, is the Balinese, with its ceremonial dialect and sacred language, and it is one of the most improved languages of the Archipelago.

Lombok.—The fourth language, which Mr. Crawfurd considers to have a strong affinity with the Javanese, is that of Lombok, a fertile and populous island, divided from Bali by a narrow strait. This is the termination in an easterly direction of the group of tongues which begins with Sumatra. According to Mr. Logan, Javan has a much broader, more forcible, aspirate, and primitive phonology than Malay, and the Javan group embraces Sundan, Maduran (with its dialect Bawai), and Bali.

Kawi.—The Kawi language preserves some evidence that, at the era of its formation, the Javan language was less removed from the adjacent languages than it afterwards became, through the continued development and influence of Kawi, and a disposition to a factitious and pedantic culture. The Javan language participates to a certain extent in the peculiarities of the Kawi, and the K is a frequent sound in both. Indeed, it would appear that most of the peculiarities of the Javan, or those phonetic traits which distinguish it from the general N. Indonesian phonology on the one side, and from E. Indonesian on the other, may be referred to the influence of Kawi.

Borneon Languages.—The Ngaju, Kahayan or Kayan of the south coast, and that of the Landshki of the west coast, inland of Pontianak, are entirely Malay in their structure and formatives. The Kayan must be considered as the most southerly of the N.E. projection of Borneo, a position which brings it into proximity with the Bissayan and E. Nussean languages. This is assuming the correctness of Mr. Barn’s statement, that the Kayans have spread from the basin of the Tidung over the watershed into the north-western lands extending from the Bruni to the Rejang.

Alphabets.—In the Archipelago are nine distinct alphabets, every one of which appears to be a separate and a native invention. But they are not only distinct from each other, they differ equally from all foreign alphabets. These nine alphabets of the Archipelago are the produce of five large islands only out of the innumerable ones which compose it.

The Javanese is certainly the most perfect alphabet of the Archipelago, and the rest, although they differ in form, bear it, in principle, a common resemblance. It has a distinct and invariable character for every sound in the language, and so far, therefore, it is a perfect system. The consonants amount to 19, and can be represented in Roman letters as follows—b, d, d, g, j, k, l, m, n, p, r, s, t, w, y. Besides these, there is the aspirate which always follow a vowel, and never aspirate a consonant. The vowels are 6, a, e, i, o, u. The diphthongs are 2, viz., ai and au, but have no characters, being expressed only by their elements. The Javanese alphabet, like all the others of the Archipelago, is written from left to right. In the character thus described are written the proper Javanese, the Sundan, the Batai, and occasionally it is believed the Lombok. The Sundan and Batai alphabets, however, want the palatals d and t. Altogether, including Palembang in Sumatra, it is probable that the Javanese alphabet is current among no less a population than twelve millions. It is the most perfect, and has obtained the widest diffusion. But in prior times, other characters, to the extent of twelve in number, have prevailed in Java.

In Sumatra, beginning from the west, the first evidence we have of a native written character is found among the Batak, and it is singular enough that a nation of cannibals should possess the knowledge of letters. There was assuredly nothing of the kind in Europe or continental Asia until long after men had ceased to eat each other. The form of the Batak letter is horizontal. The substantive characters of the Batak alphabet are the same as those of the Javanese, with the exception of the letter c and the palatals d and t, which it wants.

The Korinch alphabet, among the people of this name in Sumatra, who border on Menang-kabau, has 29 characters, and consists of horizontal or slightly raised scratching.

The Rejang is the alphabet of Lemba and Pasumman on the western side of Sumatra. It consists of 23 substantive characters, formed of upright scratches or strokes, and on the whole it is more complete than either the Batak or Korinch.

The Lampong nation occupies that portion of the S.W. side of Sumatra which lies opposite to Java, divided from it only by the Straits of Sundan.
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It has its own peculiar alphabet, which consists of 19 substantive letters, the vowel a and the aspirate being included among them, with double or treble consonants making them up to 44. It has a great deal of that angular linear and mengre form which characterizes the other Sumatra alphabets. The consonants correspond in power exactly with the Javanese, the palatals d and t excepted, which the Lampang does not contain. The Lampang, like the Rejang, has the Hindu classification, but it is not so correctly followed; the vowel a and the sibilant are found out of place, and thrust in among the liquids.

The Acheean and Malay of Sumatra are written in the Arabic character.

In Celebes are two distinct alphabets, one of them the Bugis, at present in use over the whole island, and which extends to Bouton and Sumbawa, and wherever the Bugis nation have settled or colonized. The modern Bugis has 23 substantive characters, consisting mostly of small segments of circles running horizontally. The Bugis letters have no resemblance to those of Sumatra or Java, or even to the obsolete alphabet of Sumbawa. The other alphabet of Celebes is no longer used.

The Bima alphabet, formerly in use amongst the Bima people in the island of Sumbawa, east of Sumatra and Java, has now given way to the alphabets of the Celebes.

The ninth and last alphabet of the Archipelago is the Philippine, that of the Tagala nation of the great island of Luzon or Luzonias, and consists of thirteen characters. It is the only one existing in the whole of this group, and seems at one time to have been used among the civilised tribes of the neighbouring islands, having spread even to Magindanao and Sulu. The forms of the letters are rather bold and more complex than that of the Sumatran alphabets.

The main characteristic of the Archipelago letters, their differing among themselves, and their differing equally from all foreign letters, leads to the conclusion that each alphabet was originally separate and independent, and in all likelihood, in the localities in which we at present find them. What caused this early invention of letters among these nations, and at so many different and distant points, it is not very easy to say. The Malayan Peninsular and Borneo, extensive as they are, have never given rise to an indigenous civilisation, sufficient to raise their inhabitants beyond the condition of small and miserable communities, and hence no indigenous alphabet can be traced to them. Their more civilised inhabitants are invariably stranger immigrants. The Borneo coasts are occupied by the Malay race and by the seafaring Orang Laut and Bugis, but in its interior are about sixty nations, and with distinct names, speaking distinct languages. The most powerful are the Dyak and the Kayan, wholly illiterate.

No kind of native writing can be traced to the Spice Islands, which, notwithstanding their rich native productions, are incapable of yielding corn, iron, or cattle, the rough staples of early civilisation, and without the presence of which, letters have never been invented or existed. In the great island of New Guinea, with its savage Negro population, and with the same deficiencies, the presence of any kind of writing is not reasonably to be looked for. No trace of a written character has been found in the wide extent of the islands of the Pacific. Most of them are probably too small to have furnished a population at once sufficiently numerous and concentrated to generate the amount of civilisation requisite for the purpose. In the great islands of New Zealand, with their comparatively energetic race of inhabitants, the discovery of letters would most probably have been made, as among some rude nations of Sumatra, had the civilisation necessary not been precluded by the absence, as in the smaller islands, of the larger animals for labour, and of all the cereal grasses for food.

The facility with which materials to write on are obtained in the countries occupied by the Malayan nations, has probably contributed something towards their early discovery of the art of writing. The want of them on the contrary, is known to have proved a great obstacle to the progress of letters, and probably was to their invention in temperate regions. The absence of a good material in ancient Europe hindered the invention of printing; while its presence in China no doubt contributed largely to its early discovery in that country. Like the Hindus and the Buddhists of Continental Asia of the present day, the Archipelago islanders write on palm leaves, which have received no other preparation than that of being dried, and cut in slips; on the inner bark of trees a little polished only by rubbing; on slips of the bamboo cane, simply freed from its epidermis; and on stone, metal, and finally on paper. The palm leaf ordinarily employed is that of the lontar, or Borassus flabelliformis. The Malay word is most likely a corruption of two words,—ron, a leaf in Javanese, and tar or tal, the proper name of this palm in Sanskrit. This seems corroborated by the Javanese name, which is written rental.

From the use of this word, the practice of writing on palm leaves may have been derived from the Hindus. This word, with many others wholly or partly Sanskrit, belongs to the ceremonial and fictitious dialect of the Javanese language, a genuine native name, kroyate, existing for it in the old dictionary.

The instrument for writing with the palm leaf, bark, and the bamboo, is an iron style, and their writing is, in fact, a rude engraving, which is rendered more legible by rubbing powdered charcoal over the surface, which falls into the grooves, and is swept off the smooth surface.

The Javanese, however, understand the manufacture of a kind of paper from the gluge, Broussonetia papyrifera, and the article itself dalawan, changed into dalanian for the polite language. The process is not the ingenious one of China, India, Persia, and Europe, but greatly resembles that of making the Egyptian papyrus, and still more closely the preparation of the South Sea cloth, the raw material being, indeed, exactly the same. The true bark, cut in slips, is long macerated and beaten, and, after being thus treated, slips of it are joined to each other over a smooth surface, and defects made good by patching. The fabric thus obtained is of a brownish grey colour, unequal in its texture, rigid, but strong. With the exception of the Javanese, it does not seem that the natives of the Archipelago ever wrote with ink, before they were instructed by the Arabs, no doubt from the absence of paper. The Javanese have a native name

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for 'pen' and 'ink,' sun and mansi; but with the other nations the only ones are Arabic, kahun and dowat, often indeed greatly disfigured, as in the example of the Bugis, who convert them into kalah and dawak. The pen generally used is not reed as on the continent of Asia, or a quill as in Europe, but a stub obtained from the Aen palm, Arenga acaccharifera. Even paper is generally known to the Indian islanders by the Arabic name of karta, so that it is probable that a true paper was imported long before the arrival of Europeans, although the natives were never taught the art of preparing it. At present, European paper is in general use by all the more civilised nations, to the exclusion of Asiatic material.

Animal Kingdom.—Mr. A. R. Wallace tells us that the distribution of the existing forms of mammals throughout the Indian Archipelago may thus be indicated. Commencing with the species common in Asia at the present day, and excluding those which may have been introduced in a domesticated state, such as the horse, dog, kine, and deer, the common brown monkey has penetrated farthest from the continent of Asia, as it extends through Sumatra and the trans-Javan chain to the eastern extremity of Timor; but the 30 miles of Strait which separate this island from Letti seems to have stopped its further progress, for it is not found in a wild state in the Serwatty group. To the north, it extends through Borneo and Celebes, and is found in a single island of the Molucca seas, Batchian. This animal, from its habit of frequenting the banks of rivers, is very liable to be carried out to sea in the masses of drift which are sometimes detached from the banks by the current, and its extensive distribution may be attributed to this cause. In Borneo, the elephant co-exists with the black bear (Ursus malayanus), the Felis macropus, or Sumatra gigantic tiger cat, and so many varieties of the quadrumanes that their introduction can scarcely have been accidental. In Java, the rhinoceros, the royal tiger, the wild ox of the Malayan Peninsula, and several varieties of the smaller quadrumanes, still exist in the jungles. Sumatra and the Peninsula contain every form of mammal found in Java and Borneo, with the addition of the tapir. These facts would go to prove that Java, Borneo, and Sumatra continued attached to the continent of Asia at a comparatively recent epoch. The common brown monkey is the only member of the family of quadrumanes that has reached Celebes and Bali, although the strait which separates the latter island from Java is barely 20 miles wide.

The marsupialia range from Australia towards the continent of Asia. A variety of the kangaroo (macropus), two varieties of the opossum (didelphis), one of which closely resembles the ring-tailed opossum of New South Wales (Phalangista Cookii), one variety of the Dasyurus, the native cat of the colonists of New South Wales and Port Essington, and one variety of the small flying opossum, have been found in the south-west part of New Guinea; and, singularly enough, the kangaroo has adapted itself to the half-drowned nature of the country by inhabiting the trees. A variety of the kangaroo still exists at Arru Island, which seems to be identical with the small grey or 'brush' kangaroo, found in the thickets throughout Australia. This is the 'Flinder' of Valentyn. The name by which it is known in the Moluccas is 'Plandok.' In Ceram, the ring-tailed opossum, the native cat, the flying opossum, and the little flying squirrel, all marsupials, and identical in appearance and habits with those which extend throughout Australia, hold undisputed possession of the forest trees. The ring-tailed opossum, which is the most numerous, as in New South Wales, is a common pet throughout the Moluccas. The opossum, more especially the ring-tailed variety, which inhabits trees, is the most hardy of marsupials, that is to say, its geographical range is farther extended than that of any other pouched animal. The tree opossum and the native cat (Dasyurus macoronus) are the only varieties of this ancient form of mammals which have not retreated before the European quadrupeds that have been introduced into the southern districts of Australia, the mere presence of a flock of sheep, without their usual attendant the dog, being sufficient to drive the kangaroos from the 'runs.' The tree opossums are not liable to be disturbed by any animals less agile than the monkey, as they are never seen on the ground except when thrown out of the trees while fighting, and then they scramble up again as fast as they can. The consequence is that the tree opossums now abound in the settled districts of Australia to an extent that could not have happened previous to the arrival of Europeans, when the aborigines kept down their numbers by dragging them out of their nests in the hollows of trees to serve as food. Even the presence of the monkey is not fatal to the tree opossums, as is evident from their co-existing in Timor and in part of South America. The musang or mungoose of the western parts of the Archipelago will prove fatal both to the tree opossum and to the native cat, whenever it comes to be introduced to Australia, as it can enter the hollows of the trees and destroy them in their nests. The tree opossums of Australia feed on the leaves and tender shoots of the Eucalyptus. In the Moluccas, where the Eucalyptus is rare, if found at all, the tree opossums feed on the leaves of the Warringin and Lingoa trees, and on the outer bark of the Kanari. As the two first exist in the Malay Peninsula, the latter under the name of Angsannah, the absence of the tree opossum from this part of the Archipelago cannot be attributed to want of suitable food. The Malayan name is 'kunai,' which has been Latinized by the old Dutch naturalists into 'Cuscas,' and adopted by modern zoologists. In Timor, the ring-tailed opossum, the same as in Celebes, is found on the island. The only marsupial that has yet been traced in Celebes is the flying opossum. The zoological connection of Java, Sumatra, and Borneo with the continent of Asia is as distinct as that of Timor, Ceram, and New Guinea with the continent of Australia. Probably Celebes will be added to the Australian group. The inferences to be drawn from these facts must be self-evident. The distinct character of the mammalian forms existing in the countries lying on the Great Asiatic Bank, show that Borneo, Java, and Sumatra were attached to the continent of Asia by an unsubmerged range at a period long subsequent to the separation of Australia, which would imply that the curved land that passes from Formosa through the Philippines, the Moluccas, Java, and
Sumatra, is the most recent line of volcanic action.

Productive Character.—The mountain ranges in south-eastern Asia and the Indian Archipelago are all more or less metalliferous. Lead mines are worked in that part of the Malayan range which traverses the kingdom of Ava; and copper mines have been opened in the Annam or Cochín-Chinese range, the produce of which is equal in quality to South American copper, but inferior to that of Japan. Iron is also smelted from the native ores on the western side of the Annam range, and it is likewise said that silver mines are worked. The tin of the Malay Peninsula, Banka, and Billiton, and the gold of the Peninsula, Borneo, and Celebes, are all collected from the deposits in which the projected metal has been deposited. Lodes have been discovered and followed up, but they are found to fine away. Lead and antimony ores are found in the Cambodian range to the north of Kampot. Maize, upland rice, yams, and other esculent roots here attain perfection. The wheat grown in the uplands of Timor is remarkably rich in gluten, although the small size of the grain gives it an unfavourable appearance in European eyes. The coffee, cotton, cacao, and hemp (Musca textilis) growing on the upheaved areas are the best produced in the Archipelago. Coal has been found. Iron ore of excellent quality is abundant where the line of upheaval has crossed primary ranges; so necessary is a flux in smelting the metal, is found everywhere. In the island of Celebes, copper was found, but the strata had been so broken up, that mining operations could not have been prosecuted with advantage (Journ. Ind. Arch. iv. p. 495). Reputed gold deposits lie on the south side of the island. Quicksilver in a pure state is sometimes brought to Coupang by natives from the interior. The gold deposits in the western parts of the Archipelago are supposed to be now pretty well exhausted; and in the more remote regions—Timor, New Guinea, and possibly Sumba—are the only spots in which the steady course of industry is likely to be interrupted by the search for precious metals. The native chiefs of the former island, terrified by the rapacity of the early European navigators, are said to have combined in establishing a law which made searching for gold a capital crime, except on occasions in which it was thought proper to propitiate the deity by the dedication of a Bulan Mas or golden moon, when a human being was sacrificed to the spirits of the mines before the gold could be collected. This ceremony is probably alluded to in the Account of Timor, published in appendix, p. 6, Moor's Notice of the Archipelago.

Commerce.—Intercourse between continental Asia and the islands of the Archipelago dates from a very remote period. Their rare products were in request in China and India long before they were heard of in Europe. Camphor and spices, two of the most esteemed productions of these islands, were used by the Chinese 2000 years ago, the one for diffusing an aromatic fragrance through their temples, the other as indispensable condiments in their feasts. In the volcanic area, a surpassing richness of the soil is produced from the volcanic rock, which decomposes rapidly before the influence of the atmosphere. The natural productions are unimportant.—the nutmeg, which is scattered over that portion of the band which approaches the continent of Australia, being almost the sole exception. But the docility of the native inhabitants proved to be such, that they were easily coerced to labour, and the curved volcanic band which traverses the Archipelago became studded with European settlements throughout its length and breadth, which now yield the great bulk of the produce exported from the Indian Archipelago. In the northern part of the Philippines, the famed Manila tobacco is the chief product; sugar plantations occupy the centre; and the Musca textilis, which yields the Manila hemp, is the chief product of the south. Spices are almost the sole productions of the Dutch settlements of the Moluccas. Some islands east of Java yield products suited to the wants of the natives to such an extent as to give rise to an export trade with all parts of the Archipelago. In Java, coffee, sugar, rice, cinnamon, and tobacco are the most important articles, the two first being exported to Holland in immense quantities. Coffee and pepper are the chief products of Sumatra, where the soil is less fertile than in some of the other islands of the band. The volcanic agency here becomes comparatively weak, and is confined to the outer coast of the island, which, being backed by an area of upheaval, the greater portion of the alluvium descends into the sea and sea-cliffs.

The edible nest, which is constructed by the Colloclasia nidifica in the caverns of the limestone cliffs, is found throughout the areas of simple upheaval. Agar-agar, a marine lichen extensively used in China, trepang or sea-slug, and mother-of-pearl shell, are common to both banks, but the Australian bank is by far the most productive.

Ocean Traffic.—There are five different seas recognised by European geography within the limits of the Eastern Archipelago, viz. the wide expanse between Borneo and the Malay Peninsula; another between Borneo and Java, called the Java Sea; another between Celebes and Timor; the Sea of Celebes, between that island, Sulu, and Mindanao; and the fifth, a basin of considerable extent, between the Philippines, Palawan, and Borneo. Around all these flow, on the west, the Bay of Bengal and the Indian Ocean.

Atmospheric Phenomena.—The transparency of the atmosphere is so great, that sometimes Venus can be discovered in the sky in the middle of the day. Especially in the rainy season, the land looms very greatly; then we see mountains which are from 5000 to 6000 feet high, at a distance of 80 or 100 English miles (Jansen). Waterspouts in many parts are very frequent. The height of the spouts is usually somewhat less than 200 yards, and their diameter not more than 20 feet; but when the opportunity of correctly measuring them has been favourable, as it generally is when they pass between the islands, so that the distance of their basis could be accurately determined, they have never been found higher than 700 yards, nor thicker than 50 yards. In October, in the Archipelago of Rhio, they travel from south-west to north-east. They seldom last longer than five minutes; generally they are dissipated in less time. As they are going away, the bulbous tube, which is as palpable as that of a thermometer, becomes broader at the base, and little clouds…
like steam from the pipe of a locomotive, are continually thrown off from the circumference of the spout, and gradually the water is released. In the north-east part of the Archipelago, the east monsoon is the rainy monsoon. The phenomena in the north-east part are thus wholly different from those in the Java Sea. In the Archipelago there is generally high water but once a day, and, with the equinoxes, the tides also turn. The places which have high water by day in one monsoon get it at night in the other.

Religion.—Wherever western civilisation has reached the indigenes, they have conformed to the religions of the new-comers. The brown or Malay race are largely Mahomedan in Sumatra and in the Malay Peninsula; in Sumbawa the Mahomedans take a high place, and are largely proselytizing the mountainers, who, however, secretly trust in their idols. Bali is still Hindu, and the Balinese burn their dead, and the widows and some slaves of rajas burn with their husband's corpse, but other widows burn or are despatched with a kris. Hindus now and again found in Java, where many magnificent ruins still attest its duration and greatness. The Arabs subsequently gained a footing there, as well as in the other islands of the Archipelago, and gradually supplanted the religion and governments of India. The Philippines have become largely Christian. Mahomedan Malays inter without coffin or shroud. Kayan Dyas are idol-worshippers, keep their dead for some days, and inter in a coffin made of the hollowed trunk of a tree. The Javanese give picturesque names to the various places in the island, such as Prosperity, Country of Ghosts, Unlucky, Heroic Difficulty. The Javanese are skilful workers in metals, gold, iron, brass, cutlery, and in carpentry. Their kris has a hundred forms. Javanese and Sumatrans are both of Malay race, but the amok is almost unknown in Java.

Johore Archipelago is formed by the prolongation of the zone of elevation of the Malay Peninsula from Singapore to Billiton. It is so closely connected geographically with Johore as to appear a continuation of it, partially submerged by the sea. These islands (with the exception of a few of the most southerly) formed the insular part of the kingdom of Johore from the 13th century to the British occupation of Singapore in 1818. There are several hundreds of islets, besides the considerable islands of Batam, Bintang, Kriman, Gampang, Gallat, Linga, and Sinkep, and Banka and Billiton may also be considered as included in it. They are geologically and ethnologically, although not geographically the same, thinly inhabited by several interesting tribes. Some of these have been slightly noticed by Dutch writers, but the greater part still remain undescribed. The more important of the tribes are those termed collectively Orang Perakun, literally the people divided into tribes. They are all vassals of the king. Those of the highest rank, to whom distinct services are appropriated when the king goes to sea or engages in war, are the Bentan under an Ulubashing; the Singgera under a Batin, the Kopet under a Jinnang, the Bulo, and the Linga. The other tribes, some of the land and some of the coasts or creeks, are the Gilam, Bekaka, Sugi, Muro, Tambus, Mantung, Kiling, Timiang, Mua, Pulo Boya, and Silat. Beside these, there are some wild tribes in the interior of the larger islands.

ARCHIPELAGO.

Mergui Archipelago, on the coast of Tenasserim, extends in a triple line from 8° 39' to 13° 13' N. The Suyer islands and King Island are the principal islands. Other islets are known as St. Matthew, Russell, Phipps, Hastings, and Barwell. They are inhabited by the Seling race, a seafaring fisher people, using the trident and bows and arrows in their fishing. Dr. Hefner thought their hair archetypal of Negroes. St. Matthew rises to 3000 feet. In 1881 the British Indian Government made arrangements for their colonization.

The Chagos Archipelago, belonging to Great Britain, between 5° and 7° S., about 74° 30' E., and the great Chagos Bank. They are coral islands, the chief being the Great Chagos. To its N. W. is a group of six islands, and the Pescos Bankhos group has twenty-seven islands of small extent, their produce being cocoanut oil, cotton, salt fish, and tortoiseshell. —Crawford's Malay Grammar; Crawford's Ind. Arch.; G. W. Earle's Papuans; Earle's Ind. Arch.; Jour. Ind. Arch. from 1847 to 1858; Suppl. to No. 5, J. Ind. Arch., Dec. 1847, p. 336; History of Java; Latham's Descriptive Ethnology; Elliot's Magnetic Survey, in Philosophical Transactions, 1851; Manly's Physical Geography; Moderna's Narrative of the Voyage of the Triton; Sir Edward Belcher's Survey; Quarterly Review, No. 222; Sir Rod. Murchison, Ann. Address Geo. Soc., 1845; St. John's Ind. Arch.; A. R. Wallace on the Varieties of Men in the Malay Archipelago; A. R. Wallace in Report of the Society for the Adv. of Science for 1863, p. 147; Moor's Archipelago; Walton's State.

ARCHITECTURE.

From the early part of the 19th century, the architectural remains and sculptures left by the races who in bygone times have ruled in India and its neighbouring countries, have been receiving more and more attention from the Government of India, and from Europeans residing there; for the Hindus were a strangely non-recording race, and, prior to the advent of Mahomedan conquerors, the rocks, the temples, the caves, the tombs, and the inscriptions on these, furnish almost the sole record of the many Hindu, Buddhist, and Jaina dynasties who held sway. Amongst those who have been thus engaged in their investigation, may be mentioned Colonel Mackenzie, Mr. James Trussef, Colonel Sykes, Mr. Edward Thomas, Major Gill, General A. Cunningham, Mr. A. Burgess, Mr. Burnett, and pre-eminentily Mr. James Fergusson, F.R.S., who has devoted a long life to these researches, traveling the various countries, and publishing the result of his inspections in his

Rock-cut Temples of India, 1815
Ancient Architecture in Hindustan, 1817
Palaces of Nineveh and Persopolis, 1831
Illustrated Handbook for India, 1846
History of Architecture, 1847
Holy Sepulchre, 1865
Study of Indian Architecture, 1867
Tree and Serpent Worship, 1865
Rude Stone Monuments, 1873
Temples of the Jews, 1875
Cave Temples of Western India (jointly with Mr. James Burgess), 1890

Age.—The oldest architectural remains in British India belong to a race who, at the advent of the Aryans, occupied the country between the Himalaya and Vindhyah mountains. They consist of square tower-like temples, with a perpendicular base, but having a curvilinear out-
line above. Throughout the north-west of India, the earliest material in use was timber. It was not till after the arrival of Alexander that stone was worked by the Indian architects; and although soon after Alexander's time stone became the material employed, construction long retained the forms which were needed in the employment of wood. The Indians are supposed to have learned from the Bactrian Greeks how to make use of stone; and Mrs. Manning is even inclined to believe that Alexander had left artists in India, B.C. 323, and Dr. Hunter says (p. 267, vol. iv.), what the Buddhists were to the architecture of northern India, that the Greeks were to its sculpture; Greek faces and profiles constantly occur in ancient Buddhist statuary. The purest specimens have been found in the Panjaban. Proceeding eastward from the Panjaban, purity of outline gives place to lusciousness of form. In the female figures, the artists trust more and more to swelling breasts and towering chignon, and load the neck with constantly accumulating jewels. In Ceylon, the Buddhist temple of Anuradhapura seems to have been erected prior to the Christian era. At Ruhunugala, a temple of the Chola dynasty, there are towers in their colossal dimensions, but the dwelling-houses and religious buildings generally in Burma are all of wood, and do not permit the display which can be attained with stone, or even with brick and mortar. The architecture and ornamentation of the temples of India are by far the most interesting and complete memorials of the ancient sacerdotal and regal grandeur of India which are in existence, and give a striking impression of the former splendour of the ruling empires. The Dharwar sculptures are the records of Chalukya, Ho! Sala, Belal, and other dynasties. The Nizam's territories comprehend the seats of some of the greatest and most powerful sovereignties of the Dekhan, such as Kalyan, the capital of the Western Chalukya and Bijala Raya dynasties; Devagiri, or Deoghar, the capital of the Yadava; Varangaal of the Kakateya, and the great Mahomedan principalities of the times of Golconda, subsequently split into the subordinate principalities of the Bijapur Adil Shahi, the Ahmaddaggar Nizam Shahi, Golconda Kutub Shahi, Bener Inauid Shahi, and Beder Birud Shahi, etc. The great religious institutions now in the south of India, are Sri Sisaim in Cuddapah, Conjeeveram, Chellambaram, Srirangam, etc. There are also many religious edifices of great architectural merit, very worthy of being depicted and preserved for the beauty of their sculpture and elegance of their design, such as the stone mantapam in the fort at Vellore, latterly used as an arsenal, the temples at Tanjore, Gangondaram, and Tribhuvanam, the pagodas at Lepichil in Bellary, and of Tarpatry in Cuddapah, with many others equally worthy of admiration, in secluded and desert places, little known beyond their immediate neighbourhood.

Materials.—India owes the introduction of stone for architectural purposes to the great Asoka, who reigns from B.C. 272 to 236. In the twelfth century, after his consecration, the sixteenth from his inauguration, which was B.C. 255 or 257, he published his rock-cut edicts, in which he mentions his allies, Antiochus and Antigonus, Ptolemy (Philadelphos), Magas of Cyrene, and Alexander of Macedonia. But although the use of stone for sculpture had been general, the date B.C. 250 commences its history for architectural purposes, and for at least five or six centuries after that time all the monuments now known to us are Buddhist. Mr. Ferguson tells us that, in the south of the Peninsula of India, nearly all the finest buildings of early times have been constructed of stone, while the edifices erected within the past five hundred years, comprising some of the most stupendous piles at present to be met with, are of brick. In the Dekhan, the most massy structures are carved from greenstone rock, with a delicacy and correctness quite astonishing. The vaults and domes of tombs and temples are commonly bolted with iron from top to bottom, and in many cases, instead of scaffolding, the structure is surrounded with a high wall ten or twenty feet off, the interval between being filled up with earth; a long inclined plane having served for raising the stones. A magnificent structure of this sort, the tomb of one of the Gwalior princes, stood half finished near Poona for some thirty years, and native architecture could there be seen in perfection in all stages of advance. Since the Indian railroads commenced, with their great spanning bridges, the rocks of all their neighbourhoods have been largely utilised; and having, formed of greenstones, granites, blue slates, limestones, and sandstones, where to be seen. Throughout the great volcanic district of the Dekhan, the various kinds of greenstone have been largely used. Amongst the blue slate formation along the valleys of the Kistna and Tumbadora, and the compact limestone formation on each side of these rivers, houses have ever been constructed of these materials, but the favourite rock for ornamental purposes in the Buddhist and Hindu temples and Mahomedan mosques of peninsular India is the dark greenstone, often, from its polish, being called black marble. The Buddhist caves of Ellora, and the smaller caves at Malerk, Mominabad and Ajunta, are excavated out of the greenstone and greenstone amygdaloid; those at Ellora, about twenty in number, are in the face of the ghat, almost scarped as it falls into the valley of the Godavary; and about a similar number are at Ajunta, in a ravine near the scarped ghts overlooking the Kandivali. These temples are at the Irawadi, near Prone, lock on the river. In Madras and Calcutta, and in S. India generally, brick is now an ordinary building material. The blue slates and limestones of the valleys of the Godavary and Kistna and their affluents are utilised, and several imposing structures are built of laterite. But in the whole of Burma and the Tenasserim Provinces, the people's houses are built of wooden planks, with shingled roofs. Buddhist and Jain dynasties were of longer duration, and the vast cave temples, etc., of Prone, Karli, Elephanta, Ellora, and Ajunta testify to the stability and power of their projectors, for some of them must have been in progress for hundreds of years, and their commencement dates from prior to the birth of Christ. Those Indian sovereigns who have longest possessed territories, the Rajput races of Rajputana, and the Solair dynasty of Mowar, have erected numerous magnificent structures in their capitals. The little permanency, since 800 years, of most Indian dynasties, has left the result only of spasmodic efforts of Hindus and Mahomedans, such as still exist at Agra, Bijapur, Aurangabad, Gogi, Golconda, Keluranga, Dowatabad, and Hyderabad, in the form of tombs, mosques, and Jain temples. Around Delhi red sandstone is largely used.
ARCHITECTURE.

Character.—In architecture and in sculpture, the greatest efforts of the dominant races were directed to the formation of religious structures, many of them objects of wondering amazement, and are greatly in contrast with the humble and scattered or wattle and daub structures in which all the people of India continue to dwell, and sadly to indicate hundreds of years of instability and turmoil. In the 2000 years that intervened between the 8th century before and the 12th century after the Christian era, the religious tenets of the Buddhists, of the Jains, and of the Brahmanas alternately prevailed, and many towns have remains of these religions, and many of their temples have been utilized by the different sects, as they alternately became predominant. Baduani, for instance, has both Buddhist and Brahmienical caves; and Buddhist remains are seen at Aiwalli, five or six miles to its north, and at Purukul or Pittrasoundkul, as far on its south.

Mr. Ferguson (p. 441) supposes that the caves at Ellora were of the following religions:—

Buddhist, Viswakarma to Das Avatar, A.D. 500-600.
Jaina, Indra, Jiganath, Subhas, etc., A.D. 550-650.
Hindu, Kameswar to Dhummar Lena, A.D. 600-750.

Dowlatabad, A.D. 725-900.

Khajuraho, in Bundelkhand, has about thirty important temples, all, except the Chao-sat Jogini, of nearly the same age, A.D. 950 to 1050, one-third Jaina, one-third Vishanwara, and the remainder Saiva, the last with indecent figures.

The temples in the south of India, he says (pp. 40-54), are of the same form for Siva or Vishnu worship, the idols or images or emblems worshipped, or the sculptures adorning them, marking the religious sect to which they belong.

The Vimana is the principal part, the actual temple itself. It is always square in plan, and surmounted by a pyramidal roof of one or more storeys; it contains the cell in which the image of the god or his emblem is placed.

The Mantapa or porches always cover and precede the door leading to the cell.

The Gopura are the principal features in the quadrangular enclosures which always surround the Vimana.

The Choutries, Chattras, or pillared halls, were used for various purposes, and are invariable accompaniments; there are, besides, tanks or wells for water for sacred purposes or the convenience of the priests, dwellings for all the various grades of the priesthood attached to it, and many other buildings designed for state or convenience.

The Stambha, or Lat, are pillars common to all the styles of Indian architecture. With the Buddhists they have been employed to bear inscriptions on their shafts, with emblems or animals on their capitals; with the Jains they were generally leopards or lamp-bearing pillars; with the Vaishnava Hindus they generally bore statues of Parvada or Hanuman; with the Saiva sect they were flagstaffs. But whatever the object of their erection, they were always among the most original, and frequently the most elegant, productions of Indian art. The most noteworthy are the Chnab Minar at Delhi, and the Jaya Stambhas 4 Ceil, Dowlatabad, and Gaur.

Rails are an imposing feature of later Buddhist architecture. Generally they are found surrounding tops; but they are also represented as enclosing sacred trees, temples, pillars, and other objects.

Chaitiyas, or assembly halls, in Buddhist art correspond in every respect with the churches of the Christian religion; their plans, the position of the altar or relic casket, the aisles, and other peculiarities, are the same in both, and their uses identical.

The Viharas, or monasteries, like the chaitiya, resemble very closely the similar institution among Christians. In the earlier ages they accompanied, but were detached from, the chaitiyas or churches. In later times they were furnished with chapels and altars, in which the service could be performed independently of the chaitiya halls, which may or may not be found in their proximity.

Lats.—The oldest of these with which we are acquainted, are those set up by king Asoka, in the 27th year after his consecration, the 31st of his reign, to bear inscriptions, conveying to his subjects the leading doctrines of the new faith he had adopted. They have shafts averaging twelve diameters in height. The rock-cut edifices of the same king are dated in his twelfth year, and convey in a less condensed form the same information, but inculcating respect to parents and priests, kindness and charity to all men, and, above all, tenderness towards animals. The best known of these lats was re-set up by Firoz Shah at Delhi. A fragment of a second was found lying on the ground near Hindu Red wall for the city of Delhi. Two others exist in Tirhut, Radhia, and Mattiah.

The most complete lat was found in 1837 lying on the ground in the fort at Allahabad, and was then re-erected with a pedestal. In addition to the Asoka inscriptions, it contains one by Samudra Gupta (A.D. 380 to 400), detailing the glories of his reign, and the great deeds of his ancestors. It seems to have been thrown down, but to have been re-erected by Jahangir (A.D. 1605), with a Persian inscription to commemorate his accession. It has lost its crowning ornaments, but the base is 7 feet 7 inches long, and the shaft 33 feet. — Beng. As. Soc. Jo. iii. and vi. pp. 794, 969.

There is a shorter pillar at Sankissa in the Doab, with a honeysuckle crowning ornament, and surmounted by an elephant. Half-way between Muttra and Kanouj (Canouj), and at Bettah in Tirhut, is another pillar of a similar nature, surmounted by a lion. There are two built pillars among the tops of Kabal, and evidently eoeval with them. They are known as the Surkh Minar and the Minar Chakari and are ascribed to the time of Alexander. The lats of Asoka are supposed to have been erected in front of, or in connection with, a stupa or other building since disappeared, and the lats themselves have been moved from their original sites. At Karli there is one surmounted by four lions in front of the great cave, and two in front of the great cave at Kenheri, which is an exact but debased copy of the great Karli cave. The two lats at Eru, and the iron pillar at Delhi, seem certainly to belong to the era of the Guptas of the 4th or beginning of the 5th centuries of the Christian era, and to be dedicated to the Vanishnava faith. The lat at Pathari may also be of the Gupta time.

Gopura.—Buddhists, Jains, and Hindus have directed an almost equal attention to the Gopura or gateways of their towns and temples. These, both in form and purpose, resemble the pylons of the Egyptian temples; the courts with pillars and cloisters are common to both, and very similar
in arrangement and extent. The great mantapas and halls of 1000 columns reproduce the hypostyle halls, both in purpose and effect, with almost minute accuracy. The absence of any central tower or mina, over which the sanctuary is universal in Egypt, and only conspicuously violated in one instance in India; and the mode of aggregation and amount of labour bestowed on them is common to both.

Domes.—The Buddhists in their structural buildings always employed circular roofs, and in all ages built topes with domical forms externally, but never seem to have attempted an internal dome, in stone at least. The dome is essentially a feature of Jain architecture, and almost exclusively so among the northern Indians. It was an essential feature of the Mahomedans before they came to India, and from the Jaina dome they worked out a style of their own. Hindus occasionally tried to imitate the Jaina dome. Many of the domes over the tombs of the Mahomedans who have been dominant in the Dehkan, and those to be seen at Bijapur, Beder, Gogt, Kulpurga, Goleconda, Ahmadabad, and a few others in the Dehkan, are examples of this style.

Buddhist Caves.—In western India, the earliest architectural remains are those of the Buddhists, ranging from about B.C. 250 to the 7th or 8th century of the Christian era. They are chiefly in the form of rock-cut temples and monasteries. The best known are at Ajunta, Ellora, Karli, Kanheri, and Junagarh, but there are others in British territory, in the Hyderabad dominions, and along the borders of the two provinces, and in the ghat. The dahogons, large cylindrical structures, with a domed top surmounted by a capital, and the arched roofs of the chaitya or temple caves, are characteristic of Buddhist caves, so also is the prevalence as an ornament of the chaitya window or arch in the shape of a horseshoe, though this is also found in early Brahmanical buildings and caves. The viharas or monasteries have usually cells around them, often with stone benches or pillars central.

The Jaina caves are sometimes so like the later Buddhist caves at Ajunta, as to be difficult to distinguish. Those at Dara-sinha are of this character. Generally the nudity of the images, their snakes, and their ringlets, at once mark them.

The Brahmanical caves are fewer than the Buddhist. They range probably between the 5th and 8th centuries of this era. Saiva caves are to be seen in Elephanta and Jogeswari near Bombay, at Ellora, and at Aihole and Badami in the Kaladgi district, and two fine Vaishnava caves, one of them at Badami. So far as yet known, Brahmanical caves consist of halls, with a single cell or shrine, and occasionally, as at Elephanta, with one or two small cells for utensils, etc., but without rooms for monks along their sides. The sect to which a cave belonged is indicated by the sculptures,—the linga, Ganpati, Siva, Bhairava, Ard-dha-nari, Ravana, Bhavani, Sarasvati, Maheswari, etc., figuring prominent in Saiva caves; Vishnu, Varaha, Narasinha, Virabhadra, Garuda, etc., are prominent in Vaishnava caves. The sculptures over the entrance and shrine door indicate better than anything else, by, or for, what sect the temple was originally built. Thus, if Ganpati is on the lintel, it may be concluded that the temple was a Saiva one; nine figures (nau graha) in a line, the eighth being a large face only, indicates a Sauriya temple, or one dedicated to the worship of the sun; a winged figure (Garuda) marks a Vaishnava temple; and a sitting figure (Jina), with the legs turned up in front, and the hands resting in the lap, a Jaina shrine. In some instances, where the Saiva sect have appropriated the Jaina shrines, the Jina has been metamorphosed into a Ganpati. Where no change in the dedication of the shrine has taken place, the figure in the shrine will confirm the above. Surya, however, may easily be mistaken for Vishnu, their images being nearly alike, only Surya holds in one or both his hands a large sun-flower. Sometimes he is represented in a chariot drawn by seven horses.

Styles.—The Dravidian style of architecture is characterized by its massiveness in walls, pillars, etc. The principal architectural lines in the roofs and shrines are horizontal, making the latter resemble storeyed pyramids; and the vertical breaks in the wall line are of but slight projection, sometimes set off with slender pilasters, or with or without sculptures between. In the earlier remains of this style, the pillars are generally very thick, and square or polygonal, while those of the later, are sometimes round, and generally remarkable for the number of horizontal members on the shafts and bases; the capitals, except the abaci, are circular, with bracket sur-capitals. The remains in this style belong to the period between the 14th and early part of the 13th century. The Kailas temple at Ellora, the seven pagodas at Madras, belong to this style, which prevails in the southern parts of the Bombay Presidency, and in the Hyderabad territory. Only one at Pattadkal has a spire in the Chalukya style.

The Chalukya style prevailed between the 9th to the middle of the 14th century, and is characterized generally by more elaborateness of ornament, by balconies and roofings supported by richly carved brackets, by the outer faces of the walls of shrines being broken up into a series of projecting corners, with equal faces, and by pillars square in section with a projecting face or fascia. At the base of a square pillar with a slightly narrower but very thin pilaster added to each side. These latter, however, while the typical section was retained, were liable to great modification, from the large amount of sculpture often lavished on them. The spires are proportionately higher than those of the southern style, with a couple or more of successive projections on each side. The faces and lines of projection are vertical at first, but higher up they fall inwards with a gentle curve towards the summit, which is crowned by a kala or finial, varying in form and size with the form and age of the building. The walls are often elaborately carved with belts of figures, and the stones are carefully fitted and clamped inside, but without mortar. Some of the finest examples of this style are to be seen in the gates of Jhinjiwada, the gates and Hira temple at Dabhol, the temple of Mudhera, and Rudra Mala, at Siddhpur in Gujarat; in the Jaina temples at Mount Abn, in the small temple at Amarnath, near Kalyan, and at some shrines at Pattadkal and Aihole in the Kaladgi collectorate. To these two there seems to have succeeded what may be called a medieval style, combining some of the features of each, and covering the period from about A.D. 1150 to 1600. To it belong most of the Jain temples, and the later Hindu temples in Gujarat; and those temples
Jainism seems to have disappeared. There seems also to have been a pause, at least in the north of India; but a revival occurred in the 16th century, especially under Rana Khumbo of Mewar, a.d. 1418-1468, who made his capital at Chitora. Though deficient in the extreme grace and elegance that characterized the earliest examples, those of the middle style are bold and vigorous expressions of the art.

Mount Abu, says Mr. Ferguson, p. 234, rises from the desert as abruptly as an island from the ocean, and presents on almost every side inaccessible scarp up to 5600 feet high, the summit being reached only by ravines that cut into its sides. When the summit is reached, it opens out into a lovely valley six or seven miles long by two or three miles in width, with the little Nahi Talao or Pearl Lake, and near to it, at Delwara, the Jains selected a site for their pilgrimage or birth. During Jaina supremacy, it was adorned with several temples, two of which are of white marble. The more modern of these was built by the two brothers Tejpal and Vastupala, who erected a triple temple at Girmar (a.d. 1197-1247), and for minute delicacy of carving and beauty of details it stands almost unrivalled. The other, built also by a merchant, Vimala Sah, about a.d. 1032, is simpler and bolder, and is the oldest and most complete example of a Jaina temple. It is dedicated to Parswanath, who is seated within.

The slender and elegant pillars, and the richly carved horizontal domes of the Jain structures, he says, pp. 203-8, were easily destroyed or utilised by the Mahomedans. The great mosques of Ajmir, Dehli, Kanouj, Bhar, and Ahmadabad are all reconstructed temples of the Jains.

The Aiwulli temple, a few miles north of Badami, has an inscription on its outer gateway mentioning Vikramaditya Chalukya, who began to reign a.d. 650, and died 680. South of Badami is a temple at Pittaialkul.

The sacred hill of Sutrunjya, near Palitana in Gujerat, about 30 miles from Gogo, illustrates the Jaina custom of grouping their temples. They are in hundreds of thousands, covering over the summits of two extensive hills. The smaller shrines line the streets; the larger temples are enclosed in ‘tucks,’ or separate enclosures, surrounded by high fortified walls. A few yati priests and a few servants are there to perform the daily services and keep the place clean, but there are no other residents there. The pilgrim goes up and returns. It is a city of the gods. The shrines are almost all the gifts of single wealthy individuals. Some are as old as the 11th century, but the largest number have been constructed since the early part of the 19th century.

The Chan-mukhi, or four-faced temple at Palitana, Mr. Ferguson describes (pp. 253, 274, and 279) as very grand. The temple of Arishur is the largest single temple on that hill.

Girnar, on the south coast of Gujerat, not far from Somnath Patan, is a sacred hill of the Jains. The hill rises 2500 feet above the sea, and the temples are built on its side. A rock outside the town of Junagarg, at its foot, has a copy of the cincta of Asoka (b.c. 250); and on the same rock is an inscription, a.d. 151, by Rudra Dana, the Sah king of Saurashtra, mentioning his victories over the Sat-karui kings of the Dekhan. It contains also a record, a.d. 457, of the repair of a

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usually described as Hemadpuri, in Kandesh, Berar, and the Hyderabad dominions, dating from the 12th to the middle of the 14th century.

In the Hindu styles from the 17th century there is considerable variety. The Mahomedan curved arch is often introduced; forms derived from the Dravidian appear, and plaster and mortar take the place of sculpture and careful jointing. In some cases very beautiful wood-carving is introduced, as may be seen in temples in Gujerat.

The ceilings and domes of Hindu and Jain temples are sometimes of singular excellence of execution. In the western side of India, the cased arch and the dome characterize the Mahomedan style of architecture; but that of Ahmadabad and that of the Bijapur buildings present points of difference. Perforated stone-work occurs in old Hindu buildings; but specimens remarkable for the variety of beautiful design are chiefly to be found in the Mahomedan works of the 15th and following centuries at Ahmadabad and Aurungabad.

Silasasamin, or inscriptions on stones, are the most numerous in the Canarese country.—J. Burgess, Archæological Surveyor and Reporter, in No. 6, Archæological Survey of Western India, Bombay, 1877.

Jaina.—Mr. Ferguson tells us that the principal Jain works are in Rajputana, Gwalior, and Bundelkhand. Their sculptures almost entirely are restricted to the representation of their twenty-four hierarchs, whom they call tirthankara, to each of whom a symbol is attached,—generally some animal, fish, or flower, in one instance a crescent, in another a thunderbolt. Some of the Jaina temples are of great beauty. Brahmansical sculptures are countless, and consist of temples, with representations of the Hindu divinities. Jains, says Mr. Ferguson, p. 240, have their shrines on the hills of Palitana, Girnar, Gwalior, Mount Abu, and Parisnath, but also in deep secluded valleys. One of these, at Muktagiri near Gwighur, is in a deep, well-wooded valley, traversed by a stream with several waterfalls. At Sudi there is a group of fortresses, the walls of which have been destroyed by Khumbo, rana of Udajipur, in a lonely silent den, below his fort of Komulmur, dedicated to Adinatha or Reshabdeva, the first and greatest of the Jaina saints. It covers 48,000 square feet. The rock at Gwalior, in Central India, has one remarkable Jaina structure, dedicated to Padma-nath, their sixth tirthankara, and the rock on all sides has a series of caves or rock-cut sculptures, most of them mere niches to contain statues, all of them excavated between 1441 and 1474. One of the figures is 57 feet high. He mentions that their temples the saint is very numerous presented by images in cells or niches. At handraravi, a few miles southward from Mount Abu, is a ruined city, with extensive remains of Jain temples of the same age as those on the mount.

Parisnath is the highest point of the Bengal range of hills south of Rajmahal. It is one of the Jain pilgrim shrines, and nineteen of their twenty-four tirthankaras are said to have died and been buried there; amongst others Parswanath, the last but one them. The temples on it are numerous, at Jainism, he tells us, p. 254, never seem to have been a firm place in Bengal; and when the Pala dynasty of Bengal, about a.d. 1208, left Buddhism and accepted the Vaishnava and Saiva superstitions,
bridge by Skanda, the last of the Gupta kings. The temple of Neminatha is the oldest of a group of sixteen temples, 600 feet below the summit. Behind it is a triple temple, erected A.D. 1177, by the brothers Tejpal and Vastupala. Not far from Givar, on the sea-shore, is the temple of Somnath, captured by Mahomed, A.D. 1025.

Khajuraho, the ancient capital of the Chandel dynasty, is about 125 miles W.S.W. of Allahabad, and 150 miles S.E. from Gwalior. It is now deserted, but has in and around it about thirty temples, the most beautiful in form as well as the most elegant in detail of any of the temples now standing in India. They were erected simultaneously in the 11th century, and are nearly equally divided among three religions,—Jaina, Saiva, and Vaishnava. Each group has one shrine greater than the rest, round which the smaller ones are clustered. In the Saiva groups it is the Kundarya Mahadeva; in the Vaishnava it is the Rama Chandra; and in the Jaina group it is the Jinaanatha. The Parsvanatha Jaina temple has a rich base, the Gomathai, or Bear temple, and Chittorgarh Jompra, which has sixty-four cells.

At Gyasperur, near Bhilsa, 140 miles S.W. of Khajuraho, is a group of columns, supposed to be Jaina, and there are others in the Mokundra pass. In the Ulwar territory at Bhangur are some very beautiful Jaina temples. One called Nan Gungi has an image 20 feet in height. The fragment of a little temple at Aweh, near Ajunta, shows it to have been a Jaina shrine of Sri Allat, the twelfth king mentioned in Tod's Rajastan (p. 802).

Chitore.—The elegant Jaina tower dedicated to the first of the Jaina tirthankaras, Adinath, was erected about A.D. 806, on the brow of Chitore. It is about 80 feet in height, and is adorned with sculpture and mouldings from base to summit, among which the figure of Adinath is repeated a hundred times. Another tower, of later build, was by Humbo, son of Malwar, A.D. 1458, as a Jaya Stambha, nine storeys high, as a pillar of his victory over Mahmuud of Malwa, A.D. 1439, like that of Trajan at Rome. It is 30 feet wide at its base, and more than 120 feet in height, in nine storeys, and the whole is covered with architectural ornaments and sculptures. The Chinese nine-storeyed towers are almost literal copies of these Jaina towers.

Sonaghur, near Duttach in Bundelkhand, and Muktagiri, near Gwailghur, in Berar, show the most modern styles of Jain architecture. Sonaghur is a granite hill covered with large loose masses of rock, among which stand 80 to 100 temples of various shapes and sizes. The sikra is rare, and the foliated pointed Mahomedan arch is the usual opening. Muktagiri is a deep romantic valley, and its largest group of temples are on a platform at the foot of a waterfall, that thunders down from a height of 60 feet above them. The temples are only remarkable from showing their adoption of the Mahomedan style. At Delhi is a Jaina temple of much beauty. The background of the strut of its porch has pierced, foliated tracery, of the most exquisite device. At Khandagiri, near Cuttack, are Jaina caves, and there is one at Badami without any inscription. But there are three Brahmanical caves, one of which has the date 500 Saka (A.D. 579). The Indra Subha and Jaganath Subha groups at Ellora are supposed to be of the same age as the Badami cave temple. At Ajmir the Arhais-din-ka Jompra has been described as a Jaina temple. So also is a great part of the mosque at the Kutub, Delhi.

Some of the Hoysala Belalla kings were Jains; but their buildings at Somnathpur, Bellur or Hulilabad belong to the Vaishnava or Saiva faiths. The Basli temples of the southern Jains, like the Jaina temples of northern India, always have a tirthankara as the object of worship. The Bettu temples of southern India are open courtyards, containing images of Gomati, who possibly may be Gautama Buddha. There are two hills at the village of Svarana Belula, 33 miles N. by W. from Sringeripatnam. On one of these, a mass of yonite 500 feet high, a Jaina image, 70 feet 3 inches high, has been carved out of the solid rock. The expression of its features is pleasing, with curly hair; and at Kurkala, the image, 41 feet 6 inches, and weight 80 tons, has been moved to its present site, and was erected A.D. 1432. The third, and supposed oldest, at Yannur, is 55 feet high. They belong to the Digambara sect of the Jains, being entirely naked, but with twigs of Bo Tree twisted round their legs and arms, with serpents at their feet. In the Jaina cave at Badani, the figure has two snakes twisted around its legs and arms, and the Bo Tree is placed behind. On a shoulder of the other hill at Svarana Belula, called Chandragiri, are the Basli temples, fifteen in number, all of the Dravidian style, raised into storeys. The Jaina temple at Moodbidri, and all others in Canara, resemble the temples of Nepal, and many of them are built of wood. The interiors are richly and variedly carved, with massive pillars. A large number of the tombs of the priests, some of them five to seven storeys in height, each with a sloping roof, like the temples of Khatmandu, Tibet, and China. The Stambhas, or free standing pillars of the Jainas in Canara, are very graceful.

The Jaina temples are Martand, Avantipore, Payech, Bhaniyar, and Wanyat. Martand, 60 feet by 38 feet, is now in ruins. It is 5 miles east of Islamabad, and is built on an elevated plateau that overlooks the valley. Its enclosing courtyard is 220 feet by 142 feet. The enclosure was erected by Lalitaditya, who reigned A.D. 725 to 761. General Cunningham, however, thinks that the temple was erected by Ranaditya, who reigned A.D. 578 to 594. The courtyard of this, and of all the Kashmir temples, was constructed to admit of it being filled with water. The principal Naga figures in the niches have three or five headed snake hoods at the back of their heads. The Avantipore temples were erected by Avantivarma, who was the first king of the Utpala dynasty, and reigned from A.D. 875 to 904. He was a zealous Saiva. The style is rich in detail.

Nepal, at the present day, has three religions—Buddhist, Saiva, and Vaishnava—flourishing side by side. Its three capitals are Patan, Bh具ghat, and Khatmandu; and its religious state resembles the condition of India in the 7th century, when the buddhist and brahmanical religions flourished side by side. By the oldest records, the valley seems to have been occupied by the Kirata, the Bhot, and the Newar races, of Tibetan origin, who had early adopted the buddhist doctrines, and still adhere to them. The oldest and most important monuments in the Nepal valley are
those of Swayambunath, beautifully situated on an eminence about a mile from Kathmandu, and Bouddhama, at Kasacihel, some distance off. Their most beautiful temples possess many storeys, divided with sloping roofs. At Patan it is one with Sakyamuni in the basal floor, Amritabha the second storey, a small stone chaitya the third, the burial pyramid of Mahendra the fourth, and the fifth or apex of the building is a small Churamani or jewel-headed chaitya. Mention may also be made of the Bhwani temple at Bhagaon, of Mahadeo and Krishna at Patan.

Temples in Kulu, Kangra, and Kamaon are numerous, and all of wood, usually the timber of the deodar.

Rajputana.—Mr. Ferguson says, p. 473, that the palace at Udaipur of the rulers of Mewar, those of Duttiah and Orcha in Bundelkhand, the Gwalior palace, and that at Amber in the Jeypore state, are all worthy of notice; and the palace at Deeg, which is quite a fair structure, was the work of Sura Mall, founder of the Bhurptur dynasty, who began it in the year 1725, though unfinished when he was killed in battle by Najif Khan, A.D. 1763. Every native capital in Rajputana, he tells us, has a cenotaph, or maha sati, where the sovereigns, their wives and nearest relatives, are buried. The most magnificent of these are the hundreds at Udaipur, all crowned by domes; and that of Singram Singh, to twenty-one of his wives, is the most. He was buried A.D. 1733. He built that of his predecessor, Amar Singh II. The tomb of Bakhtawar Singh at Ulwar, erected in the 19th century, and the tombs of the Bhurptur rajas at Govardhan, are also noteworthy. The temples at Orissa are more numerous than those of all Hindustan. They were erected between the years A.D. 500 and 1200. That at Bhuvaneswar was A.D. 637; that at Puri was A.D. 1174; and, with the exception of that of Jagannath at Puri, the ancient Dantapura, all were erected under the great Kesari dynasty, or Lion line of kings, who reigned A.D. 473 till 1131, when they were succeeded by the Ganga Vansa, the third of whom built Jagannath. That called Parasuram Esvara is 20 feet square and 38 feet high, and its sculptures are cut with a delicacy seldom surpassed, and of the most elaborate character. It is supposed to have been built A.D. 450 or 500. Those of the Mukt Esvara shrine are even richer and more varied in detail. Bhuvaneswar temple is supposed by Mr. Ferguson (p. 420) to have been built by Lekal Indra K. Mani, who reigned A.D. 617 to 657. It is the finest example of a purely Hindu temple in India, 300 feet long and 60 to 75 feet in breadth. Every inch of the surface is covered with carving in the most elaborate manner, and the effect is marvellously beautiful. Its Nat Mandir, or dancing hall, was erected by the wife of Salini, between A.D. 1099 and 1104. Besides this, there are the Raj Rani temple, and many others.

The Canarac temple is known to the British as the Black Pagoda. The Jagannath temple at Puri is said to have been erected over an image of Vishnu, which had been concealed from the favana. Externally it measures 670 to 640 feet, and is surrounded by a wall 20 to 30 feet high, with four gates. An inner enclosure measures 20 by 315 feet, and is enclosed by a double wall with four openings. Within this last stands the Baja Dewul, and the great tower rises to 192 feet.
line its galleries extend to nearly 10,000 linear feet. On the inner face of the second gallery is portrayed, in 120 bas-reliefs, the entire life of Sakya Muni. In the galleries above this are groups of Buddhas, bodhisattwas, and saints, and many crested snakes. The temple at Mendoet, two and a half miles from Boro Buddh, has three colossal figures, supposed to be Buddha, Siva, and Vishnu, with a figure of Lakshmi. The temple of Toonampang also merits mention, and that of Pan-taran (A.D. 1416) is called the serpent temple, because its base is made up of eight great crested serpents. There are temples at Matjampontik; and on the Djeing plateau there are five or six small temples, also temples at Suku.—Fery. pp. 637-662.

In China, Pailoo are erected as honorific distinctions of eminent men, or of virgins or widows who have remained unmarried. Pekin has the temple of the Great Dragon, a circular pyramid, and a buddhist monastery; the pagoda, and a pavilion in the summer palace, and the Tung Cheu pagoda, all merit notice. The Buddhists of Burma, at Prome and Rangoon, have erected magnificent temples for their worship, with much detail, but with a magnitude of dimensions that prevents the thought of purity. The great colossal figures of the pagodas at Rangoon and Prome are magnificent structures. That at Rangoon, built on the most elevated part of a great laterite ridge, towers majestically above all surrounding objects. The Chinese joss-houses there are simple structures, but ornamental from their pleasingly contrasted colouring.

The finest architectural remains in Burma are to be seen in the deserted city of Pagan, but many of the most magnificent have been greatly shattered by earthquakes. The bow and the pointed arch, as well as the flat and the circular, have been in use long before their employment in India. Modern buildings are chiefly of wood. Palaces and monasteries, carved with extraordinary richness of detail, and often gilt all over, present an aspect of barbaric splendour. The dogabas, relic chambers, which form at once the objects and the localities of Buddhist worship, are almost the only brick structures now erected, and these are often gilt all over.—£40,000 are said to have been expended on a single temple. The ordinary buildings are chiefly built of bamboo and thatched with grass, and well raised from the ground on piles. In carving, the Burmese artisans give full scope to the working of a luxuriant and whimsical fancy.

Islam.—Relics professing Islam have been great builders. The pastoral Arab races from Arabia extended their sway from the banks of the Gudal-ququiv to those of the Indus. The pastoral Turk and Moghol races, issuing from Balkh, Bokhara, and Samarkand, at times under Constantine to Cuttack, and covered the whole intervening space with monuments of every kind. In 1683, the Turks were encamped under the walls of Vienna. In India they adopted some styles of the Hindus, but there are at least fifteen different styles in Mahomedan architecture, of which the most prominent are those of Ghazni of the Pathans, that of the Shardj of Jompon (Jamnapur), of Malwa and Bengal, in the north of India; and in the south, that of the Bahmani, Adal Shahi, Kutub Shahi, Moghulai of Baber and Sind, Oudh and Mysore. Some of the mosques, as the Jamma Masjid of Hyderabad and the mosques at Bijapur, are grand imposing structures; but one of the prettiest to be met with is the little Damri Masjid at Ahmadnagar, built from the farthing or damri donations made from the wages of those workmen who erected the fort at that place. Of the tombs of Mahomedans, the usual shape is a vast cupola on a square pedestal. These, commonly called Gumbaz, are to be seen wherever Mahomedans have ruled; but those at the fortress of Golconda, of the Kutub dynasty of Hyderabad in the Dehcan, are only surpassed in magnificence by the tombs of the Adal Shahi family of Bijapur. Some of the Adal Shahi kings of Bijapur are buried at Gog, south of Kuburga; and there is a Langar Khanah near, with arabecausaes surpassing anything to be seen in the south of India. The tombs of Kuburga are of little merit. The tomb of Aurangzeb's daughter at Aurangabad is said to have been in imitation of that at Agra over the queen of Shah Jahan, Arjumand Banu Begum, Mumtaz Mahal.

The Arch.—Hindus, up to the advent of the Mahomedans, do not appear to have known the arch, nor to have been able to construct vaults or domes otherwise than by successive layers of stone projecting beyond those beneath, as in the Treasury of Atreus in Mycene. Prior to the reign of Akbar (A.D. 1556), the only examples of the arch in Hindu architecture are in some brick buildings of the Pala dynasty at Nalanda in Bengal. In India, flat arches of stone and brick are not uncommon. In Burma, Captain Yule (Embassy, p. 48) discerned two brick, in windows in the Dhamayangyee temple at Pagan, where no suggestion of European or Indian aid could have helped. There is one flat stone arch in the northern gate of the fort, and another in a tomb, at Kurnool. There is one in the mediaeval building of Roshan Castle, and in the magnificent Saracen gateway of Cairo, called Bab-el-Fitour.

Hindus erect columns and arches, or rather gateways, in honour of victories. There is a highly wrought example of the column at Chitour, 120 feet high. A fine triumphal arch (if that term can be applied to a square opening) has been erected at Barnagar, in the north of Gujerat. It is among the richest specimens of Hindu art. The streets and squares of Chinese cities have monumental arches erected in honour of renowned warriors, illustrious statesmen, distinguished citizens, learned scholars, virtuous women, or dutiful children. They are in the form of a triple arch, the largest in the centre richly sculptured.—Gray, p. 11; Elphinstone, p. 163. The latter author also tells us, p. 430, that the unfinished mosque near the Kutub Minar presents specimens of the pointed arch, which, besides for their height and the mah or ornamental inscriptions with which they are covered, merit mention as early examples of this form of arch. The centre arch appears by the inscription to have been finished in A.D. 1197, A.H. 594. Many of the buildings of the later princes before Akbar have small pointed arches. The mosques are composed of a collection of small cupolas, each resting on four pillars; so that the whole mosque is only a succession of arches between ranges of pillars, with no clear space of any extent. The Black Mosque at Dehl, however, is in the ancient style, though built in A.D. 1387 under Firoz Taghalah; and the tomb of Ghiaus-ul-Din Taghalah, who died
in A.D. 1325, is covered with one cupola of considerable magnitude. The arches are different at different times. The early ones are plain Gothic arches; the latest are ogee and horseshoe arches, feathered all round. The domes at first are low and flat; they gradually gain elevation till the time of Jahanigir, when they take in considerably more than half a sphere, and are raised upon a cylinder. Through the constant use of the pointed arch, the nature of the tracery and some other particulars create a resemblance between the Gothic and Indian architecture which strikes every one at first sight, yet the frequency and importance of domes, and the prevalence of horizontal lines in the Indian, make an essential difference between the styles. The more ancient buildings, in particular, which in other respects are most like the Gothic, are marked by a bold and unbroken cornice formed of flat stones, projecting very far, and supported by deep brackets or mudekons of the same material. In the 10th and 11th century, says Mr. Ferguson, p. 506, Mahmud of Ghazni inspired his nobles with a taste for architecture; and Ferishta says his capital was in a short time ornamented with mosques, porches, minars, fountains, aqueducts, reservoirs, and cisterns beyond any eastern city. Of the Turk and Pathan rulers who succeeded to the dominion in India, we have left to us the mosque at old Delhi and that at Ajmir, also the Kutub Minar, the tombs of Ala-ud-Din and his successors, down to the accession of Baber, A.D. 1494.

The Kutub at old Delhi was erected from the pillars and other parts of Jaina temples, and many of them retain the sculptured figures. The minar at the Kutub is 48 feet 4 inches in diameter at the base; and in 1794, though its capital was then ruined, it was still 242 feet in height. Its present height is 258 feet 1 inch, deducting the modern pavilion. It has four ornamental balconies, respectively at 97, 148, 188, and 214 feet from the ground, between which are richly sculptured raised belts containing inscriptions. It is lower by 30 feet than the Campasule at Florence. It is a tower of victory and a seat of the Koran. The dates of the ruins in old Delhi are from 1196 to 1235. The inner court was enclosed by Shahah-ud-Din. The central range of arches was built by Kutub-ud-Din; the wings by Alatamsh, whose tomb is beyond the northern range, and who also built or founded the Kutub Minar. The iron pillar at the Kutub in the centre of its courtyard stands 22 feet above ground, and extends 20 inches under ground; total, 23 feet 8 inches. Its diameter at the base is 16 feet 4 inches, and at the capital it is 12'05 inches. There is no date on it, but Mr. Ferguson says (p. 506) that Mr. Prinsep supposed an inscription on it to be of the 3d or 4th century; but Dr. Bhu Daji supposed the 6th century. It is forged iron. An inscription on it says it was dedicated to Vishnu; but its real purpose was a pillar of victory to record the defeat of the Mahrattas near the seven mouths of the Sind or Indus. Behind the N.W. corner of the mosque is the tomb of Alatamsh.

**Mosques, Tombs.**—The mosque at Ajmir was commenced A.D. 1200, and completed by Alatamsh 210-1296, and is called the Arhai din ka jhoompra. It was constructed from a Jaina temple. Its courtyard has a screen of seven inches, on which Cufic and Togara inscriptions are interwoven with architectural decorations. A mere mention must be made of the tomb at Sikri near Gwalior; and that of Sibar Shah near Saseraon in Shahbad; at Jumpon (Jumpar), the Jamn Masjid and Lai Darwaza Masjid; at Ahmadabad, the Jamna Masjid and other mosques; and tombs and mosques at Sirkej and Butwa; the Jamna Masjid at Cambay, erected A.D. 1325, in the time of Mahmud Shah Ghori; the tomb of Mahmud Begurra near Kaira; at Mandu, the great mosque, the Dharmasala, the Jahan Mahal; in Bengal, the Kadan Rasul mosque, the Minar at Gaur, and the Adinah mosque at Mahall.

In the Dekhan are the mosques and bazaar at Kalbarga. At Beder, the Madrasa erected by Mahomed Gous, minister of Mahmud II., and the tombs of the Berid Shahi who ruled there 1492 to 1609. At Bijapur are the Jamna Masjid, the tomb of Ibrahim II.,—the whole of the Koran is said to be sculptured on its walls,—the smaller tomb of his successor, Mahmud, and the great Audience Hall. In the vicinity of Tatta, in Sind, are a series of tombs erected during the Mogul dynasty by the great men of the province, from 1572 to 1640. Akbar’s reign, 1556-1605, was conspicuous for the many structures he erected. Amongst these are the mausoleum over his father at old Dehi, the old or Red Palace in the fort, built of red sandstone, 249 feet by 260 feet; the palace at Futtapour Sikri, and the three small pavilions which he erected for his three favourite wives, the daughter of Bir-Bul, the Rumi Sultanah, and the Christian Miriam, and its mosque, hardly surpassed by any in India. He commenced his own tomb at Secundan near Agra, and it was finished in Jahanigir’s reign.

Wherever Pathan dynasties ruled in India, their architectural remains are of a magnificent character. At Dehi, Agra, Mandu, and Burhanpur, ruins of palaces, mosques, and mausoleums attest the magnificence of their founders, and their noble, scientifically constructed fortifications attest their skill. Of the early Pathans of the Ghori and Khipli dynasties from A.D. 1193 to 1305, the most important is the Minar of Zulminar, of majestic beauty, erected A.D. 1200, and the stern grandeur of Taghalaquebad, A.D. 1321. The style is different of the late Pathan, of the Taghalaque and Sadiq dynasties, A.D. 1321 to 1451, the Afghan of the Lodi and Suri dynasties, A.D. 1451 to 1554.

Mr. Ferguson tells us, p. 384, that the notable civil buildings of the rulers of southern India are all of dates subsequent to their occupants coming in contact with Mahometans. The palaces, the cutcheries, the elephant stables, and the dependencies of the mahals of the rajas at Vijnanagar and Madura, rival in extent and splendour the temples themselves, and are not surpassed in magnificence by the Mahomedan structures of Bijapur and Boder. The civil buildings are all in a different style of architecture from the tribarate style employed in the temples. The Swarga-Vilasam, or throne-room of the palace at Madura, is an arcade octagon covered by a dome 60 feet in diameter and 60 feet in height. The greater part of the buildings of the palace at Tanjore belong to the 18th century, and some to the 19th. The palace buildings at Vijnanagar consist of a number of detached pavilions, baths, harem.

The usual form of a Pathan tomb was an
octagonal apartment, surrounded by a dome, the apartments surrounded by an arched verandah, the arches rising from square columns.—As. Soc. J. iii. and vi. pp. 794, 909; Gray's China; Elphinstone's History of India; Ferguson's History of Architecture; Memoirs. Ferguson and Burgess, Mr. Ferguson to p. 236, and Mr. Burgess to p. 132; Gen. A. Cunningham's Report of Archeological Survey of India, 1871-74; Gen. Cunningham's Bhilsa Topes; Imperial Gazetteer; Rev. J. Burgess, Arch. Survey of Western India, Bombay, 1877.

ARÇOT, a small town about 65 miles W. from Madras, taking its name from two Tamil words, Ar-n-Kudru, the six jinglers on the river Palar; Sanskrit, Shad Aranya. It is in 12° 55' 23" N., and 79° 24' 14" E., and 590 feet above the sea. It is the Arkaton Basilica of the Greeks, and the capital of the nomade Sorai (Sarai), the whole of the neighbouring territory for several centuries after the Christian era having been occupied by shepherd Kurumbars, and then formed the centre of the Chola kingdom. But it must have been a place of great antiquity, by its being taken notice of by Ptolemy as the capital of the Sore of Sorranandalum, from whence corruptly Coromandel. The Chola dynasty was about thirty years in the beginning of the 12th century, by Adonai, an illegitimate son of Kuluttunga Chola. The country, however, again lay waste, until Nala Bonma-Naidu and Timma Naidu built, or rebuilt, the town of Arcot, which was occupied for generations by their successors, who again were put aside by Aurungzeb's general, Zu-ul-Figaran Khan, who took Ginji a.d. 1698, and settled many of his co-religionists in the country. Their descendants are still numerous. Arcot town, in 1712, was made the seat of government by Saadatullah Khan, the first Nawab of Arcot. Clive, in 1751, with a small detachment, took Arcot, but it was immediately invested by a force 10,000 strong, sent by Chanda Sahib. Clive's force consisted of 120 Europeans and 200 sepoys, with four officers, and their food supplies were very scant; yet for fifty days, and though the walls were breached, they withstood every effort of the besiegers. During the Mahometan attack they repulsed an attempt to storm the place, in which they lost five or six men, but the assailant's loss was 400. The struggle lasted for an hour, and in the night the enemy withdrew. Clive was then reinforced from Madras with 200 British and 700 sepoys. He took the fort of Timmery, effected a junction with a division of Morari Rao's army, and marched against and defeated the French and Chanda Sahib's army; after which Conjeveram surrendered, and the governor of Arnee declared for Muhammad Ali, who assumed the title of Walajah, was recognised as Nawab of Arcot; and until a.d. 1833, the British, at the Madras mint, continued to issue coins as struck at Arcot. The N. Arcot district lies between lat. 12° 21' and 14° 10' 45" N., and long. 78° 14' 45" and 80° 13' E. Area, 7130 square miles; and population, 2,015,278. The Parish or Malas-Vandlu are 20 per cent., and form the great body of agricultural labourers. The wandering tribes are the Banjara, Lambadi, Sugali, and Dumar; and the forest and hill tribes are the Irular, Yanadi, Yerkala, and Maleali. The two great zamindari estates of Kalastr and Kavetunnagar are in the N. Arcot district; also the Pollam of Kongundi. The jaghir of Arnee is hereditary in the family of a Mahratta brahman held under a sumund from Lord Hobart, dated 10th May 1796. The Chittur poligars claim descent from officers of the Vijianagar government; months old when that dynasty was overthrown, these were assumed into it, until Muhammad Ali was firmly assumed as nawab. When the British as sumed the government in 1801, they again became refractory, and were subdued by a force. Three poligars were forfeited, one was continued, and five were taken under government management until 1826. The principal river is the Pal: smaller rivers are the Poinye, Cheyar, and Surnamukhi. There are about 40,000 tanks, the chief of them being that of Kaveripak, ten miles east of Arcot, the bund of which is four miles long.—Imp. Gaz.

ARÇOT SOUTH is a Madras district, lying between lat. 11° 10' 30" and 12° 38' 30" N., and long. 78° 33' 30" and 80° 12' 15" E., with an area of 4873 square miles, and a population of 1,785,813 souls. South Arcot has been under British administration permanently since the year 1801. Towards the W. are the Coorebbo Govwden and the Jeldyan Wenden, which run on the N.W. the Cunchun range separating the Cullacooroch taluq from Salem, some parts rising 5000 feet high. Parts of the southern hills are under a poligar, and the Chenganna hills are occupied by the Maleali race. The chief river is the Culerun across which dams have been constructed to obtain water for irrigation. The Vellar river rises S. of the Shevaroy hills, in Salem, and disembogues at Porto Novo. The Penum river in Nundur and enters the sea N. of New Town, Cuddalore. The Veeranum tank, in the Managudi taluq, is one of the largest tanks in S. India, its dam being ten miles long; it is supplied chiefly from the lower dam across the Culerun. The Walajah tank dam is six miles long. Cuddalore has been occupied by the British since 1682. In the strife for supremacy between the British and the French, Tipu Sultan, and Nawab Muhammad Ali, Cuddalore, Port Novo, Ginji, Pandyal, and the Chenganna hills were firmly changed hands. His forces, 95 5 per cent.; Mahomedans, 2 per cent., with a sprinkling of Christians and Jains. The Valalar are the cultivators; the Vyan are the land-holding cultivators; the Pariah, labourers and menials; and the Chettaya are traders. The Kora, a predatory race, are swineherds and basket-makers. In the forest tracts are the Irular, Villeyar, and Maleali. The Padyal, a section of the Pariah, are field labourers.

ARCTIC TISTIS BINTURONG, the black bear cat occurs in India. It is of the sub-family Viverrinae, family Viverridae, tribe Digitigrada.

ARCTOCEPHALUS LOBATUS, the Australian sea-bear, is amongst the largest of the seal family. They occasionally congregate in vast numbers on various parts of the coast of Australia. A. ursinus, when full grown, is 8 or 9 feet long, and weighs 800 lbs. When young four to five feet long they have fine black hairy hair, and their fur is sold in China at considerable prices. Their favourite summer haunt is the island of St. Paul one of the Pilibrow group. The hunters of the American Fur Company are Aletes, and only young males of about four months old are killed. The males are polygamous, with about forty or fifty females.—Hartwig.
ARCTOMYDIN.E.

ARCTOMYDIN.E, a sub-family of mammals; the marmots, of the natural order Rodentia, and family Sciuridae. Two species of the Arctomys occur in India, A. bohae and A. hemachalanaus, the Tibet marmot and the red marmot.

ARDANDA. HIND. Capparis horrida, Linn. ARDASHIR. There were several Persian sovereigns of this name, viz. Ardashir Babeghan bin Sasan, Artaxerxes, the first of the Sasanian kings, A.D. 226–240; Ardashir (Artaxerxes II.), the tenth, A.D. 380; Ardashir III., the twenty-fifth Sasanian, in A.D. 629, under whom anarchy prevailed. Ardashir-daraz-dast, or of the long arm, was Kai Bahman, the Artaxerxes Longimanus of the Romans. Ardashir I. is supposed to have been平淡, Babeghan, from his father Babek; in A.D. 226, he defeated and slew Artabanus on the plains of Hormuz, and was proclaimed emperor. He was a religious enthusiastic. He caused the sacred books to be translated from Zend to Pehlavi. He used to remark that there can be no power without an army, no army without money, no money without agriculture, and no agriculture without justice.—Malcolm's History of Persia, p. 73.

ARDAWAL. PAK. Rhododendron arbor-etus.

ARDEA, a genus of birds of the family Ardeidae. A. cinerea, the common grey heron of Europe, Asia, N. and S. Africa, is common in India. The young, in Tamil, Nari, sometimes Pamboo nari, or snake-crane, has a nest built of twigs, containing sometimes two, sometimes three eggs. The young are fledged from January to April, according to the time of depositing their eggs, which some do earlier than others. The eggs are of a light-green colour; they are not so large in circumference as a large-sized hen's egg, but are longer. The purple heron of Europe, Asia, and Africa, A. purpurea, in Tamil the Cumbly nari or blanket-crane, deposits two to three eggs, and seems to rear only young. The young are fully fledged in April. A. griseus, the Nycticorax griseus, Linn.; in Tamil, Wuuka; nests contain five eggs; hatches four or five young; eggs the size of a fowl's, and of the same shape. The young are ready in April. Other species are A. goliath and A. Sumanis. Dr. Shortt.

ARDEBIIL, in lat. 38° 14' N., and long. 48° 21' E., 5000 feet above the sea, is a place of shiah pilgrimage. It contains the tombs of shaikh Sai-ud-Din, and of his descendant, Shah Ismail, the founder of the Safavi dynasty. — MacGregor, Persia, p. 26.

ARDÉLAN, a province of Persia. Wooded mountains, separated by narrow valleys and occasional plains, producing excellent pasture, cover its northern portion, which is a nominal dependency of Persia. The wall of this district is also the principal Kurdish chieftain. He claims to be the lineal descendant from the great Salah-ud-Din (Saladin). He holds his court at Schnah, his capital, 60 miles from Hamadan, and 77 from Kirmanshah. A semi occupies the summit of a hill, round which is the town, containing about 4000 Sunni, 200 Jews, and 50 Nestorian Catholic families. The Kurdish districts of Ardelan and Kirmanshah occupy the western limits of Persia, in the region between Azerijan and Luristan, and the space between Elwand and Zagros range. — MacGregor; Rich's Kurdistan, i. p. 209; Euphrates and Tigris, Colonel Chemey, p. 215.

ARECA.

ARDETTA MINUTA, the Botaurus minutus, is the little bittern of Europe, all Africa, W. Asia, Hindukush, Kashmir; replaced in Lower Bengal by A. Sinensis, and more abundantly by A. cinereina, which is common throughout India. Botaurus stellaris is the common bittern of Europe, Asia, all Africa, and is common in India.

ARDHA. SANSK. A half. Dina arsha, half the day; ratri arsha, half the night.

ARDHANARI, also written Ardhanareeswara, the androgynous form of Siva, half man, half woman, representing Siva and Parvati. — Ferguson and Burgess.

ARDHAWA. HIND. A mixture of grain and barley meals, either in equal proportions, or two to one, as the buyer prefers, used in N. India for feeding horses. Both grains are parched and ground before being mixed together. Ardhawa is thought very fattening food for horses; but, owing to the loss of weight and substance in the parching process, and the extra labour required, it is more expensive than plain grain.

ARDI or Artai, the name which Herodotus gives to the ancient Persians. Baroo, de Bode supposes the town of Arka in Fars, near the mountainous region of Ardekan, to have been one of the chief towns of the ancient Persians.

ARDIBEHEST - JASAN, a festival of the Parsees or Zoroastrians, maintained in honour of Ardibehest Amsaspand, the controlling angel, according to their theology, over their sacred fire. On this day the Parsees crowd their fire-temples to offer up prayers to the Supreme Being.—The Parsees, 61.

ARE. TEL. Baouinia racemosa.

AREALU. MALEAL. Urostigma religiosum. ARECA, a genus of plants of the natural order Cococaceae. A Chinese species, called Chu-pin-lang, yields the Ta-fuh-pi, a fibrous rind or fine coir-like fibre.

A. Dicksonii, Roxb., is a tree of the Malabar mountains; the poorer people use its nuts as substitutes for the true betel nut.

A. gracilis, Roxb., is a tree of Sikkim, Silhet, Chittagong, and the S. Konkan; the Ban-gua, or wild areca of Bengal.

A. vinduara, the Ram gua of Bengal, grows as a tree in Chittagong.


The cabbage palm, a native of the West Indies; the wood used the same as Areca catechu, the bud forming the centre of the leaf-crown being the eatable 'cabbage.' It might be extensively cultivated in India.

A. sapinda, the cabbage-tree of New Zealand. Its young unfolded leaves rise perpendicularly in the centre of the crest, and in this state they are used for making brooms; those still unprotruded, and remaining enclosed within the sheaths of the older leaves, form a white mass as thick as a man's arm, and are eaten raw, boiled, or pickled. In a raw state they taste like a nut, and boiled they resemble artichoke bottoms. This palm is of interest as the most southern representative of the palm order.

A. vocaria is so called from clothing being made of its fibres.—Roxb.; Voigt; J. Backhouse, | Visit to Norfolk Island.
A slender, graceful palm, of remarkably erect growth, attaining a height of 30 to 60 feet, with a tuft of feathery leaves at the extreme top. Its cylindrical stem is only a few inches in diameter. It is an object of extensive culture in many parts of tropical Asia, in N. Bengal, Nepal, Malabar, and the S.W. coast of Ceylon; also with the Burmese, and to a smaller extent by the Karens, and in all the islands from Sumatra to the Philippines. It is perhaps the most elegant of all the palms. It is much prized by the natives of Borneo, on account of the delightful fragrance of its flower, which, taken just before opening from the sheath of a pod in which it is borne, is called kalang or kalang. It is requisite in all their medicines and conjurations for the purpose of healing the sick; it is also used, with other sweet-scented flowers, at bridalts and all occasions of festivity. In the arid climate of the central Dekhan, it requires to be protected from the dry winds, either by matting or straw tied round it to prevent it splitting. When this happens, it immediately decays. In gardens, when mixed alternately with the eucalyps, it presents a very striking appearance. The wood is hard and peculiarly streaked, and might be used in turnery for small ornamental work. In Travancore, it is employed for spear handles and bows, for which it is well suited, being very elastic. This palm yields the betel nut of commerce, which, mixed with lime and the leaf of the piper betel, is largely used in use as a masticatory in all the countries of South Asia. The nut is about a foot long, cylindrical in shape, and peculiarly streaked, and in its natural state, is of small ornamental work. A strong decoction of the nut is used in dyeing. Roasted and powdered, they make an excellent dentifrice. Young nuts are prescribed in decoction in dyspepsia, and they are considered to possess astringent and tonic properties. Their use, with betel leaf and lime, discolors the teeth, but the people imagine that it fastens them and cleans the gums. The nuts yield two astringent preparations known as catechu, respectively called, in Tamil, katha kambu and katho kathath, in Telugu, kans; and in the Dekhan, xhrab katha and acha katha. The katha kambu is chewed with the betel leaf; the katho kathath is used medicinally. The tree will produce fruit at five years, and continue to bear for twenty-five years. Unlike the cocoa-nut palm, it will thrive at high regions, and at a distance from the sea. In the Eastern islands, the produce of the tree varies from 200 to 1000 nuts annually. The nuts form a considerable article of commerce with the Eastern Islands and China, and are also one of the staple products of Travancore. They are gathered in July and August, though not fully ripe till October. In Travancore, those that are used by families of rank are collected while the fruit is tender. The husk, or the outer pod, is removed; the kernel, a round, fleshy mass, is boiled in water. In the first boiling of the

ARENGA SACCHARIFERRA.

Labill.

Borassus Goesmotus, Lour. | Saccharum Rumphii, Roxb.
Nawa, Nama, | The Sap.
Monchos, | The Gossamer.
Mackass, | Karvel, Kawil.
Acano, Aonoce, | The Hairy.
Malay, | Duk, Eju, Gomuti, Jav.
Akel, Mandar, | Sumatran.
Sagwan, Sagwire, |
ARENGA SACCHARIFERA.

This is one of the genus Arenga, five species of which chiefly inhabit the islands of the Eastern Archipelago. They are all handsome trees, their favourite localities being dense shady forests and the neighbourhood of rivers and rivulets. This one was so highly thought of by Dr. Roxburgh, that he introduced it largely into India, where the natives have taken kindly to them. It is growing now near Madras, in Bangalore, at Hyderabad, and largely in the Nuggur division of Mysore. It occurs in abundance in a wild state throughout the islands of the Eastern Archipelago, and yields a horsehair-like substance, which has given the name to the tree. It is the only one of this genus of any commercial importance. It comes into bearing about the seventh year, and continues to flower from two to five years, continuing in blossom all the year through, but flowers only once and dies. In general appearance it much resembles the sago palm, but the pinnae of the leaves, which are erect in the latter, droop in the former like those of the niong and many other palms. The gomuti or eju is a black fibrous substance resembling coarse horsehair, which protrudes itself in large tufts from between the corticous scales of this palm. The length of the fibre runs from one to two feet, and each tuft contains about 6 lbs. of the eju. Eju cable is said to be considerably stronger than coir, and it undergoes a longer exposure to sun and rain alternately without experiencing any effectual damage. It is chiefly used by the Malayas about the Straits of Malacca. It is also used as thatch, and a quantity of it is wrapped round the ends of timbers and posts to be put in the ground. Marsden saw a thatch of it fifty years old. Of all vegetable substances, it is the least liable to decay, and is of great service to the Dyaks in their house-building, on account of its durability. This substance is also plaited into ornaments for the arms, legs, and neck, and its deep black and neat appearance render it, to the eye of a European, a much more agreeable ornament than either the brass or beads with which they abundantly adorn their persons. The fibre is considered superior to all others yet made use of for the manufacture of artificial bristles for brushes, imitation horsehair for stuffing, and such-like purposes. The palm wine is extracted from the plant by cutting off the large lateral bunches of fruit. When these are about half-grown, they are severed close to the division of the peduncle or stem, and bamboos are lugged to them. A good tree with two incisions will produce about a gallon of palm wine per day. The plant has constantly kept on the severed part by a thin slice being daily cut off the stem or peduncle, so that at the end of the above-named period it has altogether disappeared. The palm wine is taken from the bamboo twice a day, and when fresh has a very agreeable taste, and is a refreshing drink; the Dyaks, however, always impart a flavour to it by placing a piece of a bitter plant into the bamboo in which it is collected. The tree is mentioned by Marco Polo. The fleshy outer covering of the fruit yields a highly stimulating and corrosive juice, which, when applied to the skin, occasions great pain and inflammation. The inhabitants of the Molucess were in the practice of using, in their wars, in the defence of posts, a liquor afforded by the maceration of the fruit of the gomuti, which the Dutch appropriately denominated devil water. A tree cut down in the Calcutta Gardens yielded 150 lbs. of good sago meal. Its leaves, when very young, are eaten like the American cabbage palm, Oreoidea oleacea, Eadul. The seed, or rather the albumen, when freed from its noxious covering, is made into a sweetmeat by the Chinese. It therefore yields sugar, palm wine, gomuti, sugar, and rum.

ARENGA ARGENTAN.

ARENGA ARGENTAN, a Tahiti people, who formerly buried their friends alive, when from their infirmities they became burdensome. A hole was dug in the sand on the sea-beach; then, under pretence of taking their aged or sick relative to bathe, they would carry him on a litter to the spot, and, tumbling him in, instantly heap stones and earth upon him, and trample all down with their feet; or they would rush into his house and spear him. Jenkins describes the Areco as a sect, institution, or society, in the Pacific Islands, the members of which were allowed to marry; but if children were born, they were required to put them to death. —Jenkins American Expedition, p. 161; Montgomery, p. 82.

ARENGA ARGENTAN, Tel. Dioscorea oppositifolia, L. Aregetti. Tel. Musa sapientum.

ARENGA ARGENTAN, a king mentioned in a copper plate found at Kaira in Gujerat, of date A.D. 1059; his son was Udina Ditya, and his grandson Salivahana.

ARGAS PERSICUS. Fisch. The argas are arachnida, closely allied to the ticks. The argas of Persia is the bug of Minna, a town in Persia. Its size is about that of the common bug; the body is rough, of a blood-red colour, and covered with some elevated white spots. The bite gives severe pain, even giving rise to consumption and death. —Moquin Tandon.

ARGAUM, in Berar. A battle was fought here on the 29th November 1809 (the Imperial Gazetteer says 28th November), in which the army of the Bhonala raja of Nagpur, commanded by his brother Venkoji, was defeated by General Wellesley. On the 13th December, General Stevenson captured Gwaltiur, which led to the treaty of Deogoa on the 19th December.

ARGEMONE MEXICANA. L. Mexican poppy.


This plant, a native of America, grows wild in over-abundant luxuriance in many parts of India, and its large, yellow, thistle-shaped flowers appear January to March. Their seeds and milk-like sap are used in native medicine, but they seem useless. The round corrugated seeds yield a large quantity of pale yellow clear and limpid oil, called Coorakoo, and in Hind. Faringi datura ka tel, nearly as much as the common mustard-seed. It is readily procurable, and cheap. —Madras Ex. Jur. Rep.; Cal. Col. Est., 1862; Roxb.

ARGENTAN, the Peh-t'ung of the Chinese, is an alloy, called white copper, made of copper,
ARGUS

ARGHAN-AB, a river near Kandahar, in the hills, the Gurgan river, the Venkana of the Vendid. On its left bank is the famous grotto, the Ghar-i-Jamshid, sixteen miles S.W. of Kandahar. The Panj Ila hills overlook the river. The whole of the roof of the grotto has the appearance of having been beautifully carved.

ARGHAWAN. Hind. Bauhini variegata, also Edwardsia mollis. An arghawan tree is often mentioned in the verses of Persian poets. The branches and stem in spring are suddenly covered with pink blossom. Botanists have named it Arbor Judae, or Judae’s tree, on account of some very apocryphal tradition, that on a tree of this kind Judas hanged himself. The proper botanical name of this tree is Corynanthes arghawan, quite different plants, the red and the yellow. The yellow is common on all the plains of Central Asia, also on those of Beluchistan and Persia. In the latter region it is named Mahak. It is a shrubby plant, bearing clusters of yellow pea-like flowers, with compound alternate leaves. The red arghawan is a small tree.—Masson’s Journey.

ARGHEL of Egypt. Solenostemma argel, a native of Syria. The leaves are purgative, and are employed in Egypt to adulterate senna.—Hogg, Veg. King. ii. p. 5; Simmonds. See Cassia.

ARGHIAN, a Sind dynasty from A.D. 1521 to 1654–55, during which Shuja Beg and his son Mirza Shah Husain reigned. This tribe came to Sind in the time of the Summa dynasty, whom they overthrew and succeeded, about A.H. 927, and ruled for thirty-four years, being overthrown by the Turk Khans in A.H. 962. Arguhn Nama, also called the Turk Khan Nama, a history named after the Moghul families of Argun and Turk Khans, by Ayd Jalal ud Din Husaini of Shrinaz, who composed this work A.H. 1065, A.D. 1654-5.

ARGHUN KHAN of Persia was Kabal Khan’s great nephew. His wife was Zibilkinna, the Khutun Bulugan, daughter of the Greek emperor Palaeologus, a lady of great beauty and ability. She had been married to Abaka, but on his demise, according to the marriage customs of the Mongols, she passed to the Urga of her step-son, Argun. On her death, Argun, with his brother, Khi-Khu, went to a great house where a wonder was brought out by the great Khan, and he was received with the utmost honours, and was given a horse and riding outfit. He then went to the court of Bayaut, but Argun died before the lady Kuka-Chin was brought out, and she passed to Ghazan, the nephew of Argun, for Argun had been succeeded by Khi-Khu, his brother.—Elliott, p. 498; Quart. Rev., July 1868.

ARGHYA. Sansk. A present or gift, indicative of respect to a superior. It matters not of what it consists, and is often of flowers.—Hind. Th. i. p. 312. See Argha.

ARGILLA, also Hargila. Hind. The adjutant bird, Leptoptilus argilu.

ARGILLACEOUS EARTH. Hwah-shih, , , , CHIN. Fei-hwoh-shi, , , , CHIN. Kwang-fen, , , An unctuous friable earth from Kwang-si, Hunan, and Shan-tung, of a pale yellowish colour, used as a chalk for drawing, and internally as an alternative remedy.—Smith, p. 23.

ARGO, A. Argus, Argoun, mahomedan Kashmir emigrants, or the descendants of such who have settled in Ladakh, Yarkand, Chang-tan, or in any part of Chinese Tartary, for policy and security. They usually have establishments with agencies at the principal towns and cities they frequent and trade with. Thus the Argon of Ladakh, besides his original or primary establishment at Ladakh, has another at Yarkand, and also perhaps, according to his means or extent of trade, at Aksu, Ilchi, Turfan, etc.; while the Argoons of Yarkand, as also the Kochjas of Andejan, are known to have establishements in many towns and cities of Russian Siberia. They are also described as a mixed race resident at Le, half Kashmiri and half Boti. The same term, in Yarkand, also is applied to half bloods.—Powell’s Handbook, p. 182, 183.

ARGONAUTA, the argonaut, or paper sailor, a genus of mollusces of the class Cephalopoda, family Octopoda, order Dibranchiata, underclass and family Argonautidae. Several species occur on the seas on the south and east of Asia, viz. A. Argo, cornu, cymbium, gondola, hians, thannura, turbucula, and vitrea. See Mollusca.

ARGUS, analogue of Indra, who is depicted with a thousand eyes, like the Argus of the Greeks, and is hence called the thousand-eyed god.

ARGUS PHEASANT. Lungi, Hind. Cerionis satyra, Linn. In the Malay Peninsula, called Coo-ow by the Malays. It occurs in India, China, Java, and Sumatra. See Phasianidae; Pheasant.
ARGYREA BRACHTEA. Choisy.  
Ipomoea bracteata, Hayne.  Samudra patta, SANSK.  
A twining shrub growing in Madras and Coromandel, filled with milky juice. Decorations of the leaves are used by the natives as fomentations in cases of scrofulous enlargement of the joints; the boiled leaves are used as poultices at the same time.—Wight; Useful Plants.

ARGYREA MALABARICA. Choisy.  
Katu Kalango, MAL.  Paymoostey, TAM.  
Grows in Mysore, Malabar; common on the ghats. Root cathartic; considered by ferriers a good horse medicine.—Andlue.

ARGYREA SPECIOSA. Ser.  
Convolvulus speciosus, L. Lettisia speciosa, Roxb.  
" nervous, Bum.  "  Lettisia nervosa, R. 483.  
Hich-tarka, BENG. Samudra-patra, Tel.  
Samudra Shoks, HIND. Chandra-pala, Tel.  
Guli, Gu.  "  Kakitta, kokkita, Tel.  
The Elephant Creeper grows all over India in forests and hedges. It has large deep rose-coloured flowers. Leaves are used by native practitioners in the preparation of emollient poultices, and also in cutaneous complaints, being applied externally to the parts affected,—upper side as a discentient, and the under, white, side as a murtanant.—Roxb.; Voigt: Ainsl., Useful Plants; O'Sh.; Wright, 1e.  
ARHAR. HIND. Cajanus Indicus; pigeon pea.  
ARHAT. HIND. A lifting water-wheel.  
ARHAT, the highest rank in the buddhist hierarchy; a buddhist saint who has attained to the fourth grade in the scale of perfection, also a perfected Jaina saint. Arhata, religious buddhist councillors who assembled at Pataniputra with Asoka. After nine months' consultation, they sent out nine teachers, viz., one to Kashmir and Peshawar; a second to the country of the Nerbdda; a third to Mewar and Bundi; a fourth to Northern Sind; a fifth to the Mahrrata country; a sixth to the Greek province of Kabal, Arachosia; a seventh to the Himalaya; the eighth to Ava or Siam, that is, the golden land, the aurea regio or the aureas chersonesus; and the ninth to Lanka or Ceylon. Some circumstancies of which we are uninformed, must have prepared these regions for the reception of the ascetic doctrines of Sakya Muni, which still prevail throughout Ceylon, Burma, Siam, Tibet, and China, amongst about one-fourth of the human race. See Buddha.  
ARHI-PATA. SANSK. Lord of the day; a name of Surya, the sun.  
ARI. TEL. Bahushin racemosa, Lam.  
ARIA BEFON. MALEAL. Azadirachta Indica.  
ARI-ALU. MALEAL. Ficus religiosa, Linn.  
ARIAMANUS, from Ari, a foe, and Manus, a man, the Ahriman of the Parsees.  
ARIANA (Iran) was the generic name for the country east of Persia and Media as far as the Indus, and Arian Abakhafasa is supposed to have been an Aryan territory near Kabul and the Paropamisus.

ARIA PALUS, of the ancients, is a lake formed by the accumulation of the waters of the Helmand at the southern extremity of its course, and called the lake of Zarrah by Europeans. This is a contraction of Zarrenj, the ancient capital, and this again represents the Zarangi or Drangi of the Greeks. In old Persian books it is called 'Daria-Reza, or little sea.' The present inhabitants of Seistan call it Meshila-i-Rustum, also

Moshila-i-Seistan. The ordinary name of the lake is Hamun, or the expans.—Ferrier's Journ.

ARIA VELA. MALEAL. Cleome viscosa.

ARIG,EUM, a town near the territory of the Siah Pash Kafris, at which the Greeks in their advance on India established a military colony.—ARIKELU. Tel.  Paspalum frumentaceum.

ARIKELU. TAM. Marsilea quadrifolia.  
ARIKOTE. Tel.  Pointea Roxburghii, D.C.  
ARIPO, a small town 11 miles S. of Mangar, built on a low sandy beach on the south side of the river, in lat. 8° 46' 30" N. and long. 79° 55' 30" E. Its chief importance is connected with the pearl fishery.

ARIS. HIND. Adhatoda vasica.

ARIS.EMA, a genus of the Araceae or Arum tribe of plants. A. gracile is mentioned by Dr. Honieberger as occurring abundantly in the Himalaya, on the south side of the Pür Pandjáli, from the top to the bottom. Its juice very acrid; the roots are considered by the Hakims to be an excellent remedy against every description of animal poison. A. dracontium and A. tripheylum are introduced plants. Dr. Stewart mentions A. curvatam, A. speciosum, and A. tortuosum as Punjáb plants. A. tripheylum, Endl., the Pwan-hwa of the Chinese, is a very acrid and caustic plant, and, along with species of Pythionium, Pinella tuberifera, and Arum macerorum, it forms part of the compound for destroying the sensation of parts to be operated on.—Smith; Honiey; Stewart; Voigt.

ARISHITA. SANSK. A savage bull killed by Krishna. It approached the place where he was dancing with the Gopin sheepdresses, when he seized it by the horns, one of which he tore off, and with it slew the bull.—Garrett.

ARISHITA NEMI, a name of Ksasyapa. He was the near kinsman of Krishna, they being the sons of Basdeo and Samudra, the eldest and youngest of ten brothers of the Yadu race.

ARISHITA PHENILA. SANSK. Soap nut.

ARISI. TAM. Husked rice of Orzya sativa.

ARISINA. CAN. Cureuma longa, Roxb.

ARISTIDA, a genus of plants growing all over India, in dry, barren, binding soil. A. depressa, Retz, and A. setacea, Retz, are common in many dry parts of the central and western Punjab and Trans-Indus, and in parts of the outer hills towards the west up to 2500 feet, and said to be a favourite food of cattle. In Madras, A. setacea, Shipur gadi, Tel., the broom grass, is used for brooms and tatties.

ARISTOLOCHIA, a genus of the Birth Wort tribe, with about 12 species in India. A. acuminata is in many places cultivated as a flowering plant, for its large dark greenish purple flowers. A. angucida, odoratissima, labiosa, cymbifera, elecamitis, foetens, and Braziliensis are introduced plants. A. longa and A. rotunda, natives of the south of Europe and Kashmir, are found in the medicine bazaars of India, under the names of Zurawund taweel (or daraz, the long), and Zurawund moadaruj (or gird, the round), with Aristolochia as the Greek name. The roots of A. longa are given by the Hakims in diseases of the womb, ulcers and affections of the gums; the latter in itch, lues, for drying up sores, destroying lice and intestinal worms, also for promoting the renal and menstrual secretions. A. longa, Zurawund taweel, occurs in whitish twisted pieces, the

ARIOLOCHIA.
ARISTOLOCHIA BRACETEA. Retz.

Gundata, Kira-mar, Dekh. Gaalida-gadda-pu, Tel. Birthwort, Eng. Purugu pallay, Pattra-hanga, Sansk. Gaalida gadapara, Additapale, Tam. Gardi Gavupa. Tel.: A small creeping plant; flowers nearly all the year; grows on the Coromandel coast in cultivated places, and in Travancore. Every part of this plant is nauseously bitter. In cases of torments, two of the fresh leaves are rubbed up with water, and given once in 24 hours. Infusion of the dried leaves given as an anthelmintic; fresh bruised and mixed with castor oil, they are considered a valuable remedy in obstinate cases of itch. The fresh leaves applied to the navel of a child are said to have the effect of moving the bowels. The same, fried with castor oil, and made into a ball the size of an orange, relieves horses when suffering from gripes. The leaves beaten up with water are given internally in cases of snake-bites; also, in infusion, in boils and inflammatory attacks. — Ainal, Lindl., Useful Plants; Fanik.; O'Sh.; Rozh.; Voigt; Cat. Cat. Ez., 1862.

ARISTOLOCHIA CONORTA. Smith. Tu-ta'ng-muh-hiang, of the Chinese. Their roots are obtained in Shen-sa and Hu-pi. They are powerfully purgative, emetic, and anthelmintic; and in snake-bites are used both internally and externally.—Smith.

ARISTOLOCHIA INDICA. Linn. Birthwort.


A perennial twining plant, growing everywhere in the copses and jungles of India and Ceylon, flowering in the wet season. The root is nauseously bitter, and is given in decoction as an emmenagogue, in lues, in paroxysms of gout, in the diarrhoea of children proceeding from dentity. Also criminally used, to procure abortion, and as an antidote to snake-bites.—Rozh.; Voigt; Cat. Cat. Ez., 1862; O'Sh.

ARISTOLOCHIA KEMPFFERI. Smith. Ma-tan-ling, Chinese. Its fruit is obtained from Wuting-fu in Shan-tung, and its seeds are used in pulmonary ailments.—Smith.

ARISTOLOCHIA RECURVILABRA, Hone, the green patchouli of China; a medicinal plant largely exported from China. It is obtainable at Ningpo.

ARISTOTLE, B.C. 384—322, the Aristoum of the Arabs and Mahomedans of Asia, a native of Greece, one of the ablest men in science and philosophy. He was born at Stageira, in Macedonia, B.C. 384; both his parents died while he was young. At the age of seventeen he became a pupil of Plato, and remained in the school till Plato's death, B.C. 347. He became the teacher of Alexander the Great, on whose departure for Asia Aristotle returned to Athens, where he taught and wrote treatises on Natural History, Medicine, Generation, Destruction, Metaphysics, Philosophy, Ethics, Rhetoric, Poetry, Physics, Political, Economical, and Mental Science. He is supposed to have died of a disease of the stomach, at Chaleis, B.C. 322, aged 63. His fame in India is wholly confined to the Mahomedans. His pupils and followers were the historians of India after Alexander's time.—See Ind.; Sylax; Veda.

ARITA, MAHR. Sapindus emarginatus.

ARITHMETIC. The rules of the Hindus are in verse. The question is usually propounded with enigmatical conciseness; the rule for the computation is given in terms somewhat less obscure. But it is not till the example, which comes in the third place, has been studied, that all ambiguity is removed. No demonstration, nor reasoning, either analytical or synthetic, is subjoined; but, on examination, the rules are found not only to be exact, but to be nearly as simple in their new form as in the old; a state of analytical investigation. The same observation is applicable to their algebra. In arithmetic and algebra the brahmans attained to a high degree of proficiency. To them we owe the invention of the numerical symbols on the decimal system; the Indian figures 1 to 9 being abbreviated forms of the initial letters of the numerais themselves; and the zero or 0 representing the first letter of the Sanskrit word sunya, meaning empty.—Imp. Gaz.; Ed. Rev. vol. xxix. pp. 147, 151.

ARITI CHETTU, Musa paradisiaca, L.


Ikan Sahadu, Malay. Ikan Surduda, Malay.

This fish inhabits the Gangetic estuaries near Pondicherry, and the estuaries near Penang, the Malay Peninsula, and Singapore. It is 1 foot 10 inches long, forms an article of food, and more than any other fish to Siluridae contributes to the islinglass of commerce. Book 1, chapter 3, he has pointed his eggs in its mouth. A. militaris, Linn., 1 ft. long, inhabits the Coromandel and Malabar coasts, the Gangae, Irawadi, and the seas and estuaries of the Malay Peninsula. Its air-vessel is preserved as islinglass.—Cantor.

ARIUS TRUNCATUS. Cuv. and Val. This is under a foot in length. It occurs in the seas of Penang and the Malay Peninsula, but is so rare that it furnishes little of the islinglass of commerce.—Cantor.

ARIVAN. Hind. With Hindus, the first cuttings of the harvest; they are not taken to the threshing-floor, but are brought home to be presented to the household gods and brahmans, and to be eaten by the family. The grains are taken out of the ear, and eaten with milk and sugar; also called Nawan, from Nawa, new, and Ann, food.—W.

ARIVITA. Tet. Eugenia bracteata, R.

ARIYAPORIYAN. Mal. Antidesma bunias.

ARJA. Hind. A class of women mendicants in Central India, respected for their knowledge, not their conduct. Women who have adopted the vagrant life which this class pursue, are never allowed any intimate intercourse with families.—Malcolm's Central India, ii. p. 193.

ARJAMAND BANU, daughter of the vizir Asof Jah, was the wife of Jamali Khan, but
ARJAN.

subsequently married Shah Jahan, emperor of Delhi, and received the title of Muntaz Mahal. He erected a tomb near Agra, over her remains, known to Europeans as the holy Mahal.

ARKA also Arzhan and Arzhaney. Pers.

According to Ouseley, this tree is a species of the Badam-i-Kobi, or Badam-i-Talkh, the mountain or bitter almond.—Ouseley's Travels, i. p. 306.

ARJANNA. Hind. A tribe of Kumbi cultivators in W. India.—Wilson.

ARJUN. Beng. Terminalia glabra, Roxb. 

ARJUNA, third son of Pandu by his wife Kunti or Pritha. He was skilled in arms, and appeared disguised as a brahman in the swayamvara of Draupadi, whom he won, and she became the wife of the five brothers. She dwelt with each alternately for two days, the arrangement being that no other brother should approach, under pain of banishment. Arjuna broke the agreement, and he was banished for twelve years. During his banishment he visited Hardwar, Manipur, Prabhasa near Dwarka, where he married Subhadra, sister of Krishna, with whom at the close of his sentence he returned to Indraprastha, and rejoined his brothers. The eldest brother, Yudhisthir, the raja or king, resolved to perform the imperial rite of rajasauna. It was successfully accomplished, but it excited the anger of the Kuru race, and revived the old feud between the Kaurava and the Pandava; and Duryodhana, chief of the Kaurava, engaged the Pandava in a gambling match, in which the Pandava staked their kingdom, and, losing, went into exile. Subsequently Arjuna and his brothers engaged in the great war of the Mahabharata, at Kurukshetra. Arjuna induced Krishna to join the Pandava side, and Krishna promised to drive their chariot in the war. On the first day, Arjuna engaged Bhishma in single combat; on the second day he rallied the Pandava, whom Bhishma had thrown into disorder. He again fought with Bhishma, and rescued his son Abhimanyu from Duryodhana. Subsequently, he mortally wounded Bhishma, defeated Susarma and his brethren; again fought Susarma, but while so engaged his son Abhimanyu was slain by six Kaurava chiefs. Arjuna on this vowed to take the life of Jayadratha, which he accomplished, and shortly after killed Karna with an arrow. After the war he died, with the other Pandavas, among the Himalaya mountains. The Bhagvat Sita is a philosophic discourse between Krishna and Arjuna, presumed to be at the time of the great battle; and this epic poem also contains an account of the twelve months' roaming of the white horse let loose by Yudhishthira, before performing the Aswa Medha sacrifice in token of political supremacy. His grandson Parikshita succeeded to the throne of Hastinapura.—Bunsen, p. 555; Wheeler's History of India.

ARJUNO. Beng. Lagerstroemia regina.

ARK. Arab. Hind., Pers. A citadel, or smaller inner castle constructed within a larger fortress. But as princes in the east generally lived in the Ark, the word from thence often came to be applied to a palace, as the Latin arx, comprising the palace (Dewan-Khana); and that the ancient kings placed their habitation in the ark or citadel or citadels, we learn from Suraiah (in Virg. Æn. v. 410): "Regium enim habitabere in areabis proper turbam."—Malcolm's Persia; Ouseley's Travels, ii. 18; Fraser's Khorasan, p. 85.

ARKA, a town in Carnara, where brahmans say Sri Yen, the holy spirit, is worshipped.

ARKA RANDHU, a name of Buddha, meaning the kinsman of the sun.

ARKALU. Tel. Harnaola ruta.

ARKANTA. Beng. Alangium hexapetalum.

ARKATOU BASHEON, of the Greeks, is the present Arcot. See Arka-kadu; Arcot; Kurumbar.

ARKOLA. Kasm. A poisonous tree of Kashmir, which when green blisters the hand. In the Panjab, Bhus acuminata, buckiamela, and vernicia.

ARMAGAM, Armagon, or Durgunaz-putnam, on the Coromandel coast, was an early settlement (1625) of the English, from which they removed to the present site of the chief city, Madras, in about 1728. It has a lighthouse in 39° 55' N., 80° 70' E. Off it is a shoal of the same name, and the still water inside the shoal is called Blackwood's harbour.

ARMAITI, in the seventh strophe of Zoroaster's hymn, is named as the mother of the corporeal world, as coming with power, and with truth, and with purity of heart, to succour this life. Armaiti is known to the Vedas, and is therefore older than Zoroaster. It is the Espanardarmad or Saropandol of the Parsees. But Armaiti came to be regarded as something material, and this was deemed the earth. Armaiti had three companions, viz. Kshathra-Vaiyra, Pre-eminent Power, from which the Persians have their Shah River; Asha, or Truth, the Parsee Arda Behest; and Vohumano, good pious mind or Piety, whence the Parsee Bahunm.—Bunsen, God in History, i. p. 283-5.

ARMAK. Hind. Pandanous odontissimius.

ARMENIA. The Upper Euphrates is nearly in the centre of that great range of territory called by the ancients Armenia, which extended eastward from that river to the Caspian Sea, and again westward over a part of Asia Minor. At the present day, the general limits of this territory will probably be best understood by considering the Euphrates to be its western boundary from Sumeisiat until a few miles south of Erzingan, where the boundary quits the river and preserves that direction to Tabriz, till it meets the mountains southward of Gumish Khanah. Armenia has now no political existence, and the territory is divided between Turkey, Persia, and Russia. Its lakes are Van, Gokeha, Sevan, and Urmia. The towns are Amadia, Bayazid, Bitlis, Diarbark, Erivan, Kars, Mush, Nahakshan, Sart, and Van. The people are industrious traders, its prosperity powerful and robust. They live in good houses. Their women are on an equality with the men. Armenians adopted christianity in the fourth century. In A.D. 536, they separated from the Greek Church. They have had many martyrs. The catholic or patriarch resides at the Echmiadzin monastery, 13 miles E. of Erivan, in the valley of the Aras. The old Armenian language is called Haikan; and in A.D. 406, Mesrop Masdor invented an alphabet of thirty-eight letters, with eight vowels, which is still used along with a modern alphabet. The populations call themselves Haik or Haikan, and their country Haikesthan; the term Armeni is said to be from Aram, the sixth in descent from Haik, a grandson of Japheth. Haik
ARMENIACA VULGARIS.

is said to have been a brother of Belus. Armenians are found in all eastern countries. In their charity to one another, combined with their eager toil for wealth, they have much in common with the Jews. They evince great commercial aptitude, and are bankers and merchants. In Armenia, however, they cultivate the soil. Before their conversion they were fire-worshippers. Many of them now are Nestorians, some are Romanists. The language of the present day has affinities with the Iron, Persian, Arabic, Syrian, and Turk. In the 5th century, the great Mesrob translated the Bible into the Armenian tongue; Mosos Vocazer, Chorinazi the historian, and Isaac, are their celebrated writers. In the 11th century, they had the great patriarch Nerses Shinor-Haideh, and Archbishop Nerses Lampronazi. General tradition and the formation of language point alike to the mountains of Armenia as the birthplace of the Arab and Cazaanish races; and there is especial native evidence to the same effect as regards Edom, consequently also the Phenicians.—Col. Chesney's Emphrastes Expiçd. p. 94; Bunsen's Egypt, iii. p. 431; Wolf's Bokhara; MacGregor's Persia; Polgrave.

ARMENIACA VULGARIS. Lam. Apricot.

Prunus Armeniaca, Linn.

Bin-kuk, ... ARAB. ... Bar-kuk, ... PERS.

Tuffa Armina, ... " Bakur-khani, ... PERS.

Zard Ahu, Chulu, HIND. ... Mishmish, ... PERS.

Art, Khabani, Chinara, ... " Juklara, ... PANJ.

A native of Kaghman, China, and the west of Asia, but grown in the gardens of India. It is found also in the Suliee valley, between Rampur and Sungaun, at an elevation of 7000 to 13,000 feet, but does not ripen above Shalaker. It is there a common article of food and source of wealth. The plantain is last seen below Kogursh, and the mango near Rampur. The apricot is a staple produce in Kulu, and common article of food. They are small and firm fleshed, so that they dry well. It is common about villages in the Himalayas, and oil of the finest kind is made by expression from the kernels, which are sold separately in the bazaars, under the name of Badam kohi, or hill almonds. The oil is clear, of a pale yellow colour, and smells strongly of hydrocyanic acid, of which it contains usually about 4 per cent.—J. D. Cunningham; O'Sh.; Rozáb; Voigt; Vegetable Kingdom, 299; Cleghorn, Panj. Rep. pp. 65, 80.

ARMENIAN BOLE.

Wu-shih-shih-chi, CHIN. Wu-sih-fu, ... CIN.

Uctitious earths of various shades of red and other colours.

ARMIES are retained in British India by the British and by the Foudatory sovereigns. That of the British comprises, of Europeans, artillery, cavalry, and infantry, in all, ordinarily about 65,000; and another larger body, raised from the populations under British sway, chiefly Hindus, but about one-third Mahomedans, number about 149,000. The Hindus, including the Sikhs, consist of the Brahman and Rajput and Jat of Hindustan and the Panjabin, the Mahatta, Teeling, and Tamil races of the peninsulas. The Mahomedans consist of the descendants of the races, Pathan, Moghul, Syud, and Shaikh, who were dominant prior to the British, also largely of the Afghan or Pathan races of the N.W. borders of India. It has been calculated that the strength of the armies and armed retainers of the native States amount to 100,000 men. The Maharaja Sindia of Gwalior, the Maharaja Holkar, the Nizam of the Dekhan, have the largest and best appointed forces. During the revolt and rebellion of 1857-59, both Sindia and Holkar experienced the bitterness of the defection of their troops.

The army of British India, up till the year 1859, when the Queen of Great Britain assumed, from the East India Company, direct control of that country, was composed of European cavalry, detailed from the army of Britain; native cavalry recruited amongst the people of India, and officered and drilled like European regiments by natives of Great Britain, but with fewer officers; and of other regiments of native cavalry, also raised amongst the natives of India, but with still fewer European officers generally—only a commander and adjutant. The last-named troops were usually styled irregular cavalry; they were contractors, supplying their own horses, horse-furniture, and horse food, and were classed as the sirdar and bargir, according as they were owners of horses or servants, for certain sirdars had the privilege of supply of two or more horses and horsemens, styled assani. The artillery, both horse and foot, were wholly servants of the East India Company, the whole of the officers and the soldiers of the European artillery being natives of the United Kingdom of Great Britain and Ireland; but the native artillery, horse and foot, called the kala or black troop, and also golanuz, were recruited from amongst the same classes of natives as supplied the native cavalry and native infantry, and had both European and native officers. The infantry, similarly to the cavalry, were in part the servants of the Company, in part of the Regulars; of British regiments taking a tour of duty in India; and in greater part they were native regulars or foot. These troops were arranged in the three commands of Bengal, Madras, and Bombay, and their numbers in times of peace and war varied between 200,000 and 300,000 armed men, ready for war. In the Bengal native army, there were Mahomedans; but the bulk of the soldiers were Hindus, many of them of the Brahmanical and Khatriya castes, brave, buoyant, and jaunty, but proud, vain, and conceited. The Madras native cavalry were almost entirely Mahomedans, with a few Mahrattas from around Arcot; the Madras native infantry was about 2-5ths Mahomedans and 3-5ths Hindus, chiefly Teeling and Tamil Sudras, with a mere sprinkling of higher or lower castes and Christians; while the Bombay army was recruited partly in Northern India and partly from the Madras; chiefly from the Mahrattas of Maharashtra, and had a sprinkling of Jews, low caste men, and Christians. The duties of the Bengal and Bombay native armies were chiefly amongst people speaking their own or allied tongues; but the Madras soldiers, besides the Tamil, Telug, and Canarese countries, held Travancore, Hyderabad, and the Central Provinces, and took the entire duties of China, Borneo, Singapore, Malacca, Penang, the Andamans, Nicobars, Moulmein, Rangoon, Prome, Thayet Myo, Toungoo, and at times held Aden, Klyoukh Phyo, Canton, and Hong-Kong, and have come westward to Egypt and Malta. The engineers were officered by natives of Britain, but had under them a large body of native sappers and miners, who, in Madras,
were Tamil and Telugu Sudras and Christians, with a few Mahomdeans. In 1857, however, the regular native army of Bengal, composed of Hindus and Mahomdeans, revolted in the North-West Provinces, and it took all 1858 and 1859 to subdue the mutineers and restore order, for many chiefs and races rose in succession. A few regiments of the Bombay Presidency also failed, but one of these, the 21st Native Infantry, had formed part of a regiment of the Peshwa, Baji Rao, commanded by Captain Pott, and had come over to the E. I. Company during the middle of the battle that ensued on the attack on the Residency at Poona, and the corps had continued, as in the Peshwa’s times, to be recruited in Northern India. From 1858, the entire European soldiery of India were obtained from the British army, amongst whom those previously belonging to the East India Company were enrolled, and great reductions were then made amongst the regiments of native infantry, their organization was changed from the regular to an irregular system, i.e. with fewer European officers; and by degrees, nearly all the native artillerists were eliminated. All the reasons that led the British Indian Government to give so decided a preference to the irregular system are not known, but it has been stated that the principal was the noble and loyal behaviour of the brave Gurkha and Panjabi irregular regiments. Other irregular regiments, composed of men of the same caste and country as the rebellious sepoy, such as the Gwallor, Kotah, and other contingents, did mutiny, and join with the men of the regular army in their attempts to throw off the British rule. In 1858, the Panjabi Government, acting on the principle of divide et impera, ordered that certain regiments about to be raised in that province, should be organized in companies of different races,—Sikh, Panjabi, Dogra, Pathans, and others. The number of officers now attached to irregular regiments is, however, still very nearly as great as the average present with the old regular regiments of the Bengal army. The North-west frontier of British India has been extending to the countries of the mountain tribes on the borders, and including several of them. While this has been in progress, another British Indian army, above 14,000 strong, has been raised. It is the Panjabi Frontier Force, consists of artillery, cavalry, and infantry, about half of them Mahomdeans, with a sprinkling of Afghans and tribes from beyond the borders. It has been kept under the orders of the Governor-General and Council.

In Northern and North-West India, the country is occupied by the Bengal Army, the Panjabi Frontier Force, 13,957; the Central India Horse, 1,007, and the small bodies, 5702, comprising the Bhopal, Erinpura, Deccal, Mairwarra battalions, and the Bih corps of Malwa and Mewar.

The Bengal native army, 50,451 strong, is almost wholly recruited from the British and Independent States of the Panjabi, Oudh, Delhi, N.W. Provinces, Cis Sutlej, and Nepal, only about 2000 of its number being from Bengal and Assam.

The Peninsula of India and Central Provinces have the Madras and Bombay armies located in them, and the Hyderabad Contingent is in the centre of the Peninsula.

The Panjabi Frontier Force, 13,957 strong, a famed body, was recruited as under—

<table>
<thead>
<tr>
<th>Regiment</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Panjabi Proper and</td>
<td>13,957</td>
</tr>
<tr>
<td>Hazara</td>
<td>7875</td>
</tr>
<tr>
<td>Cis Sutlej and Inde-</td>
<td>1460</td>
</tr>
<tr>
<td>pendent</td>
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<tr>
<td>N.W. Frontier with-</td>
<td>1162</td>
</tr>
<tr>
<td>in British territory</td>
<td></td>
</tr>
<tr>
<td>N.W. Fr. beyond do.</td>
<td>705</td>
</tr>
</tbody>
</table>

The Central India Horse, 1097 strong, are of various races, half of them from Oudh, Delhi, and the N.W. Provinces, 214 from Panjabi Proper and Hazara, 118 from the British and Independent territories in the N.W. Frontier and Cis Sutlej, and 156 from the Central Provinces. The Bhopal battalion, 902 strong, is almost wholly from Oudh, Panjabi, Central Provinces.

The Madras army, 30,448 strong, is composed in almost equal proportions of men from Telugans in the Northern Circars and parts of the Karnatic, about 4000 being from the Ceded Districts and Mysore; and the Nair Brigade and Mysore troops of the allied States of Travancore and Mysore are obtained from the same localities.

The Bombay army is 25,885 strong. It is recruited chiefly from the Konkan and the Dekhan, but also from countries wide apart, viz.—

<table>
<thead>
<tr>
<th>Regiment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Konkan</td>
<td>10,662</td>
</tr>
<tr>
<td>Dekhan</td>
<td>6,155</td>
</tr>
<tr>
<td>Panjabi Proper and</td>
<td>2,320</td>
</tr>
<tr>
<td>Hazara</td>
<td>4,303</td>
</tr>
<tr>
<td>Delhi, N.W. Provi-</td>
<td>702</td>
</tr>
<tr>
<td>nces, Oudh</td>
<td></td>
</tr>
<tr>
<td>Sind</td>
<td>792</td>
</tr>
</tbody>
</table>

The Hyderabad Contingent, 7495 strong, is provided by the Nizam of Hyderabad under the treaty of 1853; 3550 of their number is from the N.W. Provinces, Rohilkhand, Delhi, and Oudh, and 8414 from the Dekhan. The Contingent comprises six regiments of infantry, four of cavalry, and four batteries of artillery.

The provinces from which, in 1851, the three armies, numbering 138,305, had been recruited, were as under—

<table>
<thead>
<tr>
<th>Regiment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal Provinces, 82,878, viz.</td>
<td>6,812</td>
</tr>
<tr>
<td>N.W. Frontier be-</td>
<td>1,738</td>
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<tr>
<td>yond British terri-</td>
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<tr>
<td>N.W. Frontier and</td>
<td>8,853</td>
</tr>
<tr>
<td>Trans-Ind. within</td>
<td></td>
</tr>
<tr>
<td>British territory</td>
<td>13,445</td>
</tr>
<tr>
<td>Delhi, N.W. Provi-</td>
<td>5,091</td>
</tr>
<tr>
<td>nces, Oudh, and Derajat, 1,442, Lower Provinces, 1,783,</td>
<td></td>
</tr>
<tr>
<td>Konkan</td>
<td>25,403</td>
</tr>
<tr>
<td>Cis Sutlej, includ-</td>
<td>4,625</td>
</tr>
<tr>
<td>ing Independent, 6,308, States,</td>
<td></td>
</tr>
<tr>
<td>Madras Provinces, 30,737, viz.</td>
<td>1,174</td>
</tr>
<tr>
<td>Northern Circars, 12,255, Ceded Districts,</td>
<td>4,333</td>
</tr>
<tr>
<td>Central Karnatic, 8,721, Mysore,</td>
<td>1,285</td>
</tr>
<tr>
<td>Southern, 2,154,</td>
<td></td>
</tr>
<tr>
<td>Baramahal, 866, 51,862,</td>
<td></td>
</tr>
<tr>
<td>Bombay Provinces, 21,690, viz.</td>
<td>3,899</td>
</tr>
<tr>
<td>Konkan</td>
<td>10,662</td>
</tr>
<tr>
<td>Dekhan</td>
<td>9,579</td>
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<tr>
<td>Sind</td>
<td>792</td>
</tr>
</tbody>
</table>

In the year 1881, the strengths of the native arms of Bengal, Madras, and Bombay were—

<table>
<thead>
<tr>
<th>Regiment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal Sappers and Miners, Cavalry and Infantry</td>
<td>50,451</td>
</tr>
<tr>
<td>Panjap Frontier Force, Artillery, Cavalry, and</td>
<td>13,957</td>
</tr>
<tr>
<td>Infantry</td>
<td></td>
</tr>
<tr>
<td>Central India Horse, two regiments, 1,007</td>
<td>922</td>
</tr>
<tr>
<td>Bih Corps</td>
<td>592</td>
</tr>
<tr>
<td>Malwa Bih Corps,</td>
<td>533</td>
</tr>
<tr>
<td>Erinpura Irregular Force, 856</td>
<td></td>
</tr>
<tr>
<td>Deccal</td>
<td>807</td>
</tr>
<tr>
<td>Mowar Bih Corps,</td>
<td>699</td>
</tr>
<tr>
<td>Mairwarra Battalion, 5,705</td>
<td></td>
</tr>
</tbody>
</table>
Madras Sappers and Miners, Artillery, 30,448
Nair Brigade, 1,294
Mysoor Troops, 2,922 34,794
Bombay Sappers and Miners, Artillery, 25,885
Hyderabad Contingent, 7,496

The septs and races in the native army were—

Christians, 3,600

Mahomedans, viz.—

Hindustan, 25,403
Panjub and Hazara, 9,328
Afghan and Border tribes beyond British territory, 1,673
Peshnow, Yuzufzai and tribes within British territory, 3,101
Bunnoo, Derajat, and Baluchistan, 735
Mullu Pathans, 209
Other classes, 2,045 42,539

Sikhs, viz.—

Jat, 13,972
Kutreos, Allowaleah, 1,550
Nal, Rangureah, 740
Ramdaai and Mazhabi, 1,340
Other classes, 141 17,416
Doros and Hill men, 3,960
Other Panjub Hindu classes, 1,788
Teling, 10,719
Tamil, 3,210

Hindustan races, viz.—

Brahman, 6,078
Rajput, 5,809
Jat and Manbharta, 17,251
Ahir and Gujjar, 3,641
Bkat, Kurni, Kasthy, Baniya, 1,378
Gurari, Louli, 545
Pasi, Dhunuk, Chamur, 921
Khatak, Mehtar, 147
Other classes, 7,191 47,588

N.E. Frontier, viz.—

Gurkha and Nepalese, 5,846
Kamaoni and Hill men in British territory, 519

Others, viz.—

Jarwah, 917
Behar army—

Pardesi, 1,894
Tarwari, 2,548
Mang, 36
Panwasi, 413
Bedan, 204
Jews, 167 5,799

Besides the regular European and native military forces, the Europeans and Eurasians of civil life have formed volunteer regiments. These change from time to time, but recently they numbered twenty-nine, besides four cadet companies, and 311 officers, 736 non-commissioned, and 4871 privates, or 6018 in all, which were at Agra, Akhyab, Allahabad, Bangalore, Behar, the Berars, Bombay, Calcutta, Cawnpore, Darjiling, Ghazepore, Lucknow, Madras, Moulmein, Mussoori, Nagpur, Naini Tal, Poona, Rangoon, Simla, and Tirhut. The East India Railway Volunteer Rifle Corps muster—1063; next comes the Great Indian Peninsula Railway Corps, with 963 enrolled, and 813 efficient; then follow the Ist Panjub Corps, with 667 enrolled, and 527 efficient; the Madras Volunteer Guards, 640 and 468; the Bombay Volunteers, 620 and 440; the Agra Volunteers, 385 and 263; the Calcutta Volunteers, 385 and 355; the Bangalore Volore Corps, 365 and 183; and the 2d Panjub (or Simla) Volunteers, 238 and 222. The remaining corps number less than 200 members each.

The British Indian forces under the Commander-in-Chief and Viceroy, are—

ARMIES.

ARMORIAL BEARINGS.

<table>
<thead>
<tr>
<th>Bengal</th>
<th>Madras</th>
<th>Bombay</th>
</tr>
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</table>

A. Commander-in-Chief

Native Cavalry, 19 4 7
Infantry, 49 49 80
Sappers and Miners, 1 1 1

Panjub Frontier Force, 17
Central India and Rajputana, 8
Hyderabad Contingent, 10

Panjub Frontier Force, 2 regts. Central India Horse, 4 regts. Cavalry, 4 regts. Artillery, 1 Guide Corps 1 Malwa corps, 6 Infantry, 6 regts. of Sikh (Bhopal Sind Horse, as proposed.

5 regts. of Panjub 2 regts. Central India Horse, 4 regts. Cavalry, 6,973 7,191
1 Guide Corps 1 Malwa corps, 6 Infantry, 6 regts. of Sikh (Bhopal Sind Horse, as proposed.

1 Duraga, 1 Erinpura, 1 Moyer.
1 Gurkha regt. 1 Mahurwar.

The annual pay of an infantry regiment of—

Bengal, Rs. 1,51,244. Madras, Rs. 1,70,583. Bombay. Rs. 1,62,600.

Bengal Irregular Cavalry Regiment, Rs. 2,62,158. Madras Regular... 2,52,545.

The three armies are at all times complete. Most European armies are filled up by conscription of men on or other terms. In Britain, the term enlistment prevails. But the Indian recruit is merely permitted to enrol himself in the Emperor's army, if he is found to be a fit and qualified man, and the vacancies are filled up nearly as they occur. Nor is this due to the fact that the regiments are serving in their own particular districts, where the men in the ranks might tempt brothers and cousins to join them. The army is dispersed over the country, and not one corps in twenty is stationed in the district from which the majority of its men are drawn. Again, there is no complicated recruiting establishment, no bounty to the young soldier on enlistment, nothing for him to expect but his pay and his very remote pension. At the outset of his career, instead of getting a bounty, he incurs a debt to the Government for some articles of his kit, and is under stoppages for a year or so before this is paid off. Altogether the spontaneous eagerness for military service which among their native fellow-subjects exhibit is a phenomenon of which the British Indian Government has every reason to be proud.

ARMILTS are worn by Hindus and Mahomedans, by men and women; of gold or silver, ivory, deer-horn, and brass, some in the form of massive carved rings, some as lockets; the more expensive, worn by royalty, are the bazu-band, literally, arm-binder. They have been worn as ornaments since the most ancient times, like earings (Gen. xxxv. 4; Exod. xxxix. 3. 4.; Hosea xi. 13; Judg. viii. 24). The picture in aures often of gold, like those of the Ishmaelites. But they are often caskets containing, as with the Mahomedans, their taziy, charms, or, like the Jangam sect of Hindus, the phallic lingam. The last are often worn round the neck, like the golden bull and leather torus of the Roman youth, or as in Proverbs vi. 21; and most women have frontlet ornaments, such as are alluded to in Deuteronomy vi. 8.

ARMORIAL BEARINGS belong to the cast, and were little known till the period of the
ARMOSIA DASYCARPA.

The twelve tribes of Israel were distinguished by the animals on their banners, and the Hebrew writings frequently allude to the 'Lion of Judah.' The peacock was a favourite armorial emblem of the Rajput warrior; it is the bird sacred to their Mars (Kunam), as it was to Juno, his mother, in the west. The feather of the peacock is used to decorate the turban of the Rajput, and the warrior of the crusade adopted it from the Hindu through the Saracens. 'Je paou a toujours été l'embleme de la noblesse. Plusieurs chevaliers ornaient leurs casques des plumes de cet oiseau; un grand nombre de familles nobles le portaient dans leur blazon ou sur leur cinier; quelques-uns n'en portaient que la queue.'

ARMOUR AND ARMS.

The Andrea Ferrara, is not uncommon; nor is the Khanda, or double-edged sword. The matchlocks, both of Lahore and Rajputana, are often highly polished, and inlaid with mother-of-pearl and gold; those of Boondi are the best. For the shield the rhinoceros hide offers the best resistance, and is often ornamented with animals, beautifully painted, and enamelled in gold and silver. The bow is of buffalo-horn, and the arrows of reed, and barbed in a variety of fashions, as the crescent, the trident, the snake's tongue, and other fanciful forms. The custom of engraving incantations or verses of the Koran on weapons is eastern, thence adopted by the Mahomedans, as well as the use of phylacteries.

The name of the goddess guarding the Rajput tribe is often inscribed, and an entire copy of the Bhagvat Gita has been taken from the turban of a Rajput killed in action; in like manner, the Mahomedans place therein the Koran. The devotions of the Rajput are still paid to his arms, as to his horse. He swears 'by the steel,' and prostrates himself before his defensive buckler, his lance, his sword, or his dagger. This worship of the sword (asi) prevailed amongst the Scythic Getae, and is described exactly by Herodotus. To Daecia and Thrace it was carried by Getic colonies from the Jaxartes, and fostered by these lovers of liberty when their hordes overran Europe. The worship of the sword in the Acropolis of Athens by the Getic Attila, with all the accompaniments of pomp and place, forms an admirable episode in the history of the decline and fall of Rome; and had Gibbon suggested the worship of the Khanda, double-edged sword, by the prince of Mowar and all his chivalry, he might have further embellished his animated account of the adoration of the seimitar, the symbol of Mars.

For protecting the person, the shield has been in use from the most ancient times. In the south and east of Asia, they are made of rhinoceros hide, elephant hide, wood, iron, and steel, many of them with knobs to prevent an opponent's weapon sliding past, and many with beautifully inlaid work of gold. It is a tradition with Arabs, that the prophet David was the first person who manufactured coats of mail. Hence an excellent coat of mail is often called by them 'Daoodee' or 'Davidian, and this is worn in the desert at the present day. The zara, or zirra, is a finely woven chain armour,—kurta, paijama, and kulla,—coat, leggings, and helmet, the last surmounted by a plume, and protected all round, except over the face, by a curtain of chain-work. The khod, steel helmet, has slitting bars which can be slipped out to protect the nose. The char-ainan, which is worn over the zara, are four plates, for the breast, back, and each side, and the armlets also are of steel. These are often beautifully inlaid with gold. Amongst the Arabs the zara is of two sorts, one covering the whole body like a long gown, from the elbow over the shoulders, down to the knees; this is the sergh. The other, called kemibiz, covers the body only to the waist,—the arms, from the elbows downwards, being covered with two pieces of steel, fitted into each other, with iron fingers. Thus clad, the Arab completes his armour by putting on his head an iron cap (taj), which is but rarely adorned with feathers. The coat of mail is sometimes worn within the ordinary outer tunic. Scale armour is another form of the zara, the scales overlapping each other, and in
ARMOUR AND ARMS.

At the Madras Exhibition of 1855, there was exhibited a coat of mail of steel, the whole riveted together, with the exception of the collar, which was composed of small brass and steel rings, merely looped one into the other; the helmet, also of steel, inlaid with gold, was surrounded with a curtain of brass and steel rings, of a sufficient depth to cover the back of the neck. Also two sets of plate armour of steel, beautifully inlaid with gold, the helmets surrounded with a beautiful fringe of steel and brass rings looped together, and the gauntlets fringed with gold lace. The shield belonging to these two sets of plate armour was composed of fine steel, beautifully inlaid with gold. There was also a shield made of the hide of the rhinoceros, beautifully studded with gems set in gold; gauntlets made of copper, richly chased and perforated, also gilt and fringed with gold lace; plate armour for an elephant, composed of iron plates intermixed with rings of the same material, the plates riveted, but the rings only linked together, the pieces of a horse, composed of small plates of wrought iron, intermixed with small iron rings, linked and riveted together, the whole lined with cotton cloth padded; iron chain armour, composed of small iron rings ½ths of an inch in diameter, riveted together; the turban, of long strips of sheet iron riveted and brazed together; and in front of the turban was a plate of iron to protect down as far as the mouth (intended to protect the face from the cut of a sword), and this piece of iron was richly chased.

The sword, in different forms, has been the weapon on which, in all countries, most reliance has been put, as is evidenced by the number of forms and names which the various nations have given to it. The native military officers of India, when calling on a person of rank, gracefully present their sword, as evincing their readiness to obey his orders, and at the durbar of native courts they do not present nazzars, like others, but, partially drawing, receive on the blade a drop of attar. These are pretty sights to see. The need for defensive armour suggested the shield; and the attack has required the blow, the thrust, and the cut. For these, the swords of southern Asia are mostly all curved, either outwardly, or incurvated, sickle-shaped, and with very short handles, to compel the drawing cut and blow, by which great feats are done,—such even as cutting a bullock in two.

The mountain tribes carry weapons for short quarters. The bahbudhi (the strong) is the Afghan knife, for cut or thrust; it is straight-backed, broad near the handle, and fining to a point. The kuki or the Gurkha has a short handle, and an incurvated, sickle-shaped blade, widening at the middle, and drawing to a point. The mohlap knife also has a very incurvated blade. The Burmese dha is a short, straight-bladed knife, cut off at every purpose at home and in battle abroad. Arlya katti is the sword of the Coorg mountaineers. For the cutting blow is the abassai. It is a heavy, broad blade, with an outward curve, and suitable for a mounted soldier. The Shanmsher or talwar has a slight curve and a side-guard; the shah-bakha has a basket guard; the farangi (European) is for cut and thrust; the kichh also is a straight sword; the gauntletted lata or snail is a long weapon used in athletic exhibitions.

Arabian arms are distinguished by their fine filigree work, and the absence of gems; those of the Persians by their superb damascening, enamelling, and carving, and the rare employment of gems in their decoration; while the Indian are characterized by the high relief of their elaborately hammered and cut gold-work, and the unsparing use of the precious gems. The sword blades are frequently inlaid all over; but a workman will not spoil the appearance of the water of a fine blade by working it over, and any good inlaying on such is just below the hilt. For the thrust, the dart and the javelin are but little used; but the spear, lance, and pike, the bala and barcha, and the dagger, are to be seen throughout the south and east of Asia. The dagger is worn by all classes of a military, or semi-military reputation; and in British India and Persia the blades are often prettily inlaid with gold, in the manner described as kof or kot-kari, and kar-i-tali. The forms of the dagger, each with its own name, are manifold, and originate from the diversity of the countries; one of the most varied of them. In British India are to be seen the bichwa or scorpion, with a waved blade; the farisi; the jambiya; the katara, a triangular, heavy-bladed dagger, with a peculiar handle of steel; the khanjar has a short blade, and the pesh-kabz with blade straight at the back, sloping to a point in front, its handle the horn of the rhinoceros or bone of some cetacean. It resembles the Afghan knife in form, but is shorter. At present, the club form of weapons, the gurz or mace, and bladed mace, the tabar or battle-axe, are rarely seen.

The bag-nak'or wag-na'kh of the Maharratas is famed because of its use by the great Sivaji, when he treacherously seized with it and slew Azaf Khan.

Of offensive weapons, there were, at the Madras Exhibition of 1855, swords with two edges; the pattern or basket-hilted sword; the grooped or sword-stick, with a shaft of two edges, or four square; also straight and curved swords; the chilta or steel club; spears of kinds; bichu or dagger, with one, two, or three blades; kattar or dagger, with plain or fluted blades; bhalaparas or battle-axe; the jazal or gingal wall-piece six feet or more in length.

Of curious weapons, there were exhibited the charkh of steel, discs or quirts which are thrown from the hand with a circular swinging motion. Bows with quivers, arrows made of bamboo, gilt, and the quivers of crimson velvet fringed with gold lace, and embroidered all over with gold, the arrows being of light bamboo, tipped with steel; the goopum or sling; the marudo, two deer's horns tipped with steel spikes, fastened together with the points projecting outwards, and a short dagger in the centre. The varf or the mid-rib, composed of some hard wood, fixed on the knuckles or bones; the handi or parakramchak, or iron discs, made to slip over the hand with a strap behind; in the centre is a steel knife projecting to the front, and round the edges are also placed a number of short knives. Iron claw nails, made to fix on the fingers; they are formed of separate iron rings made to fit each finger, with a steel claw attached to each, and would prove most dangerous weapons in close quarters, though of
ARMUGAM.

no use in any other way. Tiger's claws, the big-nak, made to fit on the hand, and disagreeable instruments to come in contact with.

In the Dekhan and Kandeh, three kinds of spears are in use,—the bhal for a horseman, barchi for a footman, and the halda or broad hunting spear. Spears are borne as marks of royalty before the raja of Tringanu. In the ashr sword, the curve commences from the handle. Raja Sivaji's sword Bhawani was a Gionoa blade. Besides these are the korah, and the zaffar-takia, the Koolung battle-axe, etc. Projectiles of the most ancient forms continue in use as weapons. Amongst them the blow-pipe, used with pellets and with blunt and poisoned arrows, is to be seen throughout India and the Malay regions; the boomerang is still thrown in the country of the raja Tondaman Bahadur, around Trichinopoly, where it is made of wood and ivory, and in Gujerat of wood and iron; and the Kanganar and Tiggar, makers of bows and arrows, are in every bazaar; the bows, often of great strength, but frequently of bamboo, strung with a bamboo slip, or with the silk of the cocoon, or cord of the bowstring hemp, Sansciviera Zeylanica, and the arrows with barbed heads. Slings are in use in every village. But all these, in the strivings of nations, have been displaced by the cannon, the musket or bandug, the matchlock, banduq toradar, and the rocket or ban, with the jadal or gingal wall-pieces. The earliest mention of the introduction of cannon in India was A.D. 1368, when Mahmud Shah Bahmani, at the siege of Bijapur, is related to have captured 300 guns and 3000 baggeons. The arm astray, fire weapon mentioned in ancient Hindu writings, is not supposed to have been of an explosive material. The races following mahomedanism who have ruled and fought in India since the 14th century, have placed great reliance on their parks of artillery, on their jadal (gingal) or wall pieces, and on the long breech-loader carried by two men in the field. A great cannon, cast at Ahmadnagur by Rumi Khan, and which is now on the ramparts at Bijapur, permits a full-grown man to crawl into it with ease. There are, at Woolwich Arsenal and the Tower of London, several beautifully cast guns, brought from China. On the summit of Gawilghur hill, the fortress on which was taken by General Stevenson on the 15th December 1803, is a welded gun 27 feet long; and another welded gun, 21 feet long, is on the southern wall of Beder.

—Surgeon-Major Bidie, Lecture; Tod's Rajasthan, p. 616, 628; Royle, Arts of India, 400; Ezih. 1851; Lane's Arabian Nights; Dureckhard's Victories, ii. Bedowins and Wakhig, iii. p. 55.

ARMUGAM, a son of Siva, largely worshipped by the Hindus and non-Aryan races of Southern India, and used as a name for Hindu men.

ARMURA of Bens, Coriaria Nepalensis, Wall. ARNA. SANSK. A male buffalo; Arni, female. ARNAKUNDA, or Warangal, a town in ancient Telengiana, about 70 miles from Hyderabad. A slab obtained from there had an inscription in Telugu and Uria, with Sanskrit slokas, dated Saka, 1054, or A.D. 1132, being the year of the abhunanu of the Vrshabhapatii Chakara, or sixty years' cycle of Jupiter. Ganesha, Saraswati, Siva, faheswar, are mentioned, also Raja Rudra Deva. The inscription contains a long account of Rudra Deva's genealogy and of his battles. There is no mention of Brahmans. From the mention of Gangesha, his worship must have been used in the 12th century.—Beng. As. Soc. vii. p. 901.

ARNAMANOPANDU. TAM. Sida acuta, Bum. ARNAUT, or Ata, largely employed as soldiers by Mahamud Ali of Egypt, and known in Europe as Albanians.


It grows in Central Asia, and is common in the northern Trans-Indus. It is held in veneration by Afghanis, as the five dark marks on the corolla are said to be those of Mahomed's fingers, honor his name, Prophet's Flower.—J. L. Stewart.

ARNEE, a town in the North Arcot District of the Madras Presidency, celebrated for the muslins it produces, though the first kinds are now only manufactured to order. A piece of the Arnee Sullah for ladies' dresses exhibited at the Madras Exhibition of 1855, priced Rs. 1224., attracted much attention and praise.—Jur. Rep.

ARNELLI PALLAM. TAM. Cicea disticha. ARNI. HIND. Clerodendron siphonanthus. ARNIYA, a dialect of the Dardu language, spoken by the Dards in Yusan and Chitral.

ARNOTTO. Annotto; Anotto.


The plant producing arnott, the Bixa orellana, is naturalised in India, Burma, and the Eastern Archipelago, but its native country is Cayenne, from which its name, Prophet's Flower, is derived. A tree of South America and the West Indies, where it is extensively cultivated on the banks of rivers, likewise to the Hawaiian Islands, Tongataboo, and Zanzibar. The arnott is a thick extract, obtained, it is said, from the seeds as well as from the soft sticky rind of the plant, and it is met with in commerce of two sorts. Flag or cake arnott is furnished almost wholly by Cayenne, from which it is brought to Britain. A superior kind, called roll arnott, is a harder and more concentrated extract. In Burma, dyers obtain a red dye from its fruit. In Britain, dyers obtain the red colour called arrora; and the liquid sold under the name of Nankin dye is a solution of arnott in potassa and pure water. A solution is also made in alcohol, and used in varnishing and lacquering. In Britain, it is used for giving more or less of an orange cast to the simple yellows, as an ingredient in varnishes. In the Madras Exhibition of 1855, a specimen of cake arnott, of a thick pasty consistency, prepared by macerating the seeds, gave an orange colouring matter. It is mixed with chocolate, oils, spirits, and varnishes, as a colouring material. It is soluble in alkalis, by which means it is fixed to silk or wool. The colour obtained from fresh pods of the plant is so superior to that of either the flag or cake arnott, as to lead to the conclusion that the method of preparing these, which is by a great degree of heat and fermentation, is injurious to the colour. It is used to impart a bright orange colour to silk goods. The dry, hard paste is also found to be the best of all ingredients for giving a golden tint to cheese or butter; and a convenient liquid preparation is now sold to dairy-men. The Spanish Americans mix it with their
ARRACK.

ARRACK, in Ceylon, a form of Buddhiam, the superior form of Samadhi restraint.

ARRACK.

Arag, Arq. . ARAB. Sura, . . SANSK.

Arora, . OHN. Saraiam, . TURK.

Arshi, . HIND. Sarai, . TURK.

Arak Ap, . MALAY.

Like the European words Eau-de-vie, arrack is a term applied in most parts of India and the Indian islands, to designate every sort of spirituous liquor, however obtained. The use of intoxicating fluids and drugs is considered by Mahomedans to be forbidden by the Koran. In chap. ii., Mahomed tells his followers that people "will ask thee concerning wine, and lots. Answer in both there is great sin, and also something of use unto men, but their sinfulness is greater than their use." Also, in chap. xvi., entitled the Bee, Mahomed, giving proofs of the resurrection, says "And of the fruit of palm trees, and of grapes ye obtain an inebriating liquor, and also good nourishment." The use of spirituous liquors is always affected by the northern races, reaching the maximum of excess under the Mongolian rule. Under the Karzimans, drunkenness was common amongst the most distinguished men; and under the Chingizides and Tumirdies delirium tremens was an ordinary malady. Baber's memoirs give some idea of the large prevalence of this vice in his time. The quantities of alcoholic fluids still used in all eastern countries is great, and there is much open drunkenness. But half of the Asiatic races—Arab, Persian, Hindu, Burman, Malay, Siamese, Buddhists, Christians, Mahomedans and Hindus—are abettors. Arrack to a small extent is imported into Britain from Ceylon and Java, in leers or large casks holding 150 to 156 gallons, and sells at 1s. 6d. to 2s. the gallon, exclusive of duty. Alcoholic liquors in Europe, when distilled from grape wine, is known as marc; when from malt liquor, it is called a corn spirit; when from molasses, as in the West Indies and America, it is a rum. But from Turkey in the west, through all the countries on the south and east, arrack from the Arabic Arab, is the term applied to all ardent spirits from whatever source obtained whether from the sorghum, or palms, or cane, from flowers, or fruits, or rice, or barks, or mixtures of all these. Alcoholic liquors are produced from the cow's milk or mare's milk in Tartary; from sheep's milk in Afghanistan; from lamb's flesh in China; and, as formerly in Britain, from honey, where mead was the only strong drink known for centuries. Ardent spirits of various kinds are prepared also by distillation from various grainhexes, as also in the form of liqueurs, with rosebuds, jasmine flowers, orange-peel, and Indian fenel seed. Along the seaboard of certain countries, among various palms most abound, the toddies,—the sap or palm wines of the cocoa-nut (Cocos nucifera), of the date-palm (Phoenix dactylifera and P. sylvestris), the Palmira (Borassus flabelliformis), the Gomuti or Arenga saccharifera, or the Caryota are, the materials chiefly employed for making arrack. These are fermented, distilled, and rectified, and usually yield about an eighth
ARROWROOT.

ARROWROOT.

part of pure spirit. The three principal kinds known in commerce, however, are the arrack of Batavia, Goa, and Colombo. That from Batavia is the strongest, and is distilled from a mixture of 62 parts of molasses, 3 of toddy or palm wine, and 35 of rice. The last of these items Crawford states to be boiled, and, after cooling, a quantity of yeast is added and the whole pressed into baskets, in which condition it is placed over tubs and left for eight days, during which time a liquor flows abundantly from the rice. This liquor is distilled, and then mixed with the molasses and toddy, which is all left to ferment for a week in large vats; after the fermentation is over, the arrack is distilled one, two, or three times, according to the strength required. When toddy is collected for the purpose of making arrack, it is brought from the trees and poured into wooden vats, in which fermentation rapidly advances. If attention be not paid to the fermentation, acetic acid is formed, and this often causes the arrack to take up lead from any portion of that metal with which it may be brought into contact. In many parts of British India, a very intoxicating spirit is prepared from the large Mahua flower of the Bussia latifolia, the fleshy petals of which contain sugar. This is largely distilled in Bhandoop, about 20 miles from Bombay, as well as at many other places; and the flowers, with the inner bark of the white keekur tree (Acacia leucophloxa), ingredients in the manufacture of the spirit, are sold in every bazaar. In Sind, the bark of the Acacia arboresc is always an ingredient, and in Upper India that of A. ferruginens. When prepared from jagari and the bark of the Acacia leucophloxa, which is rich in tannin, the tannin combines with the albuminous and nitrogenous substances in the jagari, and decomposes them. In most of the native stills, composed of clay pots or chatties, with bamboo pipes, ten per cent. of the sugar is wasted by the loss of its resulting alcohol. Arrack in Madras is made from the Velvelam pattai or Acacia leucophloxa bark and Palmyra jagari, the quantity required for one still being 1 viss of the bark and 13 of the sugar, the produce being 43 gallons. Its cost of manufacture to the Government is 5 annas a gallon, and it is sold to the retail dealers of that city and within the boundary of 10 miles at 3 rupees per gallon, but to all beyond the limits from 1 to 8 rupees per gallon. The jagari is usually imported from Tinnevelly and from the Northern Circars. Pariah arrack is a term employed by Europeans in India to designate a highly pernicious liquor, said to be produced in the banks of the Ganges; but it contains an alkaline, and other intoxicating drugs.—Copper in Az., Soc. Jo., 1856; Dr. Smith in Ed. Phil. Jo., 1856; Faulkner; O'Shaugh.; M. E. J. R.

ARRAH, in the Shahabad division of Bengal, n lat. 25° 38' 46" N. and long. 84° 42' 22' E.; population 39,386. It is the ancient Ekachakra. It was the scene of a brilliant defence in the mutiny of 1857, when a dozen British, with 50 Sikhs, for 8 days (27th July to 3d August) held two houses, until relieved by Major Vincent Eyre.

ARREMUNE. SING. Cassia Suuustrana.
ARREMUTI. TAM. Pentapertana coriaceae.
ARRIAN lived in the times of the emperors Hadrian, Antoninus Pius, and Marcus Aurelius. He was a native of Nicomedea in Bithynia, where he studied. He was born about the end of the first century of the Christian era. He was one of the most eminent disciples of the famous Epictetus the Stoic, graduated to a priest in the temple of Ceres and Proserpine, and distinguished himself as a historian and in philosophy. His account of the expedition of Alexander the Great is based on the lost works of Aristobulus and Ptolemy, the son of Lagus, both of whom accompanied the king during the expedition. He also wrote the Iohene, a treatise on India in the Ionic dialect, and a Perihus, or voyage round the coasts of the Black Sea. Descriptions of the coasts of the Sea of Azof and of the Red Sea are also ascribed to him, but these are by some supposed to be of a later date. His Iohene gives the reports of Megasthenes, ambassador from Seleucus at the court of Chandragupta. It is generally supposed that there have been more than one of this name, and the Arrian whom Colonel Tod may be correct in mentioning as the author of the Perihus of the Erythraean Sea, and a commercial agent at Baroach, living in the second century, may be one of them. He says that Arrian, the author of the Perihus, resided at Baroach, or, as he called it, Barungaza, as a commercial agent, in the second century of the Christian era; Baroach was then within the Balbara sovereignty.—Weber; Eucy. Brit.; Tod's Travels, p. 145.

ARROWROOT.

Pen-bwa. . . . . BURM. Tikhub. . . . . HIND. Ngep-fen. . . . . CHIN. Jau-ihrisi, Kua mao, TAM. Kua-ka-nashastah, HIND.

The name was originally applied to the rhizome or root of Maranta arundinacea, in consequence of its supposed efficacy in counteracting the effects of wounds inflicted by poisoned arrows. Of late years, however, the term has been employed to designate almost every feuca or starch which bears any resemblance to the true Maranta arrow- root. In the West Indies, arrowroot is obtained from the Maranta arundinacea, M. allongia, and M. nobilis; also from the Cana glauca and C. cocinea, to both of which the local name of tous les mois, or tulema, is applied. In the East Indies, arrowroot is prepared from the Maranta arundinacea, also from M. ramosissima, a Silhet species. Mahabaleshwar arrowroot is obtained from Curcula caulina, Graham. The feuca of C. angustifolia and of the cassava meal from the Jatropha manihot is likewise sold under that name; and the tubers of C. rubescens, Roeh., also yield an arrow-root in Travancore and Bengal; those of C. leucorrhiza, Roeh., in Behar; and, as to tork, the Hind- dium term for such feucal, that from the tubers of Batacas edulis is sold at Patna and Bhagalpur. Ratangherry arrowroot is obtained from C. pseudo-montana, Graham, as also from Alpinia galanga, Swartz. Many households in India make their arrowroot for home consumption from products of their own gardens.

In the Cuttack and Sambalpur districts, the Palooa, a plant growing abundantly in the jungles, is collected in the cold season by the Sahar race, the tubers pounded and mashed, and the sediment dried in the sun. By these people it is sold for the manufacture of Abhir; also made into cakes, or boiled with milk, and thus used as an article of food. The cultivated arrowroot at Cuttack is of excellent quality. The tubers are taken up in the cold season, washed, put into a large wooden mortar, and mashed. The mash
ARROWS.

ARSENIC.

is then taken out, and well washed in cold water, the water drained off, and set to stand in large flat vessels, in which it deposits a large proportion of the arrowroot flour, which is re-washed in cold water, and set to dry in the sun. A starch sent from Chittagong to the Exhibition of 1862 was prepared from a plant which grows wild everywhere in that district; the yield was estimated at one ounce of starch from one pound of the root. An arrowroot is also made by the Chinamen by grating the root of the Lotus, Nelumbium speciosum, called Ngau-ken. It is an article in the food called San-koh-fen, used in rearing infants. A coarse kind of arrowroot, called Math-fen, is made from the tubers of Eleocharis (scirpus) tuberosus. The edible fern, Pteris esculenta, also yields a farina, called Kiuch-fen; and the Shan-yoh is a starchly februa from tubers of a species of Dioscorea.—Smith; Mason; Hassall; M. E. J. Russ. Reports; Simmonds; Faulkner; Cat. Cat. Exh., 1862.

ARRUB-us-SALIB, Arab. Solanum nigrum, S. dulcamara.

ARSCIDAE. This name was given to the Parthin kings, whose family name was Arsaces. The Arsacidian kings of Armenia, according to Moses of Chorene, reigned from B.C. 130 to A.D. 450, when the Armenian kingdom was extinguished (Thomas' Prinsep, p. 300). But Thomas' Prinsep, ii. p. 76, gives sixty kings from Arsaces i. in B.C. 255 till the succession of Artaxerxes as king of Persia, the first of the Sassanian.

Arsaces i., B.C. 254–250, the first of the Arsacid kings, a native of Balkh, revolted under Antiochus Theos, is supposed to have been killed in action with Ariarathes of Cappadocia about B.C. 220. He is described by some as a native of Sogd, by others as of Bactria, but by Moses of Chorene as of Balkh; and Moses adds that the dynasty was called Balkhavensis or Palhavian. He used Greek only on his coins, and in his public letters and correspondence, with the head of the sovereign on one side. Only one coin has a lingual inscription.

Arsaces ii. (Artabanus?), son of Arsaces i., about B.C. 220, at first extended the Parthin empire, but was afterwards driven into Hyrcania by Antiochus Magnus in B.C. 212; allying himself with the Scythians, he recovered Parthia.

Arsaces iii., B.C. 196, called Priapitatis, or Phriatadius, son of Arsaces ii., reigned fifteen years, left three sons, Phrahatres, Mithridates, and Artabanus.

Arsaces Mithridates i., B.C. 177, made Balkh his capital, subdued Media and Persia, and captured Babylon; brought under his dominion Western Bactria, Arin, Seistan, and Arachosia, and made a successful expedition into India.

Arsaces Phrahatres ii., B.C. 139. In his reign Bactria seems to have been subjugated entirely by Scythians. He was defeated and slain in B.C. 130, when restraining the Parthians from ravaging the country.

Arsaces Artabanus, B.C. 126, uncle of Phrahatres, and youngest son of Priapitatis, died of a wound received in action from the Tochari Scythians. The Greco-Parthian or Arsacid dynasty ended with Arsaces Artabanus in A.D. 215, who was involved in a war with Rome, but was ultimately slain in battle at Balkh by one of his Parthian officers, Arshesh Babakan or Artaxerxes, who established his own, that of the Sassanians, in A.D. 226. He lasted five years. A.D. There is no mention in the time of the Caesars was at Seleucia on the Tigris. The system of government was Asiatic, by satraps, or rulers possessing full power over the persons and properties of all the subjects of the state.—Thomas' Prinsep, p. 300.

ARSENIC is a metal resembling steel in colour, crystalline, volatile below a red heat, vapour of a strong garlic odour, readily oxidized. With one equivalent of oxygen, it forms the arsenious, with two equivalents the arsenic, acid; with sulphur it forms the yellow sulphuret, orpiment, and with red, realgar. These are to be obtained in every bazar in India, and the native medical practitioners, painters, etc., considerably employ them. Dr. Helfer reported the existence of ores of arsenic in the Mergui islands, Mr. Fielding found some in the antiquum ores, and Profcssor Mitchell in lead ore that he analyzed. Arsenic is principally employed in trade to produce a peculiar lustrous showy shade, which has superseded the less decided tints, and this dangerous material is often used to colour children's toys and sweetmeats. Papers coloured with this green line fruit-boxes, wrap up confectionery, chocolate line books, house walls; and is used for tinting food articles, and colouring articles of dress. The white oxide, Safaiid Sambul, has long been used in India for the cure of intermitents. Dioscorides Pliny, Celsus, and Galen used this substance, in which they were followed by the Arabian physicians, Rhazes, Scripion, and Avicenna. But none of these appear to have employed it in fever; and it was not till the end of the 17th and the commencement of the 18th century that the treatment of intermitents by arsenical preparations became known in European practice. Arsenious acid has real febrifuge properties in intermitents, the product of marah misama. It succeeds in tertian, quinsy, and is called Avelina. The arsenical treatment is less powerful and less sure than quinine.

Red Sulphuret of Arsenic, Realgar.

Zurnick surkh, Ar., Pers. Mornil, ... Hind. Bi-sulphuret of... Eng. Warangan,... Malay. Sandarach,... Manahalsia, Sansk. Red orpiment,... Kudire-pal-pashua,... Lat-sambul,... Hind. nam,... Tam. This is found native in Saxony, Bohemia, China, Persia, and, according to Mr. Elphinstone, 166
in Balkh. According to Mr. Rohlde, a coarse description is common in the bazaars of India, and is used as a pigment. Realgar, bi-sulphuret of arsenic, occurs native in brilliant red crystalline masses of a beautiful orange colour. It is used in the preparation of white Indian fire, which consists of 24 parts of saltpetre, 7 of sulphur, and 5 of realgar, finely powdered. This composition burns with a white flame of great brilliancy.

White Oxide of Arsenic: White Arsenic.
Zarnik, ... ARAB. arsenioz, ... HIND. Asenioz, ... Turab-ul-ha'il, 
Sume-ul-Far; Shuk; Warangan putli, MALAY. Tota, Sumbul-far, ... PERS. Dahi, Srutishan, ... SANSK. Arseni, ... ENG. Velle pashanan, ... TAM. White oxide of arsenic, ... Tela pashanan, ... Tel.
Sufed sambul-khar, DUK.

Arsenic acid, or white oxide of arsenic, is abundant in every bazaar in India. It is brought from the Persian Gulf and China, in the latter country being obtained by sublimation from hortai, or native sulphuret of arsenic. Kwang-sin-fu, in Kiang-si, furnishes the greater part of the arsenic of commerce, and gives to this mineral its Chinese name of Sin. It is white, brittle, faintly sweetish in taste, more or less translucent; sometimes it has a yellow, reddish, or bluish tinge, owing to the presence of arsenious oxide, and other impurities. It is used in the manufacture of glass, dyeing, medicine, etc. The arsenic sold by chemists is obtained from England, and is generally in the form of powder.

Yellow Sulphuret of Arsenic; Orpiment.
Ursanik, ... ARAB. Zernie-zard, ... PERS. Huay-dan-shwaywa, BURM. Zarni, Zarna, ... CHIN. Bh, ... JAPAN. Ter-sulphuret of Ar, ENG. Arriddrom, yeelidur, ... TAM. Warangan, ... MALAY. Doshi pashanan, ... Tel.

This is found native in S. America, Saxony, Persia, and in China in the Kiang-si province. It generally occurs massive and lamellar of a bright lemon or golden colour, inodorous, and insoluble in water. It is also prepared by the action of sulphuretted hydrogen or hydro-sulphurets in a solution of arsenious acid. It is brought to Bombay from the Persian Gulf, and is an article of trade from China and Burma, where the red is also procured, and from Japan. In China it is sometimes cut into ornamental figures, in the same manner as prehnite and agatnolite. It is used in Burma in the ornamental work of their lacquered ware, and is much used by the Tamil painters in preparing a pigment of a brilliant yellow colour; also in dyeing and calico printing. The paint called king's yellow is usually adulterated with lime and sulphur. It is now known that arsenic, sulphate of copper, verdigis, and other poisonous minerals, when employed to steep grain previous to sowing, with the view of preventing smut, prove injurious to the health of the sowers and to those who eat the bread made from it. A preparation of sulphate of soda and lime answers with equal effect. — Ainslie; Tomlinson; Sium; Faulk. 
Williams' Middle Kingdom; Rohde, MSS. ; O'Sh. 
Ind. Arms. Med. Sci. 1856; Mason's Burma.

ARSENEOE, called also Myos Hormos, a port in the Red Sea, the enporium for Indian articles during the time of the Greeks holding Egypt.

ARSHA, one of the eight forms of Hindu marriage described by Mauu.

ARSI. HIND. A small mirror worn by Mahomedan women in a thumb-ring.

ARISINA. CAN. Turmeric.

ARTA, according to Herodotus, the town of Herat, whence the term Artai for the ancient Persians. Arta Bhaga, lord of Herat; in Hindu mythology, one of the rishis. Artochana, from which Alexander set out to the city of the Zarangai in pursuit of the murderers of Darius, is also believed to be the modern Herat.


The peduncle has a curious hook, which lays hold on any support near hand, and assists in bearing up the clusters of fruit. It is a scandent shrub with shining leaves, and very sweet-smelling flowers; grown in gardens as an ornamental plant. A. Burmanicus, D. C., is of Burma and Mengut, A. eudatus, Wall. of Silhet, A. suaveolens, Blume, of the Archipelago, and A. Zeylanicus of Ceylon.—H. f. and T.; Graham's Cat.; Williams' Middle Kingdom; Voigt; Thee.

ARTAMUS FUSCUS, the todyk shrike; feeds on the flies and insects that hover near to the juicy fruits of the Palmyra palm. It is the Tal-Chatok of Bengal, Assam, Arakan, and in India generally.

ARTAXEÊXES. This is the Greek and Roman mode of pronouncing Ardashir. Ardashir Baha-kan, the son of Sassan, was an officer of the Parthian king, Arsaces Artabanus v. He murdered his sovereign, and assumed the Persian throne as the first of the Sassanian dynasty in a.d. 226; his successor was the Shapur or Sapor, who captured the emperor Valerian. There were others bearing the name Artaxerxes, the first in a.d. 381, and the second a.d. 629. The Sassanian dynasty ended in a.d. 641, when Yezejird or Izdejerd iii. was overthrown by the Mahomedans.

Artaxerxes Longimanus was the Kai Bhahan, or Ardishir daraz-dast of the Kaianian dynasty of Persian kings.

Ar taxaeres Mmemon, a Persian king, b.c. 426, at whose court Ctesias resided for some years. After Scylax, Ctesias was the next historian of India; and in his Indica, cap. iv. p. 190, he mentions that Artaxerxes Mmemon and his mother Parasatys presented him with two iron swords, which, when planted in the earth, averted clouds, hail, and strokes of lightning. This is the first notice of the lightning conductor. The Tee on the top of every Buddhist pagoda in Burma shows its acquaintance with one means of protecting from lightning.

ARTE. PANJ. Rheum emodi.

ARTEE, a musical bell, borne by Bal Govind. ARTEMISIA, a genus of plants of the natural order Matricarinae: nine species occur in the East Indies, China, and Japan. A. abrotanum, or southernwood, A. Indica, A. vulgaris, and A. grata, are cultivated in India. The European Abrotanum, though not growing in India, furnishes part of the (Afsatin) absinth used in Asiatic medicine; and the A. Chinensis of China and Siberia supplies the materials for the moxa. According to Dr. O'Shaughnessy, A. Judinica is the Saheba of Avicenna, and a native of Judea, Arabia, and Cochinn China, and is known as the Indian wormseed, or Indian Senun contra, 167
which, finely powdered and sifted, is a popular worm remedy, especially in the round and long worms of children; the dose is three to ten grains given in honey or milk. A. acetica, a Persian species, is said to have a strong odour of vinegar. A. cina, Berg, a plant of Kurdistan, furnishes the genuine Santonicia flowers and fruits, long famed as a verminuge. A. Maderaspatana and A. Indica are used by the Indian medical practitioners. The flower-heads of A. Sieberi, Lercheana, contra, and paniciflora constitute drugs called Semen contra, or Semen cinac, which are used as vermifuges. The same part of A. Vahliana yields the Persian wormseed, or Semen cinae Levanticum; and that of A. cordeulescss, the Semen seriphii or Barbotine. A. santonica, Wood., maritima, Linn., A. var. b. suaveolens, Dec.; Semen santonici; wormseed. This substance has long been employed as an anthelmintic, being intended for the Aiphiex a nololio ofDISCOERIDES, the Semen sanctum and santonicum.  A. Stenocorys, or A. stenocor, or sternutatoria, or semen cinae, is the Nak-Chikin or Hachihi of India, and the Affar of the Arabs. The powdered plant is used as a sternutatory.

Artemisia abrotanum, Yin-chin-han of China, where the young shoots are made into cakes with meal, and the herb is made into a broth, and given inague, feyes, catarrh, jaundice, and dysuria. 

Artemisia Chinese, Smith.

Ngai, Ki ngai, CHIN. | Ts`au, Tel-ngai. CHIN.

The down of the plant was formerly largely used in China as the moxa cutery, but has been displaced by the teng-ho or lamp cautery, and the pa-kho-kwan or cupping glass.

Artemisia dracunculus, Smith, Tarragon.

Tarchon, ARAB. | Ts`ing-hau, CHIN.

When green, it is eaten in China as a vegetable, and used in skin diseases, worms, fluxes, arthritic ailments.

Artemisia elegans, Rozb.; A. scoparia, W. and A.

Tila jan, CHIN. | Biur; kingkahk, SUT. Jhau; Lajaj, KANGRA. Durunga, TB. IND. Churi; Sorej, Danti, PANG. Lawange, ...

Is uncommonly elegant when in blossom, particularly when young. It is found up to 9000 feet in the Himalaya, and abounds in many parts of the Punjab plains. The odour in brushing through masses of it is at times very powerful, and not unpleasant.

Artemisia indica, Wild., wormwood.

Artemisia grata, D.C.

Afisant, ARAB. | Buri, Duran-jasif-i-kohi, PERS. Kashas-Rut, ARAB. | Chamba, RAVI. Mustar, DUK., HIND. Duna, Marwa, HIND. | Chamara, Damanar, SANSK. Machli-parna, ARAB. | Walko-Gundo, SINGH. Mustar, Gung-mat, UBUSHA, SUTLEJ. Tutaur, KANGRA. Machli-patri, TEL. Tiru-niti-par, MALE. TIRTA, TR. IND.

Common in Indian gardens, and can be substituted for the A. absinthium of Europe. It contains volatile oil and bitter extractive matter. Used as a tonic in fever and debility, in asthma, in diseases of the brain, and also in dyspepsia, and as an antispasmodic in hystera; also to flavour spirits and essences. That used in India comes via Kabul. The leaves are much used in scents for its strong odour.

Artemisia vulgaris, Linn., wormwood.

Artemisia, Artimissaya, ARAB. | Madf patre, HIND. Magwort, | ENO. Biran-jasif, PERS. Nagdowa, ARAB. | HIND. Adramah. This is a native of Europe, and, according to Thunberg, of Japan. He says that the Japanese use the woolly part of the leaves for tinder, which is prepared so as to form a brownish-coloured wool. This substance catches fire much quicker than moxa. But Dr. O'Shangnessy says that the moxa of Japan is prepared with the leaves and stalks of a neighbouring species.—Rozb., Cat. Ex., 1862; Powell, Handbook, i. p. 358; Voigt; O'Sh.; Bombay Products; Smith, Ch. Mat. Med.; Thomb. Travels, iii. p. 71; L. J. Stewart, M.D.

ARTEIN FIRE-SPRINGS. According to the missionary Imbert, the fire-springs, 'Hosing,' of the Chinese, which are sunk to obtain a carburetted hydrogen gas for salt-boling, are very commonly more than 2000 feet deep; and a spring of continued flow was found to be 31 feet deep. This natural gas has been used in the Chinese province Sech-uen for several thousand years; and 'portable gas' (in bamboo canes) has for ages been used in the city of Khiung-tchow.—Cur. of Science.

ARTHA, a race of fishermen whom Parsu Rama raised to the rank of Brahman, to occupy a strip of country which he had recovered from the ocean on the Malemal coast. Their conduct displeasing him, he replaced them by a body of pure Brahman.

ART'HA, ESWARA. Siva, as Ardhaniari, is represented with his own form on the right hand, and Parvati on his left.—Gurrett.

ARTICHOK, Cynara scolymus. Kharshuf, ARAB, PERS. | Kanjir, HIND., PERS.

Cultivated in some gardens of India; the cultivation is expensive. Jerusalem artichoke, Helianthus tuberosus, is cultivated for the tubers attached to the roots; may be lifted annually, after flowering, and kept like potatoes for three months; or they may be allowed to remain in the ground for years, in the same situation, if kept clear of weeds, and the ground annually top-dressed with manure. Jof.

ARTICULATA, a division of the animal kingdom; the following is a classification:—

1. Rotiferia, wheel animals; examples, animals with ciliated jaws.
2. Cirripedia, cirripeda; examples, barnacles, sea acorns.
3. Crustacea, ten-legged aquatic family; examples, crabs, lobsters, shrimps, prawns.
4. Insecta, six-legged, air breathing, articulate animals; examples, the wasp, the bee, the butterfly, the beetle, the flea.
5. Arachnida, eight-legged, air breathing, articulate animals; examples, mites, spiders, scorpions.

ARTBE, in Madras, timber of various sizes, 12 to 15 feet long, from 1 to 1½ feet in breadth.

ARTISANS of British India, a class of industrious Hindus, and classed by Brahman as the Saiva. In the Peninsula of India, the goldsmith, iron-smith, coppersmith, carpenter, and stonemason, form a caste or guild, and the goldsmiths claim to be of ancient Brahman descent. A considerable number of Mahomedans are carpet-weavers, blacksmiths, and farriers. A few Parsees are carpenters and carvers. The skilled artisan is now earning monthly from 7½ to 25 rupees. But
ARTOCARPUS.

ARTOCARPUS INCISUS.

This is the true bread-fruit tree of Dampier, Anson, Cook, and Ellis, growing in the South Sea Islands, especially Onatehe; also in the Moluccas, Java, Sumatra, at Mergui, in Ceylon, Mauritius, and Bourbon, in the W. Indies, and on the western coast of South America. The fruit is terminal, round, not muricated, but marked with reticulations, whose areoles are flat or but slightly prominent. It is this seedless variety that has given the name to the tree, and in some islands of the Pacific it is much used.

The fruit has an unpleasant smell. It is often larger than a man's head, and weighs sometimes as much as fifty pounds; is round, greenish, and covered with prominent papille, enclosing a white fibrous pulp, which becomes yellow and succulent at maturity. The pulp contains much starch.

The natives of the Polynesian islands, before eating the unripe fruit, cut it into quarters and
roast it in the ashes. The ripe fruit requires no preparation. The bark, when stripped, and then beaten and prepared, makes a kind of cloth with which the South Sea Islanders make their garments. At Trincomalee, cloth made of it, and worn chiefly by the common people, was more common than that made from the paper mulberry, though inferior to it in softness and whiteness.—Crawford’s Dict.; Riddell; Juries’ Reports, M. E.; Roy.; Voigt; Mason.

Kantal, ... Beng. | Tsimul, ... Malay. | Sabut, ... Malesal.
Peung-mai, ... Burma. | Pila, ... Cambodia. | Malek.
Jack-fruit tree, Eng. | Duwan, ... Tenasserim. | N. Am.
Tiu, ... Hazara. | Wakan, ... Wala. | Tox.
Pannas, Baral, ... Hind. | Chopada, ... Sumatran. | M.
Fanna, ... Maha. | Pila maram, ... Tan. | N.
Baa-nan-ka, ... Malay. | Panasa, Vera panasa, Tel. | Sauts, and Suiw.

This valuable fruit and timber tree is found more or less abundantly all over S.E. Asia, growing rapidly to about 2½ feet in diameter. In Ceylon, its fruit, weighing from 50 to 60 lbs., is used in various ways for food, and its timber, which weighs 42 lbs. to the cubic foot, is in general use for building boats, and for all kinds of furniture. Dr. Gibson has seen pillars of it in the interiors of the buildings of the old forts at Sevardenrug, having four feet on each side. In Burma it occurs abundantly, in Rangoon seemingly indigenous in the forests, and in Monimein its wood is used to dye the yellow cloths that the Buddhist priests wear. It yields an excellent and valuable timber, at first yellow when cut, but afterwards changing to various shades of brown. When made into tables and well kept, it attains a polish little inferior to mahogany in colour and appearance. It is there used for musical instruments and ornamental work. It is imported into Britain in logs from 3 to 5 feet diameter, and also in planks, and is used for cabinet work, marquetry, and turning, and also along with satinwood for hairbrush backs. In Cuttack, the glampa or oil mill is made from this wood, and its sp. gr. is 0·750, and cost 1s. the cubic foot. The roots, cut into chips and boiled in water, produce a yellow dye. To strengthen the tint, a little turmeric is mixed with it, and alum to fix it; but as the yellow does not hold well, the operation of steeping and drying has to be frequently repeated. The fruit is not relished by some people, owing to its peculiar strong smell; others are partial to it from its luscious sweetness. It grows direct from the branches and trunk, to which it hangs by a peduncle, and only in aged trees from the roots, where they are detected by the cracking of the soil. The fruit is covered with a very thick, rough green skin, and is full of white kernels the size of a pullet’s egg, the fleshy parts around which are eaten both unripe and ripe. The kernels of the ripe fruit, boiled or roasted, resemble in flavour the Spanish chestnuts. The green fruit, after removing the outer rind, is used in curries, and when ripe the pulp and seeds are used similarly. As with all cultivated fruits, there are many varieties. From the juice of the unripe parts of the fruits and tender parts of the trees, a good bird-lime is prepared. In Trincomalee, the entire fruit is planted, and when the various seeds germinate and grow up, the shoots are tied together with straw, and they unite into one stem, which bears fruit in about 6 or 7 years. —Roy.; W. T.; Mason; Crawford; Marsden; Thouwates.

ARTOCARPUS LACOCHRA. Royh. Dephal, ... Beng. | Kannana-gona-gas, ... Singh. | My-ook-loke, ... Burma. | Kanna-rega, ... Tel.
Lacochra bread-fr. Eng. | Laku-chamama, ... Laos, ... Ma strive.
 dosi, ... Nakka-renu, ... Laos.

The Small Jack tree is occasionally grown in gardens or near houses, in S. Canara, Bengal, Burma, and the Tenasserim Provinces; two varieties of it grow in Ceylon, near Ratnapura, and in the south and centre of the island. It occurs in Kamaon also. Its roots are used in dyeing yellow. Dr. Brandis says the wood is used for canoes; a cubic foot weighs 40 lbs. In a full-grown tree on good soil, the average length of the trunk to the first branch is 50 feet, and average girth measured at 6 feet from the ground is 6 feet. The whole tree and unripe fruit contain much tenacious milky juice. The fruit is prized by the Burmese, and is eaten in Bengal. The male spadix is acid and astringent, and eaten by the natives in their curries.—Royh.; Th., Zeyl.; Voigt; Royl.; M’Clell.; Mason; Wright; Brandis; Useful Plants; Flor. Andh.; Von Mueller.

ARTOCARPUS MOLLIS, Wall., the town-bein of Burma, is an immense tree; wood used for canoes and cart wheels. On the hills, large trees rather scarce. A cubic foot weighs 30 lbs. In a full-grown tree on good soil, the average length of the trunk to the first branch is 80 feet, and average girth measured at 6 feet from the ground is 12 feet.—Dr. Brandis.

ARTOCARPUS NOBILIS, Th., the del-gas of the Singhalese, is a large tree not uncommon in the southern and central parts of Ceylon, up to an elevation of 2000 feet. It was long confounded with Artocarpus pubescens, Will., but is quite distinct from that, and apparently from any other hitherto described species. Boats are hollowed out of single trees. The wood is of very good quality, but not considered of equal value with that of Artocarpus integrifolium. The seeds toasted are a favourite article of food with the Singhalese.—Th., Zeyl.; Beddome, Fl. Sylo.

ARTS AND MANUFACTURES. In several parts of the East Indies, as in British India, Ceylon, Burma, Siam, China, and Japan, the arts, in many of the branches and applications, attained a high position in very early ages; and they have been fostered by generations of diligent men, who from father to son have dedicated their hearts and minds thereto, completing their work with tasteful and fitting details; their colouring sombre but rich, with blended tints, softened hues, and modulated effect, is relieved with just enough chastened and harmonious brightness as wins the admiration of all who appreciate the application of true principles to human industry. The great Exhibition of 1851 gave Europe the first opportunity for ascertaining the value of many of the products of India, and numerous articles were then selected for the schools of art of Europe to imitate; and the subsequent exhibitions held in India and in the chief capitals of Europe have still further diffused the knowledge of the arts of those eastern countries.

The artisans of India excel in anything requiring patience or accuracy of detail; their patterns are
tasteful and original. They are expert in executing elaborate and tasteful designs in stucco or chimney, as solid ornaments for gateways, in alto-relievo for cornices, in perforated tracery for mosques and minarets, in florid ornament or in the drawing of bold scroll patterns for interior decoration on a flat wall, with a broad continuous line of uniform thickness. This is a branch of art in which the natives of India far surpass European plasterers or decorators; it is confined to a few localities in Southern India, and, like the celebrated old stone sculptures of the Ceded Districts, Mysore, Canara, and the Southern Mahratta country, it is an important branch of the fine arts of which very little is known, and the practice of which is gradually dying out from the want of proper encouragement. In the carving of wood, the chasing of metals, filigree work, weaving and embroidery, they excel; and specimens of these in the Exhibition of 1851 were deemed of sufficient importance to be purchased as models of taste in design, care in execution, skill in the manipulation, and knowledge in the arrangement and harmony of colours. Their drawings on tale are characteristic, though out of proportion. There is considerable talent displayed in their modelling of toy figures of the different castes, and they have long been celebrated for their dexterity in founding bronze images. In the spinning and in the weaving and dying of cotton and silk stuffs, of such kinds as are suitable for the clothing that they wear and to their habits, the weavers and dyers of S. E. Asia are not approached by any European race. Though machinery makes cheaper articles, the labour of the hand is much more durable; and their muslins, checks, and gingham are not only greatly more lasting, but the colours are far more permanent. In field and garden cultivation, in the economy of water, and the utilisation of manures, there are several races skilled in varied degrees, though none excel the Chinese in their acquaintance with these subjects, to their acquisition of which they are stimulated by the example of the imperial family, the emperor annually ploughing the first field, and the empress and her attendants watching the silk-worms and their produce. Every European artificer and artist alike might well take the handicraftsmen of India for an example in the patience, perseverance, and thoroughness which are the ground of their excellency, and by which the inspirations of art are wrought into reality and life. The welfare of the arts is important both to India and to Europe, and the loss of them would be a serious blow to civilisation, and an injury to the pleasure and dignity of life.

Rapidly growing, this branch of manufacture, embroidery, enamelling, filigree work, ivory-carving, lacquer ware, pottery, Boder-ware, koft-gari, jadlpuri work, Bombay work, shawls, and sculpture, will show that the arts of S. E. Asia are indissolubly bound up with the popular institutions of the country; and the patient Hindu handicraftsman's dexterity is a second nature, developed from father to son, working for generations at the same processes and manipulations. The 19th century has seen changes in British India which have greatly affected some branches of its arts and manufactures. While wars were unceasing, the tramorner's trade occupied numbers of artisans, and as an art it was carried to a high degree of beauty, but with British supremacy the manufac-

The houses of the people are humble; but the constructive capabilities of the races find opportunities for display in the erection of religious edifices and tombs, wells and tanks, for which woods, limestones, marble, sandstones, and greenstones are utilized. The polished chunam walls of the Madras houses are the admiration of all travellers. The presents received in India by the Prince of Wales were exhibited in London in 1876. Skilled artistic labour was worthily represented by the gold and silver wares of Trichinopoly and Cuttack, the gold and silver lace of every large town, the brass, copper, tin, and zinc work; their chasings and carvings, their trappings and caparisons; the mother-of-pearl work of Ahmadabad; the inlaid work of Agra, Multan, Sind, and Bombay; the horn and ivory work of Vizagapatam, Ceylon, China, and Japan; the carved horn and tortoiseshell work of these countries; the carpets, pottery, porcelain, and enamels,—all bear comparison with the work of former times. The porcelain of China has been famed for centuries; but the Japanese egg-shell ware surpasses for transparency any seen in that country; and there are other kinds of porcelain, rarely seen in England, and which are, though perhaps less curious, quite as beautiful as the egg-shell. Among them, the rarest is lacquered porcelain. This branch of manufactures is much neglected in India, owing to the caste views of the Hindu races preventing them using articles of value. The ivory carvings of the Chinese artisans have never been equalled in Europe; and their lacquer work, their dyeing, their silk fabrics, are all excellent.

The art of enamelling is in the first rank of the handicrafts of the world, and at Joyporo is pursued to the highest degree of perfection yet known. The art there is exclusively Hindu, and the specimens presented to the Prince of Wales were the master art of the enameller. The lacquer work of Burma, China, and Japan; the marble work of Burma; the lac work of Kurnul; the tatanague work of Boder; the wood work of Nirmul and of Hyderabad in Sind; the
shawl and woollen work of Kashmir and the N.W. of India; and the paintings on ivory in Delhi and the Peninsula.

The shawls of Kashmir have for ages been esteemed for their matchless colouring, due in part to the peculiar qualities of the air and water of that wondrous valley, but also to the appropriateness of the peculiar elaboration in the designs. Their art urgently needs encouragement, for European agents have interfered with the Kashmir workmen's designs, only to lose their characteristic loveliness.

Koftgari work, or steel inlaid with gold, was in former days carried on to a considerable extent in various parts of Northern India. It was chiefly used for decorating armour; and among the collections at the 1851 Exhibition, were some very fine specimens of guns, coats of mail, helmets, swords, and sword handles, to which the process of koftgari had been successfully applied. Since the revolt in India of 1857, the manufacture of arms has been generally discouraged, and koftgari work is consequently now chiefly applied to ornamenting a variety of fancy articles, such as jewel-caskets, pen and card trays, paper weights, paper knives, inkstands, etc. The process is exactly the same as that pursued in Europe, and the workman can copy any particular pattern required. The work is of high finish, and remarkable for its cheapness. Koftgari is chiefly carried on in Gujarat and Kothi, in the Scalkote district.

The tutangue work of Beder finds a ready sale, and admirable specimens of inlaid metal work by the native artisans of Bhooj are found in collections of arms.

The inlaid work of ivory, white and dyed, the ebony or coloured woods known as Multan or Bombay work, have become familiar to all Europe by the several exhibitions; and the carved black-wood or rosewood furniture of Bombay is to be seen in many parts of India.

The splendour of Indian jewellers' work, in jewellery proper, and as seen on arms and armour, is due to the free use they make in it of diamonds, rubies, emeralds, and other gems. Their art permits them to use flat gems, mere scales, so light that they will float on water, and rubies and emeralds full of flaws,—stones, in fact, which could only be used for the artistic effect that they produce when combined.

The inferior gems—garnets, chalcedonies, and other silicious minerals—are in extensive use; and lapidaries find work in polishing and engraving them, and in forming potstone, figure-stone, and jades into useful and ornamental articles. Illustrated Japanese books show much artistic talent. A group of trees, a branch of Japan bamboo, a bunch of leaves, a cottage and turn in a road, and such simple subjects, form, each of them, a perfect picture in itself, though appearing only to have been drawn with one stroke of the pen. The latter is in fact a brush, but is made quite hard with gum or glue, except at the extremity.

Sir John Davies is of opinion that the art of printing, the composition of gunpowder, and the magnetic compass, which are justly considered in Europe as three of the most important inventions or discoveries of modern times, had their first origin in China. He tells us also that their printing is by a system of stereotype, the types being made from the pear-tree wood, called by them by up. Their paper is made from refuse paper, rag of silk and cotton, rice straw, and the liber of a species of morus, but principally of bamboo. In 1880, Mr. C. P. Clarke was sent to India by the Art and Science Department to make purchases of the metal work of Madras and Kashmir, the wood carving of Ahmadabad and Canara, the pottery of Madura and Multan, and the textile fabrics of Masulipatam, Jeypore, Daean, Lucknow, Delhi, Ahmadabad, Sind, Bangalore, Malabar, and Central India.—Morrison's Compendious Description; Fortune's Chinese Books; Sir R. Temple's India in 1880; Sir George Birdwood's Report on the Paris Exhibition.

ARU. HIND. Amygdalus Persica; the peach. Mundahl-Aru is the nectarine variety. Aru-Bokhara, Prunus domestic; garden plum. Aru, Tel., Bauhinia racemosa. Aru tree of the Archipelago, Caesaurina equisetifolia.

ARU ISLANDS extend from lat. 7° 0' to 5° 52' S., and in long. 133° 56' E., and lie between the Treny and the S.W. coast of New Guinea. They are a closely packed group of very low islands, and about 80 in number, forming a chain 100 miles long from N. to S., and about 50 broad. The population is about 14,000. Trepang or sea-slug are found in great abundance on the banks, which also furnish the large mother-of-pearl shell of commerce, and the smaller shell in which pearls are found. Some of the more eastern islands contain limestone caverns, within which the swallow constructs the edible birds' nests of commerce. The group is a great resort for traders from the western parts of the Archipelago, including natives of Java and Celebes, Chinese, and even Europeans. Vorkay, an island lying exposed to the ocean at the south-eastern extremity of the group, is of great importance from its pearl fishery. At a distance of eight miles to the eastward lie several small islands, between which and Vorkay the trepang banks are situated. At low water, hundreds of men, with their wives and children, may be seen wading from Vorkay towards these isles, carrying a basket at their backs, and having in their hands a stick provided with an iron point, for lifting the trepang. For fishing on the banks situated at a greater distance, the Alfoers use a prahu, constructed for the purpose, in which they embark their entire families. These vessels have great beam, and the stern runs up into a high curve, while two planks project forward from the bows. The family resides in three or four huts composed of atap, or Nipa fruticans leaves, erected within the vessel, and a raling runs entirely round it, apparently to prevent the children from falling overboard. The prahu is propelled by a large sail made of rushes, which folds up like a fan (in a similar manner to the sails of a Chinese junk), and is set upon a good mast of bamboos, while it is steered with two rudders. Two other masts are also erected, for displaying several small flags. The pearl oysters are mostly small and black, in from twenty-four to thirty feet water.

The Ara insurgents bear a strong personal resemblance to the aborigines of Port Essington; indeed, on several occasions in which natives from that neighbourhood visited the islands in European vessels, they were considered by the Aruans as belonging to some remote part of their own group. But the Aruans also possess many characteristics.
in common with the Outananus of the opposite coast of New Guinea. They attach much value to elephants' tusks, brass gongs, and huge porcelain dishes. On the death of a man, all the chattels which he has collected during his life, including tusks, gongs, and precious China dishes, are thrown into the sea. The gold in pieces and thrown away; and in the villages may be seen heaps of these fragments of property. In the north-western part of the group, the people are evidently of a mixed race, the natural result of strangers from the west having married and settled among them, during an intercourse which appears to have extended over several centuries. Their hair is usually black and strongly curled. Like the African Somali, they wash it with wood-ashes or lime water, which imparts to it a lightish colour, and causes it to appear rough, both these peculiarities being considered very tasteful by the Alfoeras, as well as by the Papuans. The Aruans are taller and more muscular than the Malays and Bugis of Celebes. The usual height of the men is from five feet four inches to five feet eight inches; and there is a great inclination to slimness about the lower extremities among the taller men, some of whom attain the height of six feet. According to Bickmore, Papuans are said to live in the most easterly island, but the people, he says, resemble those of Haruku, Saparua, and Nassau.

The Halicore dugong visits the Aru waters. Amongst their birds are Monarcha chrysemela, a fly-catcher of black and bright colours; M. teleocephalum, the spectacled fly-catcher; Paradisa rama, the red bird called the Boring rajah; also Goby-goby, a very beautiful bird, first described by Linnaeus; the great paradise bird, P. apoda, whose call is wawk-wawk, wawk, wok, wok, wok; the black cockatoo, Microglossum atterrimum, which delights in the canari nut; the raquet-tailed kingfisher Tansyiptera hydrocharis; Alcedo lea, the goddess kingfisher.

The great wingless cassawary bush turkeys, the King-hunters, Dacelo guadchandali; the fly-catching wren, Todopsis; the great crown pigeon, Coura coronata; and the small wood doves, Cilouonous perlatus, P. aurantiifrons, and P. coronalatus. Amongst mammals are Cuces maculatus, a true kangaroo, also a small marsupial animal, Perameles doreyanus. The butterflies are numerous, and amongst them Hestia d'Urvillean, the spectre butterfly; Drusilla catops, the pale-winged peacock butterfly; Coetia d'Urvillean, clear-winged moth; Ornithoptera poseidon, the great bird-wing butterfly, one of the most magnificent insects in the world. Its wings are velvet black and brilliant green, 7 inches across. The due-winged Papilio Ulysses. Spiders, and particularly the web-spinning and little jumping spiders, are numerous. Lizards very numerous; hermit crabs abundant. Platypus and Tesserocrus are wood-boring insects of the Aru islands.

ARUKZYE, an Afghan tribe of the Khilair pass; herdsmen, who pass the winter in the lower levels of the Kohat and the Tiri hills, and in summer drive their flocks and herds to the mountain-tops.

ARUM, a genus of plants of the natural order Araceae. Many species are edible or being cooked, and some of them greatly prized; others are poisonous. A. lyratum, Roeb., of the Circars, needs to be carefully dressed to remove its hurtful qualities. A. montanum, Roeb., also, the Kunda rakasi of the Circars, is so poisonous that its root is employed to poison tigers.—Roeb.; W. Le.

ARUM ODORUM. Roeb. The fragrant arum, Peing-ma ha-yaw, Burm., has a stem one or two feet high and six inches in diameter, resembling a low palm, with gigantic cabbage leaves, three or four feet long by two or three wide. The flowers are said to be fragrant. The natives cultivate it, not for food, like the other species of arum, but, as they say, for medicine.—Mason, 436; Roeb. ii. 499.


ARUN or ARUNA, in the Sabeyeen system of the Veda, is the charioteer of the sun, driving his six-horsed car, corresponding with the Aurora of the Greeks. The emblem or vahan of Vishnu is Garuda, or the eagle; and the sun-god both of the Egyptians and Hindus is typified with this bird's head. Aruna, in Hindu mythology, the son of Kasaya and Vinata, is the brother of Garuda, and the charioteer and harbinger of Surya. He is therefore described as the dawn, and pictured as a handsome youth without thigs or legs. His two sons, Sumpati and Jatayoo, attempting in imitation of their father to reach the sun, the wings of the former were burnt, and he fell to the earth; of this the Greeks may have made their fable of Icarus. Aruna's imperfect form has been supposed to be allusive to his partial appearance; his head and body may be seen, but his legs are yet in invisible maiden, under the names Arjun, Brisaya, Dahana, Ushas, Sarama, and Saranyu, for whom the Greeks had Argyronis, Briseis, Daphne, Eos, Helen, and Erinyes. In the Veda, Paris, a wicked monster, is said to have tempted Sarama to be unfaithful to Indra, and, among the Greeks, Paris tempted Helen.—Moore, p. 447; Cole, Myth. Hind. p. 374; Tod's Travels; Taylor's MacKenzie MSS. See Garuda; Surya; Vahan.

ARUNA. Beng. Rubia cordifolia, Linn.

ARUNACHALA, or Aruna Giri, also called Trinomali, is a rocky hill of a reddish colour, about 100 miles S.W. of Madras. According to a legend, it was in this spot that Siva appeared as a fiery linga to Brahma and Vishnu, and desired them to seek his base and summit, which they attempted in vain; in commemoration of which the gods requested Siva to remain in a reduced form as a linga, and here erected the temple. A conical piece of rock on the top of the hill is considered the linga. Once a year it is pretended that a fire is miraculously lighted on the summit. Puranam promises great benefits to be derived for worshipping at the temple.—Taylor's Cut. iii. p. 140—1.
ARUNAKIRI NATAR, about the 16th century, was a Saiva ascetic, who spent his life at Tiruvannamalai. His principal works are in praise of Skanda, viz. Tiruvakappu, Tiruppukadal, Kanyakabramham, and Kantan Anupathi. He also wrote a short poem, Udakurram Vannam, on the stages of human life.

ARUNASA LA KAVIRAYAR, born near Tranquebar in 1712 A.D., was the author of the dramatic Ramayana. His minor writings are Asomuki Nadakam, Sirkali Puranam, Sirkali Kovai. He died at Shiyally in 1779.

ARUNDIKKY, Prinsepia utilis. ARUNDIKKY was the daughter of Kudama, and became the wife of Vasitha, one of the Picalades. Amongst Brahmins, a newly-married couple have this star pointed out to them by the Purohit or astrologer. She became a resident of Swerga. The devoted sati woman invokes her before mounting the pile. See Sati.

ARUNDINARIA FALCATA. Nees. Hill bamboo. Engl. Nagala, Ringal. This is found in the Sutlej valley between Rampur and Sungnam, at an elevation of 9000 feet. Used for wicker work, and for lining the roof of houses. Shepherd's pipes, baskets, and mats are made of it. Clos. Pray. Rep. p. 89.

ARUNDO, a genus of the Gramineae. Several Indian species are not defined, as the Pyo, Loi, Phoung, Kyoo, and A-loo of the Burmese. A. bifaria, Putu-oudur, Telu, grows as bushes on the banks of rivulets, lakes, etc. A. Bengalensis, gala-nul, Beng., grows in ditches and low places in the vicinity of Calcutta, where it blossoms during the months of October and November. A. japonica grows 12 feet high. A. phragmites and other reeds grow on the banks of the Yangtsze, commencing where the bamboo stops. -Rozb.

Von Mueller.

ARUNDO KAIKA. Retz. A. donax, Linn. A. Roxburghii, Kth. Arokhonkai, Rozb. A. Rohini, Kth. A. Nel, Nau, B. Nuda, Nula, Sansk. A. Nul, Nuthara, Hind. Sur, Sind. A. Bag-narri, Nalu, Panj. A. Drumh, Dwrena, Ths. Ind. Arokhonkai, Tribhunthu, Rozb. This grows in Bengal, Sind, and the Punjab. Its culms, suar joo jane, are made into chairs, and its flower-stalks beaten to form the fibres called Moonyah. These are made into string or twine (Moonyah joo naare), and ropes (Moonyah joo russa). The culms are also made into baskets, and the common door-mats of Calcutta are made of the stalks split open. Ships generally use them as dammu.-Rozb. i. 347; Royce, Fih. Pl. p. 32; Hosie, Veg. Kingdom, 821.

ARUNELLI. Tam. Ciccia disticha, Linn.

ARUNG-ANGAMI, a Tibeto-Burman tribe that has intruded on the Bodo and Mikir tribes in Assam. See Angami; India.

ARUN TUTA. Pans? The insipissated juice of a bulbous plant, supposed to be a species of Colchicum. It is sold at a high price, and is much sought after by the people of the Hazarajat, in Central Asia, being of high repute in diseases of the eye. It is sold in small pieces of a dark brown colour, but is indiscriminately applied, and must often act injuriously.-Mason's Journey, ii. p. 338.

ARUS. BENG. Solanum verbascifolium; also Adhatoda vasica.

ARUZ, ARAB., properly Araz, rice.

ARVANUS or Aruanus is supposed to be the emperor Valerian (Valerianus); for he is described by Tabari as one of the Roman sovereigns (Malki bud Arzian), who, having been conquered by Shapur in a fort near Antioch, was led into Susiana, where the Persian monarch, undertaking some extensive structures (at Shushter), obliged his captive to assist in the work, by procuring experienced artists from Rome or Greece, and he promised that liberty should be the reward of this co-operation. The task was performed, and Shapur observed his promise, but first cut off the Roman chieftain's nose, to brand him with an indelible mark of captivity.—Ouseley's Travels, i. p. 287.

ARVELA, a caste of Smartha brahmins in Mysora.

ARVI. HIND. Colocasia antiquorum. ARVI, a town in the Wardha district of the Central Provinces; it contains the shrine of Arvi Teling Rao, who founded it in the 16th century. Hindus and Mahomedans worship at his shrine.

ARWAN. HIND. In Rohilkhand and the upper Doab, used for Newam, the first cuttings of corn, made at a fortunate moment. They are not taken to the threshing-floor, but brought home to be eaten by the family (every member of which tastes it seven times), and presented to the Lacs and to Brahmins. In the kharif or autumn crops, the shamakh is used, but in the Kabi crops barley is employed as the grain for the Arwan. It is quite a festival, as beginning the harvest. Phula-phula kyun phire?—Ghar arwan aya. Jhuka jhuka kyun phire?—Pyuda aya. Why so happy?—Because the Arwan has been brought home. Now, why so downcast?—Because the tax-gatherer has come. It is also called Awasi, Dadri, Kawal, and Kawari.

ARYA, a word supposed to be from the Sanskrit root ri = ar, and to have relation to agriculture and agricultural implements. It has been noticed under 'Ar,' q.v. Er or yer, Tam., in Sanskrit, hala or hara, in Telugu, araka, a plough; Erai or Irai, tax, tribute; Erai-vari or Irai-vari, Tam., dues payable by a tenant to his landlord; Erumate of Assam, land abandoned from cultivation; Eri, Tam., a reservoir with water for irrigation; Eru, hind., manure, in Latin, arare, to plough.

ARYA, in Ceylon Buddhism, the rhatship, the last of the four paths leading to Nirvana—Hart's Eastern Monachism, p. 138.

ARYA BHATA, a celebrated Hindu astronomer, who, according to Captain Warren, flourished in the 4425d year of the Cali yug, answering to A.D. 1322. He left several mathematical tracts, some particularly relating to the properties of the circle. Another account says he was born about A.D. 476, at Kusumapura, near the modern Patna. His chief work is the Arab-hatiya Sutra, which includes two other works, the Dasagiti Sutra and the Aryashta Sutra. He is the earliest known writer on algebra, and if not the inventor, is the improver of that analysis. He composed his first astronomical work at the early
ARYAHICHTA.

The Aryans, a term restricted by some writers to a family of languages, which includes all the idioms of the ancient Medes and Persians, who named themselves Aria, and their country Eriene or Iran, and likewise the Sanskrit, with all the Prakrits and Pali. Thus they have been arranged into two branches, the Iranian and the Indic. The Iranian branch, there is the Avosta or old Bactrian, with its descendents the Pahlavi, Huzvarash, Pzand or Parsi. Of the Indic branch, there is the Sanskrit or its two forms, the Vedic and the Literary, and the Prakrit dialects.—(1) The Pillar Inscriptions; (2) the Dramatic; (3) the Gathas of Nepal; (4) Atrapansi; (5) Saravasti; (6) Sarasvaci; (7) Maharastri; (8) Pysachi; (9) Magadhi, or in their term, Pali, which again appears to have variations in Ceylon, Burma, Siam, and Cambodia. The Aryan or Bactrian character is that sed in the inscriptions at Jalalabad, Munkhyala, and at Kapurdirgi, on tops or tumuli, said to be numerous for about 300 miles around. Later inquirers have agreed upon the contrasted terms, Aryan-Pali, i.e. Bactrian, and Indo-Pali, i.e. the soka Lay and rock inscriptions, or the home-created writing of the Indian continent before emirates or Sanskrit Brahmanas approached its soil.

ARYAN, the name given by ethnologists to a unity of the human race, also designated Indo-European, Indo-Germanic, Sanskritidiot, Japhetic, and Caucasian. There was a time, says Professor Max Mlller, when the ancestors of the Celts, the Germans, the Slavonians, the Greeks and Italians, the Persians and Hindus, were living together in the same fencings, separate from the ancestors of the-Semitic and Turanian races. They separated, and the Hindu was the last to leave the central home of the Aryan family. The researches of Chevalier Bunsen, and Professors Wilson, Hug, and Max Mlller, seem to prove that much of the earlier history of the Aryans is enshrined in the Vendidad of the ancient Persians and present Parsees, and in the Vedas of the Hindus, according to Dr. Hug, the ancient to the Vendidad, or Code of the Fire-worshippers of Iran, is the most ancient, and its contents are the reminiscences of the passage of the Aryans into India on the south, and into Persia on the south-west. Major Cunningham also, his learned work on the Bihisa Topes (p. 15), is the term Aryan in allusion to the race of Aryan whose migrations are recorded in the Avesta; who, starting from Ercene Vaejo, actually spread to the south into Aryavartaha or Aryadesa, the northern plains of India, and to a south-west over Iran or Persia. The original naming of their name is said to have been equi-

ARYAN.

valent to upper noble or dignified, and this is doubtless the origin of the epithet Aryan, which, as we learn from Herodotus (vii. 62), the ancient Medes assumed. And for this designation, again, as a national name, it has been suggested that the Arians were originally and essentially an agricultural and therefore a peaceful race, in order to distinguish them from the nomadic Turanians, they may have derived their tribal name from their plough; and words relating to agriculture, and its derivatives, are found in several Aryan tongues. Aryan, in Zend, means venerable, and was at the same time the name of the people. In the old Sanskrit, in the hymns of the Veda, Aryan occurs frequently as a national name, and as a name of honour, comprising the worshippers of the gods of the Brahmins, as opposed to their enemies, who are called in the Veda, Dassya. It is a Sanskrit word, and in the later Sanskrit it means 'noble of a good family.' It was, however, originally a national name; and we see traces of it as late as the Law-book of the Manavas, where India is still called Aryanthaha, the abode of the Aryans. To the present day, the districts on the plains of the Ganges in which they are chiefly remaining still continued to be called after them; Aryanvarthaha pinnia bhumi hi, Madhiam Vindhyai Himiyai yoh yo, i.e. the Aryan country, the sacred land, lies between the Vindhyas and the Himalayas. The investigations of the learned place the primeval seats of the Aryans on the slopes of the Belur Tagh, in the highland of Pamir, between the 40th and 37th degrees of N. latitude, and 86° and 90° of longitude, about the sources of the Oxus and Jaxartes. On this western slope of the Belur Tagh and the Mustagh (the Tian-Shan or Celestial Mountains of the Chinese), the Harberezaiti (Albordah) is to be looked for, which is invoked in the Zendavesta as the principal mountain and the primeval source of the waters. The reason why they left their earliest homes, and the account of their subsequent migrations, are recorded in the opening of the sacred code of the Vendidad, which, Chevalier Bunsen remarks, as certainly contains an historical tradition of the Aryans, as does the 14th chapter of Genesis an historical account of the oldest recorded war between Mesopotamia and Canaan. The Fargard is divided into two great parts, one comprising the immigration from the eastern and north-eastern primeval countries to Bactria, in consequence of a natural catastrophe and climatic changes, the other, the subsequent extension of the Aryan dominions through eastern and central Asia, which terminated in the Panjrab. A vast climatic change had taken place in the northern countries, which is attributed in the Bible to the action of water. In the Fargard, the sudden freezing up of rivers is the cause assigned. Both may have resulted from the same cause, the upheaving of the land by volcanic action, elevating portions and depressing into basins, such as the Caspian Sea. The following passage contains a genuine description of the altered climate of the primeval land of the Aryans, Iran proper. 'Thero Ingromanniyanos (Ahirmfan) the deadly, created a mighty serpent, and snow, the work of Deva; ten months of winter are there, two of summer.' And ten months of winter is now the climate of Western Tibet, Pamir, Belur, the Altai country, and the
district cast of the Kuen Lun, the paradise of the Chinese. The fathers of the Aryans, therefore, left the country at the sources of the Oxus and Jaxartes in consequence of a convulsion of nature, by which a great alteration in the climate was caused; and in their course from the primeval country to the Sutlej, they formed, by the conquest of fourteen countries, as many kingdoms in Central Asia and in the country of the Indus and its confluents. In the intervening region, they passed amongst the Turanian (Scythians and Turkomans), and there is evidence that the inhabitants whom they afterwards found in India were likewise Turanians. Professor Max Müller gives, as follows, their successive settlements:

Sogdiana, in Samarqand, formed the first settlement of the Aryans; Sogdian, afterwards spelled Sugdian and commonly Sogdiana, is pre-eminently the country, as being the home of the fire-worshippers. It is in the 38th degree of latitude, where Mara Kanda (Samarqand) is situated, a paraisacal land, fertilized by the river Sogd, so that Sogd and Paradise are used synonymously by the later writers. The Vendidad (ii. verse 5) says it was created as the second best of the regions and countries.

The second settlement was in Mouru (Merv, Margiana). This is Margiana (from the river Margus), now Marghab (Margus-water), Margush in the cuneiform inscriptions, a fruitful province of Khorasan surrounded by deserts. In the Record (ii. verse 6) it is described as 'the third best land, the mighty and pious (Mouru, Marv) . . . Ahriman created there wars and marauding expeditions.'

The third settlement was in Bokhdi. It (iv. verse 7) was the fortunate Bokhdi, with the lofty banner. Here Ahriman created buzzing insects and poisonous plants. Bokhdi is certainly Bactria (though Burnouf had doubts about it), the land of the Bactrians. The 'tall plumes' indicate the imperial banner (mentioned also by Firdousi), and refer, consequently, to the time when Bactria was the seat of empire. Up to this time nothing is said about Media, though she conquered Babylon b.c. 1294.

Their fourth settlement was in Nisaya (Northern Parthia). It (v. verse 8) says 'the fifth best land is Nisaya; there Ahriman created unbelief.' This is the Nisay of Ptolemy, famous for its breed of horses, commonly called Nisa, the renowned district of Northern Parthia, bordering on Hyrcania and Margiana. The city of Nisa is situated on the upper Oxus. The term 'unbelief' in the Record signifies the apostasy from pure worship. Here, therefore, the first schism takes place.

The fifth settlement in Haroyu (Aria). Haroyu is Horat, of which frequent mention is made subsequently, and the Harva of the cuneiform inscriptions. Its name comes from the river now called Heri, abounding in water. The Greek district Aria comprises the larger portion of Segestan, and forms part of Southern Khorasan. In the Record (vi. verse 9) it is mentioned that the fifth best land was Haroyu, the pourer out of water; here Ahriman created hail and poverty.

The sixth settlement in Vekereta (Segestan). This country is the home of Rustam. Dushak is the capital of Segestan. To the south-east of it is the land of the Parikani, known to the ancients as a part of the Sakon country (Sakan). This greater part of it is now a desert, but it has once cultivated. Here, again, in the words of the Record, there may be allusion to a schism, which in that case would be the second historical one.

The Record runs (vii. verse 10). 'Vekereta, in which Duzhaka is situated; there Ahriman created the Pairii ka Khmathaiti' (Herod. iii. 94, comp. Ritter, viii. 59), worship of the Peris (fairies).

The seventh settlement in Urva (Kizbul). The Record (viii. verse 11) alludes to Urva, proved by Hang to be Kabal, the identity of which was previously unknown.

The eighth settlement in Khuneta (Kandahar) (ix. verse 12). 'Khuneta, where Vehrkana is situated.' According to Hang, by this country Kandahar is to be understood. Vehrkana cannot be Hyrcania, as is generally supposed, but is the city now called Urghanbad, situated in Kandahar. The curse of Ahriman was pederastism, a very well known historically to be un-Aryan and Turanian.

The ninth settlement in Haraquaita (Arachosia) (x. verse 13). Haraquaita, denominated the fortunate; the Harauwatis of the cuneiform inscriptions; the Arachosia of the classics. The word of Ahriman here was the burying of the dead,—another apostasy, therefore, from the true faith.

The tenth settlement in Hesmata (district of Helmand) (xi. verse 14). 'Hetumat, the wealthy, the splendid,' is the valley of the present Helmand and the Etyman of the classics. The mischief inflicted here by Ahriman was the sin of sorcery.

The eleventh settlement in Ragha (Northern Media) (xii. verse 10). 'Ragha with the three races is doubtless the Rhage of Strabo and Poltomey, the greatest city in Media,' south of Tehran. This north-eastern portion of Media includes the passes of the Caspian. The possession of these passes was a protection to the other Aryans, and at the same time the key to the whole of Media, and therefore Persia. The district is called also Choana (Qwan). Ahriman established here unbelief in the spiritual supremacy of Zarathustra,—another schism, at all events another portion of ancient Aryan history.

The twelfth settlement in Khorra (Khorasan) (xiii. verse 17). Khorra is held by Spiegel and Lassen to be the district of Khirm mentioned in Firdoussi. Hang identifies it with the cities of Karkh in Khorasan. The evil done by Ahriman here was the burning of the dead. This was therefore an illegal practice, like the sin of the Arachosians, who were so profane as to bury their dead. All this implies the organization of an hierarchic power in Sogd and Bactria, although not a sacrificial casta.

The thirteenth settlement in Varena (Ghilian) (xiv. verse 18). 'Varena with the four corners.' Hang has shown it to be Ghilian. The curse of Ahriman was irregular menstruation.

The fourteenth settlement was in Hapta Hindu (Panjab) (vi. verse 19). The Land of the Seven Hindu, that is, the country between the Indus and Sutlej. In the Vedas the Panjab is also called the land of the Seven Rivers. The traditional Greek names also are seven. The Indus and the Sutlej are each formed by the junction of two arms, which in their earlier course were independent. According to this view, it stands thus:
ARYAN.


I. Indus.  II. Hydaspes.  III. Akesines.  IV. Hyarotis.  V. Hyphasis.  

The Vedas show that the Aryans passed the Sutlej at a very late period, and settled in what is now British India. In India, the term Aryan as a national name fell into oblivion in later times, and was preserved only in the term Aryavarta, the abode of the Aryans. It was more faithfully preserved by the Zoroastrian Aryans who migrated to the N.W., and whose religion has been preserved in the Zendavesta, though in fragments only. In the first chapter of the Vendidad, where Ahuramazda explains to Zarathustra the order in which he created the earth, sixteen countries are mentioned. A line drawn from India along the Paropamisus and Caucasus Indicus in the east, following in the north the direction between the Oxus and Jaxartes, then running along the Caspian Sea, so as to include Hyreana and Ragha, then turning south-east on the borders of Nisaen, Aria (i.e., Hara), and the countries washed by the Eymandrus and Arachotus, would indicate the general horizon of the Zendavesta world. It would be what is called the fourth card of the west of Mithra, ‘the whole space of Aria,’ vespem ariyaosayanem (totum Arum situm). Opposed to the Aryan, we find in the Zendavesta the non-Aryan countries (anairyan lain-havo) ; and traces of this name are found in the Aryanavai, a people and town on the frontiers of Hyreana. Greek geographers use the name of Ariana in a wider sense even than the Zendavesta. All the country between the Indus in the south and the Indus in the north, the Hindu Kush and Paropamisus in the north, the Caspian gates, Karamania, and the mouth of the Persian Gulf in the west, is included by Strabo (v.2) under the name of Ariana; and Bactria is thus called by him ‘the ornament of the whole of Ariana.’ As the Zoroastrian religion spread westward, Persia, Elymnia, and Media all claimed or themselves the Aryan title. Helioacians, who wrote before Herodotus, knows of Aria as a name of Persia. Herodotus (vii. 62) attests that the Medes called themselves Arii; and even for Aryotape, the northernmost part of Media, the name of Ariana (not Aria) has been preserved by the Stephano Byzantinus. Manu, speaking of the Alava tribe of Khatriya, who had neglected to reverence Brahmins, styles them Dasya, whether they speak the language of the Miclea or that of the Aria; and the people to whom he thereudes seem to have been Medes occupying the valley of the Indus. The name Elymnia had been derived from Alama, a supposed corruption of Aryanma. The Persians, Medians, Bactrians, and Sogdians all spoke, as late as the time of trago, nearly the same language; and we may well understand, therefore, that they should have aimed for themselves one common name, in opposition to the hostile tribes of Turan. And then, after years of foreign invasion and occupation, Persia rose again under the sceptre of the Sassanians to be a national kingdom, we find the old national kings the worshippers of Masdanes, dwelling themselves, in the inscriptions dechristened by De Saety, ‘kings of the Aryan and un-Aryan races,’ in Pedlevi Iran va Aryan; in Greek, Ἀριάνος καὶ Αριανοῦς. And in the valleys of the Caucasus we meet with an Aryan race speaking an Aryan language, the Os of Ossethi, and they call themselves Iron.

The Aryan type generally is characterized in its purer forms by height, bulk, and symmetry, with an oval face, a prominent and well-shaped nose, devoid of the open nares which characterized the African-Semitic type, and with the ridge continued until it passes on to the forehead; the lips and cheekbones are not prominent; the ears are expressive, and moderately large, with eyebrows arched and the forehead high. The Vedas furnish much information regarding the origin and early state of the East Aryan people, who are now called Hindus. See Hindus. On the northern border, the great range of the Himalaya now separates the Aryan Hindu family of India from the Bhot Buddhist races of Tibet. The tendency of the migration is southwards; and on the south of the chain are some alleged mixed races, such as the people of Lahuli and Kanawar on the west, and the Gorkhan and Bhotani on the east. On the S.W. border, the Lower Indus separates many tribes of Turanian and unknown origin in Beluchistan and the ancient Gedrosia.

Beyond the N.W. frontier, the old indigenous inhabitants of Kashgar, Yarkand, Khotan, Turfan, and the adjacent highlands, are Tajaks, who speak Persian, and who are all agriculturists, as are also all the Tajak of Central Asia and Afghanistan. The people of the Hindu Kush and higher Indus are Aryans of a high and handsome type. Their languages are allied to those of the Hindus, and those hills have no other race. The Aryans seem to be the aborigines; indeed, Sir George Campbell believes those on the hills north of the Panjab to be the purest Aryans in the world. They are extraordinarily handsome, with marvellously acute intellects, are good agriculturists, and skilful artists, but are not very hardy or personally courageous.

The Kashmir people and those near them are the old Aryan stocks. The bulk are now Ma- lomedans, but they are a Brahman race. Their original name is Ksh, Kauh, or Kash; and we meet it in Kashgar and Hindo Kush, and hence also Caucasus and Caucesian. The Kashn seem to have at one time extended towards the Indus. It is the commonly received opinion, that south of the Himalaya the Aryans were first in the Panjab and Kashmir, and afterwards in Sind, Guzrat, and Dehli, and that the seat of Vedic power, faith, and learning was between the Jumna and the Indus. It is also admitted that the Vedic Aryans dwelt chiefly on the banks of the Indus and its confluence, as high up as Kashmir, and as low down as Cutch and northern Gujarat. There is nothing in history to show, nor is there in the physical appearance of the races to the east of the Ganges and of the Bay of Bengal anything to warrant the belief, that these Aryan immigrants ever advanced in masses beyond their present locality in the northern parts of India, north of the Vindhyal range. It is generally recognised that most of the Brahmans and Khatriya, some of the Vaisya Hindus, and all the Kayasth tribe, are Aryans; but that many of the Gopa or Ahir, of the Sad-Gopa or Goala, the Gareri shepherds,
the agricultural Kurmi and Lodha, present forms only approaching the Aryan type. Mr. (Sir George) Campbell (p. 125), however, says that in Hindustan the Aryan element has quite prevailed in feature over the aboriginal type, and the population are almost as Aryan as European, but dark in skin, and usually smaller. He says (J.E.S.) that in the lower doab of Hindustan the Aryan are extremely numerous.

In the Cawnpur district the majority of the cultivating ryots are Brahmans; and they largely entered the British armies. North of the Gogra they are again numerous, and in Kasi or Benares are still more so. South of Benares the Brahman is called Bamun or Bhaban, and Sir George Campbell supposes an intermixtiture with the aborigines. In the swampy river-protected country of Bengal, Brahmans are quite the influential race, holding offices and lands; good-looking, intellectual, but darker than the northern or western Brahmans.

There are many Vaisya Hindus in the Peninsula of India, whose almost diminutive form precludes the idea that they can be of the Aryan stock, although in the later Sanskrit writings Arya is applied to a Vaisya or member of the third caste. But, on the other hand, in the northern parts of Telingana are many of the Sudra Hindus with forms of the Aryan type. But Professor Max Müller tells us (Lectures, p. 225) that in the later literature of the Vedantic, the name of Arya is distinctly appropriated to the three first castes,—the Brahman, Kshatriya, and Vaisya, as opposed to the fourth, or the Sudra. In the Satapatha Brahman it is laid down distinctly: 'Aryas are only the Brahmans, the Kshatriyas, and Vaisyas; for they are admitted to the sacrifices. They shall not speak with everybody, but only with the Brahman, the Kshatriya, and the Vaisya. If they should fall into a conversation with a Sudra, let them say to another man, 'Tell this Sudra so.'

British India, amongst its Aryan tribes, is now largely Brahmanical in its religion. Chevalier Bunsen is of opinion (iii. p. 564) that about B.c. 5100 or 5000 the Aryan power on the Indus appears to have been broken, in consequence of some unexpected invasion from the lands of the Indo-Aryans, and from the latter date, India east of the Satlej, up to the extent of the Aryan conquests, adopted Brahmanism. From that time, the religious views, forms, and habits of Bactria were for ever abandoned by these Aryan immigrants, and between B.c. 3000 to B.C. 1900 they extended their Brahmanical religion from the Sarasvati to the Doab. At a later date, the Brahmans became a learned body; and the higher civilization of the Brahmanical Hindus is now indicated by the circumstance that in the Hindu, Bengali, Gujarati, Marathi tongues, and to some extent in Telugu, Canarese, and Tulu, all words relating to science, literature, and mental refinement, all that relate to an advanced civilization, and all words pertaining to religion, the soul, and the invisible world, are in the language of the Brahmans; whilst all words that relate to the ordinary arts of life, the face of nature, the wants, feelings, and duties of a rude and almost a savage people, are non-Aryan.

At present, in India, the bulk of the Aryans hold to two great religions—Brahmanism and Zoroastrianism; and many followers of the Jain and Sikh beliefs are also of this race. In Persia, Kashmir, and Afghanistan, most have become Mahomedans. In British India, out of its population in 1871 of nearly 200,000,000, the percentage of Hindus was 73 01; of Mahomedans, 21 41; of Buddhists and Jains, 1 48; Sikhs, 62; and Christians, 47. Rajputana is still partly Hindu, and in part occupied by non-Aryan races; but in British India there are tribes of Rajput descent who profess the Mahomedan faith. —Wheelers Hist. of India; Bensusans Egypt, iii. pp. 462, 467, 499-601, and iv. pp. 40, 487, 561; Prof. Max Miller's Lectures, pp. 69, 108, 201, 226, 229; Calcula Review, 1859; Edinburgh Review. Sir George Campbell in Journ. Ethn. Soc.; Col. Daltons Ethn. of Bengal; Statistical Tables, 1882.

ARYA SIDDHANTA, a treatise on astronomy, composed by Arya Bhatta, of which there is a spurious copy. There is some variation in the copies of this work preserved in Bengal and in the Karmatic, the former making the solar year 365d. 31p. 17c. 6", the latter 365d. 15g. 31v. 1p.; and lunar synodical month, the former 29d. 51. 50v. 6p. 7s. 84, etc., and the latter 29d. 51g. 50v. 9p. 40s. 21, etc.—Captain Edward Warrens Kala Sankhita. See Arya Bhatta; Surya Siddhanta. ARIZ. ARAB. A representation, a petition; aruz, rice; also the earth. ARZAL. HIND. Low, any inferior object; also applied to humble people; low caste cultivators on lands in northern India. ARZAN. PERS. Panticum Italicum; millet. ARZAT. ARAB. Cedar. ARZAT. PANJ. Boerhaavia diffusa. ARZ-BEGI. PERS. An aide-de-camp. Arzi, a petition. ARZRUM, or Erzerum, a pashalik in Asiatic Turkey, extending from lat. 38° 42' to 41° 7'. and long. 39° 10' to 44° 30' E. It is a mountainous plateau, and treeless. The town is in lat. 39° 55' 20" N. Its population consists of Kurds, Persians, Armenians, Georgians, and Turks, and estimated from 25,000 to 50,000 souls. It was taken by the Russians in 1828.—MacGregor. AS. HIND. Myrtus communis. ASA. ARAB. A club carried by a Musulman devotee.

ASA. HIND. Hope. The Hindu goddess of hope. Asa, pl. Asen, Saks, according to Bunsen, means 'existant,' 'living ones,' in opposition to Wana, divinities of the air.

ASA AHIR, a noted leader of the Ahir tribe, who in ancient times gave his name to Asigharh. —ASF. ARAB. Capparis spinosa. ASAFOETIDA.  

Malay. Sium-gub, BUKH. Hing, Ing, "

" 

Hindi, Ing, Ing, "

Duwi Hina, Chini, Hinta, Mapal, "

Dulfers dreech, DUT, Angul, "

PERS.

Asefetide, "

Pers. "

Teufels-dreek, GERS, Perangayam, "

Tam, "

Hindi, Ing, "

Tel, "

This gum resin is the product of the Feronia asafoetida, a synonym of the Narthex asafoetida, and has perhaps also the produce of other umbelliferous plants mixed with it. The plant is an annual, and attains a height of 8 or 10 feet. It grows wild in the sandy and gravely plains of the western part of Afghanistan, but chiefly in the Anardava and Helmand districts; also in the neighbourhood of Herat, on the Hindu Kush at an elevation of 8000 feet; it is found growing in

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the Dandak-Shakoh pass, and in Panji, in the valley high up on the Sutlej river, and in the mountains of Daristan and Beluchistan. Moorcroft tells us that the chief article of the commerce of Sykant beyond Baniyan was azaferata, of which about 200 mounds are gathered annually from plants that grow wild upon the mountains. Sir A. Barnes believed this plant to be the Sphilmum of Alexander's historians. Four or five weeks after the new leaves have sprouted from the aerial root, which occurs in April, May, and June, many of the Kakarr tribe spread themselves over the country from Kandahar to Herat. The roots are removed; and a trench 6 inches wide and deep dug round the root; three or four incisions are then made in the top of the root, and repeated every third or fourth day, and while the white milky juice is exuding, which is for a week or so, the root is covered over with dried leaves. According to the size of the root, from a few ounces to two pounds are obtained from each root. The juice turns yellow and hardens, in which state it is put into bags and exported, and is met with in commerce in shapeless masses of a waxy consistence, with small transparent brittle and white tears. The fracture is vitreous, at first white, and passing to red by contact with the air, a property which distinguishes it from all other resin. Its leaves are used as greens in western Afghanistan; and the people eat its white inner stem, which attains 5½ feet of height. Azaferata is often an ingredient in the curries of the Hindu races of India. It is a powerful carminative and stimulant tonic. It produces a sensation of heat, and increased secretion in the alimentary canal, with emesis; and the urinary and genital organs seem to be sometimes materially excited.

—O'Shaugnessy, p. 365; Dr. Mason; Poole's Statutes; Hogge's Veg. King, p. 387; Mr. Faulkner; Moorcroft, ii. p. 395; Cal. Cat. Exh., 1862; insiple's Mal. Med., p. 267; Pottinger's Travels, p. 39; MacGregor's Afghanistan, p. 39. See Ferula; so Northex.

ASAL. TURK. Honey.

ASAL. AR., PERS., HIND. Principal, original, sati Tus, in Kashmir, the under fleece of the himalayan Ibex, Capra Siberica. It is woven into fine cloth called Tus. No wool is so rich, so soft, or so full. Asal-us-Sun, the root of Glycyrrhiza glabra. See Tusi; Ibex.

ASALOO. HIND. A small plant cultivated about Ajmir; the seeds are heating, and promote secretions; they are also taken in milk to strengthen the body; much used in masalih for animials. To the taste they are bitter, and considered to be heating.


ASAM. MALAY. Tamarind fruit.

ASAMI. HIND. A tenant, a hired servant, a warly trooper; in the N.W. Provinces, a cullory; these, in Oudh, are of two kinds, one with a right to till or provide for tillage; and called hapar-band, qadimi, khud-kasht, maurusi, and edjar; the other, tenants at will, called Kach'ha ami, or pahi kash.

ASAN. SANSK. Terminalia alata, and T. totecosa; MAHRI, Bridelia spinosa.

ASAN. One of the solar months. See Fasli.

ASAN. HIND. A small pile carpet to kneel at prayer-time; also a form of the Fatiha ayer. Asana, SANSK, a seat, from As, to sit; the third stage of Yoga.

ASAN'ELA MARAM. TAM. Angely wood tree; Arctopus hisura.

ASANYASATTA, in Sinaeghese Buddhism, an unconscious state of being.

—Harby's Monachism.

ASA-PURNA, the Hindu deity Hope.

ASA. ARAB. Relics. Asar-i-mubarak, or Asar-i-sharif, blessed or noble relics; amongst Mahomedans, relics of their prophet, such as the hair of his beard, etc.

ASA or Athar. ARAB. The Alim-ul-Athar, the knowledge how to trace footsteps in the desert of Arabia; it is the Peggi of the Kama.

ASA'R, the third Hindu solar month. It is the first month of the rainy season, and consequently of cultivation.

ASARI POOLI MARAM. TAM. Stilago diandra.

ASARUM EUROP.EUM. L. Asarabacca.

Asarun, ARAB. Tuckir, Tuggur. HIND. Foal foot. ENG. Upana, LEAF. CABARET, ASARAT, FR. Mucltianjyvi, TAM. Haselkraut, GER. Choppa tataku, TEL. Incahuas, thre.

The leaves and roots of this European plant are met with in all the bazar's of India; 40 to 60 grains of the fresh plant infused in eight ounces of water act as an emetic, in large doses as cathartic; the powder of the leaves causes violent sneezing. Until the introduction of ipecacuanha into Europe, the Asarum was used for most of the purposes for which the South American drug is now employed, and other virtues are attributed to it. The dried plant is sold in the Indian bazars under the name of Asarun. Royle states, however, that a hill plant, called Tuggur, is generally substituted for it, and the Asarum of the bazars of India is not unusually the root of the Valeriana Hardwickiana, Wall. —O'Sh., p. 569; Hope's Veg. King; Birdwood's Bombay Products; Royle.

ASARU, a village in the Gujranwala district of the Punjab, containing ruins of great antiquity, with two mounds from an ancient stupa identified by General Cunningham as Tso Kia or Ta-Ki of Hwom Thang, the capital of an extensive kingdom. Numbers of Indo-Sythetic coins are annually washed out of the soil after heavy rains.

ASA-THOR. SKAND. The Lord Thor. See ES. ASAUJIC. HIND. Ceremonial uncleanness.

ASAYB-WALA. HIND. An insane person, a demoniac.

AS-BARG, also Aswarg. HIND. Delphinium saniculoifolium; Datisca cannabina; a yellow dye.

ASBESTOS, amianthus, tremolite.

Pah-lunmul, CHIN. Sang-i-Pamba,PERS.,PANJ. Yang-Ki-shih, " " " reshadar, " " "

Common asbestos is found in several parts of India, largely in Salem and Mysore, and indurated asbestos abundantly. It is found in a bed at Putta Marpuhili, near Rayalehern, in the Ceded Districts. The tremolite variety is brought from Tsi-nan-fu, in the northern part of Shan-tung, where there is a hill called Yang-k'i-shan. It is supposed by the Chinese to stimulate the uterine system. The silvery amianthus is found in Shan-si, Sech-n'en, and Shan-tung, and is used to make lamp wicks, fire-stones, fire-bricks, and crucibles. It occurs in flat beds or veins above the Khost valley. It is said to be twisted into rope by the hill people of those parts. It is also found at Jalalabad. Its most curious property is indestructibility at a red heat. On this account it is utilised in Europe in gas stoves. The long and
silky fibres of amianthus have been employed in the manufacture of a fire-proof cloth. For ordinary paper from this mineral, the present market prices are too high. The ancient Egyptians wrought it into a soft and flexible material to be used as shrouds to burn their dead in. There are several varieties of this fibrous stone.—Powell's Handbook: Econ. Prod. Panjab, p. 46; Smith.

ASCETINES, one of the rivers of the Panjab as known to the Greeks, now called the Chenab.

ASCETICS, amongst Buddhists, Christians, Hindus, and Jains, have ever been numerous, though under a variety of rules. Siddartha, a prince, a married man with wife and child, forsook all to follow the life which led to his attainments of a Buddha; and with Hindus and Buddhists of the present day such desections of home and wife and child are continually recurring. All Buddhist monks of Burma, and many Hindu devotees, to obtain their daily food, perambulate the streets, walking rapidly, soliciting from no one. Three centuries after the calling of the apostles, St. Anthony led the first Christian monks to the wilds of the Thebaid; and the next migration was taken by Pacomius to the island of Taburnea. St. Anthony is supposed to have lived to the patriarchal age of 105; and before he died, in Oxyrhynchos alone, within a very few years from the foundation of the monastic community there, an assembly was held at which as many as 10,000 female and 20,000 male ascetics were gathered together. Eunapius ascribes to the monks the overthrow of the ancient gods, and the revolution of religion in Rome and Constantinople. After once this great change was accomplished, the monasteries became training schools for the great statesmen of the empire; and the high places in the state were attained with most facility by those who had served most eagerly in the largest and most ambitious orders.

Amongst the Christian sects, the anchorites or anchorites avoided the intercourse even of those who had renounced the world like themselves. Perpetual silence was required to him who had already been self-imposed; and even independently of the famous Simon, who isolated himself on a pillar, there were soon thousands of zealots who lived for years without opening their lips in speech. Up to the 19th century there continue ascetic sects of Christians living in lone places, as those of St. Catherine on Mount Sinai; and the priests of the Romish persuasion abstain from marrying. Amongst Hindu devotees are several ascetic sects, but the more common are the various sects of the Gosain, Jogi, and Viragi or Sanyasi, who live in monasteries; and the Pandarams, who live in the temples as the pujari or worshipping officials, also are celibates. Since 2600 years, the Buddhists have both monks and nuns; Dr. Campbell gave a list of twelve monasteries at Lhassa, inhabited by 18,500 Lama priests; and in Ladakh there were 12,000 Lamas in a population of 158,000 souls. Amongst the Zoroastrians, all the young men and all the Ploumyge priests live in monasteries. Amongst the Jains, all the teachers are ascetics. Amongst the Mahomedans, some are anchorets, trusting to chance gifts of food; all the fakirs are mendicants, but the Kalend darvesh or dervis alone practice celibacy. One sect in the Dekhan voluntarily become eunuchs, and dress like women, visiting the houses of Mahomedans on the birth of a son or daughter, and exacting a money dote.

Some of the Hindu ascetics used to carry their austerties to the extremes of bodily torture, sitting for years over a hot fire, or with eyes open looking at the sun, exposed to summer heats and winter colds; naked, and maiming their persons by suspending heavy weights; holding their hands closed until the nails would grow through; holding their arms upright till the joints became fixed, or lying on beds with iron spikes, or with iron collars so placed on their neck as to prevent repose or making vows that they will not take food till they have accomplished some act of devotion or charity. Under British sway, all such classes are fast disappearing; few Europeans, and few natives even, have seen the more pretentions of them. Yet in 1866, in the Elephant cave of Ellora, a Hindu Viragi was sitting naked, smeared with ashes (vibudhi), who had then so sat for five years. He was in robust health, with a sleek skin; yet the people believed that he abstained from food. Suliman, the Arab traveller, writing A.D. 851, mentions that some Hindu ascetics go about naked, wander in forests and mountains, live solely on herbs and fruits, stand naked with the face turned to the sun, with only a pantheer skin as a covering; he mentions having seen a man standing so, and on returning sixteen years afterwards, found him still in the same posture. Col. Tod had seen one of these objects, self-condemned never to lie down during forty years, and there remained but three to complete the term. He had travelled much, was intelligent and learned, but, far from having contracted the moroseness of the rechuse, there was a benignity of mien and a suavity and simplicity of manner in him quite enchanting. He talked of his penance with no vainglory, and of its approaching term without any sensation. The resting position of this Druid (vana-purust) was by means of a rope suspended from the bough of a tree, in the manner of a swing, having a cross bar on which he reclined. The first years of this penance, he said, were dreadful; afterwards, the devil—called, it was thought—gripped his movements till that degree that he expected death; but this impression had long since worn off. ‘Even in this there is much vanity;’ and it would be a nice point to determine whether the homage of man or the approbation of the divinity most sustains the energies under such appalling discipline.

Even yet, amongst the Hindu community, the behoists of such ascetics are secondary only to those of the divinity, whose organs they are deemed. Like the Druids of the Celts, the vana-purust jogi, from the glades of the forest (vana), or recess in the rocks (gopha), issue their oracles to those whom chance or design may conduct to their solitary dwellings. It is not surprising that the mandate of such beings proves compulsory on the superstitious Rajput. We do not mean those squalid ascetics who wander about India, and are objects disgusting to the eye, he who, as the term imports, mortifies the flesh till the wants of humanity are restricted merely to what suffices to unite matter with spirit; who has studied and comprehended the mystic works, and pored over the systems of philosophy, until the full influence of main (illusion) has perhaps unsettled his understanding, or whom the rules of his sect have condemned to penance and
solitude,—a penance so severe, that we remain astonished at the perversity of reason which can submit to it;—to these, the Druids of India, the prince and the chiefest resort for instruction.—

Elliot's Hist. of India; Tod's Rajastan. See Aghora; Anthropophagi; Buddhists; Darvesh; Fakir; Hindu; Jogis; Mustants; Sanyasi; Viragi.

ASCHARA. SANSK. According to Munn, the syllable O'M. All rites ordained in the Veda, oblations to fire, and solemn sacrifices, etc., pass away; but that which passeth not away is the syllable O'M., hence called Aschara, since it is the symbol of God, the Lord of created beings. See Gayatri; Hindu; O'M.

ASCIDIAD.E, a family of the mollusca, of the class Tunicata or Tunicaria. The Ascidiads have five genera, viz. Molgula, Cynthis, Peloneas, Chelosyma, and Boltenia. See Mollusca; Tunicata.

ASCLEPIADE.E. Several genera and many species of this natural order of plants occur in south-eastern Asia, in Arabia, China, Japan. There are upwards of 220 species in India, Ceylon, and the Archipelago, fifty in the Himalaya, the Khasyin hills, and Assam. The more important are the Dogbanes,—Pergularia odoratissima, Tweedia, Cryptostegia grandiflora, Cynanchum, Marsdenia tenacissima, Stapelia Buffonia, Gymnema lactiferum; Tylophora asthmatica, Secamone emetica; Calotropis gigantea; Hoya; Sarco-lobus; Holostemma, Hemiedemus. The roots of the whole order appear to be acrid and stimulating, and some of them, as Tylophora asthmatica and Secamone emetica, are employed as emetics. The cow-plant of Ceylon, or Kiriaghuma plant, is the Gymnema lactiferum. Species of Cynanchum act as purgatives. The leaves of Solenostema argel are used in Egypt for adulterating senna. Several species yield caoutchouc, whilst others afford indigo. Many species of the genus asclepias has now been clased by other authors under other genera.

A. acida, Rozb., and A. aphilla, Rozb., syn. of Sarco stemma brevistigma, Wight.

A. anularia, Rozb., and A. convolvulacea, Herb., Eeyne, syns. of Holostemma Rheedii, Spre.

A. asthmatica, Rozb., A. pubescens, Will., and the A. vomitoria, Koom., syn. of Tylophora asthmatica.

A. eгинata, Rozb., syn. of Demina extensa, R. Brown.

A. gigantea, Wild., syn. of Calotropis gigantea, Brown, also of C. procera.

A. microphylia, Rozb., syn. of Pentatropis microphylla, W. and A.


A. montana, Rozb., syn. of Gymnema tinengas and A. tangius, Rozb.

A. pseudosara, var. latifolia, Rozb., syn. of Hemi deus indicus, R. Brown.

A. tenacissima, Rozb., and A. tomentosa, Herb., Mad, syns. of Marsdenia tenacissima, W. and A.

A. tunicata, Rozb., syn. of Gymnema paeoniforum, R. Brown.


Many of the species possess powerful medicinal properties, and others are handsome border flowers, and worthy of cultivation; the buds of A. stipitacea are eaten by the Arabs. The whole plant of A. aphilla may be eaten. Calotropis gigantea is poisonous. The milky sap of A. lacte- lera is said to be used as food, while the milky juice of A. laniflora and A. procera is acrid and irritating, and is used with butter and lard as an

ointment for itch; while that of A. procera is applied to hides for removing the hair before tanning. As flowering plants, the genus thrives well in any good light soil, requiring room to spread and show their blossoms. They are readily grown from seed, which are produced in abundance. A. Currae- via, Linna., is the wild or bastard ispecamahna, Indian root or yellow milkweed, and the kakhudi of the Hindus. It is a native of the West Indies, but now found in most parts of tropical America and India, and is cultivated in China as a flowering plant; it is a pretty milkweed, with a small saffron and orange-coloured flower, and is quite common in the Tennesseum Province. The root is acetic, and is so used by the Negroes of the West Indies. The juice is made into a syrup, and is used as a vermiculate.—Williams' Middle Kingdom; Eng. Cycz.; Rozb.; Voigt; Riddell; W. ic.

ASEES. HIND. A form of Hindu benediction, only bestowed by women and priests. It is per- formed by clasping both hands over the person's head, and waving over him a piece of silver or other valuable, which is bestowed in charity. The Tamil people similarly wave a fowl or sheep's head around a sick man. This is a very ancient ceremony, and is called Nachraval. Col. Tod frequently had a large salver filled with silver coin waved over his head, which was handed for distribution amongst his attendants. It is most appropriate from ladies, from whom also he had this performed by their proxies, the family priest or female attendants. It resembles in form the Mahomedan rite called Bulain Lena. Jutjasthan, i. 618.

ASPIDAD. ARB. A large number of the species of the root.

AS-GANDH. SANSK., DEKB. Physalis somnii- ferum and Ashadatoda vasica; roots medicinal.

ASGUHI, a town in the Panjab, on the Indus, where there are gold washings.

ASHAR, a son of Joktan. See Joktan.

ASHAB. ARAB. Companions of Mahomed. The Astuwana-ul-Asbhab, the Column of the Companions, whose graves are at the El Bakia. Ashab-i-Kuluf, i.e. Companions of the Cave, the Seven Sleepers.—Burton's Pilgrimage, pp. 301, 396.

ASHADH PURVA, SANSK., the 20th, and Ashadah Uttara, the 21st, lunar mansions, also the 4th lunar month. Also the 3d solar month, Hindu denomination, when the sun is in the sign Muldhana II, answering to the Tamil month Audi.

Ashadi Ekadasi is the eleventh of the light half of the month Ashad, and is dedicated to Vishnu. It falls about the 12th July, and refers to the summer solstice, and in this feast day commences the night Rama and Vishnu, during which he reposes for four months on the serpent Sesha.—Warren's Kola Shakti.

ASHAKA-BASH. See Youkharee-bash.

ASHAR. ARAB. The tenth or tithe. By Maho medan law, land is liable only to two impose, viz, the Ashr or tithe, a poor rate due only on the actual produce of the soil; and the Khiraj or tithe, generally imposed on land within reach of running water or means of irrigation. A land can be subject both to Ashr and Khiraj at the same time. See Khiraj.

ASHARA, from Arabic ‘ashar; a tenth part, meaning the first ten days of the Maharram, or the ceremonies observed during that part of the month. Houses are appropriated, in which the Mahomedans of India set up alams, Taboots, Shah-nasheens, Booraq's, etc, and some-
times screens made of mica. These places are called the Ashar Khana (ten-day house); Tazeen Khana (the house of mourning); and Astana (a threshold or fakir's residence). In Upper Hindustan, opulent Mahomedans erect an Imambara, and the Shiah Mahomedans generally follow a similar practice. They are dedicated to the commemoration of the deaths of Ali and his sons.

The Ashar Khana, or the Ten-Day House, is called by the Shiah sect the Imambara, the Imam place. It is a building in which the Shiah sect dig a pit and kindle fires in it. At night the people fence across the fire with sticks and swords, and circle round it, calling out, 'Oh, Ali! noble Hasan! now to Hasan! bridegroom! alas! fate! stay!' etc. They form themselves in circles, and beat themselves with chains in the most frantic manner. The women repeat a funeral eulogium, and the mulvis read the Rouzat-us-Shahid. The bier, the banners and insignia, used at the Mahar-ram, are lodged in it.—Herklots.

ASHARHA. Sansk. This Hindu month is named from the stellar mansion Asharha.

ASHARY or Ashary, in Malabar, the carpenter caste, who, in common with the brass-founder, gold and iron smiths, continue the practice of polyandry, but in civil inheritance follow from father to son, and not the old Indian practice of maternal descent, descentus ab utero. The elder brother marries, and the wife is common to all the brothers. If a junior wish to marry, he must live apart and set up business apart; but if any of his younger brothers reside with him, his wife is common to them. See Polyandry.

ASHAZAI, a section of the Iliazai Yusufzai, who inhabit a portion of the plain of Buner, west of the Daulatza.—MacGr. 1. i. 108; N.W. Fr.

ASHBUTCHEGAN. Arab. Castor; civet.

ASHES.

Rakh, . . . . HIND. Sambool,. . . . TAM.
Tirconoot Oendi, . . . . TAM.

Wood ashes are useful for cleaning metals; enclosed in a bag, and dusted through it by striking it on a knife-board, it is a good substitu- tute for bath-brick for cleaning knives. Balls of cow dung ashes are sold in the bazaars of British India for cleaning military appointments and brass mountings of harness, etc. In commerce, the term applies to such vegetables as the alkaline salts are extracted from.—Mr. Robde, M.S.S.

A-SHET. BURM. Shame, sensibility of their honour. Burmese often commit suicide for trifling causes; for this, Burmese girls disappointed in love use opium.

ASHKAL-ul-BILAD, a geographical book by Ibn Haukal. It was also called Kitabul-Malasik wa-l-Mamalik. The author's name was Mahomed Abu-l-Kasim. He was a native of Bagdad, which he left A.H. 331, A.D. 943, and, after travelling through all the existing Mahomedan countries, he returned to it A.H. 558, or A.D. 968, and went to Africa 976.—H. Elliot.

ASHKANIAN, written also Ashgian, a name given by the Persians to a number of petty kings which followed after Alexander. They are the successors of the Greeks, and are described as the Muluk-ul-Tawif. See Arashan; Persian Kings.

ASHLESHA, in Hindu astronomy, the asterism of the serpent.

ASHOK. Sansk. Joneesa asoca, TAM. Ter- minalia longifolia; T. tomentosa.

ASHOO-KUUCHO. BENG. Colocasia anti- quorum.

ASHPHUL. MALAY. Longan, Nephehium longan, or Seetalia longan.

ASHIR. Arar. Calotropis gigantea; C. procera. ASHRAF. This poet dates his history of Sekander or Alexander, entitled Zaffar Namah, the Book of Victories, A.H. 1444.—Ouseley's Travels, ii. p. 391.

ASHRAF. Arab., Hind., Pers. Noble. In Behar and Hindustan, cultivators, both Hind and Mahomedan, who consider themselves soldiers and gentlemen, and are averse to manual labour. ASHRAFFI, a gold coin of India, no longer current, value 15 and 16 rupees, called a gold mohur. See Silver Coinage.

ASHRE. A grove; the groves in which the ancient Sabeans worshipped.—De Bode.


ASH-SHUFAAH, Ar., the Mahomedan 'right of pre-emption,' is a survival of the early stage of society known as the village community. The early village was simply an association of persons—usually blood-relatives—banded together for mutual assistance. Out of this arose various privileges and duties, and among the former the 'right of pre-emption.' In Germany the right is shown by Von Maurer, in his Dorfverfassung, to have extended not only to houses and lands, but to the produce of the soil. In India, village property cannot be divided without the consent of all the members of the family, and, in some places, of all the village heritors. The right of pre-emption was exercised by the Hebrew next of kin, or 'goel,' and the feeling that prompts the rule is indicated in Burekhardt's remark, that in Arabia a man usually marries his deceased brother's wife in order to keep the family property together.

ASHITA. Sansk. Eight. Asha Dika, the eight points of the compass, including the cardinal.

Ashas, the bones of the Agreeah tribe of Hindu cultivators, exhumed and taken by their near relat- ives to the Ganges. See Agareah.

Ashas-bisogam, in Hindu law, the eight products to be enjoyed of an estate, viz. the Siddhi, land cultivated; Sadhya, the produce of such land; Pashana, uncultivated land, rocks, minerals, etc.; Nikshapa, property deposited on land; Niddhi, treasure trove; Jalannitam, waters and their products; Akshini, actual privileges; and Agami, prospective rights and privileges.—Wilson.

Ashas-bhuj Devi, the eight-handed goddess, represented as standing on the back of Nandi. Ashadasha-bhuj Devi, the eighteen-handed goddess who destroyed Mahesha.

Ashata Lakshmi, the eight forms of Lakshmi.

Ashatamatrika, according to the Tantra, eight divine mothers. They are represented each with a child on her lap.

Ashtanga Danda; Dandawat, a Hindu rever- ential salutation, consisting of the prostration of the body, with the application of eight parts—the forehead, breast, hands, knees, and insteps of the feet—to the ground.

Ashta Sahariika, a book on Buddhism. See Praja.

Ashta Vasu, the eight Vasu chiefs among the Devas.
ASHTAGRAM.

Ashataka, a book or chapter of the Vedas, a series of which forms a Sakta. See Aryan, Veda.

ASHTAGRAM, a revenue division of the Mysore Kingdom, comprising the districts of Mysore and Hassan.

ASHTI, in the Dekhan, 30 miles S.E. of Ahmadnagar, the site of the battle with the last Baji Rao, 20th February 1818. The mean height of the village is 1460 feet.

ASHTOLLA, also SungadEEP island, is a small desolate island on the Mekran coast, in lat. 25° 7' N. and long. 63° 40', called Karmnna? by Naurehs; the Ashtae of Ptolomy, Asthi-1al of the Arabs, and called by the Indians Satadupw or Sata island, also Astula and Kali. It is a breeding place of the turtle. It was much resorted to by the Jussani pirates. —MacGregor.

ASHTORETH, АСHТОH, was the principal female divinity of the Phoenicians, as Baal was their principal male divinity. Her worship seems to have gone with the Phoenicians to all their colonies. Astarte of the Syrians, Ishtar of the Babylonians, Ken of the Egyptians, Hera of the Assyrians, Venus of the Greeks and Romans, the Mylitta of the Arabs, and Astara of the Huns, are all one and the same divinity, with modifications to suit the views of the different nations who followed the worship of the female generative principle. The worship was based on a physiological theory. The Hindu Durga stands erect upon a lion and holds a serpent in her hand, as does Ken in the Egyptian tablet, or Hera in the Assyrian bas-reliefs. See Astarte; Mother.

ASH TREE.

Aran, Arm, Arab., Oren, H. Е. H., Chin., Ormus, Lat.

The genus Fraxinus; two species grow in the Western Himalaya,—F. floribunda, or large ash, and F. xanthylloides, or crab ash. In the Mehra forest, near Abhotaband, Hazara, and in the valley of the Sutlej, there is abundance of yew and olive, and a considerable quantity of box and ash, the ash and olive near the river, but the box and yew on the higher slopes, 2000 feet or more above the Sutlej. The larger ash and yew are much esteemed for jampan poles, hefts, and tool handles, etc.; and the larger, in colour, grain, and toughness, resembles the English ash, and makes good walking-sticks. Some species of ash are remarkable, like the sugar maples, to which in some respects they are allied, for the sweetness of their sap, which, on concreting by exposure to the sun, is known as manna. To the two species, F. rotundifolia and F. floribera, and probably also to other species, we owe the manna of the European druggists. The wood of the common ash, Fraxinus excelsior, L., is the toughest and most elastic British timber, greatly valued by the cart and wheelwright, cooper, machine framework and agricultural implement makers, and was in request in olden time for spears. Ormus floribera, the flowering ash tree, grows in the mountains of the south of France, and F. rotundifolia (Ormus rotundifolia), the round-leaved manna ash tree, is a native of Calabria and Sicily. The wax insect tree of China, Mr. Fortune found, is a species of ash; it grows abundantly on the banks of ponds and canals in the province of Che-kiang. Mr. M'Cartee of Ningpo gave him some beautiful specimens of the fresh insect upon the branches of this tree. This insect, Ch'u of the Chinese, has been named Coccus pelif. by Mr. Westwood. When fully developed on the trees, they seem as if covered with flakes of snow. The wax is an article of great value in Chinese commerce, and a small pardon is exported. It is an excellent timber tree.—Fortune' s Histor. p. 146; Cole, Cat. Emb. Ex., 1862; Cleghorn, Pheet, Report; Pope, Hist. Hin. Bot. p. 266; O'Shaughnessy, p. 434; Smith.

ASHWA GANDHA. Beng., Physalis sonnifera, var. P. flexiflora, Nees.

ASHWERTHA, Beng., also Ashwath, Ursigna religiosa, Miy.

ASI was the term applied to the Gete, Yeut, Yuti, or Jut, when they invaded Scatandavia and founded Jutland. The Asi seem to have been a northern race with several divisions, some of which appear to have been conquered by the Egyptian king, Seti III. Colonel Tod considers that Scandinavia was occupied by a tribe of the Asi. He says that the Suevi or Sivones erected the celebrated temple of Upsha, in which they placed the statues of Thor, Woden, and Friya, the triple divinity of the Scandianavian Asi. He regards the Asi and the Hindu race of Aswa as the same, and to have been descendants of Deimun and Bajuswa, who spread over the countries on both sides of the Indus, and probably gave their name to Asia. Asi is said by Remusat to have been applied by the Chinese almost promiscuously to the nations between the Jaxartes and Oxus, as far south as Samarcand, and in one of his quotations it is applied to a people of Kohjand, and in another to people of Bokhara. Mr. Prinsep considers the Asii or Asiain nomades who took Bactria from the Greeks, to have been Scythians of Aes, who overpowered the Greek dynasties in Sogdiana and Northern Bactria between 140 and 130 B.C.

ASIA. The southern and eastern portion of that part of the Old World which may be noticed in this Cyclopaedia, may be indicated as lying S. of Siberia. Travelling from the E. of Bengal to Herat, we find S. Asia everywhere bounded on the N. by a chain of mountains, which is covered with perpetual snow for almost the whole of its extent, and from which its great rivers appear to issue. This chain commences near the Himalaya, and runs nearly N.W. as far as Kashmir. During this part of its course it is called the Himalaya, from Hima, the Sanskrit for snow, and alaya, abode. From Kashmir its general direction is a little to the S.W., as far as the high snowy peak of Hindu Kush, nearly N. of Kabul. From this peak its height diminishes, it no longer wears perpetual snow, and is soon after lost in a group of mountains, which stretch in length from Kabul almost to Herat, and occupy more than two degrees of latitude in their breadth. Some ranges issue from this mass on the W., and extend so far into Persia as to justify, if not completely to establish, the opinion of the ancients, which connected this range with Mount Caucasus in the W. of Asia. From Kashmir to the Hindu Kush the whole range is known by the name of that peak. From thence to the meridian of Herat the mountains have no general name among the natives, but that of Paropamias was long applied to them by European geographers. The principal range of the Indian Caucasus is conspicuous from Bactria and the borders of India, and is seen from places far off in Tartary.
Elphinestone says that the ridge of Imaus or Hinalaya is seen from a distance of 150 and even 250 miles. The Paropamisan chain, which bounds the Kohistan on the W., extends 350 miles from E. to W. and 200 from N. to S. The whole of this space is a maze of mountains; and though it affords a habituation to the Aimak and to Hazara tribes, who became his patrons, with which and so little frequented, that no precise accounts of its geography are to be obtained. It is certain, however, that the Hindu Kush range is there no longer so lofty as to be conspicuous among the mountains by which it is surrounded, and that no continued line of perpetual snow can any more be traced. The eastern half of this elevated region is inhabited by the Hazara, and is cold, rugged, and barren; the level spots are little cultivated, and the hills are naked and abrupt. The western part, which belongs to the Aimak, though it has wider valleys and is better cultivated, is still a wild and poor country. The northern face of these mountains has a sudden descent into the province of Balkh; their acticity is less on their other extremities, except perhaps on the W. of the S.W. On the N.W. they seem to sink gradually into the plains which border on the desert. The slope of the whole tract is towards the W. To the N. of this, extending eastwardly and to the W., are the elevated plains of Tartary, the Asiatic dominions of Russia, Chinese Tartary, and China, and the regions occupied by several Turkoman nations; to the S.E. is India, with its two peninsulas and its archipelagos on the E., with the dominions of Persia, of Turkey in Asia, also Asia Minor, and the peninsula of Arabia, on the W. See India.

ASIAN SOCIETIES are found in almost every country of Europe, and in each of the presidency towns of India. Most of them publish journals. That of Bengal in Calcutta was instituted by Sir William Jones on the 15th January 1784, during the administration of Warren Hastings, when he was patronized by Sir William Jones and Charles Wilkins on the committee. Their Researches concluded with its 20th volume in 1839, but were continued in the Journal of the same society. Since the formation of this society, every Governor-General of India has held this office, with the exception of several years when the Governors-General were the presidents of the society. Even Warren Hastings was for a few meetings president of the association. The Royal Asiatic Society of London was founded by retired members of the Asiatic Society of Bengal, and it founded, in its turn, the branches at Bombay and, in 1843, in Ceylon. In 1819 the Madras branch was affiliated, and produced Transactions and a Journal.

ASIL. G. HIND. A female servant amongst Mahomedans; a free woman.

ASIL-DURGAH or Asilghar, supposed by Prinsep to be the town of Junaghal, q.v.

ASINUS, the ass. A genus of quadrupeds, one species of which has been domesticated (see Ass). The wild ass of Cutch, the Gorkhar, is known to exist in those western parts of India (see Equus onager), and another in Tibet (Equus hemionus, Pallas), the kiang. A third, Asinus hemippus, I. Geoff., inhabits Syria, Mesopotamia, N. Arabia, and is the wild ass of the Hebrew Bible. In Africa, the wild asses are known as the zebras and quaggas. Asinus quagga, the quagga of the Cape of Good Hope; A. Burchelli, Gray.

ASIO BRACHYOTUS or Otus brachyotus, short-eared owl, of Europe, Asia, Africa, N. and S. America, is migratory, and common in India. A. otus, Otus vulgaris, long-eared owl, of Europe, N. Africa, Asia Minor, N. Asia, N. America; India, confined to the Himalaya.

ASIR, an Arab tribe, of whom the Berekede are a branch. The Berekede are said to allow strangers to visit their wives, like the Jakuri Hazara.

ASIRGARI, a strong fortress situated on an isolated hill in the Satpura range, height 850 feet from the base and 2300 feet above the sea level, in lat. 21° 28' 19" N., long. 76° 20' E. It was a stronghold of a Shepherd race, from one of whom, Ahir, it obtained its name. It was occupied afterwards by Rajpots, and is frequently mentioned in the poetry of that race, but Ala-ud-Din took it from the Chauhan tribe, a.d. 1295. It fell into the hands of the Farukhi princes of Kandesh about a.d. 1400, and was by them greatly strengthened, the lower fort called Maligarah, having been entirely constructed by Adil Khan I., the fourth of the dynasty. Asirgarh was frequently the safe retreat of the Farukhi princes when their territory was invaded by the different independent Mahomedan kings of Gujerat and the Dekhan. It remained in their possession for 200 years, till, in a.d. 1600, Akbar, emperor of Dehli, conquered Malwa and Kandesh, taking the last of the Farukis, Bahadur Khan, in Asirgarh, after a siege. It fell into the hands of the Mahrattas, but in 1805 it yielded to the British.

ASKA, a town in India, in lat. 84° 42' E. and long. 19° 36' N. It is in the district of Ganjam, and sugar is its chief product.

ASKALANDA, a town mentioned by the ancient Arabic writers; has been supposed to be the Alexandria built at the confluence of the Aeessines with the Indus. But it was also called Askalands Usu, and may be the Uch of modern times.—Eliot.

ASKALON lies to the westward of the road to Gaza, and near the sea. It was once a satrapy of the lords of the Philistines, but at the present day is without a single inhabitant within its walls. Askalon was taken by the crusaders, who strengthened the fortifications, but it was subsequently retaken by Salah-ud-Din, who destroyed the works made by the Christians.—Robinson's Travels, i. p. 22.

ASKHAR. ARAB. Jatamansi; lemon grass.

ASKUTA. PANJ. Ribes leptostachium.

ASLESHA. SANSK. The mansion, sign, or asterism of the serpent, called also Sarpa.

ASMAN. PERS. The sky, the seven firmaments of Mahomedan belief.

ASNEA. MAHR. Felis pardinus, Linn.; the larger panther.

ASOF JAH, a title of the founder of the present dynasty of Hyderabad in the Dekhan, hence their title Asof-Jali; another of their titles is Nizam of the Dekhan. His name was Chin Kileh Khan, son of Ghazi-ud-Din Khan, of a respectable Turk family. Father and son both served as officers of Aurangzeb, and distinguished themselves; and Chin Kileh Khan subsequently served under Jahandar Shah, Bahadur Shah, Ferokhair, and Muhammad Shah. He was viceroy of the Dekhan,
from which, during the reign of Muhammad Shah, he was removed to be governor of Malwa, where he revolted April 1720, and seized Asirgarh. At Aurungabad he defeated Dilawar Khan, a Syud of Barh, who had been sent against him from Hindustan; and at Ballapur, in Borar, he defeated Alam Ali, another Syud, who fell in the action. In January 1722, he returned to Delhi to take up the office of vizir. After a few months, he was sent against Haidar Kuli, governor of Gujarat, of which he took possession, and again returned to Delhi; but in October 1723 (Maharram 1136) he resigned his office and marched off to the Dekhan, and, after defeating Murbar Khan, who fell in battle, he resumed possession of his Dekhan territory (October 1724), from which time he was virtually independent of Delhi. He was with his troops at the battle of Karnul (A.D. 13th February 1739), in which Nadir Shah totally routed the imperial troops, but Asaf Jah took no part in the action, alleging want of orders. A story became current that the invasion of Nadir Shah was on the invitation of Asaf Jah and Saadat Khan, and that the loss of the battle was concerted between these chiefs. Asaf Jah was sent by Muhammad Shah, after the battle, to tender submission and arrange terms. Asaf Jah was recalled from Delhi A.D. 1741, by the revolt of his second son, Nasir Jung; and when that was suppressed, he was involved in disturbances, in the subordinate government of Areot, till his death, in June 1748 (A.H. Jamadi-us-Sani 1161). His death led to contentions among his sons, chiefly occasioned by the French and British in their strivings for supremacy in S. India.—Elphinstone, pp. 659, 645.

ASOJ. The last day of this Hindu month ushers in the Hindu winter (sard rit). On this day nothing but white vestments and silver (chandi) ornaments are worn, in honour of the moon (Chandra), who gives his name to the ‘Pala and common drudge’

An intercalary month is this mode followed by Hindus to adjust the annual seasons, their ordinary calculations being by lunar months, and such are called lunar. At Udaipur, on the Asoj, there is a procession of all the Rajput chiefs to the Chougan, and on their return a full court is held in the great hall, which breaks up with ‘obsequies to the lamp’ (jote ka moopir), whose light each reverences. When the candles are lit at home on this day, every Rajput, from the prince to the owner of a ‘skin (charsa) of land,’ seated on a white linen cloth, should worship his tutelary divinity, and feed the priests with sugar and milk.

—Tod’s History of Rajasthan.

ASOK, TAM., in the south of India, is the name of the Guatteria longifolia.

ASOKA, SANSK., from a, not, and soka, sorrow, is the Jonesia asoka, Rozh., which yields a beautiful flower diversified with orange, scarlet, and bright yellow tints, and is consecrated to Siva, as the lotus flower, called kaunahl or padma, is to Vishnu and his wife Lakshmi; a sweet-scented jasmine (Jasminum) to Vishnu and Mariana, the goddess of the Pariah race; the superb crimson, IXora bandhua, is offered at the shrines of Vishnu and Siva; and the Nauclea cadamba, a stately tree, yields, in Hindu belief, the holiest flower in India. Sir W. Jones observes that the vegetable world scarcely exhibits a richer sight than an Asoka tree in full blossom. It is about as high as an ordinary cherry tree. The flowers are very large, and beautifully diversified with tints of pale yellow and of bright orange, which form a variety of shades according to the age of the blossom. In spring, it bears beautiful red blossoms. The Asoka being sacred to Siva, it is planted near his temple. It grows abundantly in Ceylon. In some places in India it is more esteemed than at others. Women bathe in some holy streams with the blossoms floating in it. Hindus say that the contact of the stem of the Asoka tree with the foot of a woman of superior beauty, makes it blossom. This tree is often alluded to in the drams of the Hindus. In the Toy Cart, Maitreya, describing a garden, says, ‘Here the Asoka tree, with its rich crimson blossom, shins like a young warrior bathed in the sanguine shower of the furious light.’ Captain D. L. Richardson (Flowers and Flower Gardens, p. 189) says the flower is eaten by young men as a medicine. The colour of the flowers changes during development. When they first expand, they are of a beautiful orange colour, gradually changing to red, forming a variety of beautiful shades. Coleman says that men and women of all classes ought to bathe, on a particular day, in some holy stream, especially the Brahmaputra, and drink water with buds of the Asoka floating in it. Sita is said to have been confined in a grove of it while in captivity by Ravana; other legends say she was confined in a place, or house, called Asokan.—Coleman’s Mythology; Lady Faulkland’s Choiw-Chow; Rozh. ii. 218: Richardson’s Flowers and Flower Gardens; Williams’ Story of Nala, p. 117.

ASOKA, grandson of Chandragupta, or Sandractuss, began to reign B.C. 255–6, and for the next few years he was styled the ‘Ferocious.’ Immediately on his father’s demise, he seized the government, and gave orders to save Tashya, who was born of the same mother, and immediately applied his whole energies to the achievement of military glory. In the short space of four years, he reduced the whole of N. India from the mountains of Kashmir to the banks of the Nerbudda, and from the mouth of the Indus to the Bay of Bengal. He afterwards became a convert to the Buddhist religion. His conversion occurred B.C. 257, and thenceforth he was known as the ‘Pious;’ but in his conversion he carried his fiery character into his new faith, and in four years compiled the whole of N. India, from the mountains of Kashmir to the banks of the Nerbadda, and from the mouths of the Indus to the Bay of Bengal, to receive his own Buddhist views. He distributed throughout the chief cities of India the relics of Sakyamuni, which had been collected by Ajatasatru and deposited in one large stupa at Rajagriha, and he erected a great number of Vihara, or Buddhist monasteries. He also issued numerous edicts, which he engraved on massive rocks and stone pillars or columns, evidently in imitation of Egyptian obelisks, in which Buddhist doctrines are earnestly inculcated. The oldest of these are found at Dhauli in Cuttack, at Ginran in Gujarat, and at Kapurdiri near Peshwar, and in all these they styles himself PriyadarsI, ‘the beloved of the Devas.’ Professor Wilson, however, doubted
this identity of Asoka with the Priyadasiri who published the edict. The name is also read Pyradasi, or “loving-minded.” Asoka defeated Antiochus, and graveled in the Pracrita on certain rocks an account of his victory. His conversion from the Brahmanical to the Buddhist religion seems to have been affected by the son of his brother-in-law, the mad monarch Prasenajit. He is said to have erected 84,000 Buddhist sanctuaries or chaityas, partly temples and partly tumuli, called stupa or topea, which to the present day continue to be the greatest monuments of the Buddhism of Central and W. India and Hindustan. In B.C. 244, he held a third Buddhist council at Pataliputra (Palimbatha). In his rescript to the council he mentions a collection of several hymns or gatha of Buddha, as also of aphorisms. Asoka died B.C. 223, after a long and prosperous reign. The Asoka era has been ascertained to be B.C. 250. Asoka was contemporary of Seleucus Nicator. He sent ambassadors to the rulers in Egypt, Cyrene, Syria, and Macedonia. He was to Buddhism what Constantine was to Christianity. He removed the royal residence from Rajgriha in the S. to Pataliputra. He was succeeded by his eldest son, Nimmohan, and his nine brothers in succession. But immediately after his death, the Magadha dominions were broken up, and anarchy followed. The Chinese Pilgrims make mention of many pillars that bore records of Asoka,—six have inscriptions, five of which present the text of a series of six edicts that were promulgated by Asoka in the 27th year of his reign, or B.C. 256, viz. (1) at Dehli, three edicts, now known as Firoz Shah’s lat, brought by Firoz Taghalaq from Topur Suk in the Siwalik country; (2) at Dehli, brought from Mirat by Firoz Shah; (3) at Allahabad, inside the fort, three edicts; (4) at Lauri, 27 miles N. of Patna, near the temple of Aranaj Mahadeva; (5) at Lauri, 15 miles N.W. of Bettia, and 10 miles E. of the Gandak river, near the lofty ruined fort of Nagarjuni, now called Sarnagarjuni. Asoka was a contemporary of five Greek kings whose names are entered in the edicts, viz., Antiochus II. (Theos of Syria), B.C. 263—246; Promeley II. (Philadelphos of Egypt), B.C. 285—246; Antigonus Gonnatas of Macedonia, B.C. 276—243; Magas of Cyrene, B.C. 258; Alexander H. of Epirus, B.C. 272—254.

General Cunningham has enumerated 13 rock inscriptions, 17 cave inscriptions, and 10 inscribed pillars.

The 13 rock inscriptions are—
1. Shahbazgarhi, in the Yusufzai country, 40 miles N.E. of Peshawar on the W. bank of the Jumna.
2. Kharmel, on the W. bank of the Jumna.
3. Girnar, in Kattiywar, 40 miles N. of Somnath.
4. To 7. Dhauili, in Cuttack, midway between Cuttack and Puri and Jangaod, in Ganjam district, 18 miles N.N.W. of Berhampur,—two inscriptions at each, virtually identical.
5. Sasseram, at the N.E. end of the Kaimur range, 70 miles S.E. of Benares.
6. Rupnath, a famous place of pilgrimage, 35 miles N. of Jobulpur.
8. To 12. The Khangidri hill, near Dhauili, in Cuttack.

The 17 cave inscriptions are—
1. To 3. Barabar; and 4, 5, 6. In Nagarjuni hills, both places 15 miles N. of Gaya.
7. To 15. In Khangidri hill, in Cuttack.

The 10 inscribed pillars are—
1. The Dehli Siwalik at Dehli.
2. The Dehli Meorut at Dehli.
3. The Allahabad pillar.
4. The Lourvra-Arauj at Lourvra, 77 miles N. of Patna.
5. The Lourvra Navandgarh at Lourvra, 17 miles N.N.W. of Bettia.
6. To 9. Two additional edicts on the Dehli Siwalik not found on any other pillar.
10. A short mutilated record on a fragment of a pillar at Sanchi, near Bhilsa.

The following have been given as the principal events of Asoka’s reign:—

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<td>225</td>
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<td>224</td>
<td>issues Rupnath and Sahasaram</td>
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<td>Nagarjuni cave inscription</td>
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</table>

His 1st edict prohibits the sacrifice of animals for food or in sacrifice, and enjoins Buddhist virtues. The 2d edict provides medical aid throughout his dominions; orders planting of trees, and wells to be dug, along the sides of roads. The 3d edict is in the twelfth year of Pyradasi’s inauguration, and enjoins a quinquennial humiliation. The 4th edict of the twelfth year of Pyradasi compares the past condition of his country with that then existing. The 5th edict records the appointments of ministers of religion or missionaries. The 6th edict appoints pativedaks, custodes morum, also criminal magistrates. The 7th edict contains the king’s desire to oblige the diversity of religious opinions. The 8th edict contrasts the carnal enjoyments of former rajahs with the harmless amusements of the king,—visits to holy people, amusing, respites to elders, etc. The 9th edict continues the thread of a moral discourse, the Dharma Mangalam, happiness of virtue, benevolence, reverence, charity. The 10th edict comments on Yasoda Kiti va, the glory of renown, founded on the wise and transitory deeds of this world, and the higher objects of life. The 11th edict, at Dhauili and Girnar, upholds that the imparting of Dharma is the chiefest of charitable donations. The 12th edict is addressed to all unbelievers with extraetly. The 13th is imperfect. The 14th edict is summary of the preceding, and is complete in itself.
The inscription at Kapurdirigi is in the Pali character, and written from right to left; all the others are in the Indian Pali character, and written from left to right. The name Asoka does not occur in them. One passage refers to the Greek king Antiochus, calling him and three others, Turamayo, Antakana, Mako, and Alika-nunari, which represent Ptolemy, Antigonius, Magas, and Alexander. Dr. Burnell says the characters used in the Kapurdirigi inscription are of Phoenician origin, and exhibit the system of marking the vowels used in the other, and which is also used in the old Tamil character.—Ferguson, p. 18; Bunson, Egypt, ii. 542, 544; Thomas' Prinsep's Ind. Antiquities; Cunningham's Ilhalia Topes, p. 87-91; Cunningham's Inscriptions of Asoka; Burnell; Dowson; Elphinstone, p. 208; Journ. Roy. As. Soc. iii. xvii.; Tod, Rajasthun; Cal. Review; Mr. Robert Cast; Imp. Gaz.

ASOK-TAMI. SANSK. The 6th day of the light fortnight of the month Chaitra (April—May), when a festival in honour of Vishnu is observed, and water with Asok barks in it is drunk. In the south of India, this is the festival of Asoka Sapamulu, celebrated by Hindus on the 7th of the waxing moon in the month Chaitra. In the Ramayana, Sita is described as having been confined in an Asoka grove (Jonesia asoka), and there subjected to great oppression and harshness, to compel her to yield to the wishes of Ravana. Hindu women accordingly associate the idea of constancy and chastity with the Asoka tree, eating its blossoms and offering it adoration.—Garrett.

ASOPURA-MATA has a square shrine on the very summit of a hill near Gumli. ASP, Boten of the Arabs, and Peten of the Hebrews, is mentioned repeatedly in the Hebrew Bible, but naturalists have not determined the particular reptile alluded to. The word is probably very ancient, and is possibly the 'Oub' serpent worshipped in Chaldea and Egypt; and Obion is still used in Egypt, as Ifa is in Arabia, to designate a snake, and the Greek has the term φιε. Perhaps the English Ouf and Scotch Ouf are also connected. The asp of the ancients, celebrated as having caused the death of Cleopatra, is supposed to be the Naja haje, Schlegel, Coluber haje, Linn. See Serpent.

ASPA or Aspa, a plant of Indo-Syrieh origin, asp being the Persian and aswa the Sanskrit term for *horse.* It was a habit amongst the old tribes of Central Asia of assuming the names of quadrupeds. Thus, besides the Aspa or *horse,* we have the Noomri or *foxes,* a great branch of the Getae or Jit of Transoxiana, and the Varacha or *hogs* of Multan and the Upper Indus. Besides the horse, fox, and hog tribes of the Indus and Oxus, we have the hare, Sceodica, properly Sussod, the Cuchwaha or tortoise, with many others. In the Sythian names, Aspabata, Aspakara, and Asparatha, we recognise the same element. Even the name of the Aspashan mountains, placed by Ptolemy in Sythia, indicates a similar origin.—Miller's Lectures, p. 231.

ASPALATHUM WOOD is supposed to proceed from the Aquilaria in a state of decomposition, but of this nothing is known with certainty. Rhodes wood, from one of Convulvaceae, has also been called Aspalath. —O'Sb. p. 314.

ASPARAGUS. Of this genus of the Liliaceae, eleven species are known in India. A. acerosus,
apparently occasionally to Thanesar, as well as in the Salt Range, and on the Sutlej to 5500 feet. It is frequent in Trans-Indus. Dr. Bellem mentions a species growing high near the Safed Koh, which is there eaten as a vegetable; and in some parts of the plains the young shoots are thus employed. In the Salt Range the twigs are used for scrubbing metallic vessels; and on the Sutlej a sprig of it is put in the hand of small-pox patients. The leaves are official at Lahore.—Dr. J. L. Stewart.

**Asparagus Racemosus.**

*Wildlife.*

Sensai fa... Beas... Sunki... Ban... Sank... Phut-Kanda, Salt Range... Lahores... S饼干...

Shakakal... Duk... Sada bori, Bozidan, Hind... Shadavari... Tám... Sata... Jhirum... Nine... Sejpan... Kasem... Akarparsi... Malay... Pilli pic... Shatabali, Wari... Maleal... Sata vari... Satavar... Pan... Sitravakam, Ambala.

Vinjanhors, Salt Range. A shrubby struggling climbing plant, a native of various parts of India and of Ceylon. It is furnished with sharp spines; it is common in parts of the Salt Range, Siwalik tract, and outer hills, up to 5000 feet. The root boiled in milk is given in bilious affections. It is necessary to remove the bark previous to administering it, as it is considered poisonous. The leaves boiled and mixed with ghee are applied externally to promote suppuration in boils and tumours. Dr. Stewart thinks it supplies part of the official sitawar (see Asparagus ficinum) as well as the bozidan. Its flowering time is the cold season, when it perfumes the air to a considerable distance with the delightful fragrance of its flowers; seeds ripe in March.—Roeb., Ain... Useful Plants; J. L. Stewart.

**Aspatria.** Sank. An emperor, meaning perhaps Aswapi, 'Lord of steeds.'—Told's *Rajasthan.*

**Aspergilium.** A genus of curious mollusses; A. Javanum occurs in the Indian Ocean, and A. vagum in the Red Sea.

**Asperuck.** Hind. Mellotus officinalis, Linn. *Asphalte, Bitumen, Maltha.*

Halul Mus... Arab... Mineral pitch... Eng... Jew's pitch... Eng... Momial, Peri.

Asphalte is found on the shores of the Dead Sea, at Arlona in Albania, at Coxinbbo in Cuenca in South America, and abounds in Barbadoes and Trinidad, forming on the leeward side of the latter island a lake or plain, called the Tar lake, and by the French Le Brû, from its resemblance to, and answering the purposes of, ship pitch. It is found near ancient Babylon; and the cement used for the walls of that city, as also for the temple of Solomon, was a preparation of asphalt. Herodotus mentions that it was heated and mixed with reeds and so used. It is supposed to be the substance translated in the Bible as pitch; and it seems to be the substance known in Central Asia and in the north of Persia under the name of Momial. See Petroleum.

**Asphodelus Clavatus.** Roeb. A native of the interior parts of Bengal, where it appears to blossom and ripen its seed during the cold season. A fibrous material furnishes the seed Bangarbij of the Panjab.—Roeb., Fl. Ind. ii. p. 148.

**Asphota.** Beng. Jasminiun sambac; jasmine. Also, Hind., Clitorea ternata.

**Aspidium.** Linn. This genus of ferns is of the order Polypodiaceae. Several species are known in India,—the A. splendens, and A. parasiticum, described by Mr. Graham, the A. unicum and A. flagelliferum in Voigt's Catalogue; and Dr. Hooker mentions that both in Sikkim and Nepal the watery tubers of an Aspidium are abundantly eaten. Aspidium baromeze, the Tasik of the Chinese, is the Sikkim or Tartarian lamb. The tufts of this fern simulate the form of animals. It has long been celebrated in China, where the ingenuity of Chinese gardeners, taking advantage of the natural habits of the plant, form it into shapes resembling sheep or other objects. The Chinese name indicates resemblance to a dog. It is there deemed a tonic, and to act on the reno-spermatic functions. The Tartarian lamb is enthusiastically described by Darwin in his Botanic Garden.—William's *Middle King.* p. 275; Smith; Hooker, *His. Journ.* i. p. 292; Voigt, 734.

**Asplenum.** A genus of ferns of the Polylopodiaceae. A. nigus, *Linn.,* is a native of Ambayna. A. lucidum, of Australasia, is regarded by the New Zealanders as a sacred plant; the priest, when he is praying over a sick person, and endeavouring to avert the anger of the gods, waves a frond of this fern over the patient, and, should it happen to break, it is regarded as a fatal omen. It is also used as a badge of mourning; when a wife mourns for her husband, she sits in her hut, with a frond of this fern bound as a fillet about her head.—Dr. Bennett, Australasia.

**Asr. Arab.** Noontide; a time for Mohamendan prayer. Owing to the Mohamendan divisions of time into watches of the day and night, appor- tioning the whole day and the whole night into stated watches, all the periods of the day change with the varying length of the time that the sun is above the horizon, the Asr or noonday watch excepted, it being always when the sun is at the meridian; other prayer times are—Zohr, Subah, or Fiqah, of Barnad, morning.

**Asrama.** Sank. A condition or order of life among Hindus, of which four should be passed through in succession, viz. Brahmacari or student, Grahastha or householder, Vanaprastha or hermit, and Bhikshuka or Sanyasi, religious mendicant. Asrama is the fourth or mendicant stage of life, into which the Hindu should enter after passing through the previous stages of student, householder, and hermit. Asrama is a name borne by the Dandi sect. See Dandi.

**Asraya.** In the Buddhian of Ceylon, four modes of evils so called.—Hardy.

**Asreno.** Called also Sarug, towards which Terah, father of Abraham, journeyed in his route from Ur of the Chaldées towards Horan (Karra) on his way to Canaan. See Terah.

**As.** Donkey, Jack Ass, Jenny Ass.

Khamar... Arab... Gadda,... Hind... Ezhmir... Eth... Hymar... Turk... Athon (she-ass)... Heb... Kala... Tam... Chamor (he-ass)... Gardi... Tel.

The domesticated ass is descended from the Asinus tessitopous of Asia. In Syria are four domestic breeds,—a light, graceful animal, with a pleasant action, used by ladies; an Arab breed, kept for the saddle; a stouter animal, for ploughing and other purposes; and the large Damascus breed, with a peculiarly long body and ears. The ass can with ease be greatly improved in size and strength. The ass is occasionally striped or barred, as in the parent form, A. teni-
ASS.

pus; that on the shoulder is the most constant, sometimes even triple-barred, but bars also occur on the legs. Albinino asses are occasionally seen. It is a patient, steady-going, sure-footed beast of burden, and easy-tempered, and has been domesticated from ancient times. In ancient Jerusalem the ass was the favourite of the upper classes and the priests. Deborah describes the greatest men in Israel as those who rode on white asses; and we are told that Abdon, a judge of Israel, had forty sons and thirty grandsons who rode on seventy asses. Nevertheless the ancient Israelites considered the ass unclean, and to yoke an ass with an ox in the same team was an offence against the law of Moses. The ancient Egyptians even entertained a fierce hatred towards the ass, and regarded it as a symbol of all kinds of misfortune. They were the first to symbolize a stupid person by the head and ears of an ass. In British India, the washermen, the vagrant Yerakha, and other wandering tribes alone use the ass, and the breed is small and unfit for the saddle. The Dibhi purposely cripple the hind legs to prevent them straying, and their nostrils are often slit up. The ass has a large head, and a large body on very slim and somewhat short legs, unanimated, therefore, to move rapidly. Its hoof has exceedingly sharp rings, with a hollow in its centre, to fit it for travelling on slippery ground, and for ascending the precipitous sides of hills. The ass is a beast of burden for the mountain, as the camel is for the sandy desert, the elephant for the jungle, and the horse for the level plain. He will carry a reasonable burden without a murmur, and he will trudge on for miles over the roughest roads, patiently and steadily, without showing any signs of fatigue. Niebuhr mentions the smaller or lazy ass of Arabia, being as little esteemed there as in Europe; and a larger and high-spirited breed, much valued, and sold at a high price, and which he thought fitted for a journey than horses. In Oman they are large, well trained, and endure great fatigue. The Arabs take considerable care of them; and some of the better kind fetch from forty to fifty dollars. Those which traverse the Jabel Akhdar, in point of size, sturdiness, and sureness of step, are almost equal to mules, crossing the most difficult passes, over a smooth limestone rock, without a single false step. A great many asses are shipped from Oman to the Isle of France, where they are highly valued. Some seen by Burton (iii. 339) resembled mules in size and speed. He considers that Pliny is certainly right about this useful quadruped and its congeners, the zebra and the wild ass, in describing it as "animal frigoris maximo impatiens," for he says that it degenerates in cold regions, unless, as in Afghanistan and Barbary, there be a long, hot, and dry summer. Aden, Cutch, and Baghdad have fine breeds, whereas those of India and south-eastern Africa are poor and weak. The best, and the highest-priced come from the Maghreb, and second to these ranks the Egyptian race. At Mecca, camels and fezzok and kid usage transform the dull slave into an active and symmetrical friend of man; he knows his owner's kind voice, and if one of the two fast, it is generally the bided. The asses of the Holy City are tall and plump, with sleek coats, generally ash or grey coloured, the eyes of deer, heads gracefully carried, an ambling gait, and extremely sure-footed. They are equal to great fatigue. The stallions have been known, in their ferocity, to kill the groom. The price varies from 25 to 120 dollars. — Burton's Meccan; All the Year Round, September 1864; Plowfair's Yemen; Niebuhr's Travels; Davrin, p. 63; Animals and Plants. See Asinus.

ASSALIA. Hind. Lapidium sativum.

ASSAM. A province in the N.E. frontier of British India, comprises the districts of Cachar, the Khassya, and Jaintia hills, Darrung, Goalpara, Kamrup, Luckimpar, Naogong, Silbagar, Silhet, and the Naga and Garo hills. In 1873, it was formed into a chief commissionership, with part of Koch-Behr added to it. It comprises the valleys of the Brahmaputra and of the Barak or Surma, together with the mountainous watershed that separates these rivers. It is situated between lat. 25° 55' 30" and 28° 17' N., and long. 96° 46' and 97° 5' E. The area is 55,381 square miles, and the population 4,815,157 in 1851. It is bounded on the north by the eastern section of the great Himalayan range, the frontier passes from W. to E. being successively the Bluitia, Aka, Daphla, Mii, Abar, and Mishmi; on the north-east by the Mishmi hills, which sweep round the head of the Brahmaputra valley; on the east by the unexplored mountains which mark the Burma frontier, by the hills of the independent Naga tribes and the Manipur dominions; on the south by the hills occupied by the Kuki or Lushai, by the State of Hill Tipperah and the Bengal Tipperah district; and on the west by the Bengal districts of Mainainsinh and Rangpur, the Koch-Behr territory, and Jalpaiguri district. The districts of the Naga, the Khassya, Jaintia and Garo hills are in a central hill tract, a long projecting outwork of the mountain system that intervenes between the watersheds of the Brahmaputra and Irawadi in a series of ridges and plateaux, the highest point of the Naga hills being 10,000 feet, of the Khassya hills 6449 feet, and of the Garo hills 4700 feet, and the Jaintia in the Khassya hills in 1861, 805 inches of rain fall, 366 inches of it in July. In 1876 it was 306 inches.

Assam was long held by the Ahom race, who gave it its name; afterwards, by the Burmese. But by the treaty of Yandaboo, 24th February 1826, it was ceded to the British. The valley is continuous at its western extremity with the plains of Bengal, but gradually contracts to the eastward, till the mountains at last approach so close together that no level country remains between them. The width of the lower valley is about 30 miles. It is in general level, with a gentle uniform slope, but low ranges of hills project occasionally from both sides, almost to the Brahmaputra; and isolated granite hillocks, of no considerable mean elevation, scattered here and there over the surface. The atmosphere is very humid, and dense fogs are frequent in winter. The rainfall ranges from 69 to 159 inches, and earthquakes are frequent, and those of 1869 and 1875 were severe. In Upper Assam there is but little cultivation, and much forest, which is often almost impervious from rank underwood. It is the ancient Kamrup, and its history ('Assam Buranji') has been written by Huliram Dhakiyali Phukan of Gohati, who, after bringing down the genealogies to the Khatriya dynasty of Dravir (Dhrampala), says Dravir invited Brahman
from Gaur to his court north of the Brahmaputra, and he gives the following dynasties:

a. Brahmaputra dynasty, reigned 240 years. After a.d. 1478, Assam was divided into twelve petty states, and in 1498 was invaded by Dulal Ghazi, son of Husain Shah.

b. The Indrayana (India) dynasty reigned from a.d. 1540 to 1726. With an interregnum caused by the invasion of Husain Shah, Chukapa became independent in 1320, and spread conquests, and was named Assama (inequaled), hence Assam.

This is to be regarded as a history of the invasions from Bengal.

Population.—The valley and its bordering hills are remarkable for the variety of populations which they contain. Captain Butler (Travels, p. 1) gave the following as names of the tribes in and adjoining the valley, viz. Abor and Bor Abor; Aka of the Hazari Khawa and Kappas Chor tribes; Angami, Arung, Assamese, the Bhot, the Bintia, viz. the Sath Bhatia Rajas, the Char Doar Raj, and the Bhilinga Bhatias; Bodo or Borro of Assam and Cachar; the Changlo; Dofla, Dooaniah, Goro; Jil; Khanti and Bor Khanti; Khari, Khassya; Koreng; Kuki; Latu; Loba; Lubup or Lushai, Maram; Mechee; Mikir; Miri, Mishmi, Marla, Mulung; Mu-thun; Metutuk, Naga; Namsang; Singpho, Tang-Khol, Ta-blung, and Tang-Khol. The most numerous are the Naga, Khassya, Goro, Mikir, and the Cachari, the last identified with the Mech of the E. and W. Dwaras; the Ahom (128,980); the Chutia (51,482); part of the Koch or Rajbansis; Chandal (122,457); Kambart (128,525); Kolita (179,000); Khanti on the frontiers of Lakhimpur. See India.

Half the population is Hindu, and a fourth part are Mahomedans. The Hindu religious tribes of Assam, including races of mixed descent and prosetytes, now consist of Brahman, Ganak, and Kayasth, all of comparatively modern importation; Kolita, who appear to be the only remnant in it of the early Aryan colonists; Koot, who are partly of Hindu extraction, and partly prosetytes raised to that position; Dom, who are boatmen and fishermen; the Hari, low caste immigants; and converted Ahom, Chutia, Lalong, Koch, Mech, and Cachari. The Shans became prosetytes to Hinduism at an early period, and, having adopted the language and customes of Hindus, they have now nothing but their features to mark them as of different origin. Indeed, it is stated that the Shans brought no women with them into the country. The principal tribes on the frontier of Upper Assam are the Muttuk, the Khamti, and the Singpho. At the eastern end, near Saddiya, the tribes are very much mixed, and numbers of them are gradually coming lower and lower down; many Mishmi now actually live in the plains. There seems to be a pressure on the people from the Burmese side of the Patkoi, which is forcing the 1390s to take their place. From being confined within the British boundary, the nominal boundary being the crest of the Patkoi. It is from the Ahom branch of the Shan or Tai or Thai race that Assam (Assam) received its name. This powerful race are the people of Siam, called by the Burmese Shan-gyai, or eldest branch of the Shan. The first to assume the title of Ahom, or peerless, is said to have been Chun-ku-phha, A.D. 1228, in the kingdom of Pong, which touched Tipperah, Yunnan, and Siam. The Pong kingdom was finally broken up by king Alompra of Burma, in the middle of the 18th century. Before the incursions of the Burmese, Assam had its roads, bridges, cities, and civilisation. The Mahomedans found its people hardly and courageous in Upper Assam, but towards the middle of the 19th century they had become pacific and amiable, though those of Kamrup were less so.

The first British treaty with any of the Assam chiefs was a commercial agreement made in 1783 with Raja Surjy Deo. But the Indian Government never ratified or published it, on the ground that the raja's government was not sufficiently strong to ensure its observance. The country subsequently relapsed into anarchy, and fell under the Burmese. It was invaded by the British when the first Burmese war broke out, 1824-26, and the province was annexed to British India, 31st July 1829. In 1833, Upper Assam was granted to Raja Poorunder Singh, with whom a treaty was made. The Bur Senaputtee, or chief of the Muttuk, entered into an engagement, in May 1826, whereby he acknowledged the supremacy of the British, and bound himself to supply 100 soldiers in time of war. The management of the country was left in his own hands, except as regards capital offences. In January 1835, the obligation to supply troops was commuted to a money payment of Rs. 1800 a year. In 1826, similar agreements were made with the Khamti chief of Saddiya; but in 1839 the Khamti attacked the town of Saddiya, and many persons, as also Colonel White, the Political Agent, were slain. Agreements were also made in May 1836 with the Singpho. These tribes were implicated in the Khamti rising in 1839, but they were allowed to surrender under conditions. Many of the Singpho clans have become extinct, and the main body left Assam for Hukong, in Upper Burma.

The Phaki or Phakhil race on the Dihing river, the Kamjang of Saddiya, and the numerous settlements of the Khamti race, are all Shan colonies, and retain the customs, costume, and religion that they brought with them into the valley. Of these the Khamti are the most numerous and important. They immigrated into Assam since the middle of the 18th century from the country known to the British as Bor-Khamti, which they had occupied for many centuries. When Captain Wilcox visited them in 1826, two great clans had been at feud for fifty years, and, owing to these dissensions, horde after horde flowed into Assam. After their rebellion against the British in 1839, they were expelled Saddiya, but later on were permitted to re-occupy lands near their former sites. They are Buddhists, and have a literature.

The hills of Assam possess coal, gold, iron, lime, petroleum, tea, caoutchouc, rice, jute, lac, and ivory. Its two principal indigenous varieties of silk had become muga and the emoo. Of its woods, thirty-six species are useful to various useful purposes, were described by Major Hannay as belonging to Upper Assam. Most of them are light, strong, and durable; while not a few combine with these qualities, a fine grain, which renders them well adapted for articles of furniture. The spices of the country comprise, in addition to such as are commonly cultivated in Bengal, black pepper, long pepper, cardamoms, 190
tejipatra or mahabathnum leaf, and jubrang, the capsule of a species of xanthoxylum, peculiar to the country, and described as aromatic, fragrant, and highly pungent. It is a very fertile province. The whole population, from the baby at the breast to the very few old men, used opium, and in 1864-5 the population consumed £113,543 worth of that drug; but the Government introduced stringent prohibitions, and tea cultivation has since greatly added to their wealth. Among its wild animals are the elephant, rheoceros, tiger, leopard, bear, buffalo, deer, and wild cow.—Yule's Catby; Hamilton's E. Indies; Taylor, in Reports on Great Exhibition of 1851, p. 141; Butler's Travels; M'Culloch's Report; Schlagante's India, ii. pp. 95-98; Princep's Antiquities by Thomas, p. 275; Dalton's Ethnol.; Aitchison's Treatises, p. 127.

ASSARA REWARD. Arar. Hebradendron gambogoides, Graham; Gambogs.

ASSAHRADDON, king of Babylon, was the son of Sennacherib. The latter resided at Ninevah, the capital of a great empire, and Sennacherib displaced the satraps, and invested his son as king of Babylon, B.C. 675.—Ch. Bunsen, iii. See Assyria.

ASSASSIN, a term applied in Europe to the Al Hasani, a heterodox Mahomedan sect, whose successors now believe that the deity is incarnate in their chiefs. The first of the sect who arrogated these divine pretensions was Hasan Saba, a man of domineering passions, consummate subtilty, and persevering spirit of enterprise. He lived about the year 1090, and by various intrigues, a singular mysterious deportment, as well as an invincible courage, he attained to great power. Christians, Jews, Mahomedans of the Sunni or Shia sects, all were alike the objects of his exaction; and he sold his dagger, or rather that of his followers, to whatever party were vile enough to buy the blood of their enemies. Al Jabal, literally, the mountain, was the old Arabic name for the whole of the very mountainous quarter of Irak-i-Am, which lies between Hamadan and Kirmanshah. It stretches far to the south-west of the Caspian range, and comprises Mount Elburz, the Orontes of the ancients, this branch also bearing the name of Elburz; and the chief was designated Shaikh-ul-Jabal, rendered the Old Man of the Mountain. For about 200 years the sect held Milice, amongst the Elburz mountains, about 20 miles north of Kasvin, but they were destroyed by Hulaku A.D. 1260. A colony, under the leading of one of Hasani's representatives, settled themselves amongst the heights of Lebanon, and have been variously called Isma'ili, Bat'ani, and al-Hasani, or the Isma'ilians, Batenians, and Assassins; during the crusades, one of Hasan's successors was known to the Europeans as the Old Man of the Mountain. A chief of the Isma'ilis for many years resided at Bombay, and in 1865 or 1866 instituted a civil suit in H.M. High Court for some matter connected with his faith. The term Assassin has also been derived from Hashishin, a person given to the intoxication of hemp (Hashish, Alc.), but the accepted derivation is from Al Hassani—Porter's Travels, i. p. 286-298. See Alamut; Hasani, Hash, Hatun; Shaikh-ul-Jabal.

ASSAYE, a small hamlet in long. 75° 56' 15' F., and lat. 20° 15' 15' N., on the borders of Kandesh. A battle was fought here on the 23d September 1803, by the Indian army under Sir Arthur Wellesley, against the confederate Maharrattas. Colonel Wellesley, with 4600 troops, of whom 2900 were British, captured the combined forces, 50,000 strong, of the Maharattah chief Sindha and the raja of Barer, and they had 1500 infantry under French officers. One in three of the British forces was killed. Sindha's artillery rested on the right bank of the rivulet. In 1868, the potal of the village, who was a lad at the time of the battle, and a subahdar, Papadu, of the 21st M. N. I., who was a soldier present in the battle, were still alive, the former at Assaye, the latter at Secunderabad. The hamlet is built near the bank of the rivulet; and the spirit of one of the French officers who fell in the battle has been deified, and at his tomb worship is performed by the Maharrattas of the village and neighbourhood.

ASSAY MASTER. An officer with this designation is in each of the Indian mints, at Calcutta and Bombay. He conducts the chemical analysis of the precious metals brought for sale, and determines the quantity of gold or silver in any mixture with the base metal. He also determines the puz coins prior to issue, to ascertain that they are up to the standard. The process was formerly by cupellation, but latterly the humd mod has been followed.

ASSES' GLUE, the O-kiau of the Chinese, a gelatinous substance obtained by boiling down the waters of a celebrated well, situated sixty li to the N.E. of the district city of Yang-kuh, in Kwan-chau-fu (Shantung), but Yun-ching-hien in Ts'an-chau-fu is also said to supply this substance. It is sold in flat rectangular cakes, and the best is clear amber coloured, free from dump or smell. It has all the properties of, and is used as, glue. The well water probably resembles that of Barèges in France.—Smith, p. 28.

ASSIA, a range of hills in the Cuttack district, containing interesting Buddhist, Hindu, and Mahomedan remains of ancient temples, caves, sculptures, and forts. Udayagiri hill has two large figures of Buddha, and extensive Buddhist ruins, as also has Mahabharata Naligiri, an elephant's cave, and Amuravati hill two beautiful images of Indrani.—Imp. Gaz.

ASSU. PAXIL. Brassica eruca.

ASSU, in Hindu tradition, giants who made war on the children of the Diti. In these Assur possibly are typified the Assyrian conquerors. But it has also been surmised that the Assur of the Mahabharata may be the Harsaures or Asi of Indo-Germanic history. See Asur.

ASSYRIA, an ancient sovereignty in the upper part of Mesopotamia. The heart of the country was a district on either side of the Tigris, between lat. 35° and 37° N. Its people were, however, a race with martial proclivities; and about 650 B.C. their dominion attained its highest limit. Herodotus, Pliny, and Strabo included within its bounds countries over which their sway had at times extended, such as the country of Babylonia, all Mesopotamia had a portion of Mount Zagros (the modern Kurdistan), and all Syria as far as Cilicia, Judea, and Phoenicia. During the 7th century B.C., it had Lydia, Cyprus, and Egypt on the west, Elam and part of Media on the east, with Babylonia and part of Arabia on the south. Portion of it are named in the Hebrew Scriptures as Padan-aram, Aram Naharin, Gozan, and Halah. On the west of Assyria proper are the Karajah...
Dagh (the Mount Masius of Strabo), and on the east the Jabal Tur. The Sinjar, a solitary limestone ridge, divides western Assyria into a northern and southern portion. Its more important rivers are the Kurnib or Eastern Khabour, the greater Zab, which washes the ruins of Nimrud, the lesser Zab, the Adhem, and the Diyala. There were many large towns, but Ninevah, Calah, Assur, and Bit Sargina were seats of government during the flourishing period of the empire. About 607 B.C., Assyria lost its independence, and in the subsequent revolutions its cities and palaces were destroyed, so that till lately a knowledge of their sites even was lost. The most extensive of the Assyrian ruins are opposite Mosul on the east bank of the Tigris, and are without doubt those of Nineveh. Since the middle of the 19th century, learned men—Layard, Botta, Henry Rawlinson, George Smith, Professor Sayce, Mr. Rassam—have been searching the mounds for remains of the ancient cities, their sculptures, their libraries and works of art, in the region around Mosul, and towards Baghdad, Calah or Kalah being 20 miles south of Nineveh, and Assur, the modern Shergah, 60 miles south of Mosul. George Smith discovered there a Chaldean legend of the flood; he recovered the cosmogonic legends of the priests of Babylonia; gave histories of Sennacherib and Assur-Bani-pal; and the most important of the documents relating to the reigns of Esarhaddon, son of Sennacherib, have been found and translated.

The physical type of the Assyrian people, their moral characteristics, and their languages, all belonged to the Semitic family. Their written language was in the cuneiform character; and in the more simplified form of later times, the wedge was almost the sole element of the writing. In 1851, Sir Henry Rawlinson gave a list of 240 characters and 120 variants. Since then, M. Oppert has given 318 as the number of the forms in more frequent use. The Assyrians had many gods, but Assur was their chief deity through all their history, and was called by them Sadi-Matati, or Mountain of the World. Nebu, with his consort Urmitu, the gods of Kalah and Nineveh, presided over learning; Shamash and Sin were the sun and moon gods; Merodach, also styled Bel, and his consort Zirrat-Banit, or Succoth-Benoth, emanated from Babylon; Ishtar, the analogue of Venus, was a favourite of Nineveh and Arbel; Nergal and Ninip were gods of war and the chase; Vul, the storm deity; Ann, the king of heaven; and Hca, the lord of hell; with many minor gods. They were a literary people, and gave great encouragement to the arts. Libraries of clay tablets were formed in each of the large cities; and art developed itself on the side of architecture and sculpture. They were skilled in metallurgy, workers in iron, copper, and bronze, and they excelled in many crafts, particularly weaving and pottery. Their knowledge of metallurgy was derived from the Akkadians, from whom also, in common with the Hebrews, they obtained their poetry.

George Smith, in his 'Assyria from the Earliest Times till the Fall of Nineveh,' gives a list of the Assyrian kings, with their approximate dates. The following portion of it is from 1450 to 607 B.C., and enumerates 37 rulers:

<table>
<thead>
<tr>
<th>King</th>
<th>Reign Dates</th>
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<tbody>
<tr>
<td>Assur-Bel-misius</td>
<td>1450-1400</td>
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<td>Assur-Assur</td>
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<td>Assur-dan-I</td>
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<td>Assur-dan-II</td>
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<td>Assur-dan-III</td>
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<td>Assur-bani-pal</td>
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<td>Assur-Bani-pal</td>
<td>1200-1150</td>
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<td>Assur-sisilim</td>
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<tr>
<td>Tugultini-III</td>
<td>1100-1050</td>
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<tr>
<td>Assur-Bel-kala</td>
<td>1050-1000</td>
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Sargon, who formed a great library at Calah, was murdered 705 B.C. His successor, Sennacherib, was also murdered by two of his sons, but his youngest son, Esarhaddon, defeated these brothers, and succeeded to the throne. In 670, he raised his son Assur-Bani-pal, or Sardanapalus, to be co-regent. At this time, Nabopolassar, king of Babylon, B.C. 625, declared for independence. In B.C. 606, Nabopolassar sent his son Nebuchadnezzar, who expelled Necho of Egypt from it. His son Nebuchadnezzar ruled there from 604 to 561 B.C., and Babylon for a brief period became mistress of the world. Nabu Nahid was defeated in Borsippa, 555 B.C. Babylon city was taken by Cyrus, and Nabu Nahid died in Carmania. The succeeding dynasty was that of the Medes. For 200 years they had been partially under the Assyrians; Shalmaneser II., VI-Nirari III., Tuglath-Pileser II., Sargon, Esarhaddon, and other Assyrian monarchs had compelled them to pay tribute. But, after the death of Assur-Bani-pal, Dejoice, son of Pharaoh, invaded Assyria, but was driven back, and fell in battle on the plain of Rhages. His son Vakistar, the Cyaxares of the Greeks, subsequently made an inroad on Assyria, but had to return to his own dominions, to succour the Scythians, who overran Media, Assyria, and Syria up to Askelon; but Vakistar (Cyaxares) recovered his authority, and combined with Necho of Egypt, Nabopolassar of Babylon, and the king of Armenia. They overran the country, and sat down for two years before Nineveh. A heavy flood broke down a part of its wall, and the Assyrian monarch gathered his wives and all his valuables in the palace, and set the building on fire. —Smith's Ancient History; Assyria; Layard's Nineveh; Rawlinson's Ancient Monarchies. See Babylonia.

AST, in N. India, is the west or setting sun. Ude ast tak tumhra raj he,—May your rule extend from east to west,—a Hindu form of benediction.

ASTA, or Patoo, a bast in use in Birbhum.

ASTACUS, a genus of long-tailed crustaceans, including the common lobster. A. fluvitilis is the crawfish.

ASTAK. HIND. Dried apricots with the kernels. Astak-be-maghza are without the kernels.

ASTARAK. Arab. Storax.

ASTARKHI. Arab. Red orpiment.

ASTARLAB. Arab. An astrolabe.

ASTARITA, the Ashtaroth of the Bible, and Astarte of Greek authors, according to Chevalier Bunsen, is derived from the Egyptian word Hestoreth, the throne or seat of the Cow, i.e. the

ASTEII, A SURNAME OF ARSEAS, SUPPOSED TO HAVE BEEN A DESCENDANT OF THE ANCIENT PERSIAN KINGS.

ASTER, A GENUS OF PLANTS BELONGING TO THE NATURAL ORDER MATRICARIACEAE. THESE ARE NAMED FROM ASTER, A STAR, AND FURNISH NEARLY EVERY VARIETY OF COLOUR.


ASTERACANTHA LONGIFOLIA. NEES.

Grows in wet places all over India, and is a valuable medicinally diuretic in urinary diseases and dropies, and causes of gravel. — AIINSTEY; POtEILL, I. P. 368: ROEB.; BIRDIE, BOMBAY PRODUCTS: VOIGHT.

ASTERIA, OF PLINY, THE STAR RUBIES OF THE MODERNS, ARE FOUND AT RATNAPURA IN CEYLOK.

ASTERIASTIGMA MACROCARPA. BEDD.
THIS VERY FINE TREE GROWS ON THE GHATS (2500 FEET ELEVATION) LEADING UP TO PEERMODE IN THE TRAVANCORE HILLS FROM COOTYAM; IT FLOWERS IN MARCH. THE FRUIT AND LEAVES, EXCEPT THAT THE LATTER ARE ENTIRE, ARE EXACTLY THOSE OF HYSDROCARPUS, BUT COLONEL BEDDOME THINKS IT DIFFERS TOO MUCH TO AUTHORIZE ITS BEING REFERRED TO THAT GENUS; IT MAY, HOWEVER, BE CO-GENERIC WITH THE LITTLE KNOWN TARAKTOGENES OF HASEK.—BEDD. FL. SYLE. P. 266.

ASTHAN, ASTANA. HIND. A THRESHOLD, A FAKIR'S RESIDENCE. ASTANA-DAR, A PLACE-HOLDER, A HOME.

ASTHENOSOMA. GROVE. A SEA URCHIN OF THE PHILIPPINES. ITS SHORT SPINES ARE TUBULAR, AND WHEN PENETRATING THE FISH, PRODUCE A SHARP, STINGING PAIN.

ASTHIL SINCHANA, LIT. BONE SPRINKLING. THE HINDU CEREMONY OF SPRINKLING THE BONES WITH WATER A FEW DAYS AFTER BURIAL. — W. SEE ASHTA.

ASTMABAYDA. SANSK. BLEECEBRUM LANATUM.
ASTOR, A MOUNTAINOUS DISTRICT ON THE BORDERS OF LITTLE TIBET, TO THE WEST OF LADAKH. THE PEOPLE SPEAK A DIALECT OF THE DARDI LANGUAGE.

ASTRAKHAN. HINDUS PRACTISING THEIR FAITH EXTEND TO ASTRAKHAN AND THE EASTERN PARTS OF THE RUSSIAN EMPIRE.

ASTRAGALUS, A GENUS OF PLANTS BELONGING TO THE NATURAL ORDER FABACEAE. AMONG ITS SPECIES ARE A. ARIATATUS, A. CRETICUS, A. DICKSONII, A. GUMMIFER, A. VERUS, AND A. STROBLIFERA, OF MOUNT LEBANON, CRETE, IONIA, AND THE HELLENIC PROVINCES, PRODUCING THE GUN-TRAGAHCNT OF COMMERCE, WHICH IS USED AS AN INGREDIENT IN DYE-STUFFS, AS A GLAZE FOR CALLIC AND SILK, AND IN MEDICINE AS A STYPTIC POWDER, AND IN LOZENGES. ITS PRICE IN ENGLAND IS 4£ TO 8s. THE POUND. IT IS LARGELY PRODUCED IN PERSIA, AND EXPORTED TO BAGHDAD, BASSORA, AND INDIA. TWO SPECIES IN KAGHAN ARE CALLED BACHAIL AND KENCHIRUNGA, AND THE HINDI TERM MAZHNAI IS GIVEN TO A. SPINOSUS, BUT NONE OF THESE HAVE BEEN ASCERTAINED TO YIELD TRAGAHCNT. A. HAMOONAS, LIZA, THE PLANT, TAJ BADSHAHI; THE PODS, AGILIK-MALIK, IS A COIN OF THE PERSIAN. A. SPINOSUS, ATNIL, HIND. AND IN A HARD, TUBULAR ROOT-STOCK, WITH NUMEROUS LONG, THIN, SPINOUS BRANCHES. — POCKET; HANDBOOK; VOIGHT; SOGAUGHNESS; HOGG, VEG. KING; POOLE; VON MUELLER. SEE TRAGAHCNT.

ASTRAGALUS MULTICRIPS. WALL.
KANDEE, KANDIARA, CHERN. Didani, Tinaha. RAVI. MUCH KANTA GAGAR. JANDI, . . . . .
KAND, LAD-PI SAR. SPINAGHAI. T. IND.
BUTA-LEE-MAWAK. HIND. SNARIL, PISHKAN.
ATNIL, KIUTU. FASJ. BAN-DA, KHAN.
A VERY SPINOSA PLANT, WITH YELLOW FLOWERS, SOMewhat RESEMBLING GORSE.

ASTRAK. HIND. GUM AMMONIA.
ASTRANG. HIND. ARTHRO ACUMINATA. ROYAL.
ASTRONOMY.

of all, except the very lowest, are written out, and consulted on occasions of any importance. Before setting out on a journey, or commencing to plough, sow, etc., the astrologer is asked about a lucky time. Hence favourable opportunities are often lost. Indeed, never does a Hindu take any step of importance without first consulting the stars. This is usually done by reference either to a Brahman astrologer or to the astrological almanac. When business will not admit of delay, a Hindu will consult either the Sivagyanamut, or ‘advice of Siva,’ or the Cuenums, or ‘sayings’ of Khons, the wife of Varahamihira, the great astronomer, who was one of the nine gems in the court of Vikramaditya, the great monarch of Malwa. The planets are invoked in the Vedie books, and their worship is prescribed in the Gajnaralkya. Chand, the moon, was from the time of the Brah- mans the centre of numerous legends and the object of divine honours. In Ceylon, the preparation of the ephemeris predicting the weather, and other particulars of the forthcoming year, appears to have undergone little or no change since this custom of the inhabitants of India was described by Arrian and Strabo. But in later times the Brah- mans and the Buddhists have superadded to that occupation the casting of nativities, and the composition of horoscopes for individuals, from which the sophistse described by Arrian abstained. It is practised alike by the highest and most humble castes of Singhalese and Buddhists, from the Vellala, or agricultural aristocracy, to the beaters of tom-toms, who have thus acquired the ‘title of Nakatya,’ or astrologer. The attendance on particular ceremonies, however, called Bali, which are connected with divination, belongs exclusively to the latter class. The Mahomedans of British India keep their calendar or Jantri, and the Hindu Joshi calculates the ephemeris. The Hindus also have their calendar or panjangam; but they all practise divination from books, for which the Chintamani pastakam is in use in the south of India.—Tennent’s Christianity in Ceylon, p. 184; Trav. of a Hind. i. xxi. See Almanac; Divination; Ordeal.

ASTRONOMY, the Jyoti Sastra of the Hindus, and Najm of the Arabs, is supposed to have been first known to the Chaldseans. It has, however, been attributed to the Egyptians, who probably derived their knowledge from a more ancient nation. The Chinese have no right; and when the claims are investigated of the Indians, Persians, and Babylonians, it is found that their systems of astronomy belong to a latitude considerably higher than Babylon. Persipolus in Babylon, but somewhere between 35° and 55° N. Brahmanical books teach that the longest day in summer is twice as long as the shortest day in winter, which is not the case in any part of India. Zoroaster taught the Persians similarly; and Ptolemy obtained ancient Babylonian records of star risings, belonging to latitudes not lower than the 40° parallel. Cassini, Bailly, and Playfair have stated that observations taken by Hindu astronomers, upwards of 3000 years before Christ, are still extant, and prove a considerable degree of progress already made at that period; but La Place and De Lumiere deny the authenticity of the observations, and consequently the validity of the conclusion. Yet all astronomers admit the great antiquity of the Hindu observations. The astro-
enumeration, so that the British six o'clock is their twelve, and the British seven is their one, etc.

The Chinese begin the day an hour before midnight, and divide the twenty-four hours into twelve parts of two hours each. Instead of numbering their hours, they give a different name to each period of two hours. The names and corresponding time, according to the British mode, are as follows:—

<table>
<thead>
<tr>
<th>Chinese</th>
<th>British</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tze, 11 to 1 morning</td>
<td>Woo, 11 to 1 afternoon</td>
</tr>
<tr>
<td>Chow, 1</td>
<td>We, 1</td>
</tr>
<tr>
<td>Yeu, 3</td>
<td>3</td>
</tr>
<tr>
<td>Mao, 5</td>
<td>5</td>
</tr>
<tr>
<td>Shin, 7</td>
<td>7</td>
</tr>
<tr>
<td>Seo, 9</td>
<td>9</td>
</tr>
</tbody>
</table>

The word Koen is added when the first hour of each period is intended, and Ching for the last. Thus, Koen tsev, eleven at night, and Ching tsev, twelve at night; Koen Chow, one in the morning; Ching Chow, two etc. The word K'hih, 'quarter,' is used after the hour with the numbers; yih 1, urh 2, san 3 to subdivide the hours into quarters, which is the smallest division commonly employed. Examples: Ching maou yih k'hih, a quarter past six; Koen woo urh k'hih, half past eleven.

Both the Hindu and the Mahomedan of India divide the day into four watches, and the night into the same number, the day being considered to extend from sunrise to sunset. The watches are again divided into ghorie, which are 24 minutes each in length. As in the summer the days are longer than the nights, each day watch will then be longer than any watch of the night; though, from the necessity of each watch comprising an exact number of ghorie, there will generally be the difference of one ghorie between two watches of the same day. There is much variation in this respect, and although, in the latitudes of India, the difference is not so great as it would be in a country more towards the north, it is still so inconvenient that the natives of India rarely understand their own mode of dividing the day, and readily adopt the British mode.

A mode of denoting time has been adopted by the Hindu, which is called ghuriali. They provide a thin metal cup, a clypeus, through the bottom of which a small hole is drilled. This cup swims on the surface of a vessel of water, until the water, running gradually through the hole, fills the cup, which then sinks. The hole is made of such a size, that the water rising sinks it in 24 minutes. A sort of gong, or hollow bell-metal pan, called a glurial, is hung up near the vessel to be struck at the expiration of each ghorie, which is known by the sinking of the cup. A man, who is employed to watch the sinking of the cup, and to strike on the bell, is called a ghuriali. For the complete establishment of a ghuriali, six or eight servants are necessary, who keep watch in turns. Such an expense can of course be afforded only by the wealthy; but the right or title to use a ghuriali is regal, or granted by the rulers, and the sound of a gong is usually loud enough for a whole village, and serves the purpose of a church clock.

Monthly Division.—Almost all nations have regulated their months and weeks in a great degree by the revolution of the moon. Some have endeavoured to unite this division with the annual course of the sun by an augmentation of days at the end of each year, or by adding a thirteenth month at the end of every third year. The Jews and the Athenians followed this latter method; the Macedonians and some nations of Asia assigned their months 30 and 31 days; the Turks and the Arabs have 29 and 39 days.

Yearly Division.—A considerable variation prevailed generally amongst the nations of antiquity, and still partially prevails with regard to the commencement of the year. The Jews dated the beginning of the sacred year in the month of March; the Athenians in the month of June; the Macedonians on the 24th September; the Christians of Egypt and Ethiopia, on the 29th or 30th of August; and the Persians and Armenians, on the 11th of August. The Jewish civil year begins on the first day of the month Tisri, which year corresponds with the British 9th of September; that of the Mahomedans begins on the first day of the month Maharram, which goes round the year with the lunar months. Nearly all the nations of the Christian world now commence the year on the 1st of January; but, so recently as 1702, even in Britain, the year did not legally and generally commence till the 26th of March. In Scotland, at that period, the year began on the 21st January. The difference caused great practical inconvenience, and January and February, and part of March, sometimes bore two dates, as we often find in old records, as 1711—12.

The year, properly so called, is the solar year, or the period in which the sun passes through the twelve signs of the Zodiac. The period comprises 365 days, 5 hours, and 48 minutes, 51 seconds, 6 decimals, and is called the astronomical year.

The Calendar, the Jantri of the Hindus, is a table of the days of the year arranged to assist the distribution of time, and to indicate remarkable days connected with devotion or business.

The Romans called the first days of each month Calendis, from a word which signified "called," because the pontiffs, on those days, called the people together to apprise them of the days of festival in that month. Hence we derive the name of Calendrier.

The Roman Calendar, which has in great part been adopted by almost all nations, is stated to have been introduced by Romulus, the founder of this city.

Many of the festival days of nations relate to the sun, and those of the Hindus will be found under that heading. Suffice it here to mention Makar Sakranti, on the sun entering Makar or Capricorn; the Shoondoothi or ship festival, on its turning back from Capricorn; the Basant Panchami, and Rith Saptami, and Holi, in honour of the spring and vernal equinox; the Ashadi Ekadshi and the Karthik Ekadshi, relating to the beginning and ending of the S.W. monsoon, as also the Shrvan and Dassar, the ending of the monsoons.

Jai Sing, H. raja of Jaipur, was a celebrated astronomer. He directed observatories at Jeyapore, Delhi, Benares Muttra, and Ujijain, and he was able to correct the astronomical tables of De la Hire, published in 1702, before the French accepted the Newtonian astronomy. His observatory at Benares still exists. He left behind him lists of stars collated by himself, the Tij Muhammad Shah, so named because at the request of Muhammad Shah he had undertaken the reformation of the Indian
ASTRUC.

A STRUC, a brave officer commanding the French army when it was attacked on the 10th May 1758, by Major Lawrence, in the island of Sri Rangam. He was defeated at the battle of the Golden Rock, and again defeated and taken prisoner on the 21st September 1758, at the battle of the Sugar Loaf Rock.—Orme.

ASTRUK, GUJ. HIND. Gum ammoniac.

ASTUR TRIVIRGATUS. TEMM. Goshawk of Nepal, India, and the Malay countries. The other Indian goshawk is A. palumbarius, a native of Europe and Asia; in India it is confined to the sub-Himalaya.

ASTYAGES or Apanda, a Persian king of the Kaianian dynasty. He was son of Isfandiar.

ASUBHA CHAWANA, in Singhalese Buddhism, the meditation of misfortune.—Hardy.

ASUL, also Atul. HIND. Tamarix orientalis.

ASUR. SANSK. A demon, an enemy of the gods; an order of beings who reside under Maha-Meru. Asura, demoniacal, is a form of marriage recognised by Hindu law, in which the bridegroom gives as much wealth as he can afford to the bride, her parents and relations. It is also a term in general use in Hindu writings, to indicate a demon, a giant, an enemy of the gods, supposed to be derived from a, private, and sura, light; also from as, to be, and ura, living, spiritual. Dowson says it is the same as Ahura of the Zoroastrians. In the oldest parts of the Rig Veda it is used in the sense of demon; in the later parts it means a demon, and the Brahmanas relate many battles between the Asura and the gods. It is an epithet frequently applied to the ancient Nag or serpent race in the sacred writings of the Hindus. Colonel Tod (i. 559) believes it to have been applied to the Assyrians. In practice it seems to have been used to designate any of the enemies opposing the advancing Aryans. It is a term much employed in Hindu legends from a very early period down to the time of Krishna. But Daitya, Danava, Dasya, Rakshasa, are other names applied by the intruding Aryans to the races whom they found in occupation of India.—Eastern Monachism, p. 494; Tod; Garrett; Wilson; Dowson; Treglor.

ASURA DHRUVA, the South Pole, its inhabitants, opposed to the Sura of the North Pole.

ASWA or ASI, an Indu or Lunar race, the descendants of Drona and Bajaswa, who were spread over the countries on both sides the Indus, and probably gave their names to the region now called Asia. Aswa and Hya, synonymous Sanskrit terms for horse, the ass of the Persians, was applied by the prophet Ezekiel to the GETIC invasion of Scythia, b.c. 608,—the sons of Toparnax riding on horses;— and described by Diodorus, the period the same as the Takshak invasion of India. Amongst the Scythians, the horse was sacred to the sun, and in India, Sept-Aswa is the seven-headed horse of Surya, the sun. The Assa-seni, the Ari-apsi of Alexander's historians, and Aspsalna, to whom Arasces fled from Seleucus, and whom Strabo terms a GETIC race, have the same origin, hence Asa-garth, the fortress of the Asi (erroneously termed Haisi), and Asgard were the first settlements of the GETIC ASI. Alexander received the homage of all these GETIC races, at the mother of cities, Balkh, seat of Cat'h-hain Khan, according to Marco Polo, from whom Milton took his geography.

Hi, Hya, Hywor, and ASWA denote the steed in Sanskrit and its dialects. In Gothic, hyrs; Teutonic, horse; Saxon, horse. Of the three great branches of the Indu (Lunar), ASWA bore the epithet of Mida (pronounced mede), viz. Pooramede, Uja-mede, and Deo-mede. The ASWA invaders of Assryia and Media, the sons of Bajaswa, are expressly stated to have multiplied in the countries west of the Indus, emigrating from their paternal seats in Panchalica.—Tod's Rajasthan.

ASWAD. El-Aswad-ibn-Kaab, of the time of Mahomed, was the chief of the tribes of Ans, in Arabia, and a man of eloquence; he embraced Mahomedanism, and again seceded to set up a religion of his own. He was slain on the instigation of Mahomed, shortly before the demise of the latter.

ASWAGANDHIL. TEM. Physalis somnifera.

ASWALAYANA, pupil of Samaka, lived about b.c. 550, and was the predecessor of Katya-yana. He was the author of the Srauta Sutras, Grihya Sutras, and other ritualistic works; he was also a founder of a Saka of the Rig Veda, the Asvalayana Sutra, which contains the enumeration of the Gotras and their subdivisions, but in a very involved and unintelligible style.—Dowson; Garrett.

ASWA MEDHA, the sacrifice of the horse (Medha, SANSK., signifies to kill). It was practised in India on the Ganges and Sairjo, by the solar princes, 1200 years before Christ, but its occurrence within any recent period is not known. It seems to have been a Scythic rite, where often the horse, after certain ceremonies, was liberated, in fulfilment of a vow, and sacrificed on the deaths of chiefs. Up to the present day, in India, cows and bulls are let loose in fulfilment of vows, but the liberation of a horse is not now known. Col. Tod surmises that at the grand solstitial festival, the ASWA Medha, or sacrifice of the horse (the type of the sun), which was practised by the children of Vayvawata, the 'sun-born,' was most probably simultaneously introduced from Scythia into the plains of India, and west by the sons of Odin, Woden, or Boodha, into Scandinavia, where it became the Hi-el or Hi-ul, the festival of the winter solstice, the grand jubilee of northern nations; and in the first ages of Christianity, being so near the epoch of its rise, gladly used by the first fathers of the church to perpetuate that event. It was practised, he adds (Rajasthan, i. p. 63) by the Getes in the time of Cyrus; deeming it right, any Herodoteus to offer the swiftest of created to the chief of uncreated beings; and this worship and sacrifice of the horse has been handed down to the Rajput of the present day. The sanguinary part of this ceremony would, according to Mr. Colebrooke, appear, like that of the parushamedha, or human sacrifice, to be merely nominal, the horse, after certain ceremonies, being let loose. Mr. Ward, however, states that he was liberated only for a twelvemonth, when he was again taken, and, being magnificently caparisoned, was, after various preliminary proceedings, slain by the hota or priest. 'He who offers a hundred sacrifices of a horse is entitled to the throne of Indra.'—Cole, Myth. Hind. p. 374. And in the Rig Veda are two hymns describing the sacrifice of the horse, which leaves no doubt that the early ritual of Hinduism did authorize this
sacrifice as a burnt-offering to the gods. As, however, these two, in all the body of hymns in the Rig Veda, alone relate to it, it may be inferred that even then the rite was falling, or had already fallen, into disuse. As described in the Rig Veda, it appears that the horse was immolated, and afterwards cut up into fragments, part of which were eaten by the assisting priests, and part offered as burnt-offering to the gods. This sacrifice is described in the Puranas as one of the highest order, inso much that if it be performed a hundred times it elevates the sacrificer to the throne of Swarga, and thereby effects the downfall of Indra himself. In the Rig Veda, however, the object of this rite seems to be nothing more than the acquiring of wealth and posterity; and even in the Ramayana it is merely performed by king Dasaaratha as the means of obtaining a son by a universal monarch. It was also performed by kings in celebration of auspicious events, especially after marriage, in the hope of securing issue, when largesses were distributed to the Brahmans and officiating priests. It seems also to have been performed by kings in acquisition of supremacy, on which occasion their tributary sovereigns, as well as the officiating priests. On this point Col. Tod mentions that when Yudishta was firmly seated on his throne, he resolved to signalise his reign and paramount sovereignty by the solemn rites of Aswa Medha and Raja-Sn, in which princes alone officiate, every duty, down to that of porter, being performed by royalty. The 'steed of sacrifice' was liberate under Arjuna's care. He wandered whither he listed for twelve months; and none daring to accept this challenge of supremacy, he was reconducted to Indraprastha, where, in the meanwhile, the hall of sacrifice was prepared, and all the princes of the land were summoned to attend. The hearts of the Kuru burned with envy at the assumption of supremacy by the Pandu, for the prince of Hastinapur's office was to serve out the sacred food. Animate creatures and inanimate things have been objects of adoration amongst most of the nations of the earth; the sun, the moon, and all the host of heaven; the sword, the serpent, and the horse; and the last seems to have been worshipped as a type of the sun by all the Scythian races. The last year of Aswa Medha was undertaken by the celebrated Sowai Jay Singh of Amber, but the milk-white steed of the sun was not turned out. —Williams 'Story of Nala', pp. 119-209; Tod's Rajasthan, i. p. 63.

ASWA-PATI. Sansk. A title formerly borne by some of the ancient rulers of the south of India. It means lord of the horse. — W.

ASWATHIAMU. Tel. Ficus religiosa, L.

ASWATHIHMAN, a son of Drona and Kripa, who fought in the Kaurava ranks at Kurukshetra. After the last day's fight, he, Kripa, and Kritavarman alone survived. These entered the Pandava camp at night, found Dhrishta Dyunna asleep, and Aswathamman trampled him to death as he lay; he also killed Sikhandin, the other son of Draupada, also the five young sons of the Pandava, and carried their heads to the dying Buryodhana.—Dowson.

ASWICULAPA, in Hindu mythology, genii.

ASWINA, the first month of the Hindu lunar year. According to Warren, the 6th solar Hindu month, when the sun is in the sign Canya, answering to the Tamil month Pattasi. According to Ward, this word is named from the stellar mansion Aswini, the name of a mare. During the dark half of the moon in the month Aswin, when the sun is in Virgo, September and October, obsequial rites are daily celebrated.—Wilson, Gloss.

ASWINI, the Gemini of the Hindu Zodiac. In Hindu mythology, a form of Parvati, at times the earth goddess, as a mare, into which Surya, the sun, breathed, producing the Aswini Kumara.

ASWINI KUMARA, according to one legend, were two sons of Surya by Sanginya, who taught the art of medicine.—Taylor. In Hindu mythology, the physicians of the gods. Among the inferior deities, the Marut, or winds, hold the first place; and next to them, or nearly on the same level, the Aswini. These are apparently twins or brothers, and sons of the sea (Sindhu). But sometimes, as Dr. Wilson notices, they seem to be the preclusive rays of the sun; at other times, perhaps the sun and moon as rising out of the sea; so that the Vedic Hindus evidently had settlements on the sea-coast or on some water which they called a sea. The Aswini are almost invariably represented as having a triangular car with three wheels, drawn by asses; while their name appears to be derived from Aswini, a name which would seem to identify them with the two horses of the sun. Altogether, they are a perplexing pair; and the sakta addressed to them are richest of all in legend. Their connection with Indra (Jupiter), their patronage of mariners, their twin brotherhood, the two horses and stars found on their coins, identify them with the Grecian Dioscuri, Castor and Pollux.

ASYLUMS. 

Asyle, Refuge, . . . Fr. [Bast, . . . Pers. Asilo, refugio, . . . It., Sp. . . . ]

Refuge places, or sanctuaries, are known in Persia as Bast. The custom prevailing in the Mahomedan east, of having places of asylum, owes its origin probably to the Mosaic law concerning the six cities of refuge, which were allotted to such as had slain any person at unawares. 'Then shall ye appoint ye cities to be cities of refuge for ye; that the slayer may flee thither, which killeth any person at unawares. And they shall be unto ye cities of refuge for the avenger; that the manslayer die not, until he stand before the congregation in judgment,' etc. (Numbers xxxv. 11, 12). See likewise Joshua xx. 1-9 for the names of the six cities of refuge, and the rules laid down for them. A place of refuge, somewhat similar to the Persian 'Bast,' existed formerly in the city of London, where debtors could not be molested by their creditors, and were out of reach of pursuit. This place bore the name of Alsatia, and embraced the space between Blackfriars Bridge and Temple Bar, leading to the water-side. A similar place existed in Liverpool, and Holyrood precincts in Edinburgh were similarly free.

There was an ancient law of Athens analogous to the Mosaic, by which he who committed 'chance-medley' could fly to the courtships for a year, during which his relatives made satisfaction to the relatives of the deceased. The Greeks had asky for every description of criminals, which could not be violated without infamy. Gibbon gives a memorable instance of disregard to the sanctuary of St. Julian, in Auvergne, by the soldiers of the Frank king Theodoric, who divided the spoils of the altar, and
made the priests captives,—an impolicy not only unsanctioned by the son of Clovis, but punished by the death of the offenders, the restoration of the plunder, and the extension of the right of sanctuary five miles around the sepulchre of the holy marth A. at Aabukur or at the city, for aged men and women, for the blind, and for lepers. For the aged of both sexes, it is only those who have no relations, or whose relations are so poor as to be incapable of maintaining them, who seek admittance. There is an asylum in Bombay for animals, and another in Surat, called Pinja-pol.—Frere, Antipodes, p. 242; Tod’s Rajasthun, i. p. 527; Baron C. A. De Bode’s Travels.

ASYSTASIA COROMANDELIANA. Nees.

Ruellia Zeylanica, Roxb. | R. secunda, Vahl.
---|---
Middle-kire, | TAM. Tappeta, | Tel.
---|---
Mukku mangera, Tel. | Venna Katte-tige, Tel.

One of the Asystasia, a common weed in hedges; flowers either lilac or white; the leaves are used mixed with others as greens. A. Formosa abounds on the Coromandel coast; the flowers are purple, and it is readily grown from seed. —Riddell; Jaffrey.

ATAK, Tisi, and Tappeta, is found in China for aged men and women, for the blind, and for lepers. This shrub grows abundantly in Tenasserim, the Malay Peninsula, and Eastern Archipelago. The thatch is made of the fringe of this palm’s leaves, doubled down and sewed on sticks or lathes of bamboo.

ATARI, a ruined fort in the Malvan division of the Panjab, identified with the Brahman city taken by Alexander.

ATASH. Pers. Fire. Atash bahrain, a fire temple of the Parsees or Garb sect, or Zoroastrians. Six of these are in India. It is also known in Hindi as Atash-kada or Atash-khana.

Atash, also Atabek, in ancient Persia, an officer or petty prince, a ruler of a province. Luristan seems to have been the latest Persian territory so occupied, until Chengiz Khan, with his destructive horde of Tartar and Moghul, overwhelmed the land, spreading fire, slaughter, and pillage in every quarter. It was the title borne by various powerful Amirs at the court of the Selencides, which they retained after becoming independent in different provinces of Irak, Asarbijan, etc. The title means ‘the prince’s father.’ It was held at the court of Delhi under the translated form Khan Baba, and was given by Akbar to Bahram Khan, who had been an officer of Humayan, and was Akbar’s confidential minister.

ATASI. SINGH. Chiretta.

ATAI, Ate, Fara, Fata, Paori, Tiere, and Ton, trees of Tabith; their timbers are used for house and ship carpentry.

ATAK, a village and fort 56 miles from Rawal Pindi, known to Europe as Atook. See Atook.


ATALANTIA MONOPHYLLA. D.C.

Limonia monophylla, L. | Turrsas virens, Koen.
Wild-lime, | Eng.
Makhar limbo, | Mam.
Malvaregam, | Makal.
Konda nimma, | Tel.

This small-sized tree is found on the Malabar and Coromandel coasts, and is one of the most common trees in the greenwood jungles or ‘reese’ about the ghats of the Bombay Presidency, and at Mahabaleswuar; it is less common below and inland. Its hard, heavy wood is white or pale yellow, and is very fine or close-grained; it is, however, not procurable in pieces which would square more than four inches, and but for this it would be suitable for cabinet purposes. Wight also figures A. floribunda; and Voigt, with a note of interrogation, names A.? pubigerla as a shrub of Assam.—Jur. Reports, Mad. Ezchib.; Dr. Wight; Dr. Gibson; Hogg, Veg. King.; Voigt.

AT-ALARI. TAM. Polygonum barbatum. ATALIK is literally ‘one who fills the place of a father.’ It was in the earliest times among the Turko-Tartars the title of those nobles of the country who acted as counsellors of the princes. It has also the meaning of guardian, tutor, and instructor, and it is only in modern times that it is found in the sense of vizir or minister. The Shebiades and Ashtharkhanides had several ataliks, one forming part of the suite of each prince. The present Khan of Khiva has a definite number of ataliks. The rulers of Bokhara and Khokand confer it as a title of distinction. Atalik Ghazi was a title granted after the middle of the 19th century by the Amir of Bokhara, to Yakub Beg, who united Khokand and Yarkand and Kasghar under his rule.—P. Arminius Vambery, Bokhara, p. 380.

ATANDAY. TAM. Capparis hordra, L.

ATANGO, a Japanese deity whose temple is at the top of the Atango-yama hill. ‘Yama’ is the Japanese for mountain or hill, as ‘Fusi-yama,’ ‘O-yama,’ etc.—Frere, Antipodes, 428.

ATAP, MALAY. Leaves of Nipa fruitiana, used as thatch. This palm grows very abundantly in Tenasserim, the Malay Peninsula, and Eastern Archipelago. The thatch is made of the fringe of this palm’s leaves, doubled down and sewed on sticks or lathes of bamboo.

ATARI, a ruined fort in the Malvan division of the Panjab, identified with the Brahman city taken by Alexander.

ATASH. Pers. Fire. Atash bahrain, a fire temple of the Parsees or Garb sect, or Zoroastrians. Six of these are in India. It is also known in Hindi as Atash-kada or Atash-khana.

Pottinger says that at Yezd, styled Dar-ul-Ibadat, or seat of religion, the Guebres (Gabor) had an Atash-kada (which they assert has had the sacred fire in it since the days of Zoraster) in their own compartment of the city, but for this indulgence the Persian government taxed them at twenty-five rupees each man. —Wilson; Pottinger’s Tr., p. 127.

ATASH BAZI. HIND. Fireworks.

ATASH GULABI RANG. HIND. Amongst dyers, a bright rose colour, from atash, fire.

ATASH KHOR. Pers. Tetroa rufus, Linn. The two Persian words signify fire-eater. It is the chakor partridge of India.

ATASI. SANSK. Linn. usitatissimum, L.; flax.

ATAVI DEVI, the Hindu Diana, Saraswati.

ATCHA-MARAM. TAM. Bauhinia racemosa.

Diopsiphyes ebenaster; any of the ebony woods.

ATCHAR. HIND. Pickles.

ATCHEMPETTA, a town belonging to the Kallari race, 12 miles west of Tanjore.

AT-DEMMATA. SINGH. Gmelina arborea.

ATEES. HIND. The root of Acouium heterophyllum forms the true medicinal Atees of the Indian bazaars, employed as a tonic in fevers. But the substance is sold under that name in the south of India, perhaps over India generally, is quite inert, for two drams as a dose have been given. O’Shanghnessy mentions that the spurious Atees roots are the dry tubers of Asparagus sarmentosus; but the same term, in the south of India, is applied to linsed, also known as Alsi, Tisi, and Mashima. According to Ainslie, Atees is the Hindustani name of the bark of a species of Betula, used in the northern parts of India for dying chintz red, and which is sometimes, though
Atherina. Of this genus of fishes, several Indian species are known, A. Australis, A. Brownii, and A. Japonica. A. Brownii is the Chupah of authors. A. Forskal, Russell, is the white-bait of Malayar. Engraulis Russellii, Bleeker, is also so called.

Atherura, a genus of mammals of the family Hystriicidae, and sub-family Hystriini. Only one species of Atherura is known in India.


Ati-Kukuthi, a subdivision of the Nair race.


Ati-Malki, a tributary state in Orissa, with a chief with the title of raja. Its population, 14,536 in number, consists of the Gond, Khand, Pan, Chasa, Goada, Darnal Goada, Snd, and Mahomedans.—Impr. Gaz.

Ati-Mas. Ind. Lands repeatedly ploughed for eight months, from Ashbag to Magh, for sugarcane.

Atir or Asr. Arav. Footstep or footprint. Similarly to the Pag of Gujerat, the Arab traces thieves by the Atir.

Athun, the chief town of the Miar or Mera race, mountaineers of Rajputana; the country is styled Mairwar, or the region of hills.

Athur, the ruined city near the mouth of the Upper Zab, now usually known by the name of Ninurud, and called Ashur by the Arabic geographers; and in Athur we recognise the old name of Assyria, which Dio Cassius writes Atirya, remarking that the barbarians changed the Sigma into Tau.—Müller’s Lectures, p. 233.

A-thu-Ya, in the Buddhism of the Burmese, a fallen nat, a spirit.

Atiy, a goddess of the Assyrians. See Ken.

Atibala Chettu. Tel. Sida rhomboldea.

Ati Madhuramu. Sansk. Liquorice. If imported, it is the root of Glycyrrhiza glabra; if indigenous, it is obtained from the root of Abrus precatorius.

Ati-Marakam. Tam. Ficus racemosa, Linn.

Ati-Meralu. Ficus excelsa, Wall.

Ati-Muktamu. Sansk. Hiptage madabhotla, Gaertn., also Dalbergia Ojajnensis, Bt.

Ati-Nar. Tam. Fibre of Baulinia tomentosa.

Ati-Pala. Hind. Abutilon Indicum.


Atit. Hind. A Hindu religious mendicant, usually of the Vaishnava sect; a monastic order of Hindus. Jhaloco, one of their monasteries, is near Bhynsar, and was founded by the Bhynsar chiefs. Colonel Tod mentions that their monastery, in his time, was an isolated dwelling, on the terraced roof of which he found a party of the fraternity squatted round a fire, enjoying the warmth of the morning sun. Their wild appearance; their matted hair and beard had never known a comb; their bodies were smeared with ashes (bhlabot); and a shred of cloth round the joints seemed the sole indication that they belonged to a class possessing human fects. Their lives were passed in a perpetual routine of adoration of Chaturbhujah, the four-armed divinity, and they subsisted on the produce of a few patches of land, with which the chiefs of Bhynsar had endowed this abode of wild ascetics, or with what their patrons or the town’s people and passengers made up to them. The head of the establishment came forth to bestow his blessing on Colonel Tod, and to beg something for his

Athene, a genus of birds of the family Strigidae, and sub-family Atheneae; several species occur in S.E. Asia.

Atherosperma moschata, of the order Atherspermaeae, Lindl., a plant of Australia, where its bark is infused and partaken of as tea.—Hogg, Veg. King, p. 667.

Ateene Promachos. At a meeting of the Bengal Asiatic Society, there was exhibited an engraved figure of Atene Promachos on red cornelian of Greek execution, from the N.W. of India, being, according to Colonel Cunningham, a copy of the celebrated statue by Phidias in the Parthenon. ATERAN. Hind. A frame for winding off threads previous to forming skeins. ATETI, the feminine power of Wok, the supreme being of the Galla race of Shoa.

Ateuchus Sacer, the sacred beetle of the Egyptians, found in Egypt and western Asia.

Ath. Hind. Eight. See Ath-Bhaia; Ath-Cowrie.

Athaboo, near Tinnevelly, 3200 feet above the sea, with a rainfall of 40 inches. Tea trees grow luxuriantly.


Athamanta Macedonica, a plant used in the cast as a perfume for clothes. It is for Europeans over penetrating.—Hogg, Veg. King, p. 378.

Athambinana, seven great unburied relics of Saky, viz. 4 canine teeth, 2 collar bones, and the frontal bone. Princes erected pagodas and relic-temples (izdede) over them.

Athanasius Nikitin. A citizen of Tver, who, about the year 1470, in the time of Ivan III., visited the kingdoms of the Dekhan and Golconda, but is reported to have died on his return before he reached Smolensk. The record of his voyage was written by himself, and delivered to the Dink, a kind of secretary of state to the Grand Duke.—India in the 15th Cent.

Atharava, the fourth book of the Vedas. It comprehends the whole science of Hindu theology, metaphysics, and philosophy. It was arranged by Vyas, and it was taught by the sage Sumanta to his pupil Kabandha.

Atharvan. Sansk. A class of priests descended from a man named Atharvan, who seems to have been the first to institute the worship of fire before the E. and W. Iranians separated.—Monier Williams.


Ath-Cowrie, in Bengal, the distribution of eight kinds of perched peas, rice, sweetmeats, with cowries and pice, amongst the children of a Hindu house, on the eighth day after a child is born in the family.

Atthene, a genus of birds of the family Strigidae, and sub-family Atheneae; several species occur in S.E. Asia.
order. He, however, in the first place, elected Colonel Tod one of his chela or disciples, by marking his forehead with a tika of bhaaboot, which he took from a platter made of dhak leaves.

—Tod's Travels. See Ashes.

ATI-TIPII. TAM. Sciadapus officinalis, Schott.
ATIVIRA RAMA, A Pandiyian king who reigned at Madura about the 12th century A.D. The principal work attributed to him is the Naitadam. He is said also to have been the author of the Kassi kantam, Linga Puramam, Kurma Puramam; three antani in praise of the Saiva temple at Karurvar, and an ethical treatise, Vettiverka. It is supposed by some that he was merely the patron to whom the works were dedicated.

ATI-VISA. Tel. Acocitum ferox, Woll. The Sanskrit Aci visha is from ati, very, and visha, poison. The Telugu word is always understood as designating an active poison, which is the character of the Vishi, Bish, or Bikh of upper India.—O'Sh. 155.

ATKALA DESA, Cuttack or Orissa.
ATKE-KALAY. Beng. Arachis hypogea.
ATMA. SANSK. The soul. Paramatma, the supreme soul, God. Atma-bhu, self-existent, from atma, self, and bhu, existence. Atma-devata, from atma, and devata, a god, a guardian deity.

ATMAGUPTA, SANSK.; also Atmagupta-murkuti, Beng. Mucuna pruriata; Cowhage.
ATMAN. SANSK. Life, animal life.
ATMISA. ARAB. Artemisia vulgaris, L.
ATNAMUS. AR. Anthemis nobilis, the plant.
ATNUL. HINDI. Atragulos spinosus.
ATON. The nullus foment. The Atoll offers a rich variety of plants. An encircling barrier reef only in the absence of land within its central expanse; and a barrier reef differs from a fringing reef, in being placed at a much greater distance from the land, with reference to the probable inclination of its sub-marine foundation, and in the presence of a deep water lagoon-like space or moat within the reef. The polypes that make these are chiefly Antipathes galberrima, Madrepora corymbosa, M. pocillifera, Gorgonia tuberculata, two species of Astrea, Leioptases galberrima, and L. Lamarecki. Atolls sometimes constitute a great circular chain enclosing a deep basin, but opening by one or more deep breaches into the sea. Sometimes they surround a little island by a girdle of reefs, or form the immediate edging or border of an island or continent. Atolls occur in the Pacific, in the Chinese seas, and the Marianne and Philippine islands. Maldives and Laccadives, and Sund group, the Keeling, the Low Archipelago, Marshall Archipelago, and Caroline have atolls. The Maldives island atolls are the Addn, the Addu-mat, Ari, Malcom, Colomandu, Horahburgh, Heawandu, Pholo, Moluk, Nullandu, Phaidi-Pholo, Ross, and Sua-divah.—Figuier, Ocean World; Darwin, Coral Reefs; Macgillivray, Voyage. See Coral; Polype.

ATR, ARAB., written Attar, Otto, and Otar, a perfume, or essence of flowers; by Europeans the term is confined to that from roses. An Atr-dan contains the Atr, and the perfumer, druggist, or distiller is called Attar. The perfumes sold under the name of Atr are as various as are the fragrant flowers from which they are extracted; and the term Atr has the same extent in India as the word scent in English; and, like the European fancy names, the Indians have similar appellations, as Majnuah, all the fragrances; Râhât i Râh, hearts-case. Perfumes of flowers are usually obtained in India by enflourage or inflowering, less frequently by distillation. Oils are used, into which successive batches of flowers are placed, until the oil becomes impregnated with the aroma. Butter, grease, animal fat or oil, might all be used, by spreading it on the inside of a dish, and, after filling this with fragrant blossoms, placing over it another dish, also greased inside. After a day the grease has become fragrant, and the living flowers continue to give out their odour. To remove the odour from the fat, it is scraped off the plates and put into alcohol, which takes up the odour and becomes scented, and the grease again becomes odourless. The rose, orange, acacia, violet, jasmine, tuberose, and jonquil are treated in this way by the French flower farmers of the Var. Under distillation, a ton of rose flowers will yield about 40 ounces of Atr or Otto, worth £200 sterling; and the residuary water, highly saturated with odour, another £10. The Atr or Otto of roses is a highly valuable and delightful perfume. It is an essential oil, prepared in several countries in the East, and has this remarkable composition, that it is a compound of two oils, one liquid and the other solid, and inodorous. At Ghazipur in Bengal, the Atr is always made at the beginning of the season, when the nights are cool. To procure the oil, the roses are put into the still, and the water passes over gradually as in the rose-water process. After the whole has come over, the rose-water is put into a large metal basin, which is covered with wetted muslin, tied over to prevent insects or dust getting into the oil. Below, the rich oil is let into the earth, the basin is covered and the ground, which has been previously wetted with water, it is allowed to remain quiet during the whole night. In the morning early, the little film of Atr which is found on the surface of the rose-water during the night is removed by means of a feather, and carefully placed in a phial. Day after day, as the collection is made, it is placed for a short period in the sun, and after a sufficient quantity has been procured, it is poured off clear, and of the colour of amber, into small phials. Pure Atr has at first a pale greenish hue, but in a few weeks it becomes of a pale yellow. It is generally calculated that 100,000 roses will produce 180 grains of Atr, and the price of 100,000 roses varies from 40 to 70 rupees; and the tola, 180 grains, of the Atr is sold at 80 and 90 rupees. At this price, as may be supposed, it is rarely if ever used even by the wealthiest of natives, and the native courts employ the Atr or perfumed oil prepared by their own distillers from the jasmine (J. sambac and J. grandiflora), and bela, and lemon grass (Andropogon schoenanthus), the roosa oil, the oil of Nemaur (Andropogon iwarichanu), Atr of khuskhus. Newar oil, A. Martini, a volatile oil, erroneously called oil of spikenard, is met with in the shops, and obtained from a plant named by Dr. Royle, Andropogon calamus aromaties.

ATRACTYLODES ALBA. Smith.

Peh-shuh, Yu-shuh, . . . CHIN.

A plant of Ngn-hwui and Kiang-su, from the shoots of which a tea is made. Its root is strongly aromatic, and is made into a tincture, or given in powder or in pills as a warm stomachic in catarra, chronic dysentery, general dropsy, rheumatism, and profuse sweatings.—Smith.
ATRACYLODES RUBRA. Smith.

The root is met with in finger-shaped pieces, and is used like that of A. alba.—Smith, p. 28.

ATRACR or Atrek, a river which rises in Khorasan to the north of Bursiul, and flows west to the Caspian. Since 1881 it forms part of the boundary between Persia and Russian Turkestan. It gives Russia the command of the passes leading from the Akhal country into Khorasan. The country is occupied by the Tekke Turkomans.

ATRAPAXIS SPINOSA, a polygonaceous shrub of China; is said to yield a manna called Kih-poh-lo.

ATREYA, B.C. 1200? famed in Hindu legend as having imparted the knowledge of the Ayur-Veda to Agnibesa and others; and Agnibesa's work was corrected by Charaka, and received his name. Charaka's work is in the form of dialogues. It follows the division of the eight parts of the Ayur-Veda.—Garrett.

ATRI, a rishi of the Hindus, a mind-born son of Brahma. He was married to Anusuya (Charity), one of the 24 daughters of Daksha.

ATRIPLEX HETERANTHIA. Thoyah kecay, TAM. A common weed; the leaves, used as greens, make an excellent vegetable; found in abundance in southern India; also cultivated.—Jeffrey.

ATRIPLEX HORTENSIS, the garden arache, or red creeping spinach, occurs in Tarsary, and its seeds are described as enetic. One species is known in Sinds as the Jucare.—O'Sh. p. 466.

ATROPA ACUMINATA. Royle.


These names are of very doubtful correctness; grows on the northern face of the Himalayas.—O'Sh. p. 466.

ATROPA MANDRAGORA. Line. The mandragora, or mandrake, the root of which was so celebrated in the magic rites and toxicology of the ancients, is known in the bazaars of Central Asia and the north of India. Its properties are identical in nature with those of A. belladonna, but weaker, in consequence of drying and decomposition of the atropa.—O'Sh. p. 466; Hogg's Veg. Kingdom, 552.

ATSU. Panj. Rheum emodi.

ATTA. Guj. Hind. Meal, wheaten flour. When sifted, maida is the finer part of wheaten flour, and sooji the harder. In India, the unsifted wheaten flour, the Atta, does not readily leaven into wheaten bread, and the sifted sooji is used almost solely for that. The natives who eat wheat use the Atta or unsifted flour. See Farina.

ATTA, a genus of ants, A. destructor, dissimilis, domicola, florilora, occur in the Peninsula of India. The A. destructor prefer animal to vegetable substances, destroying dead insects, bird skins, etc., but also feed greedily on sugar. They are common in all parts of India. A. rufa lives in holes under ground, about gravel walks, and walls; and often appears in houses, coming through a hole or crevice in the floor or wall. From a colony of them, every now and then, vast numbers of the winged females (and males) issue forth just before sunset, attended as far as the window by swarms of the netters of both kinds. Its favourite food is dead insects and other matter, but it also carries off seeds like the Oozeloma, chauff, etc. It stings very severely, leaving a burning pain that lasts for several minutes.

ATTACUS RICINUS, Jones, and A. cynthia, Drury, silk moths of Bengal and Sub-Himalayas.

ATTACU-JAM. Beng. Olen dioica.

ATTALEA FUNIFERA. Seemann. A valuable palm of the maritime provinces of Brazil. A coarse black fibre is obtained from the dilated base of the petioles, and partly used for home consumption, partly exported to Europe, tied up in bundles of several feet in length, and sold in London under the name of Passaba fibre at about £14 the ton. It is manufactured into cordage in its native countries; and as it is light, cables made of it do not sink in the water. It yields the croqilia nuts of commerce, and might advantageously be introduced into southern Asia. These are excessively hard, beautifully mottled with dark and light brown, and capable of taking a very high polish; they are extensively used for turnery, especially in making the handles of bell-pulls, small tops, and the knobs of walking-sticks, umbrellas, and other articles. In 1850, about 250,000 nuts were imported into England, and sold at 30s. to 40s. the 1000. It should be grown in India.—Seemann; Holtsappel; Poole's Stat. of Com.

ATTA PATTI. Hind. Mimosa pudica.

ATTAR. Hind. A druggist, a perfumer, a distiller. Att-dian, a casket of gold or silver, fitted with vases for holding Attar or perfume essences. See Atr.

ATTARAN, a narrow, deep, and sluggish river in the Amherst district of British Burma, which joins the Salween river at Moullmein. There are several hot springs on its banks.—Imp. Gaz.

ATTAVEESY, a district in the west of India largely occupied by Koli. See Koli.

ATTHAKATHA or Atuwawa, a commentary on the sacred writings of the Buddhists.—Hardy. ATICA MAMMADI. Tel. Boerhaavia diam- dris, B. orache.

ATTLA. Etzel, known to Europe as Attila, was the leader of the Hiong-nu, a pastoral tribe, who had been expelled from the borders of China by the powerful dynasty of Han. They formed one of those pastoral tribes who roamed in the lands from the Altai to the walls of China. The Hiong-nu, after their irruption in the Gothic empire of Hermannich, made their way, under Etzel or Attila, into the heart of France. Hordes from the same regions, under Togrul Beg, Seljuk, Mahmud, Chengiz, Timur, and Othman, overwhelmed the khilifat and the empires of China, of Byzantium, and Hindustan; and lineal descendants of the Shepherds of High Asia still sit on the throne of Cyrus, and on that of the great Constantine.

ATTICK is a small town with a fortress in the Rawal Pindi district in the Panjub, and gives its name to a district lying along the left bank of the Indus. The town is in lat. 33° 53' 15' N., and long. 72° 16' 45' E. The meaning and origin of Attick are both doubtful. We learn from the Tabaqat-i-Akbari, the Tarih-i-Murassa, and other native works, and even from Hindus at the present day, that Atok was formerly called Atok-Benares. The name is said to be derived from Atk, a
barrier; and it was said that Hindus formerly hesitated to go by the west of the Indus, lest they lost caste. But Hindus from the most ancient times have been spread westward, as now, even to Russia in Europe, and to Africa. According to Fraser, Attok in desert tracts in Khorasan means the skirt or foot of the hills, and commencement of the desert, and it is commonly used for the desert itself in these parts. The fortress is built on a precipitous slope of bare and rugged hills overlooking the Indus river, close to the left bank on the road from the Panjub to Kábal. The Indus, when in flood, runs below in an impetuous torrent, foaming in whirls around the jutting rocks called Tel-Jalalia and Tel-Kamalia, from the names of two of the Raunshani sect who were flung from the summits during the reign of Akbar. At this place the Kábal river joins the Indus river. It is 56 miles from Rawal Pindi, and 45 miles from Peshawar. A tunnel 1505 feet long, under the Indus, was completed in June 1868, after eight years' labour. The level of the Indus, about 18 miles above Attok, is 1049 feet above the sea.

—N. W. Fr. J.

ATTU KARAN. TAM. A shepherd, goatherd.
ATTUKEDASÁ. MALEAL. Attu Natte, Tam. Æschynomene aspera.
ATTUN, the national dance of the Daurani.
ATULGAN. PANJ. Myrsine Africana.
ATUR, a talaq in the Salem district of the Madras Presidency, with a population of 164,600 souls. Great beds of magnetic iron occur in the hills. Kari Raman, a pagoda in the Periye Kálayán, is a shrine of great sanctity.—Imp. Gaz.
ATVI. SANSK. Forest, grove, wilderness.
ATWEN-WOON, Burmese privy councillors, of whom there are four. They are inferior in rank to the Woon-gyi, but between them and the Woon-dook precedence is disputed.—Yule.
AUBER, PETER, author of Analysis of the Constitution of the East India Company, with Supplement, 1826-28; Rise and Progress of the British Power in India, 1837; China: an Outline of its Government, Laws, and Policy, and of the British and Foreign Embassies and Intercourse with that Empire, 1834.
AUCHOO. BENG. Raspberry, Rubus paeoni-florus.
AUCKLAND, EARL OF, was Governor-General of India from the 4th March 1836 to 28th February 1842. India had never been in a more tranquil state than at the time of his arrival in 1836; but on the 1st October 1836 he declared war against Dost Muhammad Khan, ruler of Kábal. The great object stated for the war was that Dost Muhammad had attacked the ruler of the Panjub, Ranjit Singh, an ally of the British; that his military preparations indicated intended hostile attempts against India; and that Shah Shuja, then under British protection in India, was the rightful chief of the Afghans. The war with Afghanistan lasted until 1842, and though at first and at last successful, it was the most disastrous that the British had ever experienced in those regions. Shah Shuja was put on the throne; Jalalabad, Kábal, Ghazni, and Kundahar were taken; but the Kábal division of the army was driven out, and all but a few hostages and prisoners, and one officer, Surgeon William Dryden, were destroyed.

AUCKLANDIA COSTUS. Falconar. Apotaxis auriculata, De C.
or Baroq, who accompanied Augustus to Athens, and there, as Calanos had done, committed self-immolation before the emperor. His tomb, known as the Indian's tomb, was to be seen as late as Plutarch's time, which is

AULANTHA. MALEAL. Calasanthes Indica. A. U. M., three letters which, when combined, form the syllable O'm, held sacred by Hindus. Monier Williams supposes them to be the initial letters of the trinity of gods of fire, wind or air, and sun (Agni, Vayu or Varuna or Indra, and Mitra).—Monier Williams. See O'm.

AUMOO. HINNDI OF BANNOO. A desert soil.

AUMOOKEERA. TAM. Physalis somnifera.

AUNGA-ARULI, also Aungra, also Aunwer. HIND. Emibia officinalis. Gient.

AUNG KHAN of the Kairatai Mongols, celebrated in Europe under the name of Prester John. He was a contemporary of Chengiz Khan, whom, at the instigation of jealous enemies, he attempted, but failed, to destroy.—Elliot, p. 498.

AUN-LASAR. HIND. Vitreous sulphur.

AUNTHULUPABAY. TAM. Monordica dioica.

AUNY. TAM. Odina wodier.

AURANGBAD, in long. 19° 54' N. and long. 75° 22' E., in the Dekhan, a large city, greatly desired, and a military station. The mean height of the station is 1885 feet above Bombay, at Colahal. It may now have about 15,000 people. It is in the dominions of the nawab of Hyderabad, and has several times, for short periods, been resided in by his predecessors. The daughter of Aurangzeb is buried there; her monument is of white marble, in which elegant arabesques and flowers are carved with great skill, and the doors are ornamented with plates of metal, in which also are flowers and ornaments. Near the mosque is a handsome marble hall, and round it a neglected garden.

AURANGZEB, emperor of India, was the youngest of four sons of the emperor Shah Jahan. Shah Jahan fell sick when advanced in years, and each of his sons raised an army to seize the throne. Dara Shikoh, the eldest, was open-hearted, but impetuous and rash even to folly. Shuja and Murad were bold, ambitious leaders; Aurangzeb, the youngest, was of a remarkably mild temper, but cautious, designing, and a perfect master of dissimulation. He pretended to waive his claim to the throne in favour of Murad, and these two, uniting their forces, defeated Dara and Shuja in succession. Aurangzeb afterwards imprisoned Murad in the fortress of Gwalior until his death. Dara fled to Gujerat, meeting Bernier on his way, then on to Cutch and Sind, when an Afghan took him prisoner and sent him to Delhi, where he was killed by the order of Aurangzeb. Aurangzeb, taking advantage of his father's advanced age, compelled the emperor to sign his own abdication, and he remained till his death a prisoner in a palace. The eldest brother, Shikoh, fled westward, and his death was never ascertained.

Aurangzeb gained but an imperfect success over Afghanistan, and his wars in the Dekhan were protracted. In his habits and manners he was remarkably simple. He was an author and voluminous writer of letters, which almost invariably include some poetic quotation or some verse from the Koran. His system of government was a continual mistrust; he was cold-hearted, and owned no generosity. He excluded the Hindus from office, their fairs and religious meetings were forbidden, and their temples insulted and even destroyed. Yet he laid out no money on mosques or endowments of the Mahomedan faith, showed no sign of being under the influence of the teachers of his own religion, and often expressed his contempt of the faikirs or dervesh sects. He detested the Hindus, who detested him. Both his declared heir, Shah Alam, and Aurangzeb, as his favourite grandson, were the offspring of Rajputis; but his bigotry outweighed his policy, and he visited the Rajputs with an unrelenting and unwise persecution. Nevertheless this bigotry of Aurangzeb endeared him far more to his Mahomedan co-religionists than did the liberality of Akbar; and even to the present day the memory of Aurangzeb the persecutor is honoured by them far more that of that of Akbar the beneficent. Early in his reign he adopted harsh measures towards his Hindu subjects. Later on he renewed the capitation tax which Akbar had abolished, and he issued edicts against public dancers and singers, poets and astrologers. Subsequently he took prisoner the widow and son of the Rana of Udaipur as she was returning from Kabal, where her husband had died, but the Rani escaped; on which he sent a force to overrun Ajmir, to burn the villages, destroy the crops, and seize the women and children as slaves. His principal residence in the latter part of his long reign, was in the Dekhan, and he died at Ahmadnagar, where he was embalmed, and the body removed to the plateau of the hill overlooking Ellora. Europe was made more particularly acquainted with Aurangzeb by Bernier's mention of him in his Travels. The Moghul empire attained its utmost extent in Aurangzeb's reign. His authority reached from the 10th to the 25th degree of latitude, and nearly the same in longitude; and his revenue exceeded thirty millions of pounds sterling; in a country where the produce of the earth are four times as cheap as in England. Most Asiatic princes of the Mahomedan faith profess a trade. The great Aurangzeb was a capmaker, and sold them to such advantage on the 'nine day's fairs, that his funeral expenses were by his own express command defrayed from the privy purse, the accumulation of his private labours. His son, Mahomed Mazum, took the title of Bahadur Shah, and reigned about six years.—Elph.

AURANTIACE, the Citraceae order of plants.

AURASA PUTRA. SANSK. A begotten son.

AURASUS. Mount Aurusius is behind Tunis and Algiers. The native kabyle on that mountain are fair, red-haired men, and have been conjectured to be descendants of the ancient Vandals.

AUREA CHERSONESUS. The country thus named by the ancient geographer Ptolemy, has been supposed by d'Anville to be the Malay Peninsula, and his Sin-Hoa the western part of Cochin-China; Pegen also has been named; others have pointed to Galle and other places.—India in the 16th Cent. See Galle.

AUCICULA. A genus of shells or mollusces, Auricula auris Milius, which occurs in the Moluca, has been transferred to the genus Voluta.

AURORA. Phaeton in the Greek mythology was the son of Cephalus and Aurora. The former answers to Aruna, the Hindu bird-headed messenger of the sun. The Greeks have given the dawn a female character.

AUS. HIND. MALEAL. Rice sown in Chaitra
or Vaisakh (February—March), and ripening in Sravana or Bhadra (August—September).—W. AUVAIYAR. Parmelia peans, sents, customs, is further...rapid forward. Head or the bands have fourteen, who convicts...native; there...isles; to...AUSNEH. presumed...Pacific, and Vaiaakh use...slightest...south-eastern...Australians. The...of...Mongolian,...soft, chest. Even...gray hair. In...M. Indian...Malay, weapons. No...longer. It was...regions...It comprehends, therefore, almost...northern...maleal. Celebes, no...of...length, in...fat, mouth, and...tongue, and...hair, is...beard, and...beard and hair. This is a distinctive feature, and is not shared generally by the Mongolian, Negro, Malay, or the natives of the Celebes, the last of whom may be presumed to have enjoyed facilities for effecting an intermixture with the Australians. Native Australian women are met with, whose hair is comparatively soft, the head being covered with a profusion of loose natural curls. While possessing the wide-spreading nose, receding forehead, and rapid eye of the African, the thin and muscular limbs of the Zulu, and the long silky hair of the western Malay, with not a little of the latter's skill and daring—and to these types respectively the natives of north and north-west Australia approach nearer than to any other—they bear no further resemblance than their broad characteristics, in their language, or their weapons. The instruments of warfare in general use by the two contiguous races vary no less than their respective customs, language, and physique. The most remarkable weapon of the Australian, the boomerang, is entirely unknown to the Papuan, who in fighting use the bow and arrow. In many features of their superstitions they assimilate to the North American Indians, and to some of the tribes of the Pacific; strongly resembling the latter in their interments, and in the practice of piercing the septum of the nose.

From the period of the earliest discovery by Europeans, the Chinese, the Malay, and the Celebians have visited the south-eastern islands of the Indian Ocean, and had their stations on the Australian coast, trading with the inhabitants, and conveying from thence cargoes of trepang, shells, etc. Since the 17th century, it has been gradually taken possession of by the British, and since 1841 many brave efforts have been made to explore the country. Plains, forests, and rivers alike abound, with creatures of strange form. Each of its floral regions has a zoology peculiarly its own. The Banksian are everywhere tenanted by true meliphasagous birds, the Eucalypti by the Trichoglossi and Pitoti, the towering fogs by the regent and satin birds, the palms by the Carphophane or fruit-eating pigeons, and the grassy plains by the ground pigeons and grass parakeets. The birds represent many of the tribes found in Europe; but the Australian continent possesses genera exclusively its own, many of which are nocturnal, and many of them breeding three or four times in a season. About fifteen families of birds are confined to the Australian region, amongst which are the paradise birds, honey-suckers, lyre-birds, brush-tongued lories, mound-makers, and cossowaries. The mammals are different from all those met with in other parts of the globe; the Marsupials extensively prevail; and the Kangaroos, Wombat, Koala, Ornithorhynchus, Echiana, the Thalycone or Devil peculiar to Tasmania, Phalangers and flying opossums (Belides), constitute a fauna as interesting as remarkable. The only mammals of Australia and New Guinea are marsupials, the monotremes and mice. The marsupials are very numerous and varied, constituting six families and 33 genera, with about 120 known species. The seaweeds, about a thousand in number, have proved a fertile field of research, with many beautiful molluscs. Its economic plants are numerous species of Acacia, Albizia, Casuarina, Eucalyptus, Ficus, Panicum, Phaseolus, and many others yielding timber, gums, resins, tanning substances, and medicines.

AUSTRALIAN MOSS, Eucumea speciosum. AUTEUIL, M. d', a French officer who commanded the French forces at the battle of Ambur, and gained the battle. Anvar-ud-Din fell in that battle, at nearly 100 years of age.

AUTHOONDAY. TAM. Capparis brevispina. AUTMORA. BENG. Isora coryfolia. AUVAIYAR is the most noted Tamil poetess. This name simply signifies 'the matron.' She is said to have been exposed by her mother, and brought up by a minstrel; but many fables are related of her. Tamil writers call her the sister of Tiruvalluvar. She is said to have continued Tiruvalluvar's legacy; her life and works Bower remarks, 'She sang like Sappho; yet not of love, but of virtue.' Five books of moral aphorisms, much used in schools, are attributed to her, viz. Attisudai, Konrai ventan, Muturai, Nalvai, and Kalvijolukkam. The genuineness of the Muturai is considered doubtful by Dr. Caldwell. Other books attributed to her are the Vettriverkai, Avve-Kerao, Avve-Kool, Pillaiyar-Agaval, and Ganapathi-Asiria-Virutam, and a number of detached verses. The Muturai is also styled the Vakkundan. Her collection of brief moral aphorisms is unrivalled. She is called Kulikukkapani, i.e. she who sang for rice water. The Muturai is a collection of fine similes. Her works are read by every Tamil person, are greatly and deservedly esteemed, and are among the first books put into
the hands of children in every Tamil school. One tradition alleges that Auvaiyar was the daughter of a Brahman, who married an inferior caste woman, of whose low birth he was not aware. Auvaiyar was her second female child, and was deserted by them, and brought up amongst the Pamar bards. Auvaiyar seems to have lived about A.D. 900, during the reigns of three celebrated kings of the Pandyan, Seram, and Sorghini kingdoms.

—Tamil Authors; Garrett.

AVA or Ayun-wa, a town in Burma, in long. 96° 1' E. and lat. 21° 52' N., on the bank of the Irrawady, at one time the capital. Its state name was Ratnapura, or Gem-city. It is alleged to have been founded in A.D. 1364, by Thado-men-ya, prince of Tagoung, who mastered the kingdoms of Panya and Sagain, into which the country was then divided. The first mention made of Aya by any European traveller, is that by Nicolo di Conti, who was there about 1440 (Ramusio, i. 340). It continued usually to be the royal residence, with some intervals, till the end of the eighteenth century. In 1526, the Sultans of Gerawan and Mogoung took the city and overran the country, of which they held possession till 1554. In that year, the Tshen-byoo king of Pegu, Tshen-byoo-mya-yen (lord of many white elephants) conquered Ava and destroyed the city. The king Young-men-ta-ra, who re-established the city and kingdom after the fall of Pegu in 1601, appears to have been a natural son of the conqueror. Ava was taken by the Peguers during their resumption of independence in 1752. They were speedily expelled by Alompra, but he always resided at Mou-to-bo. In 1763, on the accession of Tshen-byoo-yen, Ava again became the seat of royalty. It was, however, abandoned on the founding of Amarapura in 1783, but reoccupied in 1823 by the king and queen, who entered in great state, accompanied by the white elephant, and by all the dignitaries of the court, only to be again deserted in 1837 by Tharawadi, who had vowed to make it a heap of ruins.—Yule's Embassy.

AVA. Tel. Sponian Wightii, Planch.

AVA, a drink of the South Sea islanders, prepared from the Macropiper methysticum. It was boiled, strain the liquid, bowled, and allowed to ferment, and drank. In the Southern island, the larger ava-bowl is made from the taman, Calophyllum inophyllum, and occupies a conspicuous place. Ava in Tahiti is a general name for ardent spirits. Ava is also a plant of Tahiti; its bark made into cloth.—Capt. Elphinstone Erskine, Islands of the Western Pacific, p. 46.

AVA ARDUI SUR JASAN. A Parsee festival held in honour of Ava, the angel, in their theology, who presides over the sea. On this day Parsees should approach the sea-shore or any stream of water, and chant prayers from the Zend; but these religionists now generally mix with their prayer several Hindu rites, such as offering flowers, sugar, cocoa-nuts, etc. In Bombay, a fair is held on the esplanade on this day.—Parsees.

AVADHUTA. Sansk. In the south of India, a religious ascetic mendicant of the Saiva sect, who, similarly to the Virakta Vairagi, has subdued the passions and estranged himself from the interests and emotions of mankind, abstaining from religious observances and worldly restraints.—Wilson. See Hindu; Sanyasi; Vairagi.

AVA GEM-SAND comes from the neighbour-

hood of Ava, and is sometimes one of the Shan articles of merchandise. It consists of small fragments of nearly all the precious stones found in the country; but garnet, beryl, and spinelle are its principal constituents, more especially the last, which seems to constitute nearly three-fourths of the whole mass. A single handful will contain specimens of every shade—black, blue, violet, scarlet, rose, orange, amber, yellow, wine yellow, and white.—Mason.

AVAGODA. Tel. Trichosanthes pulmatia.

AVALAMBANA, in China and Ceylon, a sacrifice among Buddhists for the dead in the 15th day of the 7th month; till redeemed, they are suspended by their heads, head downwards, from a tree in the inferior regions.

AVALI. Tel. Mustard seed.

AVAIUL. VULLI. Tam. Janipha manibot.

AVANAK, MALED. Icinitus communis, Linn. AVANEJANA. Sansk. Washing ablation; a Hindu ceremony prior to offering the funeral cake. It consists in pouring water, in which flowers and sandal paste are immersed, upon the head of the king and receiving the cake.—W.

AVANI AVATTAM. Tam. With Brahmanas, a festival at which the sacred thread is renewed; it occurs during the Hindu month Avani, which falls in with August. During the Utharyanam, or northern solstice, all devout Hindus are supposed to devote themselves to the study of the Vedas, and during the Thatchanayantham, or southern solstice, they are allowed a relaxation of their religious studies, or, as some eminent divines among them are of opinion, they are forbidden to open the Vedas. During the northern solstice, i.e. from Avani (August) to Thi (January), marriages and other auspicious rites are performed; all acts done are supposed to have some virtuous effect, and in some manner benefit the persons performing them. But during the southern solstice, which extends from Masi (February) to Adi (July), everything done, though virtuous in itself, is unprofitable in its effects. During this period sin is supposed to abound, in consequence of the months being bad months; and the period is past and the month of Avani ushers in the good months, the occasion is regarded a fitting occasion for the ceremony in which the Hindu is invested with the sacred thread, with multiform ceremonial rites. Into a hole which is dug and consecrated for the purpose, the Vedakni, or the three kinds of sacred fire, are cast, and over these the wood of the Arasu, or Aa-maram or Athi-maram. Incense and the Navathamian, or nine kinds of sacred grain, follow, and then the necessary quantity of ghee completes the ceremony. The sacred thread costs some Hindus a large sum, but to the poorer classes the Brahman priest sends the strings at reduced prices.—Madras Mail, 21st Aug. 1872.

AVANI-MUL.A. Hind. A fast observed in honour of Siva.

AVANTARA. Sansk. In the Brahmanical religion, a descent of the deity in the shape of a mortal; it is an incarnation of an inferior kind, intended to answer a purpose of less moment.

AVANTI, the ancient name of the modern Oojin; also called Ujjayani, Vaisala, and Pushpan Karandnini. This city is noticed in the Meghaduta, verses 28 and 31.—Williams' Story of Nala, p. 116; Captain Edward Warren.

AVANZOAR, the name given in western
AVARAI.

Europe to the two physicians called Ibn Zohar, A.D. 1072.

AVARAI. TAM. Cassia auriculata.

AVARO of Tahiti, fruit of Melastoma Malabathrica, used as a blue dye for Tapas cloth.

AVA-SARPINI, among the Jaina, one division of time; the other is Uta-sarpini.

AVATAR. HIND. From the Sanskrit, Avatara, a descent or incarnation, a term employed by the Hindus to designate the incarnations of Vishnu, usually arranged and named—1. Mataya, or fish; 2. Kurma, or tortoise; 3. Varaha, or boar; 4. Narasimha, or man-lion; 5. Vamana, or dwarf; 6. Parsurama, the name of a favoured person in whom the deity became incarnate; 7. Rama, the same; 8. Krishna, the same; 9. Buddha, the same; 10. Kalki, or horse. Of these, nine are past, the tenth is yet to come.

When the Hindus speak of the deity having been thus incarnate, we must understand it with some qualification; for, in fact, there is perhaps scarcely one point in their mythological religion that the whole race of Hindus have faith in. There are sectaries and schismatics without end, who will believe only certain points that others abjure; individuals of those sects dissent from the doctrine believed by the majority; other philosophical sceptics will scarcely believe anything, in opposition to their easy-minded brethren, who disbelieve nothing. Thus, some Saiva, or followers of Siva, admit the sacredness of the Avatara of Vishnu, but in different degrees of potency and sanctity. They generally admit the personified interposition of the preserving attribute of the deity in the affairs of the world, without yielding the point of supremacy in the prototype. And some zealous Vaishnavas, or followers of Vishnu, giving themselves up to his adoration in some incarnation, Krishna or Rama, for instance, reject all further application of divine terms. Hence may in part be discerned the liability under which inquirers labour, of being misled by sectaries into receiving schism as orthodoxy, and of forming general conclusions from individual or partial information.

1. The Mataya or Fish Avatara has been supposed to have immediate reference to the general deluge, and to be the same history, disguised in oriental fiction, of that event as is related in the Scriptures. Sir W. Jones (As. Res. vol. 1.) asserts to the opinion of Bochart, that the fable of Saturn, was raised on the true history of Noah; he shows that the seventh Mene, Satyavrata, corresponds in station and character. In his reign, the Hindus believed the whole earth to have been destroyed by a flood, including all mankind, who had become corrupt, except the pious prince himself, the seven rishi, and their several wives, who, by command of Vishnu, entered a 'bahitara,' or spacious vessel, accompanied by pairs of all animals. Vishnu, assuming the form of a fish, commanded the ark to be fastened by a cable, formed of a vast serpent, to his stupendous horn, secured thereby until the flood subsided; when he and Brahma slew a monster named Hayagriva, who, while Brahma was repos- ing at the end of a kalpa, stole the Vedas, and mankind had consequently fallen into the depths of ignorance and impiety. This mighty demon is called the prince of Danavas; his name means horse-necked. The Vedas having been recovered, the world was progressively re-peopled with pious inhabitants, descendants of the devout Satyavruta and his favoured companions. The history of this Avatara is the subject of the first Purana, or sacred poem, consisting of 14,000 stanzas, and is concisely told in the eighth book of the Sri Bhagavata, or life of Krishna.

2. The Kurma or Tortoise.—The second grand Avatara of Vishnu, in the form of a tortoise, evidently refers also to the flood. For the purpose of restoring to man some of the comforts and conveniences that were lost in this flood, Vishnu is said to have become incarnate again in the same form of a tortoise, in which shape he sustained the mountain Mandara, placed on his back to serve as an axis, whereon the gods and Amra, the vast serpent Vasoky serving as a rope, churned the ocean for the recovery of the Amrita, or beverage of immortality. Fourteen articles, usually called fourteen gems or chaterless ratana, in common language, chowda ratni, were obtained, viz.:

1. The moon, Chandra; 2. Sri or Lakshmi, the goddess of fortune and beauty; 3. Sura, wine, or Suradevi, the goddess of wine; 4. Oochisrava, an eight-headed horse; 5. Kustubha, a jewel of incensable value; 6. Parijata, a tree that spontaneously yielded everything desired; 7. Surabhi, a cow similarly bountiful; 8. Dhanwantara, a physician; 9. Iravat, the elephant of Indra, with three probosci; 10. Shank or Sanku, a shell conferring victory on whomever should sound it; 11. Damsha, an unerring bow; 12. Bikh, poison or drugs; 13. Renuha, the Apsara, a beautiful and amiable woman; 14. Amrita, the beverage of immortality.

3. Varaha or the Boar Avatara.—In this Vishnu is generally represented four-handed, armed as usual, and with the head of a boar, on whose tusks rests a crescent, containing in its concavity an epitome of the earth, which had been immerged in the ocean as a punishment for its iniquities. So that this, as well as the two former Avatara, seems to be a repetition of the story of the deluge.

The second combines with it a portion of astro-nomical allegory; and none of the other of the ten Avatara have any apparent reference to the universal catastrophe, so pointedly indicated by the third first, which are understood to have occurred in the earliest ages of Hindu history, if such a chaotic mass as their fabulous records may be dignified by such a term. There are many fables accounting for the shape thus assumed by Vishnu on this occasion; and the boar is in Hindu legend, as well as in the mythological romances of Greece and Egypt, an animal very frequently introduced. In an ancient legend relating to the destruction of the city of Mahabalipoorum, and the seven pagodas, on the coast of Coromandel, by an earthquake and inundation during an early period of Hindu history, it is stated that Hirancheren, a gigantic prince or demon, rolled up the earth into a shapeless mass and carried it down to the abyss, whither Vishnu followed him in the shape of a hog, killed him with his tusks, and replaced the earth in its original position.

4. Nara-Singh or Man-Lion Avatara.—In this Avatara, Vishnu took the form of another monster, to punish the wickedness of Hiranya Kasipa, a profane and unbelieving monarch, the shape of the gigantic demon mentioned in the third Avatara, and his successor on the throne, who also refused
to do homage to Vishnu. Quarrelling with his son Prahlad, the king boasted that he himself was lord of the universe, and asked wherein Vishnu was greater than himself. Prahlad replied that Vishnu was supreme over all, and was everywhere. 'Is he,' cried Hrinya Kasisa, 'in this pillar?' striking at the same moment with his sceptre. 'If he be, let him appear.' In an instant, the magnificent column was rent in twain, and Vishnu, in the form of a man with the head of a lion, issued from it and tore Hrinya Kasisa in pieces.

5. Vamana or the Dwarf.—The first four Avatars are said to have occurred in the earliest or Sataya age of the Hindus, corresponding in character with the golden or virtuous age of the fabulists of other regions. The fifth happened in the second or Tirtyayu. Maha Bali, a virtuous monarch, was still so elated by his grandeur, that he omitted essential ceremonies and offerings to the deities; and Vishnu, finding it necessary to check the influence of such an example, resolved to mortify and punish the arrogant ruler. He therefore condescended to become the son of Kasyapa and Aditi, and the younger brother of Indra, and assumed the form of a wretched Brahman dwarf; appearing before the king, he asked a boon, which, being promised, he demanded as much land as he could pace in three steps; nor would he desire further, although urged by Bali to demand something more worthy of him to give. Vishnu, on obtaining the king's promise, required a ratification of it, which is performed by pouring water on the hand of the applicants. As soon as the holy stream had reached his hand, the form of the dwarf began to expand itself, and at length became so enormous that it appeared to extend itself up to heaven, then with one stride he compassed the earth, with another, heaven, and with the third was about to obtain patala, when Maha Bali, convinced that the pretended dwarf was no other than the god himself, fell prostrate in adoration before him, and yielded it up. From this incident of Vamana, Vishnu is also called Trivikram, or three-stopper. It is maintained by some Vaishnavas that the ratifying stream, poured on the hand of Vishnu in this Avatar, was the river Ganga, which, falling from the hand of the miraculous dwarf, descended thence upon his, now Vishnu's foot, whence, gushing as a mighty river, it was received on the head of Siva. In M. le Gentil's Voyage aux Indes, a rough map or plan is given, from a native original, of the course of the Ganges, which is there made to issue from the foot of Vishnu, and, falling on the head of Siva, flows in the style commonly seen through the cow's mouth. This is the only instance recollected of the source of the river being delineated as proceeding directly from Vishnu.

6. Rama or Parasu Rama.—Among the Avatars of Vishnu are recorded three favoured personages in whom the deity became incarnate, all named Rama. They are distinguished by the names of Bala Rama, Parasu Rama, or Parasaram, and Rama Chandra, and are all famed as great warriors, and as youths of perfect beauty. The first-named, Bala Rama, was elder brother to Krishna, and greatly assisted him in his wars; so that, in this instance, Vishnu seems to have duplicated himself, as indeed may be also said of the others, for Parasu Rama and Rama Chandra, otherwise called patronymically Darat Rama, were contemporaries. But it has been made a question whether they be not three representations of one person, or three different ways of relating the same history; and whether any or all of them mean Rama, the son of Kush, Sir W. Jones (As. Res. ii. p. 132) says he leaves others to determine. He deems Rama to be the same as the Grecian Dionysos, who is said to have conquered India with an army of Satyras, commanded by Pan; and Rama was also a mighty conqueror, and had an army of large monkeys or Satyras, the general or prince of whom was Hanuman, a name said by this author to mean, with high cheekbones; others translate it, with bloated cheeks, alluding to his fabled origin from Pavan, regent of the wind. Rama is also found to resemble the Indian Bacchus; he is a descendant of the sun, and the husband of Sita; and it is very remarkable that the Peruvians, whose Incas boasted of the same descent, styled their greatest festival Ramasita. See As. Res. i. p. 426, iii. p. 68.

Krishna, describing himself to Arjun as the first of all things, says, 'Among those who carry arms, I am Rama.'—Gita, p. 86. Of Parasu Rama it is related that he was born near Agra; in the Tirtya yug, or second age. His parents were Jamadagni, whose name appears as one of the rishees, and Runeka.

7. Rama Chandra.—In this Avatar, Vishnu appears in the person of a courageous and virtuous prince, the son of the powerful sovereign of India (whose capital, Ayodhya, is said to have extended over a space of forty nilles), to punish a monstrous giant, Ravan, who then reigned over Lanka, or the island of Ceylon. The Ramayana contains the heroic description of the battles and lives of all three Ramas, although it more particularly details the exploits of Rama Chandra, or Parasu Rama, so distinguished from his royal father, Dasaratha. The name of this heroic Ramacchandra, whose horse had borne him to ten regions, that is, to the eight cardinal and intermediate points, the zenith, and nadir. He was a descendant from Surya, or Hel, which is a name of the sun in Greek and Sanskrit; and one of his ancestors, the great Raghu, had conquered the seven Dwipas, or the whole earth. But we cannot explain why a Suryavansa, or descendant of the sun, should be styled Rama Chandra, the latter patronymic referring contradistinguishingly to the descendant of the moon, Chandravansa. In the Hindu mythology, however, everything seems, directly or indirectly, to merge in, radiate from, or amalgamate with, the sun, or Surya, in one or other of his names or prototypes. All sects and tribes of Vaishnavas (excepting such deistical philosophers as sceptically deny the personal existence of inferior deities, attributes, or avatars) agree in stating that, with the exception of Krishna, the potentiality of the preserving power of the deity was never exhibited in such plenitude as in this avatar of Rama. In popularity, and in dramatic, historic, and poetical shapes, it rivals the avatara of Krishna. And as the Gocalathash sect adore Krishna as the deity himself, and draw rules for their religious and moral conduct from the Sri Bhagavata, so the sect called Ramanuj similarly clothe Rama in almighty attributes, and deem the Ramayana a complete body of ethics and morality.
AVERTHOA BILIMBI.

AVERTHOA TIGE.

8. Krishna.—In this Avatar, Vishnu is said by his sectaries to have manifested himself in a degree of power and glory far exceeding any other of his former, in which he assumed only an anas, or portion of his divinity, while Krishna was Vishnu himself in mortal mould. Other sects of Hindus call Krishna an impious wretch, a merciless tyrant, an incarnate demon, now expiating his crimes in hell. His mortal parents were Vasudeva (meaning the giver of wealth) and Devaki. A miraculous escape of the infant over the Yamuna is represented, conveyed by his father, and protected by Seshu, or immortality. The guards placed by Kansa over his pregnant sister having failed in their vigilance, Kansa, enraged, ordered all newly-born infants to be slain; but Krishna escaped his various snares, one of which was sending a woman, named Patnita, with a poisoned nipple, to nurse him. He was fostered by an honest herdsman, named Ananda, or happy.

9. Budh or Buddha. See Buddha.

10. Kalki.—This Avatar has not yet appeared. But Vishnu is to appear in this avatar in the form of a white horse.—Moore's Pantheon.

AVERTHOA TIGE. Tel. Dioscorea oppositifolia, L.

AVELAGA. Tel. Capparis, sp., like C. divaricata, but the leaves are emarginate.

AVE-MAVO. Tam. Careya arborea, Roxb.

AVENA FATUA. L. Wild oats.

Gozang, Kasammi, Chenab. | Ganer, Gandal, | PANJ.

Bromos. | GR. | Jei (Hl), " | Upwa, Yupo, | LADAK.

This is cultivated in Bengal, the Dekhan, and Gujerat, and the Panjubb. It is common as a field weed in cereal crops throughout the Panjubb plains, and in many places in the Himalayas, up to 9500 feet at Lahouib, and to 11,500 feet at least in Ladukh.—Dr. J. Stewart, Panjubb Plants, p. 250.

AVENUES lined with trees are, in tropical countries, of much importance for shade. Portia and banyan branches should be straight, neatly trimmed, and of a uniform size, and planted perpendicularly. A neat fence will be required to protect them from cattle. After the branches begin to throw out young shoots, they should be carefully pruned, selecting two or three of the strongest near the top as leading shoots, to form the future tree. The young trees require water regularly in the hot and dry weather; care should be taken that they do not get loosened at the roots; this will prevent the trees leaning to one side. When a Portia tree raised from seed is grown up, it will last for ages, whereas a tree grown from a large branch is always in a state of decay after a few years from the time it is planted, and it is useless as a timber tree. The natural habits of the banyan make it an exception to this rule. The whole of the Ficus tribe grow well from large branches, and they are not so apt to decay as other trees. The planting of young seedling trees requires more care and attention than the branches. A large pit should be made 3-4-3, and filled with good earth mixed with rotten manure. They will require to be fenced and watered regularly, and the earth should be dug up and kept clear of weeds, to keep it from getting hard and sour. In forming new avenues, the trees should be planted 30 feet apart, and when the space will admit of it, a double avenue should be planted; it looks well, and forms a shady path for pedestrians.

Ficus Indica, the banyan, is the largest and perhaps the most shady of all the avenue trees.

Ficus religiosa. Poplar-leaved fig-tree. A large and handsome tree, commonly distributed over India. It is frequently to be met with near pagodas, house and other buildings.

Ficus tsiela. Jovi or Pedda Jovi, Tel. A large and very handsome tree, it is generally planted by the road-sides for the sake of its shade, and from its not sending down roots from the branches, is in so far superior to either Ficus Indica (banyan tree) or F. Benjamina, the pendulous roots of which are often dangerous impediments on a road.


Tamarindus Indica, Tamarind tree, is one of the largest in India, with a very extensive large shady head.

Casuarina muricata. Casuarina tree or Tinian pine makes very pretty avenues, especially in narrow roads.

Casuarina equisitifolia. Similar to the above. Bignonia suberosa. Indian cork tree. A good tree for planting in avenues. The flowers are pure white, and very fragrant.

Parkia biglandulosa. This large and elegant tree was introduced into India from Africa. It is one of the best trees for avenues. It requires care and water regularly.

Poinciana regia is very pretty, and should be planted in mixed avenues.

Adenanthera pavonina. Red-wood tree, large and handsome.


Acacia speciosa. A large and handsome tree of rapid growth. There are many other trees suitable for avenues, when they are merely planted as ornamental trees, and not for shade. The palm trees are also very pretty when planted in avenues.

AVERAY KAI. Tam. Lablab vulgar.

AVERHOES, a philosophe and physician of great eminence, whose name was Ablul Wahid Muhammad.

AVERTHOA BILIMBI. Wilde. Bilimbi.

Bilbingun teres, Rumph.

Anvulla. ... BOMBAY. Bilbingin-bas, MALAY. Cucumber tree. ... ENG. Wilump, ... MANGAL. Kamaranga, HIND., SANS. Bilin. ... SINGAL.

A pretty little tree, about eight feet high, with timber of doubtful value, growing generally in gardens in S.E. Asia, and producing a beautiful green, smooth, fleshy fruit, about the size of a small cucumber. In Burma it bears profusely. The unripe fruit is intensely acid, and cannot be eaten raw; but the acidity becomes less as it ripens. Amongst the Malays, it is used like the citron, the gooseberry, the cucumber, and the eaper in Europe, but can be candied or made into pickles or preserves; a syrup is prepared with the juice, and a conserve with the flowers, or preserved in sugar. Its acid juice is useful in removing iron mould.—Birdwood's Bombay Prod.; O'Sh.; Ainsle;
AWNY KARAI.

AWNY KARAI. TAM. Odina woodier.

AWRI KEERA. TAM. Marsiles, sp.

AWUR. HIND. A stockade. Peshawur, the frontier fort, etc. The Aornos of the Greeks has been supposed to be the same word, with a Greek termination. Sir Alexander Burnes supposed Aornos to be the rock of Noagi in Bajawur. Mr. Vigne supposes it to be south of Atok, in the Waziri country. See Aornos.

AWUSADAN NELLI. SINGH. Emblic myrobalan.

AW-WAL. HIND. A shark.

AXE STONE. See Cerasinite; Jade; Nephrite.

AXIS, a genus of mammals of the family Cervide, known from the markings on their skin as the spotted deer. The species are three or four in number.—A. maculatus, the chief or spotted deer of India; A. oryzanus, the spotted deer of Ceylon; and A. porcinus, the hog deer of Indian sportmen. The cheetal is often domesticated. Mr. Hodgson mentions A. medius and A. minor. See Cervide.

AY or Ayu, also Indu, the moon. The Tartars claimed descent from Ayu, the moon; hence with them, as with the German tribes, the moon was always a male deity. Ayu had a son Juldus, whose son was Hya, and from Hya came the first of the kings of China. The Ay of the Tartars, the Yu of the Chinese, and the Ayu of the Poorans, according to Colonel Tod, indicate the great Indu (or Lunar) projector of the three Lunar races of India, the Hya, the Aswa or Aisi, and the Yadu, who people all the regions from Tartary to the Indus, and spread a common language over all western Asia. He tells us that the annals of the Yadu of Jessulan state that long anterior to Vikrama they held dominion from Ghazni to Samarand; that they established themselves in those regions after the Mahabhurata, or great war; and were again impelled, on the rise of Mahomedanism, within the Indus. As Yadu of the race of Sham or Sam (a title of Krishna), they would be Sana-Yadus, in like manner as the Bhatti tribe are called Shama-bhatti, the Ashambetti of Abul Fazl. The race of Joud was existing near the Indus in the emperor Baber's time, who describes them as occupying the mountainous range in the first doab, the very spot mentioned in the annals of the Yadu as their place of halt on quitting India, twelve centuries before Christ, and thence called Jadu or Yadu-ka-dang, the 'hills of Jadu or Yadu.'—Tod's Rajaasthan, i. pp. 71, 529.

AYAH. ANGLO-INDIAN. (Qu. Iyer or Aya, SANSK.) Used by the British in India to designate a lady's maid or child's maid. It is possibly derived from the expression Aya or Ayer, which a Hindu wife or husband employs to attract the attention of one another; and Ayer is doubtless the Sanskrit Ayarr, a noble. See Ayar.

AYAING. BURM. Wild; any wild tribe or thing; an independent tribe.

AYALUOGI. ARAB. Ayal-urchi, PERS. Aquilaria agallocha, Rox.ż.

AYA MARAM. TAM. Ulmus integrifolius.

AYA-MATA. VEN. The universal earth mother; the Ayi or Ai of the Mahrrata predial races, and the Amma or Amum of the races of the Peninsula. This goddess is worshipped by all the non-Aryan tribes of the south of India. Colonel Tod describes a lofty three-peaked mountain, on which is a temple dedicated to Aya-Mata, also called Isani, the tutelary divinity of the Koli. This and the effigy of the horse are the only objects of adoration among this aboriginal race. Isani, from Isa', goddess; and Anai, 'earth,' the universal nurse mother (aya-mata). He tells us of Oodi Singh, who died thirteen years after his inauguration on the cushion of Joda, and thirty-three after the death of Maldeo, that about A.D. 1645, when he was returning home from court, he beheld the daughter of a Brahman, an 'Aya-punti,' or votary of Aya-Mata, whose shrine is at Bhai-Bhilara. These sectarians of Maroo, he says, are very different from the aboriginal Brahmins of Bengal. They eat flesh, drink wine, and share in all the common enjoyments of life with the martial spirits around them. And as there was no other course by which the father could save her from pollution but by her death, on that he resolved. He dug a sacrificial pit, and, having slain his daughter, cut her into fragments, and, mingling them with pieces of flesh, made the 'Huna' or burnt sacrifice to Aya-Mata, and as the smoke and flames ascended, he pronounced an imprecation on the raja: 'Let peace be a stranger to him! and in three pahar, three days and three years, let me have revenge.' Then exclaiming, 'My future dwelling is the Dabi Baori,' sprung into the flaming pit. The horrid tale was related to the raja, whose imagination was haunted by the shade of the Brahman, and he expired at the assigned period, a prey to unceasing remorse.—Tod's Rajaasthan, ii. 35, 36. See Kol; Mother.

AYAMMA. HIND. A grant of land to religious persons at a small quit-rent.

AYANA. SANSK. A place of motion. In Menu, ch. 1, 10, the waters are called Nara, and as these were the first production of Nala, or the spirit of God, he is thence named Narayana.

AYANA, in Hindu astronomy, a term applied to the equinoctial and solstitial points.—Mesha Ayana, Tula Ayana, the vernal and autumnal equinoaxes; Uttara and Dakshan Ayana, the northern and southern solstices; Ayana Bhagaa (vide Ayamana); Ayana Kala, the time from one equinoax to the ensuing one. Ayanasana is the arc between the vernal equinoctial point and the beginning of the solar, sidereal, or fixed zodiac (or the first point in the solar sign Mesha), being one of the most important elements of Hindu astronomy, as it refers the sidereal to the tropical zodiac (Ed. Warren). Another writer says Uttara Ayana is the apparent course of the sun through the northern signs; Dakshan Ayana the southerly course; hence the northern and southern hemispheres seem to correspond with the two Ayana, and Ayana has come into the name of Mesha.

AYANA or Ayanar, in peninsular India, south of the Palar, a Hindu deity, worshipped in small fanes, with plaster horses and goats outside of gigantic size. Women desirous of offspring place pottery images near, as votive offerings. Ayana is said to have been born of Mohini by Siva, Mohini being the female form assumed by Vishnu when churning the milk sea.—Taylor.

AYANA-GOSHIA. SANSK. The husband of Radha, the favourite mistress of Krishna.—War. AYAPANA. BENG. Eupatorium syvarpum; E. repandum. The dried leaves and twigs used in medicine. An infusion is a very agreeable diaphoretic and mild tonic. Dose, two drachmas.

AYAPANA.
AYAR.


AYAR, also Ayar-tawar. Malay. Water.

AYAR or Ayargar. Tam. Pronounced Eyar.

An instructor, a father; a title added to the names of Brahmans of the Ramanuja or Sri Vaishnava sect in the south of India; an honorific or respectful word applied to superiors. It is often applied to Europeans of rank. It is the Aryar, from Arya; it may be rendered 'lord,' and is the title given to Esvara's image in the Hindu pagodas.

AYAR-AYAR. Malay. Lansium, sp. Duku.

AYASRA. Amboin. Sandal wood.

AYATTA. Panj. Andromeda ovalifolia.

AYEN. Mal. Arctocarpus hisrtusus.

AYER-ANAS. Hot springs in Naning.

AYER-i-NOSH, a place in Persia with uaphtha springs.

AYER-MADDOO. Mal. Honey.

AYESTREE. Beng. A married Hindu woman, a femme couvert. She wears the balla, bangle, which may be of gold, or iron, or even a red thread.

AYIN-ABAKI, the regulations of the emperor Akbar, by his minister, Abul Fazl. These contain a minute description of the establishment and regulations of every department of Akbar's government, from the mint and treasury, down to the fruit, perfumery, and flower offices, the kitchen and the kennel. The whole presents an astonishing picture of magnificence and good order, where unwieldy numbers are managed without disturbance, and economy is attended to in the midst of profusion.—Elphin. p. 480.

AYILMA, a Hindu race in Khammumet and Warangal, well made, tall, and rather good-looking. They are gallant soldiers, and dangerous enemies.


AYNI of N. Canara. Terminalia coriacea. W.

AYODHYA or Ayodhya, or the invincible, an ancient town on the right or south bank of the river Gogra (Ghagra) or Sarayu, adjacent to Fyzabad, in lat. 26° 48' 28' N., and long. 82° 14' 40' E. It is now a small town of 7518 inhabitants; but it is celebrated in all Hindu poetry as founded by Ikshwaku, the first king of the Solar dynasty. Making every allowance for exaggeration, it must have attained great splendour long anterior to Rama; and it was for many years the seat of sovereignty of the princes of the Solar line. Overgrown greatness characterized all the ancient Asiatic capitals, and that of Ayodhya was immense. In the Ramayana (book i. chap. v.) it is thus described: 'On the banks of the Sarayu (Sarju) is a large country called Kosala, gay and happy, abounding with cattle, corn, and wealth. In that country was a famous city called Ayodhya, built formerly by Manu, the lord of men. A great city, twelve yojanas in extent, the houses at which stood in triple and long-extended rows. It was rich, and perpetually adorned with new improvements. The streets were well disposed and well watered. It was filled with merchants of various descriptions, and adorned with abundance of jewels; crowded with houses, beautified with gardens and groves of mango trees, surrounded by a deep and impregnable moat, and completely furnished with arms.' In the Sakuntala (Act vi.) Ayodhya is called Saketa. The country of which Ayodhya (now Oudh) was the capital, and Rama the monarch, is termed, in the geographical writings of the Hindus, Kosala, doubtless from the mother of Rama, whose name was Kosula. Rama was born here. The first royal emigrant from the north is styled, in the Rama's archives, Kosulaputra, son of Kosula.

The identity of Saketa and Ayodhya has, in General Cunningham's belief, always been admitted. At the present day, the people point to Ram Ghat and Guitar Ghat as the eastern and western boundaries of the old city; and the southern boundary they extend to Bharatkund, near Bhadarsa, a distance of 6 cos. There are mounds of ruins, broken statues, and sculptured pillars, such as mark the sites of other ancient cities, but only a low irregular mass of rubbish heaps, from which all the bricks have been excavated for the houses of the neighbouring city of Fyzabad. Kosala is famous as the early home of Buddhism and Jainism, and claims to be the birthplace of the founder of both these faiths. When visited by Hiwen Thang in the 7th century, it had twenty Buddhist temples, with 3000 monks, among a large Brahmanical population.—Toil, Journals, i. 215; Williams' Nalu, 114.

AYOTHIA, the old capital of Siam. It was founded A.D. 1351, but was devastated by the Burmese in 1751, and Bangkok became the royal residence. The native name of Ayothia was Sijon Thejan, meaning terrestrial paradise.—Boering.

AYUB, of the family of the Ayubi, the ancestor of Abul Fada, sovereign prince of Syria. Ayubi is the tribal name of the family to which Salah-ud-Din (Saladin) belonged. See Abul Fada.

AYUL. For nine or ten months, this disease renders the Terai dangerous to man, so deadly are its effects even to the natives of the country.—Olivphant, Journey, p. 39.

AYUN MUSA, Arab., the Wells of Moses, are eight miles down the Red Sea from Suez on the eastern shore. Ain (Ayun, pl.) means a natural spring, and differs from the Ber or Bir, Arab., a cistern to hold rain-water. Jacob's well, Beer Yakub, or Bir us Samariah, is 9 feet broad and more than 70 feet deep. In 1855 it still had the stone over its mouth (John iv.).

AYUR VEDA. The oldest known medical book of the Hindus. Its date is supposed to be about that of Menu Code, or B.C. 900? The author is unknown, and only fragments have come down to us. Amongst Hindus it is regarded as one of the Upan-Visas or Supplemental Veda, and in their mythology is said to have been produced by Brahma or from Siva. Its name is derived from 'Ayus,' signifying the period of living, and 'ved,' to know, intended to teach the proper manner of living in this world, by preventing and curing diseases. It is said to have consisted of 1000 sections, of 100 stanzas each, or a lakh of verses (Sloka), but Brahma abridged and arranged it into eight parts (tantras):—

1. Salya, surgery.
2. Salakya, external ailments above the clavicles; diseases of eyes, nose, mouth, ears.
3. Kaya chikitsa, diseases affecting the whole body—the practice of physic—as fevers, dysentery, mania, diabetes.
4. Bhutavibhita, mental ailments, demoniacal possession, to be removed by prayers, offerings, medicines.
5. Kauamara bhritiya, infantile ailments and nursing.
6. Agala tantra, antidotes for poisons.

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7. Rasyana tantra, chemistry, alchemy, medicines to cure diseases in general, and restore youth.

AYUSH, the Veda descriptive of the art of music. See Vidya. Ayudha-Puja, instrument worship. Ayugma Chadda, also Ayugma Parma, Sansk., Alstonia scholaris, R. Br.

AYYAM. Arab. Season, period. Ayyam-i-nahar, season of sacrifice. Ayyam-i-gur, day of rest.

AYYAN-KERE, also called Dodda Madaga Kere, an artificial lake studded with islands, and 7 miles in circumference, at the eastern base of the Baba Budan hills, said to have been formed by Rukmangada Rayya, about the 13th century.—Imp. Gaz.

AZAD. Arab. Solitary or free. A class of Mahomedan devotes.


Ka-ma-s-p, Sank. Takanahwa, Sing.

Ko-lie-ha-sha, Chin. Tetkohomba, Singh.

Asha leaved tree, Eng. Vepam maram, Tamil.

Indian lilae, Teln. Vepa, Yepa, Nims.

This beautiful tree is found in Ceylon, throughout India and Burma, and in some localities attains a large size. It yields a compact, hard, heavy, durable wood; when old, difficult to work, but beautifully mottled, and deserving attention for ornamental purposes. It is well fitted for shipbuilding and carts. Some samples exhibited by Mr. Rohde at the Madras Exhibition equalled the best fancy woods, and some of the finest furniture he had seen was from an old margosa tree. It is used for cart wheels, and in bare districts of the Bombay Presidency, for building and agricultural purposes. It would be of importance to increase this tree throughout the country. It comes into full foliage in the very midst of the hot weather. Every part of the tree is bitter; and its leaves, bark, seeds, and the oil from its seeds (karwa tel or bitter oil) are largely used in native medicine. Its leaves are applied to leech bites and blisters; also to promote the flow of the breast milk. The bitter oil of the fruit is a valuable anthelmintic; the seeds are used in the destruction of insects. The leaves, beaten into a pulp, and thus externally applied, act as a charm in removing the most intractable forms of pox and other pestilential eruptions. A decoction of the leaves is used for cleaning foul ulcers, and leaves are used for making poultices. The oil from the seed is used to kill vermin in the hair, and, mixed with illupu oil, it forms a hard vegetable wax. The bark has been recommended in fevers, but is only a bitter tonic. The tree is veneered by the Hindu people, who, regarding the small-pox as a goddess, employ the leaves in that disease, and, as with the shrew ash tree in England, it is often resorted to by the friends of the insane, who beat the sick person through a cleft of the tree, or through a stem which, having parted and reunited, forms a circular opening.—Roxb.; Voigt; Wright; Mr. Rohde; Cornish; Gibson; Elliot; C. Ez., 1862; Royce; Clegh.

AZALEA, a genus of plants yielding fragrant flowers. They are much cultivated in China, where A. alba, Indica, lateritia, Phoenicea, the yellow Azalea Sinensis, and A. variegata, cover the hill-sides, at least 1500 feet above the level of the sea. Few can form any idea of the gorgeous and striking beauty of these azalea-clad mountains, where, on every side, as far as the eye extends, the eye rests on masses of flowers of dazzling brightness and surpassing beauty. Nor is it the azalea alone which claims our admiration; clou de aises, wild roses, honeysuckles, the Glycine, and a hundred others, mingle their flowers with them. High up on the gorgeously painted hill-side grow the lovely Azalea Sinensis, with its colours far more brilliant, and its tusses of yellow flowers much larger, than they are ever seen in any exhibition in Europe.

A. aurantiaca has a great abundance of white, orange, purple, scarlet, and variegated flowers.
A. indica, Linna., is a bush two to six feet high, with drooping branches and purple and variegated flowers.
A. ledifolia, Hooker, has two varieties, the royal purple and the Phoenicean.
A. obtusa is highly prized by the Chinese for its brilliant, dazzling flowers.
A. amoena, Fortune, has a profusion of small, semi-double pink flowers.
A. ovata, Lindley, covers the hill-sides of Chin up to 1500 feet.
A. procumbens grows profusely on the hills in Hu-peh and Kiang-si, and is called Lau-hu-hw or Gan-chih-chuh.
A. pontica, called Hwang-tsu-kiuen, is very poisonous, and the smell of its fresh flowers is injurious.—Fortune's Residence; Fortune's Wanderings; Eng. Cye.; Riddell.

AZAMGARI, a revenue district in the Benares division, of 2665 square miles, and a population of 1,531,482 souls. It is well cultivated, but with many unais or reh patches. Its principal river is the Gogra (Ghagra), called also the Sarju or Sarvy, and the Debhi or Debra. The aboriginal inhabitants are the Rajbar, Siir, Sengaria, and Chara. But Rajput castes it from the Bhuih, a race known as the Bhuinhar followed, and as the Rajputs. The Dehli emperors took possession, but were expelled by the Dehli Raghash, and then again by the Tana Rajputs. It again became Dehli and Ooty territory, and finally British in 1801. The people are Brahmans, Kalabriya called Thakur, Bhuih, the Kuri, Kachi, and Lohla agricultural proprietors, with Arak, Chamar, Dom, and Pasi.

AZAN. Arab. The Mahomedan summons of prayer, proclaimed by the Muzaan. It is different from the ordinary call, and is peculiar to every orthodox Mahomedan nation. The Muzaan, with his face to Mecca, for the five daily prayers—

1. Allah ho akbar (four times).—God is great.
2. Ash-had-do-an, la-ilaha il-lil-la-ho (twice).—I bear witness there is no deity but God.
3. Wa ash-had-do-an, Mahomed-un-Rasul ol lahi (twice).—And I bear witness that Mahomed is the messenger of God.
4. Hy ul as-salwast (twice).—Come enliven your prayers.
5. Hy al ul Fallah (twice).—Come for refuge to the asylum. (Come to salvation.)
6. Us-sal-la-to khyrun min nun-nown (twice in the morning prayer).—Prayer is better than sleep.
7. Allah ho akbar, La-ilaha il-lil-la-ho (once).—God is great. There is no deity but God.
The Azan is proclaimed from the minaret of
AZAREH.

HIND. Achryanthes aspera.

AZEBIJAN, the chief commercial city of Persia. It owes its flourishing state to its position on the long-established route by which the goods of Great Britain and Europe are conveyed from the Euxine port of Trebizond, through Turkish Armenia by way of Erzerum, to supply Persia and Central Asia.

AZERBAIJAN, n.c. 130, one of the conquering Scythian kings, on whose coins are bilingual inscriptions, with plain, distinct Greek characters. In Ariam, Maharajasa Raja Rajaja Mahatasa Ayasa. The figures on the coins are various. Professor Wilson thinks he was an Indian Buddhist king, about B.C. 50. Professor Lassen regards him as a Saci Scythian, who conquered the Kâbul valley in the time of the second Mitridates, and finally destroyed the kingdom of Menander and Hermeus in about B.C. 120. He considers he was succeeded by Azilises, B.C. 115, who reigned with the same titles as Azes. On one coin the name of Azes is on the Greek obverse, and that of Azilises on the Bactrian reverse.

AZFUR ZUKKUM. AR. Euphorbia tortilis.

AZHZADAHA. PERS. A dragon. A rock in the valley of the Logar river, in the Hazarajat of Afghanistan, supposed to represent a pterified dragon slain by Ali.

AZIM. ARAB. Great. The word is part of the Arabic verb 'azm,' he was great; other parts of this verb are frequently met with wherever Mahomedans are spread, in the names of towns, of individuals, and in titles, such as Azim-ghrur, Azim-pur, Azim Jah, Moazzam-ud-Dowla, literally the Honoured of the State. Azim-us-Shan, splendid; Azim-ud-Dowla Bahadur.

AZIZ, the thakollus or literary name of Khan-i-Aziz, a man of great learning and a poet at the court of the emperor Akbar. He was the foster-brother of Akbar, and one of his best generals. He had been long absent from court, in the government of Gujerat, and his mother prevailed on Akbar to invite him to court, but he excused himself, and it appeared that his real objection was to shaving his beard and to perform the prostration. Akbar wrote a good-humoured remonstrance, but Aziz persevering, Akbar sent him a positive order to come to the capital, on which Aziz threw up his government, and, after writing an insolent and reproachful letter, in which he asked Akbar if he had received a book from heaven, or if he could work miracles like Mahomed, that he presumed to introduce a new religion, warned Akbar that he was on the way to eternal perdition, and concluded with a prayer to God to bring him back into the path of salvation; he embarked for Mecca without leave or notice. In a short time, however, he found his situation in that country irksome, and returned to India, where he made his submission, and was restored at once to his former place in the emperor's favour and confidence. —Elph. pp. 468-473.

AZKHAR. HIND. Anthropogon iarwancusa.

AZMA. GUJ. Ajwain seed.

AZMEI. PERS. Erya bovi.

AZORELLA SELAGO, one of the Umbrellifer of the islands of the South Pacific. It forms hummocks.

AZRAIL. ARAB. The angel of death.

AZUN. MAHR. Terminalia arjuna.

AZURE STONE, or lapis-lazuli, is said to be found massive with iron pyrites amongst the Ajmir hills, especially the N-pushar range. This stone is sold by all 'attars,' both as a medicine and a pigment. The native name in Ajmir is 'laj-wurd.' —Gen. Med. Top.

B

B. This consonant has letters with corresponding sounds in Arabic, Persian, Urdu, Sanskrit, Hindi, Marathi, Gujar, Bengali, Urya, Telugu, Karnata, Tamil, and Malasiam; and in all but the Tamil tongue the English bh is also represented. In the languages of different races, b, v, w are interchangeable letters; in Bengali, for instance, Valayat, a foreign country, becomes Balat; and the b of the Arabic and Persian is changed to f or ph in several of the Indian tongues.

BA. PERS. With, possessing; thus, ba-ulad, with offspring.

BAAL. and Astarte, the two chief divinities of Phoenicia, were unquestionably the sun and moon, which are still worshipped by all Hindus; and the minor deities appear to have represented objects of astral worship. Baal was Baal semen, lord of the heavens or sun. Bel, the chief god of the Babylonians, was also the sun. Baal, Bel, Belus, the sun, or lord of the heavens, almost assimilates in character and attributes with Kronos, Ouranos, Moloch. But, in time, Baal began to be regarded as the supreme lord, and the sun, in its physical character (2 Kings xxvii. 5), was worshipped separately; the Jews and the Israelites paid homage to the sun. The sect of the Esseniim everyday saluted the rising sun, and invoked him in the morning to appear. The Bible expressly forbids this idolatry, and commanded those who were found guilty of adoring the sun and the moon to be stoned (Deut. xvii. xviii.). In the book of Kings, chap. ii., this idolatry is related as the principal cause of the ruin of the kingdom of the Jews. Plutarch endeavoured to destroy this worship among the Greeks. He says, in his book of Isis and Osiris, that the elements are not to be adored; neither the sun nor the moon, because they are only mirrors in which may be seen some trace of
BAALBEC.

The Infinite Wisdom of the Creator, who has made them so brilliant and beautiful. The Brahmans and Hindus of India to this day address prayers to the sun every morning. Many explanations and interpretations are given of the meaning of the celebrated Gaithri Mantram, the text of the Veda used when initiating a young Brahman into the order, but that it is addressed to the sun, under the name of Savitri, there is no doubt; and much of the Hindu worship has an astral origin; and there are many ancient and modern sun temples. Every day, too, the whole Parsee race worship this luminary.—Bunsen, Egypt, iv. 350; Sonnerat’s Voyage, pp. 76–77.

Baalbec, the Ba-alith of Scripture, the Heliopolis of the Greeks, the City of the Sun, now a small Arab hamlet, but famed for its ruins. The place is built on the lower slopes of the Anti-Libanus, 43 miles N.W. of Damascus, in lat. 34° 11′ 30″ N., and long. 36° 11′ E. The date of its origin is unknown, but Antoninus Pius built one great temple. The city passed successively beneath the rule of the Persians, Greeks, and Romans, and was plundered by the Arabs in A.D. 748; suffered under various assailants during the crusades, and was sacked and dismantled by the Turks under Tamerlane A.D. 1400. But its name is handed down in the labour catches of the Madras Mahomedans; ‘Ya, Ali! ya, Baalbee! ya, Rasul Allah!’ are still heard. The temples of Baalbec stood upon an elevated platform raised 30 feet above the plain, having immense vaults underneath. Three of the stones in this foundation are each 63 feet long by 15 wide, and 13 deep. On the platform stood three temples,—the temple of the Sun, the temple of Jupiter, and the Circular Temple. The largest of these, the temple of the Sun, was 290 feet long by 160 feet broad, surrounded by fifty-four Corinthian columns 75 feet high, and 7 feet 3 inches in diameter at the base. A few only of these immense columns now remain. The space covered by these ruins is only 900 feet long by 600 feet wide. The magnificence and magnitude of the columns and the Cyclopean masonry have been the wonder of the world.

BAALIT, i.e. mistress, queen; the wife of the Egyptian Adonis. Identical with the Greek Hestoreth, Astarte.

BAALUT. Arab. An acorn.

BAATO. Malay. Black trepang.

BAB. Arab. A door. Bab Allah, ‘the gate of God;’ one of the gates of Damascus, so called from being that through which the Haj or pilgrim caravan passes on starting for Mecca. Bab-al-Ali, the sublime door or porte; the chief office of the Ottoman government; the respectful mode of designating the emperor of Turkey.

BAB. Arab. A section, a chapter of a book; a heading of accounts. Babat, an item of account.

Babati, revenue, a cess.

BABA, a title applied to Sikh ascetics. Both this and the titular designation Shah (King) were frequently employed by the Sikh historians when speaking of their founder. They even style him Nanak Narinkurn, or Nanuk the Omnipresent.—Malcolm; MacGregor’s Sikhs.

BABA, a term applied to the descendants of Oody Singh, raja of Mewar. He lived for four years after the loss of Chitore, and expired at Gegoonda, aged forty-two. He left a numerous issue of twenty-five legitimate sons, whose descendants, all styled Ranawut, pushed aside the more ancient stock, and form that extensive clan distinctively termed the Baba, or ‘infants’ of Mewar, whether Ranawut, Purawut, or Kanawut. His last act was to entail with a barren sceptre contention upon his children, by setting aside the laws of primogeniture, and proclaiming his favourite son Jugmait his successor.—Tod.

BABBASA. Tel. Hydrocotyle rotundifolia.
BABEER, the papyri antiquorum; it grows in the marshes of Egypt, and in the stagnant waters of the Nile.—Hogg's Veg. King, p. 806.

BABEGAN, the surname of Ardeshir.

BABEL of Scripture is the Babiru of the cuneiform characters, and the Beber of the Egyptians. Its age is uncertain, but, according to Genesis, it is older than Assur and Nineveh (Gen. xi.). The tower was a watch-tower, a fortified observatory or rallying place, in the midst of a great plain; and there can be no doubt that there was a tower of Nimrud in the early times before the Chaldean period. This tower is connected with the decline of the kingdom of Nimrud, and the dispersion of nations.—Bunyan's Bible, iii, pp. 182, 451, iv. pp. 373, 414. See Babylon; Kusra.

BABER was born at Farghana, on the Jaxartes, A.D. 1482. His name was Zahir-ud-Din Muhammad. He was, on his father's side, sixth in descent from Timur, and his mother was a Moghulian. His father, Umar Shaikh Mirza, a Chaghatai Turk, was the fourth son of Abu Said, whose extensive dominions were shared amongst his sons. He died, A.D. 1494, when Baber was only 12 years old. In 1497, Baber, after more than once failing, conquered Samarcand, only to lose it again after a reign of 100 days, and he was driven from it by his native kingdom. In 1499 he again recovered Samarcand and Farghana, only again to lose both of them, and he took refuge in the inaccessible mountains to the south of Farghana. From this, with 240 men, he set out for Samarcand, scaled the walls at night, and took the city, and all Sogdiana then declared for him. But he was again totally defeated and driven within the walls of Samarcand, by Shaibani Khan Uzbek; and, after sustaining a four months' siege, during which many of the inhabitants perished from famine, and the soldiers deserted, Baber evacuated the town. He passed nearly two years in the utmost poverty and distress, but again recovered Farghana, again to be driven from it by the Uzbeks; he was made prisoner, and with the utmost difficulty recovered his freedom. The whole of Transoxiana, except that annexed to Bactria, fell into the hands of the Uzbeks, and Baber bade a last farewell to Farghana, and set out to try his fortune beyond the range of the Hindu Kush. After all that he had done and suffered, Baber was yet only in his twenty-third year; adventurers gathered round him, and at the head of a well-equipped army he advanced on Kâbul, of which he took possession, A.D. 1504, without opposition. The next years were passed in the conquest of Kandahar, in expeditions into the mountainous regions of the Afghan and Hazara, and in a dangerous journey to Herat, to concert measures with that branch of the house of Timur for their common defence against the Uzbeks. On these occasions he underwent the usual risks, and more than the usual hardships of war, and had once nearly perished in the snow during a winter march through the mountains of the Hazaras. In A.D. 1506, his brother Jahangir revolted, was subdued and pardoned; next year, 1507, the Moghul troops set up one of his cousins as king, and he also was defeated and pardoned. In 1508, he had to meet a conspiracy amongst the Moghuls, who planned to seize Baber, and raise Ablîr Razak to the throne; but Baber by his personal courage and exertions retrieved his affairs. And when Shaibani Khan, in 1510, was defeated and slain by Shah Ismail Safavi, king of Persia, Baber made an alliance with Shah Ismail, retook Bokhara and Samarcand, only to be again defeated; and in 1514 he had lost all his possessions but Bactria, and he now turned his attention to India, claiming the Panjab as part of the conquests of Timur.

He was reigning at Kâbul when Daria Khan Lodî was proclaimed king, but Daulat Khan Lodî, governor of the Panjab, revolted, and called Baber to his aid. Baber totally defeated a combination of Afghans near Lahore, and that city was reduced to ashes, A.D. 1524, A.H. 930; Dibalpur was stormed, and the garrison put to the sword. Daulat Khan joined here, but after wards revolted, and Ala-ud-Din fled to Kâbul, while Baber was defending Balkh against the Uzbeks, and he sent Ala-ud-Din to India with orders to his own chiefs to assist him. Ala-ud-Din advanced to Delhi with 40,000 men, but was totally defeated. Baber at this time had settled Balkh, and had returned to Lahore. He followed Daulat Khan into the hills, and obtained his submission, and then continued his route through the hills to Rupur on the Sutlej, above Ludhiana, and moved from thence nearly by the direct road to Delhi. At Panipat he was met by Ibrahim Khan Lodî with a force of 100,000 men and 1000 elephants. The Indian troops fell into disorder, were completely routed, and Ibrahim was killed. Baber estimated that 15,000 or 16,000 lay dead on the field; and the Indians reported that not less than 40,000 perished in the battle and pursuit (21st April 1526). Delhi surrendered (10th May 1526), and Baber advanced and took possession of Agra. After taking Agra, he distributed the captured treasures to his adherents. He gave his son Humayun a diamond, which was esteemed the finest in the world; and he sent a present of one Shah-Rukhi to each man, woman, and child, slave or free, in the country of Kâbul. He occupied the district to the N.W. of Delhi, with a narrow tract along the Jumna to Agra, and Humayun subdued all the provinces ever possessed by the house of Lodî, including the former kingdom of Juânpur. The last places that submitted were Biana, Dholpur on the Chambal, and Gwalior beyond that river (July to October 1526, A.H. 932). He next subdued the combined forces under raja Sanga of Mewar, and fought and won the battle of Sikri on the 16th March 1527, A.H. 13, Jamâdi-ul-Sani 933, and afterwards reduced Mewat. About the beginning of 1528 (A.H. 934), he marched against Medni Rai, the Rajput chief of Chandeli. On the second day of the siege, the garrison gave up all for lost; they put their women to death, and rushed forth naked, not to conquer, but to die. They drove to the Mahomedans before them, leaped over the ramparts, and continued their charge till destroyed; 200 or 300 had remained to defend Medni Rai's house, most of whom slew each other, each contending who should be the first victim (20th January 1528). During this siege he heard of a rebellion amongst Afghans in Oudh, and he seems to have driven

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BABER.

them into Bengal, taken Behar, and obtained the cession of the fort of Rintambor from the second son of raja Sanga. He subsequently moved against Sultan Mahmud, king of Bengal, who vainly attempted to defend the passage of the Gogra, and he sent a force in pursuit of a body of Afghans, who were destroyed in Bundelkhand. As Baber’s health had been on the decline, intrigues were got up as to the succession. Humayun left his government of Badakshah without leave, but was affectionately received by Baber. Humayun, however, fell very sick, and Baber carried out the superstitious custom of taking the ailment on himself as a self-sacrifice, by walking three times round his son’s bed. This he did solemnly, then knelt in earnest prayer, and rose exclaiming, ‘I have borne it away, I have borne it away;’ and so powerful was the impression on his own and his son’s minds, that the son began to mend, while Baber declined. In the midst of intrigues, he died at Agra, 20th December 1530, a.p. 507, in the 50th year of his age. The last words he said to his son were his desire, at Kâbul, in a spot about a mile from the city, selected by himself, to him the choicest in his wide dominions. It is a brick building. A running and clear stream yet waters the fragrant flowers of the cemetery, which is the great holiday resort of the people of Kâbul. In the front of the grave is a small but chaste mosque of white marble; and overlooking the tomb is a hill from which is a noble prospect. He was the most admirable, though not the most powerful, prince that ever reigned in Asia. He kept a diary in the purest Turki tongue, the Tuzak-i-Babari, or Wakiat-i-Babari, which has been translated by Mr. Erskine and Dr. Leyden; and his memoirs contain a minute account of his life. The unsettled nature of his life is shown by his observing, near the end of it, that since he was eleven years old he had never kept the fast of the Persian Sunæ or one day; yet he found time to compose many elegant Persian poems, and a collection of Turki compositions are mentioned as giving him a high rank among the poets of his own country. He left four sons,—Humayun, Kamran, Hindal, and Mirza Askari.

Baber’s army, when invading India, had a large number of the Kipechak from Andijan. The Kipechak are part of a family scattered all over Central Asia; and there are Kipechaks amongst the Uzbak and Kara Kirghiz. Their country lies between the Naryn and the Kara-darya. They have ever been a brave race. Baber spoke and wrote in the Chaghatai Turki, and that language continued in use at court until a late period. There were, however, two races, two languages, and two sorts of religions, in that court,—the nobles of Turan and of Iran, of Tartary and of Persia. The former were of the Sunni sect; the latter of the Shiæ sect, and spoke Persian. In the later days of the empire the contentions between these two sects were a cause of its weakness. He founded the long line of kings under whom India, in the 17th and the 18th centuries, rose to greatness. His reflections on success evince it was his due. ‘Not to me, O God! but to thee be the victory!’ says the chivalrous Baber. He obtained a translation of the Christian Scriptures; and his grandson Akbar, who in A.D. 1556, at the age of fourteen, ascended the throne, invited a party of Christian missionaries to his court. Amongst the princes from the Jaxartes are historians, poets, astronomers, founders of systems of government and religion, warriors and great captains, who claim our respect and admiration. Were we to contrast the literary acquirements of the Chaghatai princes with those of their contemporaries of Europe, the balance of lore would be found on the side of the Asiatics, even though Elizabeth and Henry iv. of France were in the scale. When not at war, he was travelling or hunting. On his last journey, when his health was failing, he rode 160 miles in two days, from Calpi to Agra, and swam across all the rivers in his route. He occupied himself largely in making roads, reservoirs, and aqueducts, and paid great attention to the introduction of new fruits. He was a poet, a historian, and a musician; elegant yet free in his manners, easy of access to his subjects, and fond of social enjoyments. He was an enthusiastic admirer of nature; and his memory dwelt on his native stream, the valley of Farghana, which the Uzbek Tartars had seized. —Elip.; Baber's Memoirs; Burves' Travels; Elliot's Hist. of India; Brigg's Periška; Tod's Rajasthan.

BABI, a sect founded by Syud, or Mirza, Ali Muhammad. He was born at Shiraz. His father was a merchant, who sent his son, when fifteen years of age, to study theology at Najaf. He settled for a short time at Abushahr as a merchant, but discontinued that and became a dervesh, and settled at Kazanim, near Baghdad, where he claimed to be a prophet, and assumed the title of Bab-ud-Din. Many people became his followers, and he was repeatedly imprisoned, and finally was shot at Tabrezz about A.D. 1550, and the sect largely destroyed. His doctrines were atheistic, under the guise of pantheism. Many Mulla and Mushtahid joined him. The title of Bab-ud-Din (door, porte, of the faith) was assumed to imply that he or his native shores were the way or gate to heaven. There are many of this sect in Baluchistan, settled at Kalat and Shal for purposes of traffic. Pottinger says of these: ‘The appearance of the Babi merchants is rather prepossessing; stout, well-made men, with good features.’ —Pottinger's Travels; Shiel, quoted by MacGregor.

BABI, an Afghan tribe.

BABI. MALAY. Hog. Babi-Alu, Tapirus Malayanus, Raffles. Babirusa alfurus, the Babirusa hog of the islands of the Archipelago; its eastern limit is Buru.

BABIKU, of the cuneiform characters, is the Babel of Scripture.

BABU-RUNG. BENG. Embelia ribes.

BABISARN. MALAY. Morus Indica.

BABLAH, also Neb-Neb. ARAB. The rind of the fruit of the Acacia ferruginea. It is used as a substitute for the more expensive dye-stuffs, and for commercial shirting of dyes to cotton. Also A. Arabica in Bengal.—Faulkner.

BABOO, amongst the Hindus, a respectful appellation equivalent to the English ‘esquire,’—your worship; or ‘your reverence,’—or to the Mahomedan; hazzat. It is still not infrequently applied to Europeans when addressed by a Hindu. In Calcutta, a baboo is a Hindu engaged in mercantile business, a native clerk who writes English; in Gorakhpur, any man of family or influence; in Benares, the near relatives of rajas.
BABOON.  

Quadrumanous mammals of the sub-family Papioninae. One has received its Latin name, Cynocephalus, from the dog-like shape of its head; also species of the genera Papio and Cercopithecus.  

BABBA, three marches from Jeypore, on the road to Dehli, has one of the edicts of Asoka on a block of rock on a hill, in old Pali, and of date a.c. 309. It is in the oldest Lat character. It differs somewhat in style and language from the pillar and rock edicts. The subject is the Buddhist commandment forbidding the sacrifice of four-footed animals. The Vedas are alluded to, but not named, and condemned as 'mean and false in their doctrine, and not to be obeyed.' The Scriptures of the Muni (which must be the Vedas) are spoken of as directing blood-offerings and the sacrifice of animals. Priests and priestesses, religious men and religious women, amongst the Buddhists, are commanded to obey the edict, and bear it in their hearts.—J. B. A. S. ix. p. 617.  

BABRI. Hind. A kind of peach.  

BABRIA, a tribe of Hindu cultivators in Kattyawar, giving their name to Babriawar. They have 72 divisions. It is one of the five southern districts of Kattyawar; its people, the Babria, are said to be the offspring of an Ahir with a Koli woman. See Kattyawar; India.  

BABUA, Sansk. Cordia myxa.  

BABU-TULSI. Beng. Ocimum basilicum.  

BABUL or Baboo, a Hindi word, applied as a generic term to some species of Acacia. The Babul proper, A. Arabica, in Sind is very abundant, grows to a large size, and is exceedingly hard and heavy. For agricultural implements and all native purposes, it is excellent. It was much used by the Indus Flotilla for paddle flats, rudders, stanchions, and boats' knees—in fact, for every purpose to which good wood can be applied. Its bark is employed in tanning, its pods form a valuable food for cattle; its young branches are the favourite food of camels and goats, its bark yields gum and lac; and for all these articles—wood, bark, pods, gum, and lac—a sale is always found. Drs. Gibson and Cleghorn have strongly advocated the extension of this tree by plantations; and sites indicated as suitable are the banks of the Indus in Sind, the Tumbudra, Bhima and Moota Moole, the Belhary, Nuggur, Ahmadnagar, Sattarah, Kuteh, and Kattyawar districts. Babul gum, largely produced, and well known in commerce, is the product of the Acacia arabica. It is largely used in India as a substitute for the true gum arabic, the produce of the Acacia vera.—M. E. Jur. Rep.  

BAB-ul-MANDAB, a strait at the entrance of the Red Sea, between Africa and Arabia, formed by Ras Sejan on the Abyssinian shore, and Ras Bab-el-Mandeb on the Arabian shore, the distance from point to point being 14½ geographical miles, but divided into north and south parts by the island of Perim. The north or small strait is 1½ mile in breadth, and it is formed by Perim and Pilot Island, a small rocky islet half a mile distant from Ras Bab-el-Mandeb, the soundings being 8 to 16 fathoms. The south strait is formed between the south point of Perim and Ras Sejan, and is 11½ miles in breadth, with soundings in mid channel at 100 to 185 fathoms. On the N.E. side of the entrance to the Red Sea, a prominent headland, with low land behind it, has the appearance of an island. Quoin Hill, Jabal Mia Aliy, is 865 feet high, and slopes towards the sea. Bab-el-Mandab is an Arabic term, meaning the gate of affliction, supposed with reference to the dangers which were anciently encountered in its navigation. It is the limit of the Turkish possessions to the north.—Findlay's Horsh. ; Playfair.  

BABUNAH, Pers. Anthropophagorachis. A chamois. Its root, under the name of Bombay-Surkh, is taken as an aperient and general tonic; sells at 1 rupee a seer.—Gen. Med. Top. of Ajmir, p. 128.  

BABU-PHALI. Hind. Species of Corychus; C. olitorius, depressus, acutangula.  

BABURI. Jhelum. Mentha Royleana, Benth.  

BABYLONIA. This ancient sovereignty comprehended a narrow tract along the river Euphrates, extending from the neighbourhood of Erech, the modern Warka, or from about the modern town of Seikh-ul-Shuyukh, to Babel, a distance of about 154 miles in a direction westward of north, and continuing from thence 287 miles further in the same direction to Kalneh, the modern Niffer, on the Khabur. The dominion extended eastward till it joined Assyria, including Akkad, and two other cities no less remarkable. One of them bears the name of El Kush, extensive ruins about 11 miles E.E. of Felujah; and the other is the proposed site of antediluvian Sippara, Siferah of the Arabs (Liet. Lynch), which is within the Medina wall, near the southern extremity. The greater part of what was called Mesopotamia in latter times, constituted, therefore, the territory of ancient Babel, the Aram Naharain, or Syria between the rivers, of Gen. xxiv. 10; Deut. xxxii. 4. The same tract also bore the name of Padanaram (Gen. xxxviii. 2), or Champagne Syria, both of which designations agreed with the description given of the country by Strabo. Babylonia is the modern Iraq-i-Ajam. Much light is being thrown on the history of this ancient and ruined city, its dominions, and its rulers, by the researches of learned men, who have been deciphering the cuneiform inscriptions found in the ruins of Nineveh. But the beginning of Chaldean history is lost in fabulous antiquity. Ten kings, whose reigns are stated to have occupied 432,000 years, are enumerated as existing before the flood; while in the ages that succeeded that event, a maritime race, described as strange composite creatures, half men, half fish, are made to ascend from the ocean to teach the tribes of Babylonia the rudiments of civilized life. Later legends, too, brought the instructors of Chaldea, in art and science and writing, from the waters of the Persian Gulf. At a very early epoch, the occupants of Chaldea, the 'Sumirians,' were conquered by the Akkadai, 'highlanders,' their kinsmen in speech, from the mountains of Elam, and the country became divided between the newcomers in the south, and the old population in the north. And it is probable that to the Akkadians is due the invention of the picture writing out of which the cuneiform characters were to spring. The earliest historical princes, however, whose inscriptions have come down to us, are those of Ur, on the western bank of the Euphrates. Here was the seat of the first monarchs of all Chaldaea,
who assumed the imperial title of 'kings of Sumir and Akkad.' The fall of the supremacy of Ur, and the final overthrow of Akkadian rule, seems to have been the result of a Semitic invasion. Assyria had become an independent monarchy in the 17th century B.C. About 1270 B.C., Tiglath-Pedar captured Babylon, and founded there the dynasty which Berosus, the Chaldean historian, called Assyrian, and for a time Assyria and Babylon were under the sway of one sceptre. Tiglath-Piileser I., whose date is fixed by later inscriptions at B.C. 1120-1100, is depicted as having made many conquests, and left a model for all future Assyrian kings to follow. The empire was handed down in succession from father to son, and established by the conquests of Assur-Nazir-bal and Shalmaneser II. in the 9th century B.C. But it was an empire of mere military occupation. No attempt was made to amalgamate the countries that had been subdued; and so soon as disorder broke out in Assyria, or when the monarch ceased to be a man of action, the empire was contracted to the neighbourhood of Nineveh itself.

The second Assyrian empire owed its origin to Tiglath-Piileser II., who seized the throne in B.C. 745, and inaugurated that system of satrapies which was afterwards perfected by the Persian Darius. Founded by a usurper, it was perpetuated by usurpation and murder. Its first three rulers, Tiglath-Piileser, Shalmaneser, and Sargon, were all successful generals unrelated one to the other. Tiglath-Piileser as well as Shalmaneser were probably assassinated; the inscriptions show that such was the fate of both Sargon and Sennacherib. Esar-Haddon ended by abdicating: while it was under his successor, Assar-Bani-pal, that the great revolt broke out which ushered in the decline of the Assyrian empire that had extended from the borders of India to Lydia and Nubia, had penetrated into the heart of Arabia and the Caucasus, and had made the ancient kingdoms of Babylonia and Egypt tributary provinces. Some interesting fragments of tables appear to relate to the closing period of the Assyrian empire. It was attacked by a great coalition of tribes from the north, its armies defeated, the frontier cities taken by storm, Nineveh itself fell, and its king, Esar-Haddon, the Saracens of the Greek writers, perished, if we may trust classical tradition, on the funeral pile of his own palace. With him fell the second Assyrian empire, after an existence of less than a century and a half.

George Smith gives from the inscriptions the following lists of the Babylonian kings after the deluge:

| (a) For a mythical period. |
| (b) Kings of Ur. | B.C. 3000 to 2000 |
| (c) Verocoy. |
| (d) Elamite kings in Babylonia. | 2290 |
| (e) Kings of Larsa. |
| (f) Kings of Karkuk. |
| (g) Kings of Ereh. |
| (h) Kings of Agae. |
| (i) Kings of Babylon. |
| (j) 1st Cassite dynasty. |
| (k) Kings of Babylon, 2d Cassite dynasty. | 1700 to 1300 |

The first with an approximate date was—

Cara-Indas, about B.C. 1450 | Curi-gala II., B.C. 1380 |
Burna-Burus II., | 1430 Melishak II., 1350 |
Cara Murugas, | 1410 Merodach Baladai I., 1325 |
Nazi-Bugas, | 1400 Nazi Muradas II., 1300 |

Babylonia.

Babylonia.

Rimmon-Isu, | B.C. 1270 |
Zamana Zaciridin, | 1200 |
Cara Bursa, | 1150 |
Merodach Nadin-akhi, | 1100 |
Merodach Sapik Zurat, | 1097 |
Sadna, | 1080 |

Sukamuna, son of Zab, reigned 17 years. Hea-mein-Ziri, son of Cuitmar (a usurper), for 3 months.

Cassu Nadin-akhi, son of Sappai, for 6 years.

(2) Dynasty from the Persian Gulf.

Ulanz-Nadin-akhi, son of Zab, for 15 years.

Nebuchadrezzar II., son of Bazi, for 2 years.

Sukamuna, son of Bazi, for 3 months. After these an Elamite for 6 years.

Nebu Zazura-Isun.

Merodach Baladai II., his son.

Sarherin in Assyria.

Suxu, B.C. 890
Merodach Zacira-Isun, 883
Merodach-Baladan-II, 820
Nabu-Isin, 747
Nabu-Yusapi, 733
Udl-Urin, 731
Tiglath-Piileser (Porus), 729
Assyria.

Yagina, chief of the Caldai, 726
Merodach Baladan III., his son, 721
Sargon of Assyria, 709
Merodach - Baladan, restored, 704
Bel-ilmi, 703
Assur Nadin sumu, 709

Babylonia.

Suzub, B.C. 893
Esar-Haddon of Assyria, 881
Saul-mercu, 668
Assur-Bani-bal, 648
Bel Zacira-Isun, 626
Nabo-Palassar, 620
Nebuchadrezzar II., 605
Amil Merodach, 562
Nergal Sarra Yuturu, 560
Nabu-nahid, 558
Merodach sarra Yuturu, 541
Bel sar uzu (Bel suazar), 546
Cyrus, 538
Daruis, son of Hys-taspes, 522

George Smith says Babylon is first mentioned in the inscription of Izlubar, probably the Nimrud of the Semitic races, at the time when the Babylonian monarchy was being formed by the uniting of a number of little states. The great-block of buildings in it consisted of the temples of Merodach and Zirait-bani, and the accompanying Ziggurat or tower. The date of their erection is lost, but they were first restored by king Agor or Agor-Kak-Ilumi, and afterwards by king Hammurabi, who made Babylon the capital of the whole of the country somewhere in the 16th century B.C. Babylon was captured by the Assyrians under Sennacherib, B.C. 1271, and again by Tiglath-Pileser I., B.C. 1110. In the 9th century B.C. it was considered a great sanctuary, and Shalmaneser II., king of Assyria, came to Babylon to offer sacrifice to Bel, B.C. 851. Babylon was taken by Tiglath-Pileser II., king of Assyria, B.C. 731, who made himself king of the country, and performed a great festival to Bel B.C. 729-8. The city was captured B.C. 722 by Merodach-Baladai, the Chaldean, who held it twelve years, until expelled by Sargon, who in turn ruled the city. On the assassination of Sargon, the city passed through various revolutions, and was several times captured by the Assyrians, when, at the close of the last war between Sennacherib and the Babylonians, B.C. 694, the Assyrian monarch captured the city, and destroyed it. It was restored and rebuilt by
BABYLONIA.

Esar-Haddon, son of Sennacherib, but was once more besieged and captured by Assur-Bani-pal, king of Assyria, B.C. 688. Again the city revolted, and Babylonia was conquered by Sennacherib, B.C. 684. In this year, Nabu-pal-uzur, the Nabo-Polassar of the Greeks, who commanded the army in this war, was appointed king of Babylon, and at once commenced the restoration of the country. Some time later, he sent and made an alliance with the Medes, and, having revolted against Assyria, took Nineveh in combination with the Medes, and towards the close of his reign sent his son Nebuchadnezzar to conquer Syria. While his son was on this expedition, Nabo-Polassar died, and Nebuchadnezzar succeeded to his throne. He entirely rebuilt the city of Babylon, and made it the most magnificent city in the world. The tower and temple of Belus, the hanging gardens, the magnificent palaces, and the walls of the city, were all his work; and scarcely a ruin exists. In the neighbourhood without bricks bearing his name. A few years after the death of Nebuchadnezzar, the Babylonian power declined, and Babylon itself was taken by the Medes and Persians under Cyrus, B.C. 539. After one or two fruitless attempts at revolt, the city finally settled down under the Persian dominion, and on defeat of their power, passed to Alexander the Great. From this time, whatever changes happened in Asia, only brought a change of masters, and Babylon sank gradually, until the city became a complete ruin.

Its capture by Cyrus is related in Isaiah xlvii., Jeremiah xxv., and Daniel viii. Its power must have been much detested, if the expressions alluding to its fall be considered. Isaiah xxi. 2-9 says, 'Go up, O Elam; besiege, O Media; Babylon is fallen, is fallen; and all the graven images of her gods he hath broken unto the ground;' while Jeremiah says, 'Babylon shall become heaps, a dwelling-place for dragons, an astonishment and an hissing, without an inhabitant' (Jeremiah li. 37). When Babylon was beset by Cyrus, B.C. 539, Nicotris, the queen mother, counsellor, resisted, and as there was an ample supply of food, with walls 350 feet high and 87 thick, it seemed possible to withstand a siege. But after it had lasted two years, Cyrus opened the head of the canal connected with the Euphrates, and allowed its waters to enter trenches which he had excavated around the city. This so drained the bed of the river where it entered the city, that by midnight the two bodies of soldiers whom he had posted at the points of its entrance and exit passed in and opened the gates for the army, who poured in and surrounded the palace; within a few hours, the city surrendered. It never recovered its ancient splendour, but from her fallen towers have arisen, not only all the present cities in her vicinity, but others which, like herself, are long ago gone down into the dust. Since the days of Alexander, we find four capitals at least built out of her remains, —Seleucia by the Greeks, Ctesiphon by the Parthians, Al Maidan by the Persians, and Kufa by the khalifs,—with towns, villages, and caravansaries without number. Ur or Uru is the modern Mugheir; Erech or Uruk is the present Warka; Nipur, city of Bel, is their modern Niffer; Larsa=Sen Kereh; or, by some, Babel=Hilla; Tigghaba or Kute is Tel-Ibrabin; Kisur or Kis is the modern Hymar; Sippara, city of the sun-god, is the present Sura; Agane, near Sippara, part of Surra; Zirgulla=Zerguhl; Dur or Diru, the modern Deyr. Babylonian history is of interest for the illustration of the Hebrew and Christian Scriptures, and the religions of the Hindus, Greeks, and Romans. Babylon was the oldest civilised dominion in Asia, and was the centre from which civilisation spread into Assyria, from thence to Asia Minor and Phoenicia, from thence to Greece and Rome, and from Rome to modern Europe. The Chaldean legend of the flood was in existence at least 2000 years before the Christian era, and their Xisitirhus, Xisuthrus, or Hasis Adra, was its Noah. Their inscriptions also make mention of a conqueror named Izilhabar, whose characters in several points corresponds with that of the biblical Nimrod, described in Genesis x. 9, 10, as a mighty hunter before the Lord, doubtless meaning a nomade, and 'the beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar.' He was on friendly terms with Hea bani, an astrologer, and he visited Hasis-adra, who related to him the story of the flood. Many exploits and mythical adventures are related of him. Sargon, the greatest of the kings of Akkad, was the Moses of the Bible. He was adopted by Akki, a water-carrier. He conquered the Egyptians, Syria, and Babylonia, ravaged Sabarti, and founded the city of Dur-Sarrukin. The ruins near Hillah are still, by the Arab, designated Babel; and all historical records, as well as traditions, agree in representing these as the remains of the first city of Nimrud, the Babylon of Herodotus, Diodorus Siculus, and other historians. Four miles and a quarter N. 20° W. of the bridge of Hillah is the Majalibeh, near which are the remains of the Kasr, as well as those of the hanging gardens; and at rather more than six miles from Hillah, standing amidst and crowning the summit of extensive masses of ruin, is the Bars-i-Nimrud. This has been considered by Niebuhr, Rich, and others to be the celebrated temple of Belus, and, according to Herodotus, it was separated from the palace by the river (lib. i. e. cixx.). 'L'un [des quartiers] est remarquable par le palais du roi, et l'autre par le lieu consacré a Jupiter Belus.'

The pre-eminent mounds are three in number: 1st, the Amur Hill, so named by Mr. Rich, from its supporting a small tomb erected to the memory of some personage of that name, said to have been a son of the Khalif Ali, who fell at the battle of Hillah. The second pile is the Kasr, or palace, which is separated from the preceding by a distance of only 750 yards. The third is known by the appellation Majallibih, or Maquilba, the overturned. It stands about a mile and a half northward from the other, is about 200 yards square each way, and its S.E. corner is said to be 140 feet high. The religion of the Babylonians was of the lowest and most degrading kind. They had faith in magic, exorcism, charms, sorcery, onans, dreams. The three great Babylonian gods were, Anu, lord of the heavens; Bel, lord of the visible world; and Ick, lord of the sea and infernal regions. Sin, or the moon-god of Ur, was the eldest son of Bel; Shamas, the sun-god; Nergal, god of war; Ninip, Vul or Rimmon, god of the atmosphere; Sillil, king of the gods; with many others. The female deities were Anunit, goddess of life and death, the female form and complement of Anu; Anunit, goddess of Akkad; Aganu; Nana, goddess of Erech.
BACTRIA.

BACCHUS. A Bacchus. Bactria, the flesh of swine, salted and dried; largely prepared in Ireland and America, and in the northern counties of England and southern of Scotland, and exported to all parts of the world. It is a coarse food, and that prepared in India is very liable to induce disease of the bowels; its use should be avoided.—McCall, Com. Diet.

BACON, an author of First Impressions, and Studies from Nature in Hindustan.

BACTIA VINDA CHADA. SANSK. Euphorbia thyssifolia.

BACTRIA as known to the Greeks and Romans, was the region lying between the Oxus and its tributaries on the north, and the western part of the Paropamian range or Hindu Kush. It thus included the site of the modern Balkh, and of Margiana, the modern Merv. Bakhdi, or the fortunate, the name of one of the settlements of the eastern Aryans in their southerly migration, was the source of the term Bactria. Curtius accurately described Bactria as a region of the most varied physical character. The region has witnessed great political changes, which indeed continue to recur up to the present day. In B.C. 1200, Semiramis is supposed to have retreated into it after her defeat on the left bank of the Indus. In the 7th century B.C. it passed under the dominion of the Medes, and in the reign of Darina it formed the twelfth satrapy of the empire, and furnished powerful contingents for the army. Alexander the Great, in his advance towards the Indus, formed military stations in Bactria; and after his demise, when the generals of his armies set up for independence, Bactria was carved into dominions which, with varying limits, lasted from B.C. 256 to A.D. 207. But of that long line of Bactrian kings through a period of 463 years, their coins furnish almost the only available testimony of the survival, reinstatement, and extinction of the dominant Hellenic element on the site of Alexander's furthest conquest in the east, and of the potentates who swayed the destinies of those lands for the next four centuries. Professor Wilson gives a list of them from Theodotus I., B.C. 256, to Pantaleon, B.C. 170. Then of barbaric kings, Su Hormuz, Kadaphes, and Kadhphises, from B.C. 100 to B.C. 50; also of an Indo-Parthian dynasty; of the Indo-Scythian princes of Kabul, and a classification of their contemporaries. And Mr. Thomas, in Prinsep's Antiquities, gives Major Cunningham's later and more comprehensive table of the several dynasties.

Mr. James Prinsep, Mr. H. T. Prinsep, Professors Wilson and Lassen, have based their views on the coins of Greek, Aryan, Bactrian, and Indo-Scythian kings and dynasties, which the researches of Sir Alexander Bumnes, Mr. Masson, Generals Court and Ventura, had brought to light, as also from the engravings on rocks and on relics found in tope in the region around Kabul. The languages in which these languages are defined are Aryan-Pali or Bactrian, Greek, Indo-Pali or old pre-Sanskrit alphabets. On coins, these are sometimes single, but many dynasties adopted bilingual, the Greek becoming gradually more barbarous, until at length it became unintelligible. Mr. Prinsep thinks it established that the Aryan-Pali or Bactrian language was long the vernacular of the Paropamian range, of Kabul, and perhaps of Herat and Kandahar, up to the Indus, for its
writing has been found in the tops of Manikiyala in the Panjab, and, it is said, on the rock at Bamian. Unlike the Greek and Sanskrit, it is written, like the Semitic tongues, from right to left, and its characters seemingly of Phoenician origin. Besides being found on the Greco-Bactrian coins, it is seen on a copper plate known as the Taxila, on a vase found at Peshawar, on the Bumnan vase, on a cylinder at Manikiyala, and on the Wardak urn.

The inscription of Asoka at Kapardigiri is in the Bactrian-Pali characters, and written from right to left; all the others are in the Indo-Pali character, and written from left to right. The name of Asoka does not occur in them, but he calls himself Piyadasi, and the beloved of the gods.

One passage refers to the Greek king Antiochus and three others, under the version of Turamayo, Antakana, Mako, and Alkasunari, which are supposed to represent Ptolemy, Antigonus, Magnus, and Alexander.—J. R. A. S. xii.

Dr. Burnell concurs in the opinion that the characters used in the Kapardigiri inscription are of Phoenician origin.—Burnell, A Few Suggestions.

The Aryan character was adopted first on the coins of the Greek kings from Eucratides down to Hermaeus. It was then taken up by the Scythians, who crossed the Paropamisus, Imaus, or Hindu Kush, and also by Parthians, who asserted their independence in Afghanistan. Mr. James Prinsep, Mr. H. T. Prinsep, and Professor Wilson considered this Aryan language to have a close affinity with Sanskrit. Menander, the known Indian conqueror, never seems to have used the Indo-Pali characters of Asoka. At Manikiyala is a type solidly built of quarried stones and lime cement; a great cupula 80 feet high and 310 to 320 feet in circumference, was opened by General Ventura, and there are fifteen other and smaller cupolas there, which were opened by General Court. Monuments of the same kind are met with at Rawalpindi (in the Panjab), in the Hazara country, west of Kâbul, at Jalalabad, Lugman, Kâbul, Bamiian, and in the Khaibar pass. Many of those west of Kâbul were opened by Mr. Masson. In one, N.N.E. of the village, which was opened by General Court, a sculptured inhumation slab was found in Aryan characters, along with Roman coins and coins of Kâphîses and Kanerkes,—a fact alone sufficient to indicate that the territories around had been under the sway of rulers of varied races. The countries over which these chiefs ruled were Bactria, Sogdiana, Margiana, Paropamisadse, Nyssa, Aria, Drangar, Arachosia, Gandharitse, Peukelaotis, Taxila, Patalene, Syrastrene, and Larice, but their limits were incessantly varying.

Professor Lassen supposed the existence of four Greek kingdoms, viz. first, that of Bactria. A second, eastern, under Menander and Apollodotus, comprehending the Panjab and valley of the Indus, with Kâbul and Arachotia or Kandahar added in times of its prosperity. A third, western, at Herit and in Seistan. A fourth, central of the Paropamisus, which latter region Mr. Prinsep is inclined to give to Bactria, because of the bilingual as well as the pure Greek coins of Helioctes and Antimachus, kings of Bactria. The earliest of these rulers were the successors of Alexander the Great. Alexander's death occurred in the spring of the year 323 B.C. His empire, though only of ten years' growth, was not transient. His colonies and their institutions, manners and language, had a lasting action in Central Asia, the effects of which were felt for at least 500 years after his decease. Though he left his brother Aristhenes and the posthumous child of Roxana or Roxana, called Alexander, neither of these succeeded him; his military commandants assumed sovereign power.

Stasanor, whom Alexander had appointed to the satrapy of Drangia, retained it after Alexander's death, but on the subsequent division at Triparadeis, b.c. 321, he exchanged it for the government of Sogdiana and Bactriana; and Antiochus left him in possession, B.C. 316.

In India, Eudemus had been left in command of the troops, with Pithon the son of Agenor and Philip son of Machatas? as satraps. The last-named was murdered in 326 B.C., and Pithon was removed to Babylon in 316 B.C., and was put to death by Antigonus. Antigonus, in 315 B.C., assumed the title of king of Asia.

Seleucus Nicator, to whom Babylon was at first assigned, after various changes of fortune, rose to great power, and between 311 and 302 B.C. extended his sway towards the east, and even invaded India, where he formed a matrimonial alliance with Chandragupta, under his grandson Antiochus Soter, B.C. 261-246, when his kingdom was weakened by his long war with Tolemy Philadelphos.

Arsaces established a Parthian kingdom, B.C. 250, and shortly afterwards Diodotus, governor of Bactria, revolted, and made Bactria an independent state.

Seleucus Callinicus, B.C. 246-226, undertook an expedition against the Parthians, and seems to have entered into an alliance with Diodotus to secure his co-operation, but he was totally defeated by the Parthians.

The following are deemed conditionally established dates of Greek rule in Bactria and India:—Sophytes, an Indian chief near Lahore, and vassal of Alexander, coins Greek money about 306 B.C., imitating the head of Seleucus I. of Syria.

Antiochus II. of Syria, about 256 or 250 B.C., issues Bactrian coins, with the name of Antiochus, and subsequently adopted national Bactrian type.

Diodotus, called Soter by the later kings, about 256 or 250 B.C. becomes independent king of Bactria (revolta, or is acknowledged by Antiochus). His son, Diodotus II., mentioned by Justin, is not proved by the coins, and doubtful.

Euthydemos, from Magnesia, follows Diodotus or his dynasty in Bactria.

War with Antiochus III. of Syria. Treaty of peace. Antiochus gives his daughter (Laodike to Demetrius the son of Euthydemos. Euthydemos dies of old age. Demetrius the son of Euthydemos follows him and extends his dominion as far as India. Bilingual coins appear. Demetrius makes war with Eucratides.

Eucratides, king of Bactria, reigns in the time of one of the earliest Arsacid kings, therefore probably about 200 B.C. A treaty of peace was agreed to (according to some authors, the overthrow of Demetrius and occupation of India) with favourable conditions for the victor, Eucratides? Demetrius gives his daughter Laodike to the son of Eucratides (Helioctes?). Coins of
Euctrides, struck at the wedding of his son Heliocles and Laodike.

Heliocles coins as co-regent with his father.

Euthydemus II., son of Demetrius, a boy, coins (as co-regent with his father). These coins of Euthydemus II. are of the same date as those of Pantaleon, Agathokes, Antimachus (Θοκάτιος).

Pantaleon and Agathokes belong to the same kingdom. Agathokes and Antimachus strike the coins of their predecessors; among these, as predecessors on the Bactrian throne, are Antiochus Nicator, Diodotus-Soter, Euthydemus Deus.

The following reigns stand side by side:—

<table>
<thead>
<tr>
<th>Demetrius</th>
<th>Euctrides</th>
<th>Agathokes</th>
<th>Antimachus (brothers)</th>
<th>Antialcides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pantaleon</td>
<td>Euthydemus II.</td>
<td>Heliocles</td>
<td>Pantaleon</td>
<td></td>
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</tbody>
</table>

Plato, reigned 165, reigned towards the end of the lifetime of Euctrides, about 165 B.C. There is a unique tetradrachm of the Attic character, but he had not begun to use Attic inscriptions on his silver coins.

Strato, contemporary of the latter part of the reign of Heliocles.

Agathokleia, Strato's wife.

Strato II., the beloved of his father, Strato's son.

With the death of Heliocles, there begins suddenly a large series of other Greek coins of the Bactrio-Indian kings, so very like one another in style, that it is quite impossible, as before, where writers on history aim, to arrange them chronologically. After Heliocles, Plato and Antialcides, all certain indications of dates fail us.

In 256 or 255 B.C., Bactria declared for independence, under Theodotus or Diodotus; and his successors are known as the Graeco-Bactrian kings.

The names of several are known from the Greek and Roman historians, and about forty of them from their coins, but they have not, as yet, been arranged in any satisfactory manner. Many of them seem to have been ruling contemporaneously in different parts of Bactria.

The following is a line of rulers which has been framed from these kings by General Cunning- 

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<td></td>
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150 Lysias succeeds these in Paropamisade, and obtains Nicias' dominion of Nyssa, Gandharitis, Peukelaitos; while Mithridates I. possesses himself of Ariana, having previously gained Margiana from Euctrides.

Plato.

Agathokleia.

150 Antialcides succeeds to Lysias' kingdom.

Amyntas.

Apollodorus.

Archebius follows Antialcides.

161-190 Menander reigns in Paropamisade, Nyssa, Gandharitis, Peukelaitos, Taxila, Por., Reg., Cos., Patalene, Syraustrene, Larice.

135 Strato succeeds, with the exception of the countries of Patalene, Syraustrene, Larice, which fall to Maus. 

Hippostratus, Telephus, Theophilius, follow Strato.

Of all the kings who followed Euctrides, Menander and Apollodotus alone are mentioned by classical authorities. Menander made conquests in the N.W. of India, and carried the Greek arms further in that direction than any other monarch. His coins are numerous about Kābul and Peshawur.

The first Theodotus, b.c. 256, reigned about the same time as Arsaces I.

Theodotus II., b.c. 243, is said to have reigned in the Kābul valley.

Euthydemus, b.c. 220, reigned in the time of the expedition of Antiochus the Great, and was defeated in battle near Merv by the united Syrian and Parthian armies. He then urged Antiochus to receive him in alliance, and so extend the Greek influence to the Indus. A peace was concluded, and Euthydemus led the Syrian army through Bactria, i.e. by the route north of the mountains to the Kābul valley, and across the Indus, in b.c. 206. There Antiochus made peace with Sophagasenus (Asoka), which was to carry the Greek tongues and pillars in various parts of India, in characters exactly resembling those on the coins of Agathokes. In b.c. 205, Antiochus returned by way of Arachotia. The translation of the edicts of Asoka is in the Asiatic Society's Journal for 1888. That on the Gīmr rock is said to name Antiochus as Antiochia Yona Raja.

Euctrides, b.c. 178 (Prinsep, b.c. 181; Bayer, Wilson, b.c. 165; Visconti, Lassen, b.c. 175). He seems to have made an expedition into India in 165 b.c., and on his return from which, to have been murdered by his son. Numbers of his coins have been found in Bactria and Afghanistan. Mr. H. T. Prinsep considers that he ruled originally in Bactria, subsequently made conquests in, and south of, Paropamisade, in Kābul; and first of all the Greeks coined in the bilingual Aryan inscription. The first use of two languages, however, is also ascribed to Agathokes, who used Greek and Sanskrit, while Euctrides used Greek and Aryan, and it is supposed, consequent on his conquest of the Paropamisade, after assumption of the title of Great King. On his death, his wide dominion is supposed to have been broken into several independent kingdoms.

Heliocles, b.c. 155, the parricide of Euctrides, used bilingual inscriptions on coins in pure Greek and Aryan. His rule, though short, extended over Bactria and the Paropamisade.

Antimachus, b.c. 150, coined with Greek and Aryan.

Agathokes, b.c. 190, coined with Greek and Sanskrit; is supposed by Lassen to have ruled Kābulistan to the Indus; and Mr. H. T. Prinsep
supposes him to have been the governor left by Antiochus in Kābul, after his treaty with Asoka.

Pantaleon, B.C. 195, coined in Greek and Sanskrit.

Parthia followed? Bactria for independence about the year 255 B.C., under the rule of Arsaces I., who is variously described as a native of Sogd, as a Bactrian, and by Moses of Choreno as of Balkh, this last author adding that the dynasty was known as Balkhavensis or Palavian. He used Greek only on his coins (and in his public letters and correspondence), ordinarily with the head of the sovereign on one side. Great King of Kings was a title first adopted by Mithridates II. Arsaces I., B.C. 254-250, is supposed to have been killed in action with Arianrites of Cappadocia, but the date and circumstances are not known.

Arsaces II. (Artabanus?), son of Arsaces I., about B.C. 220 or 216, at first extended the Parthian empire, but was afterwards driven into Hyrcania by Antiochus Magnus in B.C. 212; allying himself with the Scythians, he recovered Parthia.

Arsaces III., B.C. 196, called Priapatius, Phra- patius or Phraadatus, son of Arsaces II., reigned fifteen years, left three sons, Phrahates, Mithridates, and Artabanus.

Arsaces Mithridates I., B.C. 177 or 173, made Balkh his capital, subdued Media and Persia, and captured Babylon; brought under his dominion Western Bactria, Arin, Seistan, and Arenchias, and made a successful expedition into India.

Arsaces Phrahates II., B.C. 139 or 136. In his reign, Bactria seems to have been subjugated entirely by Scythians. He was defeated and slain in B.C. 130, when restraining the Parthians from ravaging the country.

Arsaces Artabanus, B.C. 126, uncle of Phrahates, and youngest son of Priapatius, died of a wound received in action from the Tochari Scythians.

After many kings, the Greco-Parthian or Arsacian dynasty in Central Asia ended in A.D. 209 with Arsaces Artabanus, who was involved in a war with Rome, but ultimately slain in battle at Balkh by one of his officers, Arishbar Barakhan, who established his own dynasty, that of the Sasanians, in A.D. 226. It lasted more than 500 years. The capital in the time of the Cæsars was at Seleucia on the Tigris. The system of government was Asiatic, by satraps or local rulers possessing full power over the persons and properties of the subjects.

The Parthians seem to have held sway in the brief interval that separated the death of Eucratides, about B.C. 155, till the total subversion of the Bactrian kingdom by the Tartar tribe of Su from the north of Transoxiana, B.C. 126; and their Indian kingdom was subverted about B.C. 26 by the Yue-Chi, who came from Persia, and spread themselves along a large portion of the course of the Indus.—Elphinstone, 246-248. De Guignes’ account of the first conquest is that the Su came from Farghana, on the Jaxartes (the modern Syr Darya), and conquered a civilised nation, whose coins bear a man on one side and horsemen on the other. These seem to have been the coins of the Eucratid, which had the king’s head on one side, Cester and Polux, mounted, on the other. According to Strabo, the nomades who overthrew the Greek rulers of Bactria were the Asii, Pasiianii, Tokhari, and Sakaranii.—Dr. Bhau Daji.

The Scythian kings followed the Greek kings in adopting their forms of money. They coined similar pieces, with superscriptions similar and in the same letters, but inscribed on them their own names and titles, and varied the emblems and devices.

Maars, B.C. 135, is supposed to have been a Scythian, the head of one of those tribes that broke into Bactria between 150 and 140 B.C., and he seems to have held communication with Azes. On the other side, this coin contains the king with a Tartar war trident, setting his foot on a prostrate enemy.

Azes, B.C. 130, the greatest of Scythian kings, on whose coins are bilingual inscriptions, in plain Greek characters:—ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΤ ΑΖΟΤ; in Aryan-Pali, Maharajas Raja-Rajasa Mahatasa Ayasa. The figures on the coins are various. Professor Wilson thinks he was an Indian Buddhist king about 50 B.C. Professor Lassen regards him as a Saka (Scythian), who conquered the Kābul valley in the time of the second Mithridates, and finally destroyed the kingdom of Menander and Hermæus in about 120 B.C.

Azilises, B.C. 115, reigned with the same titles as Azes. On one coin, the name of Azes is on the Greek obverse, and that of Azilises on the Bactrian reverse.

Yones, B.C. 100, supposed to have been a Parthian satrap who asserted independence and created a kingdom for himself out of the dominions of Azilises.

Spalirius, B.C. 85, sometimes read Ipalirius, supposed a Parthian king.

Spalirius, B.C. 75, had many coins in two languages; he was a vice-regent, son of Yones, and perhaps brother of Spalirius.

About this time, as indicated by his coins, appears a ruler whose name and personal designation is not known, styled Soter Megas, B.C. 70. This nameless great Soter king had coins with an Aryan legend, which James Prinsep and Professor Lassen ascribed to Azes. On all is a peculiar monogram with three prongs. The same monogram was continued in coins of the Kadphises and of the Kanerkes, but it is not found in those of the Hercules type derived from Hermæus. Mr. H. T. Prinsep considers him to have been contemporary but not identified with Vikramaditya, and that he assumed the title of Soter Megas, which was continued down by the Kadphises kings. He considers that the nameless kings, with those on whose coins are the words Koles or Hyrkodes, although mere local chiefs, such as now rule at Kulm, Kunduz, and Balkh, preceded the conquest of the Panjab by Vikramaditya about B.C. 56. About this great king India affords nothing but fables; but a passage of the Periplus mentions that his capital was Ozene (Ujein), and it is known that he extended his empire to Kābul. His empire fell to pieces after his death.

Kadphises or Kadphises, a dynasty of three rulers who reigned in Kābul from the downfall of the kingdom of Vikramaditya. Kadphises’ name is on the Aryan reverse of the Hermæus coins of the Hercules type. There is no indication of a settled worship. The Hermæus worship was readily borrowed by the Greeks by the wild Scythians, as a mere reverence of physical strength. The Kohistan is
supposed to be the district of the first rise of Kadphises, while Kābūl and its valley were subject to Indian rule; and while there, the chief seems to have retained his Scythian title and rude worship of Hercules. Afterwards, overpowering the Indian governors who had followed Vikramaditya into the Kābūl valley and Panjab, he or his descendants seem to have adopted the Hindu religion, coining with Greek, and dropped their Scythian title. In a gold coinage by a Kadphises king, Sīva occurs in the mixed male and female character, and very generally accompanied by the bull Nandi. Professor Lassen discovered in Chinese history that Khi-out-chi-u-hi Kui-tsi-kio, a Yuchi, or Yeutchi, or white Hun, conquered the Szu or Azes Scythians in about 40 B.C., and, dying at the advanced age of 84 years, his son Yen-kao-Ching prosecuted his career of victory, and reduced the Indus valley and Panjab to subjection in about 20 B.C. The names are scarcely recognisable, but the facts and period correspond to the career and supposed era of the Kadphises kings.

Korosoko Kosoulo Kadphises, b.c. 50, in Aryan Dhama . . . rata Kujula kasa Sabashahaka Kadaphasahis.—coins are of the Hercules and Hermes types.

Zathos Kadaphes Koranos, b.c. 20. On the reverse of the coins is a sitting figure, with the arm extended, and wearing a loose flowing Indian dress. They have monograms the same as the Azes coins. The Sīva worship had not yet been established as the state religion.

Oohemo Kadphises (Hima, snow, white), b.c. 5. His copper coins have the king standing in a Tartar dress, with coat, boots, and cap, his right hand pointing downwards to an altar or Hima, and having a trident separate on one side, and a club on the other. The reverse has the Sīva and Nandi bull.

The readings of the Aryan inscriptions on coins of the Kadphises kings, by Lassen, J. Prinsep, and Wilson, are somewhat different, and it is suggested that the words Korso Kozoulo, Koranos, and Zathos, were titles short of royalty. Professors Lassen and Wilson carry the dynasty of Kadphises through the whole of the first century of the Christian era, and consider it to have been then overpowered by a fresh swarm of Scythians under the Kanerki kings. Mr. H. T. Prinsep supposes that during the ascendency of the Kadphises kings, the Gracco-Parthian party still held out in cities and communities, abiding their time to reassert their independence, and rose again about the middle of the first century of our era.

Amongst these, coins show—

Undopheres, a.d. 40, calling himself King of Kings in Greek, and in Aryan, Maharajah Raja Rajasa, Tratadasa, Mahatasa, Pharabhitasa.

Gondopheres or Gondophares, b.c. 55, who took the same Aryan name of Pharabhitasa.

Abagasus, King of Kings, a.d. 70, in Aryan Abakahafusa. Professor Lassen supposes this name to be identical with Vologeses. Mr. H. T. Prinsep supposes these coins to be of Parthians who established for themselves a separate and independent sovereignty in Kābūl and the Paropamisus.

Abalagasus, a.d. 80. Captain Cunningham described the Aryan legend on the coins to be, 'Of the saviour king Abagasus,' younger son of Undopheres.

BADAGA. BACTRIA. Kanerki. —At the close of the first century of our era, when the above Aryan-Parthian supposed dynasty ceased to reign in Kābūl and the Panjab, a new race of Scythian kings appeared, who issued gold and copper money of quite a different device and style from anything before current. These bear a title of Kanerkes, at first with the title of Basilissus Basilic, but afterwards with the Indian title of Rao Nano Rao. The number and variety of the Kanerki coins indicate a long dominion for kings of the race, but only characters on their coins are Greek, but these become at last so corrupt as to be quite illegible. On their obverse is the king standing, or in bust to the waist, in a Tartar or Indian dress, with the name and titles in a Greek legend round; while on the reverse are Mithraic representations of the sun or moon, with ΜΑΝΟΣ, ΝΑΝΑΙΑ, ΟΚΡΟ, ΜΙΟΡΟ, ΜΑΟ, ΛΗΡΟ, or some other mystical name of these luminaries, also in Greek letters. And on all the Kanerki coins is the same monogram as the Kadphises dynasty used, and which was borrowed apparently from the nameless Soter Megas. This would seem to indicate that the Kanerki dynasty, though interrupted, as Mr. Prinsep supposes, by the intervention of Aryan-Parthians, was yet a continuation of the same tribe and nation as its predecessors of the name of Kadphises. The state religion seems to have been Mithraic, whence derived not known; but on their coins the Sīva bull device is also found on the reverse, the bull's head being to the left,—in the coins of the Kadphises being to the right. A list of their kings cannot be framed, but their power seems to have lasted for more than two centuries. The style and device of the Greek, of the gold coins especially, of the coins both of Kadphises and the Kanerkes, was carried on till it grew more and more corrupt, and was at last entirely lost, through the deterioration of art, under the princes of Hindu race, who succeeded to the more energetic Greeks and Scythians.—Masson; E. Thomas' Bactrian Coins; Tod, Rajastahan, ii, 217; Bunsen, God in History, i. 270, 293; Bunsen's Egypt; Thomas' Prinsep; Mr. Newton in Journ. As. Soc. 1867; Blph. India; Wilson's Ariana Antiqua; Indian Antiquary; Dr. Bkhu Daji; Burnett, A Few Suggestions.

BACTRIAN CAMEL, or two-humped camel, Camelus Bactrianus.

BAD. PERS. The wind, according to Asiatics, a common cause of disease. It usually means rheumatism.

BADABANALA. SANSK. A term sometimes applied to the south pole.

BADADA. SINGH. From Buda, Wednesday.

BADADUM. TAM. Erythrina sublobata.

BADAGA. TAM. Tel. From Vada, north, the northern people, the Telugu people. The Badaga or Badagaleya-varu, a Brahman race in Mysore, Vaishnava sectarians. They mark their foreheads with three perpendicular lines.

BADAGA, the most numerous tribe of the Neelgherry hills. They state that about the 15th century their ancestors came from the Mulasal hills 60 miles south-east of the town of Mysore. Their name is supposed to be a modification of the Canarese word Vaddaca or north, and they undoubtedly speak an ancient but organized dialect of the Canarese. In 1867, the population was said to comprise 17,778 souls, distributed
over 4071 houses. They have the usual elongated head of the   peninsular Hindu races. The average height of 25 men, of 33½ years of age, was 667 inches, and their weight 11076 lbs. The average of 25 women, of 27-68 years, were of height 58-51 inches, and weight 92 lbs. They possessed the usual Asiatic features, with a feminine cast. They and their wives had   small feet when they arrived they acknowledged the proprietorship of the Toda as prior occupant races, to whom they promised a land-tax of one-sixth of the produce, which they still continue to pay, though with occasional demurring. The Toda race call them Mav, or father-in-law. Both men and women work in the fields, but of late years a large number of men find employment as labourers and artisans.

The other hill tribes on the hills live in isolated communities, but the Badaga dwell in villages on a rising ground, in streets running in parallel lines, in thatched houses built of stone and mud, and divided into separate compartments, with a double tier of lofts, and with a wide terrace in front as a drying, threshing, and winnowing floor. The doorway, 43 inches high and 26½ broad, is their only opening. The cattle are penned in an adjoining cow-house or shed. Marriage takes place when grown up. Women wrap a cloth round their bodies from below their arms to their hips, and fasten it with a cord below their arms and around their hips; the arms and shoulders and their legs below the knees are bare. A scarf goes round the head, and is let fall behind. The women are of domestic habits, and kind and affectionate mothers; they are simple, modest, and retiring. They seem now to be following three forms of the Hindu religions,—the Saiva, the Vira Saiva, and the Vaishnava. Formerly they claimed as their deity Hettee-du, an old man, and Hereardu, whom they, said, conducted them to the mountains. But they have numerous local deities. A chief deity is in Rungasawny peak, where men of the Irular tribe officiate as priests, and offerings of ghi and fruits are made.

Another deity is on a droog near the village of Hollikul, where a Badaga priest officiates, and there are other male and female gods. Many Badaga are comparatively wealthy. They can neither read nor write; they are timid and superstitious, haunted with a dread of evil spirits, and are deceitful, ungrateful, and false. They are in perpetual fear of the Kurumbar, to whose sorcery and witchcraft they attribute all accidents and misfortunes which befal themselves, their cattle and crops, and in their delusions they have killed Kurumbas, and are ready for war. Nevertheless they get the Kurumbar to officiate as priests at all social ceremonial occasions. They both burn and bury their dead.—Drs. Baikie, Latham, Shortt: Harkness, Neilgherry Hills.

BADAGE. A tribe of Coorg slaves.

BADAKSHAN is a mountainous region, including the upper part of the valley of the Oxus. The capital is Faizabad. It lies between lat. 36° and 38° N. and long. 69° and 73° E.; is on the western declivity of the Belur Tagh in the valleys of some of the head streams of the Oxus, of which the Badakhshan river is the principal. It is 180 miles long. Its inhabitants are of the Tajak race, Shah Mahomedans, and speak Persian. The Tajak race here are purer Iranians than other Tajaks. The Tajak possessed the country before the invasions of the Turks and Uzbaks. They are a wild race, living in the little mountain glens in villages surrounded by gardens. In the remote mountains of Badakhshan are the richest known mines of rubies and turquoise. Marco Polo mentions that the chief of Badakhshan laid claim to a Grecian origin. Baber corroborates the theory; and Elphinstone says that the chief of Darwaz in the valley of the Oxus, was of Macedonian descent. Bipper also believed in the descent of many of the chiefs of Badakhshan from the Greeks of Bactria. On the north of Badakhshan are the hill states of Wakkan, Shughshan, Darwaz, Kulaib, and Hissar, all of whose peoples claim a descent from Alexander. To the eastward of Badakhshan lies the plain of Panir, inhabited by the Kirghis; the Siah Posh Kafir are on the south, occupying a great part of the range of the Hindu Kush and a portion of Belur Tagh. Marco Polo resided in Badakhshan for the sake of his health, and he described Wakkan, Panir, Belur, and Kashimir. Badakhshan rubies were formerly of high repute. The turquoise of Badakhshan and Khokand is of a green colour, and is very inferior to the blue turquoise of Neshapur in Persia. In its ruby mines, the gem is said to be found in limestone, along with great masses of lapis-lazuli. It has also iron, salt, and sulphur. Its rivulets, romantic scenes and glens, its fruits, flowers, and nighttime songs, are spoken of in rapture by the people. The Tajak of Badakhshan are not so handsome as the men of Chatral; their dress is like that of the Uzbaks.—Markham's Embassy, p. 163; Mohun Lae Travels, p. 250; Yule's Cathay, i. p. 187; Col. Macgregor; Bellow, p. 207. See Afghanistan.

BADAL. Pers. Retaliation, vendetta.

BADAM, Pess., Hind., is a term which, with affixes and suffixes, is applied to several kernel fruits. Badam-i-talkh, bitter almond. Badam-i-shirin, sweet almond. Kaghazi Badam is like the thin-shelled Barcelona almond.

Badam Kohi is the apricot.

Badam talkh-i-pahari is Prunus Armeniacus. Jungli Badam, Stereulia foetida.

Badam, in Taml, Canarium commune.

Hijli Badam is the Terminalia catappa.


BADAMI, a hill fort, in lat. 15° 55' N. and long. 75° 42' E. in the South Mahratta country, is S.S.E. of Kaladghi. The foot of the fort is 1646 feet above the sea. At the close of the 18th century, it was the scene of a great disaster to a Hyderabad army, which was swept away by a pestilence; it was taken by the British in 1818, and again in 1841. Badami has Buddhists and also Brahmanical caves, one with a date, A.D. 579. The Aiwulli caves are 5 or 6 miles north of Badami, and those of Puranduk or Pittaduk are as far south. The Imperial Gazetteer mentions a Jaina cave of A.D. 650. In the Brahmanical caves the Narasinha avatar of Vishnu is represented seated on the five-headed serpent Ananta.—Ferguson and Burgess: Imp. Gaz.

BADAM VITTA BANKA. Tel. Tragaentha.

BADANIKHA. Tel. Loranthus longiflorus, L. Badanika Chega gaudia. Vangueria spinosa.

BADANJAM. Hind. Solanum melongena.

BADAR. Tel. Indus. Taxus baccata.

BADARINATH, in Garhwal, a peak situated
Badava-Hrita.  

Badjar-Kita.

in the Mana jass, within the Himalaya. It is in 30° 44' 15" N. lat., 79° 30' 40' E. long. The peak is 22,901 feet. The entrance to the Hindu temple is 10,124 feet above the sea, according to Robert Schlagewentz, but according to the Bengal As. Soc. Journal, 10,394 feet. Near it, the upper limit of the "Arsh and Kusii" fir trees is 9572 feet; the upper limit of the "Bilka and Deodar" fir trees, 9348 feet; and the upper limit of walnuts (Akrot), 8376 feet. Immediately below the village of Mana is the shrine, which is dedicated to an incarnation of Vishnu, and is one of the most sacred in Hindu mythology. The temple is built on the bank of the Bischen Ganga, immediately over the site of a hot spring, the existence of which no doubt led to the original selection of this remote spot. It is said to have been sanctified by Sankaracharya about A.D. 800, and pilgrims bathe in the sacred pool below the shrine. The east bank rises considerably higher than the west bank, and is on a level with the top of the temple. About the middle of the bank is a large cistern about 20 or 30 feet square, covered in with a sloping roof of deal planks supported on wooden posts. This is called Tapat-kund, and is supplied by a spring of hot water issuing from the mountain by a subterraneous passage, and conducted to the cistern through a small spout representing a dragon's or a griffin's head. A little to the left of it is Surya-kund, another hot spring, issuing in a very small stream through a fissure in the bank. There is no basin or reservoir to receive the water. The principal idol, Bhadri-nath, is placed opposite the door, at the farther extremity; above it head is a small looking-glass, which reflects the objects from the outside; in front of it are two or three lamps, which furnish all the light the apartment receives, excepting from the door, diffusing such feeble glimmering rays that nothing was clearly distinguished. It is dressed in a suit of gold and silver brocade. Below it was a table, or board, covered with the same kind of cloth. The Hawal or chief priest, is invariably a Namburi Brahman from Malabar, no other class of Brahman being allowed to touch the idol. Many temples erected in the same site have been overwhelmed and destroyed by the avalanches which occur there. Its revenues are derived from the offerings of its votaries and the rents of assigned lands.—Professor Wilson; Fraser's Himalaya Mountains, pp. 373-375. See Kusawar; Sri Sampradaya.

Badava-Hrita. Sank. A man who becomes a slave that he may marry a female slave in the family.


Badawurd. Hind. Fagonia cretica.


Badek, in Java, a fermented liquor, prepared by boiling and steeping rice, with a ferment called raz, consisting of onions, black pepper, and capsicum. After frequent stirring, the mixture is rolled into balls, which are piled up in a vessel, and the badek drips to the bottom.—Hogg, Veg. King. 816.


Badger, the Hebrew Tachash. Mammals of the tribe Semi-Plantigrada, family Melildidae. Arctonyx collaris of N. India is the hog-badger; Mellivora indica, the Indian badger; Meles ankuma is the Japanese sand-badger.

Badha. Sank. In Hindu law, corporal punishment, which may be of three kinds,—Tarana, beating; cauing: Chheddana, mutilating; and Marara, killing.—BADHAIL, a bold, brave, predatory race occupying Beit in Kattyawar; like the Waghair race of Dwaria, who with the Badhai race of Arantra were so long the terror of the western seas, they are a spurious branch of the Jhara family of Bhoj, one of whom, called Abra, with the cognomen of Much'wal or whiskered, came from Cutch in the time of Renna Sowa, into whose family he married. His son had offspring by a woman of impure caste, and assumed the name of Waghair, with the distinctive suffix Manik or gem. Mah Manik, the last chief of this race, with all his motley company of Waghairs, Badhais, and Arabs, was slain in the storm, or in the retreat after a desperate defence. The Aranra of the maps is in long. 83° 15' E., and lat. 22° 27' N. According to Colonel Tod, Uja, the third son of Sceji, a Rihari Rajah, died, issued from the sand-hills to Loomi, carrying his forays to the Sunushta peninsula, where he decapitated Beech-nami, the Chamar chieftain of Okanumuda, and established himself. From this act his branch became known as the Badhai. See Kattyawar.

Badhak. A robber tribe in Northern India, often associated with Thugs, and, like them, murdering those they rob. They resided chiefly on the borders of Oudh, but carried on their depredations at a distance.—Wilson's Glossary.

Badhawa, in Bengal, a guard over the village crops.

Badhia. Hind. A blight which attacks Holcus sorghum, Penicillaria, and Zm mais, which prevents the ear filling, also sugarcane.

Badhoo, a Hindu royal ceremonial. It consists in waving a brazen vessel, filled with pearls, round the sovereign's head, and distributing them to Brahmans.—Tod's Rajasthan, ii. p. 73.

Badi. Hind. The fortnight from full to new moon; the darkening half of the moon.

Badian. Pers. Feniculum pamnori; also F. vulgare and Nigella sativa; also comfits, sugared seeds of the 'sonf.' Badian-i-khatai, Pers., Illicium anisatum; star-anise.

Badidapi Chettu. Tel. Erythrina indica.

Badiki. Tel. Sapum cordifolia, Roxburgh.

Badi-simum, a desert wind in Kachi, which occurs by night or day, usually in June or July. Its appearance is sudden, though sometimes preceded by a cold wind; its course is straight and defined, leaving a narrow tract in which it has burned up or destroyed all vegetable and animal life. It is attended with a sulphurous odour, and resembles the blast of a furnace, and the current of air in which it is evidently greatly heated. It is not accompanied by dust, thunder or lightning. Dr. Cooke believes the Bad-i-simum to be a very concentrated form of ozone, generated in the atmosphere by some intensely minute electrical condition.—Dr. Cooke.

Badi-ud-Din, a Syrian saint, who lived a Makanpore in Oudh. His festival day is on the 17th Jamadi-us-Sani, and is known as the Chah-ghan-i-Zandah Shah Madar. See Dam-i-Madar.

BADLA. HIND. Brocade or variegated silk-stuff.

BAD-MAASH. PERS. An evil liver, a person living by defrauding others. It is from Bad, bad, and Maash, fool. Bad-man, disgrace. Bad-bakh, an unfortunate.

BADOCHI, a red earth of Gurgaon, used in dyeing.

BADOZAI, a tribe inhabiting the Paht-i-koh, to the west of Sib, in the Kohistan of Baluchistan. — MacGregor.

BAD PAI. PERS. A swift horse (wind-footed) of Turkoman breed, much prized by the Persians, and always found in the stedd of a person of rank.

BADR. ARAB. Full moon.

BADRACHELUM, in lat. 17° 41' N., and long. 81° E., a small town on the Godavery river, in the south of the Peninsula of India, to which pilgrims resort. Diamonds are found in the neighbourhood. The virtues of the great river Godavery are all collected in the neighbourhood of Badrachellum. It stands on a knoll about 100 feet high; the temple, an old structure, is very sacred.

BADRAGA. HIND. Escort, safe conduct.

BADRAJ-nil-ABIAZ. ARAB. Basella alba.

BADRAKAI. TAM. Elaeocarpus taberuclatius.

BADRANJ. BADRAKI. TAM. Elaeocarpus taberuclatius.

BADRASIR, BADRARA. BADROR, PADSHAH OF SIMLA.

BADULLA, son of Padshah, HIND. A king.

BADUSHA or Padshah. HIND. A king. Badshah, surnad, royal grant.

BADUSHAHI RAI, Sinapis brassica, also S. roga.

BADUL. BENG. Pteropus edwardsii.

BADUL, a young chief famed in the history of Chitore. It is in Chitore an oath to swear ‘by the sin of the sack of Chitore.’ Of these sacks were three and a half. In the ‘half,’ the city was not stormed, but the best and bravest were cut off (saka). The attack is described with great animation in the Khamon Rasa. Badul was then but a stripling of twelve, but the Rajput expects wonders from this early age. He escaped, though wounded, and a dialogue ensues between him and his uncle’s wife, who desires him to relate how her lord conducted himself, ere she joins him. The stripping replies: ‘He was the reaper of the harvest of battle; I followed his steps as the humble gleaner of his sword. On the gory bed of honour he spread a carpet of the slain; a barbarian prince his pillow, he laid him down, and sleeps surrounded by the foe.’ Again she said: ‘Tell me, Badul, how did my love (peear) behave?’ ‘Oh! mother, how further describe his deeds, when he left no foe to dread or admire him?’ She smiled farewell to the boy, and adding, ‘My lord will chide my delay,’ sprang into the flame.—Rajasthan, i. p. 264.

BADULLA, a town in Ceylon; near it are hot springs. A race of people, called Pareya, or strangers, are there met with, believed to have been descendants of Portuguese captives made slaves after the re-conquest. Badulla is in lat. 6° 29' N., and long. 81° 11' E., 38 miles W. from Nurella (Newera Elia), and is 2450 feet above the sea. The highest point of the road between Taldenia and Badulla is 2545 feet.
BAGHAD.

BAGHARA, a tribe of 1000 families of Arabs, tributaries of the Shamar, occupying the country to the north of Nisbin in Kurdistan.—MacGregor.

BAGARI, a tribe inhabiting the district of Bagar, between the south-west borders of Harihara and the Suluj. Said to have been Rajputs, but also supposed to be Jat. A robber race of this name is settled in Malwa.—Wls. Gloss.

BAGA ROH. Fushir. A white hill; a near range.

BAGATI JUMIZ. Hind. Aquila pennata, Gm.

BAGAWAT. Sansk. The most meritorious; a name of Buddha.

BAGHANWALLA. BAGHANDEN, BAGGAPATTI, BAGGAR, BAGARA, BAGA, BAGAWAT.

BAGHIR, a village in Malwa, 25 miles S.W. of Dhar, and 50 miles W. of Mandu, in lat. 22° 24' N., and long. 74° 52' 30" E. Three miles to its south is a group of ruined Viharas. The first from the east is 82 feet by 80 feet. The Viharas are known to the people as the Pancha Pandu. The rock-hewn pillars were once adorned with frescoes in different colours, and of great beauty.—Burges, p. 365.

BAGHENDEN, also Baghi, palanquin-bearers in Tinnevelly.

BAGH-ANKRA. Beng. Alangium decapetalum, also Fisiona villosa.

BAGHANWALLA, a town in the Salt Range, has the principal seam of tertiary coal.

BAGHAD, in lat. 33° 19' 50" N., long. 44° 22' 45" E., is the capital of the Turkish province of Baghad, and has a population of about 65,000, Turks, Persians, Jews, Christians, Kurds, and nomade Arabs. It is built on both sides of the Shat-ul-Arab, the connection being established by a bridge of boats. Its traditional name means 'City of Peace,' but its history has been one of continual strife and bloodshed. Founded in A.D. 763, it flourished under the khalifs, till the invasion of Hulaku with his Tartar hordes, who debuzed its streets with the blood of 160,000 inhabitants, A.D. 1257 (1258-59). In A.D. 1400 it was again taken by Timur, who raised a trophy of the heads of 90,000 of its principal men outside the city gate. In 1508 it was invaded by Shah Ismail Sufi, and fell into the hands of the Persians. In 1534 Suleiman wrested it from the Persians, and made it a Turkish province. Subsequently Shah Abbas recovered it for the Persians, but they finally lost it in 1698, since which time the Turks have held it against two Persian invaders successively. Its revenue under the khalif Mamun was said to have been £6,000,000 yearly. In 1854 it was reduced to £550,000. It is the classic scene of the Thousand and One Nights, but there is hardly a relic of the times of the khalifs in modern Baghdad. The city was then built on the western bank of the Tigris, now it is largely all on the east side. A small piece of the old river wall, an inscription on a gateway, and a venerable khan, are about the only vestiges of its ancient splendour. It is unequally divided by the river, two-thirds being on the left bank, and the remainder on the right or Mesopotamia side; the town is fortified by a high brick parapet wall, flanked at intervals with bastioned towers, and surrounded by a ditch; the citadel, which is a respectable work, is situated at the north-western extremity. The harem built by Dara Persus is one of the finest in the east, and is well stocked with home and foreign manufactures. Some of the mosques are also striking; but the rest of the buildings show, as in eastern countries is usual, on the exterior either dead walls or ruins; but when viewed from a distance, and especially from the river, the luxuriant date groves and rich gardens, contrasted with green domes and graceful minarets, present a rich and attractive appearance. Previously to the plague in 1580, there were 110,000 inhabitants.

Baghdad is frequently called Babylon by the early travellers, and even by the Arab geographers. The Church of Rome still gives the title of 'Bishop of Babylon' to the prelate who is placed over the Roman Catholic Christians in the pashalic of Baghdad.

The khaliis or vicegerents who succeeded Mahomed ruled sometimes in Baghdad and sometimes in other parts of their conquered dominions. The race of Ommiah, sixteen in all, ruled from Damascus from A.D. 661-2 to 744-5. The Abbasis reigned at Baghdad from A.D. 749-50 to 1258-9, when Baghdad was besieged and taken by Hulaku, grandson of Chengiz Khan.

The Mostanzeria mosque is of the age of the khalifs. The Takieh is a monastery of darvashes of the order of the Bektashi, which stands on the banks of the Tigris, on the west side of the town, and is a good specimen of early and pure Mahomedan architecture.

The Baghdad pushalik has many tombs of persons and places famed in history,—the ruins of Babylon, the tower of Babel, the Arch of Ctesiphon, the tombs of Ezekiel, of Ezra, and of the Lady Zobeidah, the reputed authoress of the Arabian Nights.

During the early trade in the Persian Gulf, direct intercourse was for many years maintained with the governors or pashas of Turkish Arabia, without much consideration of their relation to Constantinople. In the year 1689 there seems to have been an English factory at Bussora, subordinate to the factory at Gombroon, and protected by firmans. But the first firman on record is one
In 1855 the political agent in Turkish Arabia, who had hitherto been under the control of the Bombay Government, was put directly under the control of the Supreme Government of India. In 1841, consular powers were conferred on the agent by Her Majesty's Government. All ranks and classes stain their hands and hair with henna, and the Arabs largely stain their lips blue. The plague has repeatedly recurred, but in 1851 it was a very calamitous outbreak. Baghdad is called Dar-us-Salarn, or Mount of Peace, also Medinat-al-Khalifa, the City of Khalifs.

Four large synagogues are attended by contented and prosperous-looking Jews. Christian churches rear their heads on all sides, French, Latin, Armenian, and Chaldean; while the public baths are frequented by Musalmans and Christian alike, irrespective of caste, creed, or religion.

In the 8th century, Hindu physicians went to Baghdad and practised at the hospitals. Two of them, named Manka and Saleh, were the physicians of Harun-ur-Rashid. Nine miles from Baghdad is the small Akarkouf, the ground around the ruined pile, called by the Arabs Tal Namrud, and by the Turks Namrud Tapassi. Both these terms mean the hill, not the tower, of Nimrud, and the term Akarkouf or Argargouf, given by the Arabs, is intended to signify the ground only around it.

The Baghdad pashalik extends in a north-west direction from the mouth of the Shat-ul-Arab to the rocks of Merrdin, the Baghdad frontier towards Constantiopole. In an east and west line, it stretches from the confines of Persia to the banks of the Khabour, which separates it from the pashalik of Orfa (the Osrobe of the Romans, and that part of Mesopotamia which contained the Haran of Abraham, and the famous Edessa of the crusades). The general boundaries of the pashalik of Baghdad may be called the Euphrates and Arabian desert of Najd to the west and south, Khuzistan and the stretch of Zagros to the east, the pashalik of Diarbekir or Hollow Mesopotamia to the north-west, and Armenia, with the Kurdish territory of Julamerik, to the north; the whole forming a kind of irregular oval, comprehending ancient Babylonians and all Assyrians proper. That portion of the pashalik which lies north-east of the Tigris, and which comprised the chief part of Assyria, is now called Lower Kurdistan, a name not very dissimilar, as Major Renner observes, to the old Scripture appellation for Assyria, found in the second book of Kings, and in the Prophet Amos, both of which probably refer to the country east of Nineveh as the land of Kir. The rest of the pashalik lies between the widely divergent currents of the Tigris and the Euphrates, commands the no less renowned boundaries of Babylonia, including Chaldaza, its most eastern quarter. This insular country was also designated by the ancients by the name of Mesopotamia, so denoting its situation between two rivers; and modern times have changed its appellation again, the Arabian calling it Al Jazira, and the Persians including it within the line of Irak-i-Arabi. Its length is 500 miles, and its breadth 250 miles, area 50,000 square miles. Its three divisions are Al Jazira on the north-west, between the Euphrates and Tigris; Irak-i-Arabi, below Baghdad and south of the Tigris; and Sulaimania, or the country of the Kurds. Its migratory tribes are the Montefik, Beni Lam, Zobeil, Shammar, Toqeh, and Deffah. Its rivers are the Tigris, Euphrates, Zab, Asheyn, Diala, Thartar, Shal al Hat, and others.—Treaties, vii. p. 175; Porter’s Tr. ii. pp. 246, 281; Mignan’s Tr. pp. 90, 102; Rick’s Kurdistan; Chesney’s Expediton; Layard’s Nineveh, ii. p. 175; Thomas’s Prinsep; MacGregor’s Persia.

BAGHEL, according to Wilson, a branch of the Sisodhija Rajputs of Gujarat, who migrated eastwards. Subdivisions of the tribe, under different denominations, are widely spread though Bundelkhand, Almahab, Benares, Gopur, Gawnpur, and Farrakhabad. According to Sir Henry Elliot, Baghel, literally tigers' whelps, are a branch of the Solunki tribe of Rajputs, who give their name to Baghelcund, also called Rewa. To decribes the Baghela as a Chaldean race, descended from Komarpal (died A.D. 1166), sovereign of Gujarat. They were formerly rulers of Gujarat, and some Solunki chieftains are still there. Raja Ram, Baghel, protected the wife of Hamayun, Akbar's mother, and Akbar gave the tribe much influence. The chief of Rewa is a Baghel. He is the descendant of the famous Sid Rai Jyi Singh, the ruler of Anhalwar Pattan from A.D. 1094 to 1145, whose court was visited by the Nubian geographer Edrisi. Edrisi states that Jyi Singh was then a Buddhist.—Elliot. The Baghel are extrograme, not marrying within their own tribe, and, like the Gujar, permit remarriage of widows. The princes of Baghelcund are of this race; in Gujarat there are many petty chieftains of this tribe, as Lumaarwa, Mandivie, Mahera, Godra, Dubbaya, etc.

BAGHELUND, a tribe in Central India, whose princes are of the Baghel or Baghela race. It is described by the Indian Government as including the four states, Rewa, Nagode or Ocheyra, Mailar, and Sohawal or Koti. It is between lat. 22° 40' and 25° 10' N., and long. 80° 25' and 82° 45' E.; has an area of 14,250 square miles; a population of 2,260,000. It has on its west, Bundelkhand, with which it is historically connected.

BAGHI. ARAB, HIND, PERS. Rebellious.

BAGHLAH. ARAB. A ship of the eastern seas, of the Indian Ocean, and Bay of Bengal, from 50 to 300 tons' burden. The name is derived from the Arabic, and is the feminine of baghi, a mule, but is variously written by Europeans as baglu, baggalo. Wellusted, however, supposed it to be from bagola, Hind., the crane.—Burton's Pilgrimage, i. 262; Wellsted's Trs. i. p. 16.

BAGHNU. HIND. Populus ciliata.

BAGH-NUKROSHIM. BUNA. Lablab falcatum.

BAGH-XU. A. Beng. Cynotis axillaris.

BAGHOL, of Suites, Machilusa odoratissimus.

BAGHRAM, near Charikar, about 30 miles north of Kabul, was supposed by Mr. Prinsep to be Alexandria apud Caucasum, in which Alexander's army passed the winter of B.C. 330-329. Graco-Bactrian coins have been found here in great profusion.

BAGHUNA. HIND. Rhyns cotinus.

BAGHWAN, a territory in Baluchistin, held by the Eltaiz-Zyc, a branch of the Kamarani tribe, related to the khan of Kelat. In the valleys beyond Baghwan are to be seen stupendous bunds or dams erected by some prior race. They are supported and strengthened by buttresses or walls built at right angles. They always present a scarped face to the opposite side,
which, when well preserved, is levelled off with the surrounding and superior ground. Those built across the mouths of ravines are very solid and high, and usually the builders have taken advantage of some mass of rock jutting out as a sort of foundation. Those in slopes are never seen singly, but always in numbers, varying with the extent of the ground to be covered, and placed in succession, one behind the other. The intervening ground being levelled, is thus formed into a succession of terraces.

Those built across ravines were intended to form tanks for the preservation of the water that came down at irregular intervals in floods. Those on slopes, to economize the distribution of the water; the surplus water of one terrace running over and flooding the lower one, depositing as it went a layer of surface soil. The ground thus levelled of course became more valuable, freed from the irregularity and roughness which characterize these narrow stony valleys. They are almost confined to the provinces of Jalalawon, and are largest and most important in the southern and south-eastern portions of the province. That the ancient city at Gunjuck is of the same date, and constructed by the same people, seems extremely probable.

From the numbers and position of these structures, the Chorbasta people who built them must have felt that the country, as existing by nature, was utterly incapable of supporting them; and they must have possessed an energy and ingenuity which the present races are totally without. It appears almost certain that they must have swarmed eastward over the mountains from Mekran, making their appearance on the south-west portion of the table-land. Gradually pushing eastward and northward as their numbers increased, they ascended to the various valleys as high as Katel, when, discovering the great eastern outlet, the Moolas pass, they found an exit by it into the plains of India. How long they remained on the table-land, from whence they originally came, and over what countries they eventually distributed, are alike mysteries.

**BAGI.** Can. Sweet flag. Bagla or Bagola. SANSK. The genus Ardenia, the cranes. Baglan, on the crest of the Western Ghats, supposed to be the original residence of the Mahrattas, who there, as a mountain race, cultivate the fertile valleys or mawals. Baglan is the western taluka of Kandesh. Stretching north in Baglan are a series of valleys separated by small chains of hills. These hills, as in the Poona mawals, have ground naturally formed for forest reserves.—*Gibson's Forest Reports of 1857-60.*

BAG-NAK or Wág-nak, amongst the Mahrattas, a weapon worn on the hand in the form of a tiger's claws, made of curved steel blades set on a bar, with rings through which the fingers pass. It is struck as if tearing with claws. It was a weapon of this kind with which Sivaji strook Afzul Khan.

**BAGNI.** Pers. Malt liquor or beer, applied by some of the people of the Caucasus to their own beer (which Klaproth says is very like London porter). This liquor was called by the Mongols, darasun, the terracina of Rubruquis.

**BAGON.** PHILIP. Balachang.

**BAGOON.** BENJ. Egg-plant; Solanum melongena.

**BAGRENDI.** HIND. Jetropa curcas.

**BAGRI.** HIND. According to Wilson, Bagur is the tract lying between the S.W. borders of Hariana and the Sutlej, occupied by the Bagri tribe, who are regarded as Jats. Bagur is also a tract on the S.W. of Malwa; and a predatory race called Bagri have settled in the eastern parts of Malwa, Hisar, and Bhattiana. Sir H. Elliot says they were originally Rajputs, but now classed as Jats. The Bagri are one of the predatory tribes of Central India. Several of these tribes in the 18th century were for many years the worst enemies to the prosperity of this country; they were the Moghi, Bagri, Bhiil, Sondi, and Bhilalas. These two principal were the Bagri and Moghi; they came to Central India originally from the western parts of India, chiefly from the neighbourhood of Chitore. The Moghi hardly passed the Chambal, but the Bagri settled in the eastern parts of Malwa in considerable numbers; and about the beginning of the 19th century, the Solunki Rajputs introduced no less than 400 of them to garrison the small fort of Satnabare in Bersiah, in which district, and others in its vicinity, there had been for a long period many settlers of this tribe. The Bagri are a very brave race of men, and though they till the soil and pursue occupations of industry, from necessity, their favourite pursuits were theorizing and plundering. In these arts they were at once expert and bold. They were also mercenary soldiers, ready to serve any one, and to engage in any cause for prey. The Bagri were foot-soldiers, or their jamadars or leaders, whom they obeyed implicitly, were usually mounted. Wherever they settle, they remain in colonies; and even when three or four families fix in a small village, they live distinct from the other inhabitants. This tribe, though scattered, preserved a correspondence, which made them formidable enemies to the internal peace of any country in which they were numerous. There were not more than 1200 in the countries of Bagur and Kantul and their immediate vicinity. The Meena and Goopoo or Hindustan, who have settled in Central India (though the greater proportion of them are cultivators), have not forgotten the habits of their ancestors; and, till late in the 19th century many of these classes distinguished themselves as expert and successful thieves and robbers.—*Molyneux's Central India,* ii. p. 185; *Wilson's Glossary.*

**BAGSARIA.** A small clan of Rajputs in the Moradabad district; also a branch of Kanaun Brahmanas.—*Wilson's Glossary.*

**BAG-SIRA.** HIND. Gryllus monstrosus; locust. Bagu or Wagu. JAVAN. Gneumium gnetum. Bah or Daha. HIND. The burning of dead bodies.

**BAHA,** also Khal and Khala. HIND. A water course, in some places natural, in other places artificial. It is from bahna, to flow.

**BAHADHA,** also Bahadhr. TEL. Terminali bellerica. *Roxb.*

**BAHADUR.** Pers. The seventh title amongst Indian Mahomedans and Hindus, and generally given along with all other titles, as Motamid-ud-Dowla, Bahadur; Matar-ul-Umra, Bahadur; Siyaj-ul-Umra, Bahadur.

**BAHADURI VARAHA,** a gold coin struck in the time of Hyder Ali, value Rs. 44.

**BAHADUR KHEL,** in Afghanistan, a clan.
to the east of the Joorbuk pass, where, also, at Kharrar and Lutnur, are the three Trans-Indus salt-mines. Those of Bahadur Khel, in lat. 33° 10' 30" N., and long. 70° 59' 15" E., 4 miles long and 450 yards in breadth, are a mass of rock salt, and several salt hillocks crop out between two hills. The salt is largely worked by the Government, and is exported to Kabul, Baluchistan, the Derajat, and neighbouring Indian towns.

Revenue, £1279.

BAHAN. Pusht. Populus Euphratica. BAHANGI or Bhangi, in peninsular India, a postal term for the heavier book and parcel post.

BAHARA, also Ballara, an ancient Hindu dynasty that ruled in Gujerat and Surat (Saurashtra). The capital was Balabhipura, and the dynasty was named Bahara, Balabhi, and Bala Rai. Balabhipura was destroyed by the Parthians in A.D. 524. See Saurashtra; Kattyawar.

BAHARLOO, one of the seven Turkish tribes who supported Shah Ismail, one of the first of the Saffavane kings of Persia, about A.D. 1500. They wear the red cap, and are part of the Kazzilbash. See Kajar; Kazzilbash.

BAHA-ud-DIN, Nakshbandi, the national saint of Turkistan, was the founder of the sect of Nakshbandi fakirs or darwhes. He died A.D. 1388 (1963?), and his tomb is in a small garden in a village six miles from Bokhara, on the Samar-cand road. Pilgrims visit the shrine from remote countries of Asia. It is a small temple-like mausoleum, decorated with rams' horns and rags. At one side is the sang-i-murad, or wishing-stone, with an inscription, which devout visitors rub with their hands, faces, and beards.—Schuyler, ii. 113.

BAHA-ud-DIN, Zakarhiah, a fakir who lived in the beginning of the 14th century, and is still one of the most revered of the Mahomedan saints. He left enormous wealth to his heirs.—Briggs, Ferishta, i. p. 377.

BAHAI-ROPA. Hind. Literally, many faces, a section or clan of the Banjara, at the foot of the Himalaya; also mimics and beggars, and in the southern Mahrrata country they are the associates of thieves.

BAHAWULPUR, a Mahomedan state lying to the east of the river Indus, north of Saurashtra. The reigning family claim to trace their descent to the Abbassi khilifs of Baghdad, including Harun-al-Rashid. But the reigning chief, according to Mr. Masson, is of a Jat family, called Daimpootra, or the sons of David. They formerly lived about Shikarpur, but, becoming numerous, they were expelled; and, crossing the Indus, possessed themselves of the country, where they established separate and independent chiefships. Many of their leaders built towns, to which they gave their respective names, Bahawulpur, Ahmadpur, Fazilpur, Sabzal Kot. The state has an area of 22,000 square miles, with a population of 500,000, mostly Mahomedans. Its rivers are the Indus and the Sutlej, and the fertile parts extend along the banks; and, besides smaller inundation channels, a great channel, 113 miles long, has also been cut parallel to the Sutlej or Gharra. Bahawulpur is seated on the skirts of the desert. The town is built about two miles from the south bank of the Ghanna river, and the transition from a land of sterility and solitude to one of fertility and abundance, is very striking to the traveller approaching it from the east. The Bahawulpur territory is bounded on the north by the provinces of Multan, Mankira, and Lyia. To the south it has the great desert, separating it from Jassalmar. On the east, it touches to the north on the lands of the Sikh chief of Patiala, and, more directly east, on the frontiers of the Rajput principality of Bikanir. Westward it is defined by the river Indus, which divides it from Multan-Kot, and a slip of territory dependent on Dera Ghazi Khan; and lower down, from Harraund and Dauli, provinces of the Brahma Khan of Kelat. Bahawulpur is remarkable for the manufacture of lunesse, or silk'en girdles, and turban. The inhabitants of this and all the neighbouring countries on the west and north are principally Jat and Baluch, who profess the Mahomedan religion. Ueh is perhaps the most ancient town. The name is borne by two contiguous towns, one of which, Pir-ka-Uch, was bestowed on Pir Nasser-ud-Din, the spiritual adviser of the khan. Khanpur, 40 coss from Barra Ahmadpur, is surrounded by a country amusingly fertile, and is a depot for indigo, rice, and all kinds of grain. Moz Ghur fortress is a lofty structure, built of kiln-burnt bricks. The chief fortress of the state is Durawal, equidistant from Ahmadpur and Bahawulpur, or 18 coss from each. — Elphinston's Candbures p. 206; Masson's Journeys, i. pp. 17-28.

BAHBUDI, an Afghan knife.

BAHIDAN, a tribe in Kurdistan, along with the Seekir, Nur-ud-Din, Shindki, Gellati, Balbasi, Jass, and Mikri, under the prince of Amadiyah and Rowanduz, and number 400,000 souls.

BAHIEL, SHULLI. Maleal. Asteracantha longifolia, Nees.

BAHIERA, a clan of Rajput in Jopur and Chunbar.


BAHIKA, a tribe who were occupying the neighbourhood of the Indus near Attok, at the time of Alexander and Chandragupta. They were one of the republican races known as the Arashta, or the kingless, the republican defenders of Sangala or Sakala. The name of the Arashtah is Arrian, who place them on the Ravi. They were known by the several names of Babika, Jarikka, and Takka; from last which is the name of their old capital of Taxila, or Takkasila as known to the Greeks. The Takka people still exist in the Panjabs; and their alphabetical characters, under the name of Takri or Takni, are used by all the Hindus of Kashmir and the northern mountains, from Sinla and Sabathoo to Kabul and Bamiyan.—Elliot. See Chandragupta; Kubul; Pak-Pattan.

BAHIKHATIA, a mendicant sect in the Benares district, who, to enforce their demands for alms, cut and stab themselves, till the family, in horror, give them money to go away.—Sherring's Tribes, p. 270.

BAHIN, hind. A silver armlet.

BAHIRA, Sansk. Terminalia bellirica. Bel-leric myrobalan, the fruit, is very astringent; considered cooling, and given in hernia; much used in dyeing, and in messilhas; is common in all hazzors.—Gen. Med. Top. of Aimpur, p. 128.

BAHIR-VASI. Hind. A Hindu of unclear avocations, who resides outside (tahir) the town.
BAHILM, a Mahomedan tribe in Dassa and Meerut. Some of the Banjara tribes of Rohilkund take the name of Bahilim; also a gang of Thugs.—Elitio.

BAHILM, Burn. A useful timber of Tavoy.

BAHMAN, afterwards named Ardeshir, was the son of Isfandiyar, the brainy-bred, a prince of great renown in Persian annals. He is one of the most conspicuous heroes in the Shah Namah.

BAHMANI, a Mahomedan dynasty who ruled at Beder, in the Dekhan. They held the country towards Kulburga, in the S.W., and part of Telengana in the east. The first of the dynasty was Ala-ud-Din Hasan, Gangawi, Bahmani, a native of Dehli, of Afghan descent, and of humble origin. He farmed a small plot of land belonging to a Brahman astrologer named Gangu, and discovered a treasure, which he delivered up to Gangu, who returned obtained his advancement. He changed his own name to Ala-ud-Din, and added to it Hasan Gangu, the last being that of the Brahman. He was the first Mahomedan king in the Dekhan. He fixed his capital at Kulburga, and his successors afterwards made Beder the capital.

Hasan Gangu or Ala-ud-Din, | A.D. | A.H. |
---|---|---|
Muhammad I, | 1347 | 748 |
Mujahid | 1359 | 760 |
Daud | 1375 | 786 |
Muhammad II, | 1378 | 789 |
Ghaiza-ud-Din, | 1379 | 790 |
Shams-ud-Din, | 1397 | 799 |
Firoz, | 1397 | 800 |
Ahmad I, | 1422 | 825 |
Ali-ud-Din, | 1435 | 838 |
Humayun, | 1457 | 850 |
Nizam, | 1461 | 865 |
Muhammad II, | 1463 | 867 |
Muhammad II, | 1482 | 887 |
Nominal king, | 1518 | 924 |
Ab Dowlah, | 1520 | 927 |
kings, | | |
Wali, | 1522 | |
Kalim, | 1526 | |

After the Bahmani kingdom of the Dekhan became dismembered, at the end of the 15th century, into five states of Bijapur, Ahmadnagar, Berar, Golconda, and Beder, these, for 150 years, continued incessantly at war, and so ruined the centre of the Dekhan that it is still with few inhabitants. Golconda State alone remains under another dynasty.—Eliph.

BAHMAN SATPAID, and Bahman Surkh, Hind. White and red Centaurea behnem.

BAHINI, —? A dance.

BAHIOLI or Bhawalii, Hind. Land about the village homestead in Kangra.

BAHHR, Arab. Pers. The ocean, a sea; a great river, as Bahr-ul-Yemen, Bahr-ul-Abid, the White Nile; Bahr-ul-Azrek, the Blue, and Bahr-ul-Aswad, the Black Nile. Bahr-ul-Kulzun, the Red Sea; Bahr-i-Oman, the Arabian Sea; Bahr-ul-Run, the Mediterranean.

BAHRAICH, a district of Oudh; area, 2645 square miles; population, 774,477; bounded on the west by the Gogra river. Bahraich town is in lat. 27° 34' 52" N., and long. 81° 38' 2" E. Besides the Aryan Hindu Brahmins, Kshatriya, and Vaisyas, the population consists of Ahir, Chamar, Garsiary, Kahas, Kurmi, Kori, Lodha, Murao, Nao, and Pasi, and about 34,000 Mahomedans. Sakya, the Buddha, was born at Kapilavatthu, near Kosin, about 623 B.C., and passed nineteen years of his life at Sravasti, its ancient capital, the modern Sahet Mahet. At Tanda, 9 miles west, is a statue of Maha Baha, Sakya's mother, which Hindus worship, but call it Sita Baha. Bahraich takes its name from the Bhar race, who once were dominant here and in all the districts of eastern Oudh.

BAHRAICH, the name of five of the Sassanian kings of Persia, whom the Romans styled Varanes and Varanu.

BAHRAKHAN. Smith. Mordman.

Varanes I. A.D. 274, 271 the 4th king.
Varanes II. A.D. 277, 277 the 5th king.
Varanes III. A.D. 294, 291 the 6th king.
Varanes V. A.D. 420-438 420 styled Bahram Ghor.

In the reign of Bahram Ghor, the famous impostor Mani, founder of the sect of Manicheans, made his appearance, and was put to death by the king. Bahram Ghor was famous for his liberty, galantry, and love of the chase of the Ghor or 'wild ass,' and he was surmised Gor from his partiality to hunting that animal. In its pursuit he was drowned in one of the deep pools near Persepolis. The monuments of Bahram are placed with those of Sapor I., below those of Darius and Xerxes, on the cliffs of Nakh-i-Rustam. Various authorities state that Bahram Ghor was in India in the 5th century, and left progeny by a princess of Kanor. A passage in an ancient Jain ms. indicates that in 'S. 528, raja Gardha-bhela, of Cacostha, or Sooryavansa, ruled in Balabhipoora.' It has been surmised that Gardha-bheela was the son of Bahram Ghor, a son of whom is stated to have obtained dominion at Putan.—Tod's Rajasthan, p. 292. See Sassanian Kings.

BAHRAM, a Sakkar or water-carrier, a poet of Bardwan of the time of Akbar. He has a tomb erected to his memory. Near it is buried Sher Afghan, first husband of Nur Jahan.

BAHRAKHAN, a Turkoman by birth, was a distinguished officer under the emperor Humayun, before his expulsion from India. In the defeat of Humayun by Sher Shah, Bahram was separated from his prince, but made his way, after a long series of dangers and adventures, through Gujarat to Sind, where he found Humayun, in the third year after his expulsion. He was received with joy by the whole of the exiled party, and became thenceforward the most confidential of Humayun's officers. When Akbar was sent as the nominal head of the army in the Panjab, the real command was vested in Bahram Khan. When Akbar ascended the throne (A.D. 1556, A.H. 963), at the age of thirteen years and four months, Bahram Khan was invested with the charge of all the powers of sovereignty, receiving the title of Khan Baha, or king's father, a translation of the Turki Atabek; and the real restoration of the house of Timur was brought about entirely through the exertions of Bahram. But his temper was harsh, his manners overbearing, and he could not suffer the smallest pretension to power derived from any source but his favour. Even Akbar was kept in thrall, and, when eighteen years old, concerted the plan of a hunting party, from which he returned suddenly to Delhi, where (A.D. March 1560, A.H. 28 Jamadi-ulp-Khahir 667) he proclaimed that he had assumed charge of the
government, and forbade obedience to other than his own orders. Bahram went off to Nagor as if proceeding on pilgrimage to Mecca, but receiving some further cause of irritation, he went openly into inscription and invasion of the Punjab. Akbar moved against him, and defeated him (A.D. September 1560, A.H. Muharram 968) by a detachment, and Bahram fled to the hills, but at length threw himself on the king's mercy. Akbar received him with honour, and Bahram proceeded to Gujerat on the way to Mecca, but while preparing to embark, he was assassinated by an Afghan, whose father he had killed in battle during the reign of Humayun.—Elph. pp. 455-6.

BAHREIN, also called Awal Island, on the Arabian shore, extends from lat. 26° 14' to 25° 46' N., and occupies a central position in the Gulf of Bahrein. Its pearl fishery employs about 4500 vessels and boats, and it was long a field of contention between the different powers who towards the end of the 18th century strove for supremacy in the Persian Gulf. In 1779, after having often changed masters, it was conquered by the Uttooee tribe, by whom it has ever since been held, under allegiance at one time to Muscat; and successively to the Wahabis, to Turkey, and to Persia. In 1820, after the capture of Ras-ul-Khyma by the expedition sent against the piratical tribes in the gulf, the two chiefs, Abdulla-bin-Ahmed and Suliman-bin-Ahmed, who then ruled Bahrein conjointly, signed a preliminary engagement not to permit in Bahrein the sale of property procured by plunder and piracy, and to restore all Indian prisoners then in their possession. They also subscribed a general treaty for the pacification of the Persian Gulf. The chiefs of Bahrein were parties to the engagement in 1847 for the suppression of the slave trade. Twelve miles from the north end is a small mass of volcanic hills, called Jabal Dukhan, 400 feet high. The Uttooee, who last conquered Bahrein (A.D. 1779, A.H. 1194), were of the Beni Sabah, Beni Yalahimah, and Beni Khalifah, who came originally from Koweit or Grane, but afterwards quarrelled, and the Yalahimah were nearly all destroyed. The pearls are large, and of a yellow colour; and Niebuhr stated the annual revenue from its pearl fishery at £157,000. Fresh-water springs occur on the shore reef off the island at 2½ fathoms; a similar spring is off Katiff, distant 8 or 9 miles.—Findlay: Kinnett's Memoir, p. 17; Horsburgh; Wellsted: Alitzen's Treatise.

BAIR-WATTHIAH (bahr, out, and wat, a road) is a term applied to Kattaywar Raiputs, who on some quarrel with their landlord quit their villages, which thus lie waste, and occupy the neighbouring fastnesses, from whence they make inroads, until hunted down, or a compromise or settlement occurs.

BAHU. Hind. In the south of India, persons formerly compelled to give their labour as porters or for public works. Compulsory labour.

BAIJA. Wilson says that Baja is a name of the Kharwar tribe, but this designation is not known in the Peninsula. The Kharwar are dyers with the red dye from the Morinda umbellata.

BAIKAH. Hind. A snake. The Kherwar tribe call it 'Dahya' and cultivate the poison from this reptile.

BAIL, also written Baie, Bye, and Bhaye, Mahb., a lady; a respectful address for a woman. In Bengal, a mistress, a dancing girl, a prostitute.


BAIHA. Hind. The Phoenix lapoia, Bligh, the weaver bird of India. It builds bottle-like nests, generally hanging over water, when it is readily domesticated, and acquires several little tricks.

BAIBARANG. Hind. Myrrine Africana, also Embelia ribs.

BAIBARANG KATAI. Hind. A species of Melissa or Nepeta.

BAIB-YAH. Bum. Conocarpus robusta.

BAID. Hind. Or Bed, herbalists who gather and sell medicines. They are often quoted as authorities for the properties of plants, but they are poor and illiterate, often beggars. They are a caste or a race. A considerable number occupy the Hyderabad country near the Deccan. See Ved; Gollar.

BAIDARA. The people or tribe from whom the term Pindara was obtained. In the many cultivated spots throughout the hills which extend northwards from Kasaladurga, Tipu settled tribes of the Baidara race, who received twelve pagodas a year, and served as irregular troops when requisitioned. They were mercenaries, and in following the armies spared neither life nor property. These men were the chief instruments of Hyder and his son in the depredations of the Karnatic. There are two Baileyar principalities in the Dukhan, one at Zorapore or Bairar Zorapore, and one at Ghurghunta. The men are tall and good-looking, and fond of sport. They hunt and eat the wild hog.—Buchanan's Mysore, p. 179.

BAIDWANA, descendants of the Chauhun or Pranara Rajput, who embraced Mahomedanism.

BAIGA of Mandla are supposed to be the prior occupants of that district, and take the title of Bhumia or landlord. The Baiga language is almost pure Hindi. They have three sections, Bijnwar or Bichwar, Mundhia, and Bhrintiah, each of which is subdivided into seven sections. Even where the Gond and Baiga occupy the same village, the Baiga live apart from the Gond. They are of a slight, wiry build; hardly, extremely active, fearless, trustworthv, and independent. They cultivate by the 'Dahya' system, and sow the Kodo or Fasalnum frumentaceum in patches called Bemar.

BAIGAR. Hind. In the south of India, persons formerly compelled to give their labour as porters or for public works. Compulsory labour.

BAIGAR. Wilson says that Baigar is a name of the Kharwar tribe, but this designation is not known in the Peninsula. The Kharwar are dyers with the red dye from the Morinda umbellata.

BAIKAL, in the Lake District, an expansion of the Angara river. Its length is nearly 400 miles (according to Bell, 300 miles), with 45 miles of average breadth from north to south. It has steamboats plying on it. Its seal and sturgeon fisheries are valuable, and the oil of the golomyka fish, Callionymus Baicalensis, is valuable. Mountains encompass the lake entirely, and several rivers discharge into it. The Commercial and Statistical Register for the year 1858, gives the area of the lake 0-lao-lan (Olchon) island, frequented by wandering tribes of the Mongol and the Pu-la-te (Buhaty of Bell), and they bring hither with them their horses. Baikal lake is 1715 feet above the
level of the sea, Selinghinek 1779 feet, and Kikakta 2400 feet, consequently higher than all the towns of the Harz and the Swiss Alps. The omulv fish come in vast shoals from the Baikal, in autumn, up the river Selinge to spawn. They advance up the river about 10 miles a day. This fish is very agreeable food, either fresh or salted. They are much fatter the nearer they are caught to the sea. Near Baikal lake are several hot mineral springs; that of Tourkins is the most accessible. Many families from Irkutzk spend part of their summer here. Between this place and the Ourt Bargouzine there are other springs, in which the gushing fluid scalds the hand if placed in it.—Narrative, pp. 45–53; Timbowski's Journey, i. 17.

BAIKER. HIND. Cervulus moschatus, De Bl.

BAIKIE, ROBERT, was a medical officer of the Madras army, who wrote observations on the Neighherry Hills in Mad. Lit. Trans., and Notes on the Climate of Coorg, ibid. 1896, iv. p. 398.—Dr. Buis's Catal.

BAIKUNTH or Vikunth, the heaven of Vishnu. Jafar Khan had pits of this name in which he confined revenue defaulters.

BAIL KUMHAR, the Canarese name of the Taremuk or wandering blacksmith. They wander about the Madhurtha country. Wilson writes the name Baitu kanammar.

BAINA. SANSE. Andropogon muricatum.

BAINGAN. HIND. Solanum melongena, egg plant. Baingani Rang, a dull purple colour, like that of the rind of the baingan. Baingan Tamaku, a variety of tobacco.

BAINSI, a section of the Gujar tribe.

BAIJO-JENTI. BENG. Sesbania Aegyptica.

BAIR or Ber. BENG. Zizyphus jujuba.

BAIRAGI. HIND. A Hindu ascetic mendicant. Byragi, Viragi, from Vi, private, and rag, passion; literally, a person freed from desire. The term is loosely applied to several sects of Hindu ascetics, but originally to followers of Ramanand and his disciple Ramanuji. They are chiefly recruited from the Sudras; they do not marry, and they bury their dead.—Sherrington, p. 260.

BAIRAM or Bairam, one of the Turk race of Constantinople, a religious festival on the 10th day of the month Zi-ul-Haj, and is also called the Eed-i-Adha and Eed-ul-Kurban, and by the Turks generally Kurban Bairam. See Bakrid.

BAIRATH, at the foot of the Bhim-gupha Hill, 41 miles north of Jeyapore and 25 miles west of Alwar. It is an old town of fame from the wanderings of the Pandus, and has two of Asoka's rock inscriptions. One of them is on a detached block of granite. Bairath has copper mines.

BAIR-DHSM, an officer of Madras and Bengal, who rose to the rank of lieutenant-colonel of Engineers. He was employed to report on the system of irrigation in Italy. He travelled in North America in 1883, and studied the irrigation systems of the Madras districts, under General Sir Proby Cantley. In 1854 he drew up regulations for the Ganges Canal, which was opened in that year. He was in command at Bhoorker during the rebellion of 1857; and in June of that year was employed as engineer before Delhi, where he was wounded. His services there were rewarded by promotion to lieutenant-colonel, he was raised to the rank of Commander of the Bath, nominated aide-de-camp to the Queen, and in 1858 he was appointed Mint Master at Calcutta. His reports on irrigation were printed. He died on board the P. & O. steamer Candia in 1868, and was buried at Madras.

BAIRHAM, a Hindu set of musical tunes, said to have been composed by Brahms.

BAIRIS, a river that issues from the Oodi-Sagur lake of Rajputana, and passes within a mile of Chitore. There are two grand reservoirs within six miles of each other,—the Peshola, or internal lake, having an elevation of eighty feet above the external one; the Oodi-Sagur, whose outlet forms the Bairs. The Peshola may be called the parent of the other, although it is partly fed by the minor lake at the villa of Shuhalea-Ki-Bari. Both are from twelve to fourteen miles in circumference, in some places thirty-five feet deep, and being fed by the perennial streams from the Aravalli, they contain a constant supply of water.—Todd's Rajasthan, ii. p. 627.

BAIRIYE. SINGH. A durable wood of Ceylon, weighing 57 lbs. 10 oz. per cubic foot, and lasting 10 to 30 years. The tree is found chiefly near the mouths of the rivers, in the northern and western provinces of the island, and its timber is used for anchors and in house-building.—Mendis.

BAIS, a numerous tribe of Rajputs in Oudh, and at Baiswarra in the N.W. Provinces, who gave their name to the district. They assert that they came from Manji Patthin in the Dekhan, and that their 360 clans are descendants of 360 wives of king Salivahana (A.D. 78). They are included amongst the 36 royal races, and can intermarry with the Chabhin and Kachwaha. Their tulk-chandra branch have the moon for their frontal mark.—Wilson's Glossary.

BAIS. HIND. A verbal alteration from Vais, or Vaisy, the third order of the Hindus. The bankers, merchants, and shopkeepers known as Marwari, call themselves Bais or Vais. See Vaisy.

BAISA-BOL. See Bol.

BAISAKH, amongst the Hindus, the first of their lunar-solar months, April and May. The first of Baisakh is a holiday, in which Hindus bathe, as a religious ceremonial, in rivers, canals, at Hardwar, at Ganges, or other holy rivers. The Baisakh Bihu is a festival as gay as a carnival. For many days before the actual festival, the young people in the villages may be seen moving about in groups daily dressed, or forming circles, in the midst of which the prettiest girls dance, with their long hair loose on their shoulders. The first day of the festival is devoted to interchanges of visits, the next to the bathing and worshipping of all the cattle, and on the third day the inhabitants of several groups of villages, old and young, meet at some appointed place and give themselves up to thorough enjoyment. The girls on these occasions do not like to dance before the men of their own village. Akhtij is the 18th day of Baisakh, on which cultivators of the N.W. Provinces adjust the obligations incurred to provide for the rabi crop. It is to this crop what the Diwali is to the kharif. On the Akhtij, the manufacture is commenced of new agricultural implements. Brasses are fed, and the new grain eaten, this being till then scrupulously abstained from. A plough is also slightly passed over the fields to secure good luck, but to sow seed on that day would be unlucky;—Pus Amawas mul bin, Srawan bhishni srawani, Bin ruhin Akhtij, Britha na boow biy.

BAISHEE. BENG. Willow; Salix Babylonica.
BAISHNAV.

BAISHNAV, a dialectal change from Vaishnava, a sectarian Hindu follower of Vishnu; but the term is commonly applied in northern India to religious mendicants, who mark their foreheads with the symbols of Vishnu, and repeat hymns in honour of his avatars, but chiefly of Rama and Krishna.—W. See Vaishnava.

BAISWARA, a district in the N.W. Provinces. 
BIAIT. A r a b . A house. Bait-Ullah, the house of God in Mecca; Bait-ul-Maqaddas, the holy house in Jerusalem; Bait-ul-Mal, a treasury.
BIAIT, a couplet in the Arabic, Persian, and Hindustani poetry; but the Mahommedan poets of Sind apply the word to their peculiar triplets. The war song, or that sung in battle, like the Arabic Rajaz, is called 'Shair' in Sind, and was sung by the Mirasis, or bard, who accompanies the chief, during the combat.—Burton's Seiude, p. 386.

BAITALI BHAT, bardic of the Gosains of the Benares district. They claim descent from Baital, a raj-bhat at Vikramaditya's court; but he abandoned the king and the king's religion, and attached himself to the Gosain sect. They subsist on charity, but accept it only from Gosains, whose bards they are.—Stirling.

BAITALI PACHISI, or Twenty-five Tales of a Demon, is the term generally in use in all the vernacular dialects of British India—Bengali, Gujarati, Hindi, Mahratti, Tamil, and Telugu—to designate an extremely popular collection of stories, written in Sanskrit, and translated into the current tongues. The collection is known as the Veta/ Panchavati, and purports to have been stories related by a sprite, or demon, or vampire, who haunts cemeteries, and animates dead bodies, to Vikramaditya, king of Oojein, according to the usual version: but, according to the Katha-Sagara, to Tri-Vikrama Sena, king of Prelishthana or Python, on the Godavery. Whether it was a separate work originally, or whether it always formed the ninth section of the twelfth book of the Katha, is uncertain. It is now, however, printed separately, and has been translated into English by Raja Kali Krishna, Mr. Eastwick, Captains Hollings and Richard Burton, Munshi Ghostam Mahomed, and Mr. John Platts. The scene is laid in Oojein, then ruled by Raja Gandharb Sen, whose son and successor Shank was slain by his younger brother Vikram, or Bhartari. It relates the occurrences resulting from the gift by a deity to an anchorite Brahim, of a fruit possessing the power of conferring immortality on whoever should eat it. Vikram ate it, and became a devotee. Kathasaritasagara, the Ocean of the Streams of Narrative, or Watery Ocean of Stories, is a well-known book in the languages of India, but is more commonly known as the Vrhat-katha and the Vrihat-kathasagara, the great collection of tales, or great tale from which the Kathasaritasagara has been compiled. The date and the author of the Vrhat-kathâ are both unknown, but it was written in prose in minute detail. The Kathasaritasagara, however, is in verse, and is more compressed in style, the author being Bhattach Samdeva, who lived about A.D. 1088. It is a large work, and consists of eighteen books, subdivided into 124 sections. Only a portion of it has been translated. The first book refers the origin of the stories to Siva, who told them to his wife Parvati. The Kathasaritasagar abounds with pictures of national manners and customs and feelings.

BAITA. styled Ul-Baitar, a learned man of Baghdad. He died A.D. 1248.

BAITAHA. SANSK. Dry ginger.

BAIT'HAK. HIND. A house with an open sitting-room on the first floor, from baitha, to sit; also an assembly at night of women. Baithak-khana, the reception-room of a native dwelling-house. Baithan, a homestead.

BAITUL, a district in the Nerbudda division of the Central Provinces, comprising the western section of the Satpura plateau, and situated between lat. 21° 20' and 22° 35' N., and long. 77° 20' and 78° 35' E., an area of 4118 square miles. Its population is about 190,000.

BAITUL-FAKIH, an inland town of the district of Tehama, a province of Yemen, from which the coffee tree was taken to Bourbon.

BAIZ. ARAB. Lit. white. A mark or signature by a feudalty Mahomedan prince, generally the first part of the Arabic letter swad; a cipher, a monogram.

BAIZA-BAI, born towards the close of the 18th century, was the daughter of Shirzi Rao, Ghatgay, a Mahatta leader and minister of great notoriety, and her brother was Hindoo Rao. She was married to Dowlut Rao Sindia with great pomp. She was a woman of imperious disposition and masculine temper, and when her husband died childless in 1827, she assumed sovereign power. Afterwards she adopted Jankojee, a relative of her husband, and acted as regent till Jankojee came of age, when, weary of restraint, she sought British protection, and he was placed on the gadd'i in A.D. 1838. On this, Baiz-Bai retired to Agra, then to Farmahkhal, and subsequently to her jaghir in the Dehkan.

BAIZAH, also Baidad. ARAB. An egg; also, owing to the shape, the testis.

BAIZAI is a division of Swat, south of the Mara range and north of Lunkhor. It is inhabited by Baizai Swati, Utman Khel, Khatak, Mohmand, Rawauri, etc. The Baizai section of the Mohmand tribe inhabits the country between the Halimzai section and Bajawar. They punish abduction by fine.—Mactir. N.W.F. i. pp. 138-145.

BAIZAWI, the cognomen of the author of the Nizam-ut-Tawarikh, given to him as a native of Baiza, a town a short distance from Shiraz. He was Kazi there, and subsequently at Shiraz, where he died A.D. 685, A.D. 1286. His name was Abu Saeed Abdullah bin Abu' Hasan Ali, Baizawi. He wrote a commentary upon the Koran, entitled Anwar ut Tasal wa Asrar ut Tawil, the Lights of Revelation and Mysteries of Allegorical Interpretation, which has been censured on by many succeeding authors. It is considered the best commentary. He also, about A.D. 674, wrote the Nizam-ut-Tawarikh, the arrangement of histories, a small work devoted to general history, the prophets and patriarchs from Adam to Noah, the pre-Mahomedan kings of Persia, Mahommed and his Unmayide and Abbasside successors, dynasties of Iran during the time of the Abbassides.—Elliot.

BAIZOARA, in lat. 16° 31' 6" N., and long. 80° 40' 1" E., on the left bank of the Krishna or Kistna river, and 180 feet above the sea. A dam or anicut has been thrown across the Krishna river at this place, and extensive canals lead from it to the north and south.

BAJA. HIND. Baja bauhuntri. Music; musical instruments.
BAJANTRI KORAWA.

BAJANTRI KORAWA, a branch of the Korawa tribe, who are usually the village musicians, from Baja, music. They are the Gaon Korawa or Sonai Kolawas. See Korawa; India.

BAJAR. HIND. Mamis pentadactyla.

BAJAWAR. According to Colonel Tod, the three great branches of the Indu (Lunar) Aswa bore the epithet of Mida (pronounced Mede), viz., Poora-med, Uja-med, and Dode-med, and he supposes these to be the Aswa invaders of Assyria and Media, the sons of Bajaswa, expressly stated to have multiplied in the countries west of the Indus, emigrating from their paternal seats in Panchalain.—Tod's Rajasthan, i. p. 58.

BAJAT. HIND. A head ornament.

BAJAWAR, an independent district south of the Mohmans and west of the Kunar range. It is an undulating plain, 25 miles long, and 2 to 7 miles broad. It is a pastoral country, with large herds of cattle and flocks of sheep and goats. The chief has a large force of 6000 men and 16 guns, has absolute power over his people, even extending to their wives and daughters. They have always been hostile to the British, and were against them at Jalalabad and at the Ambila expedition of 1869. It produces iron, sulphide of antimony, and copper. It is inhabited by Hindkis about 30,000 souls, a mixed race called Rudbari, and 10,000 to 12,000 families of Turkolani, who can turn out 15,000 fighting men. Elphinstone says the Turkolani are also called Turkani; that the upper hills are inhabited by converted Kafirs, the lower by Hindki, and the plain by the Rudbari, a mixture of all tribes and nations.—Elphinstone's Cawul, p. 251; MacGr. N.W.P.T. i. p. 145.

BAJ-BAJ or Budge-Budge, a fishing village on the banks of the Hugli, 15 miles below Calcutta.

BAJGAH. A village 64 miles N. of Damian, in the valley of Kamard, in Afghan-Turkistan.

BAJI BHIJ. Bexg. Herpestes Malaccensis.

BAJI RAO, son of Balaji Wiswanath, was the second Peshwa of the Maharrast. He was the ablest of all the Brahman dynasty, and of all the Maharrasta nation except Sivaji. His father died in October 1720, and Baji Rao had a powerful rival in the Pirti-Nidhi. The Pirti-Nidhi was sincerely apprehensive of the effects of a further diffusion of the Maharrast power; and he strenuously contended for the necessity of consolidating the raja's present possessions, suppressing civil discord, and acquiring a firm hold on the countries in the south of the Peninsula before attempting to make any conquests in Hindustan. Baji Rao took a bolder view. He saw that the hordes of predatory horse, who were so useful in an enemy's country, would be utterly un governable at home; and that it was only by forming an army, and establishing a military command, that an efficient internal government could be brought into existence. He therefore conceived an immediate invasion of the northern provinces, and pointed out the inward weakness of the Moghul empire, which was nowhere so rotten as at the core. Let us strike, said he, the withered trunk, and the branches will fall of themselves. The eloquence and earnestness with which he pressed his advice overcame all the doubts of the Raja Saho, and when urged by Baji Rao to allow him to carry his standard beyond the Nerbadda, he exclaimed with enthusiasm, 'You shall plant it on Himalaya.'

Raja Saho was not destitute of abilities, but his education in a Mahomedan seminary was alike unfavourable to hardness of body and activity of mind; while Baji Rao, born in a camp, and trained up a statesman and diplomatist, combined the habits of a Maharrasta horseman with an enlarged judgment and extensive knowledge. Unlike the subdued manners of others of the brahmanical class, his temper was ardent and his manner frank; he never flinched from fatigue or danger, and could make a meal of dry grain rubbed out of the husks between his hands as he rode along on a march. When Asof Jah was removed from the governments of Malwa and Gujarast, and Raja Girdhar was appointed governor of Malwa, he was unable to defend it against the incursions of Baji Rao; and Hamid Khan and Sirbalian Khan, successive governors of Gujarast, yielded the Chouth and Styr Deshmukhi to the Maharrasts (A.D. 1725, A.H. 1136). Asof Jah at this time raised questions as to the party to whom—whether to Samba, who had made Kolhapur his capital, or to Saho—his Chouth and Styr Deshmukhi pertain. Samba was too hardy to relieve Barhanpur. Baji Rao made a rapid incursion into Gujarast, which he ravaged with fire and sword. He returned with celerity to the Dekhan, laid waste the country around Asof Jah's army, and so straitened him for supplies, that he renounced his connection with Samba, and conceded other advantages to the Maharrasts (A.D. 1727, A.H. 1140). After this, in A.D. 1729, A.H. 1141-2, Baji Rao crossed the Nerbadda to ravage Malwa, and excited from Sirbalian Khan a confirmation of his predecessor's grant of the Chouth of Gujarast.

At this time, four officers of the Peshwa—the Puar, Gaekwar, Holkar, and Sindia—who were to be founders of dynasties, were rising into distinction. They were all from districts of the country in which the Maharrast language is spoken. Mulher Rao, Holkar was a shepherd on the Nira, south of Poona; the Puar family were in the Indore. Kanaji Sindia, though of a respectable family near Sattra, was in such abject poverty as to be a menial servant of Baji Rao. Piliji Gaekwar was an adherent of Dabari, hereditary senapati or commander-in-chief, and on Dabari falling in action, A.D. 1731, and his son an infant, Piliji was nominated regent by Baji Rao, and the family are still ruling at Baroda. Udaji Puar was a chief before his connection with the Peshwa; he soon acquired territory about Dhar, on the borders of Gujarast and Malwa, but never rose to such power as his colleagues or their descendants.

Baji Rao made peace with Asof Jah; but Abhi Singh of Jodhpur, who had murdered his father, Ajit Singh, procured the assassination of Piliji Gaekwar, whose son and brother ravaged Gujarast, raised all the surrounding hill tribes of Bhils and Kolis, and made a sudden irruption into Jodhpur. Baji Rao entered Malwa in possession, A.D. 1732; he aided the raja of Bundelkhand, and in return for his services the raja ceded the territory of Jansi on the Jumna, and bequeathed to him rights on the Jumna. In 1754 he came in contact with Jei Singh ii., raja of Ambar, distinguished for his love of science. Jei Singh was viceroy of Malwa, and, with the tacit concurrence of the emperor, he surrendered Malwa to the Maharrasts; and in 1756 he claimed as a jaghir the province of Malwa and all the country south of the Chambal, together
BAJI RAO.

with the holy cities of Muttra, Allahabad, and Benares. In the following year (A.D. 1737, A.H. 1149), Baji Rao advanced towards the capital. By the time he had arrived within 40 miles of Agra, his light troops, under the command of Mulhar Rao Holkar, were ravaging the country beyond the Jumna. These were attacked and driven back by Sadiat Khan, governor of Oudh, and Kamr-ud-Din Khan advanced to Muttra to oppose Baji Rao. Whilst he lay inactive near Muttra, Baji Rao suddenly quitted the Jumna, passed off about fourteen miles to the right of the Moghul army, and, advancing by prodigious marches, all at once presented himself before the gates of Delhi. He drove back a sally of the garrison, and retreated to the Dekhan, followed by Asof Jah, who had been appointed vizir of the emperor. Asof Jah advanced to Seronj with an army about 34,000 strong, supported by a reserve under Safdar Jung, nephew of the Saeid Khan of Oudh. Baji Rao crossed the Nerbadda with an army 80,000 strong, and Asof Jah awaited him (January 1737) in a strong position near Bhopal. The Maharattas laid waste the country around him, intercepted his supplies, attacked every detachment that showed itself, and interrupted all communication with his reserve, and at the end of a month or six weeks Asof Jah commenced to retreat. But the Maharattas hung upon his rear, and in February 1738 he ceded all the country from the Nerbadda to the Chambal (including all Malwa). Asof Jah also promised to procure from the emperor a confirmation of the cession and a payment of fifty lakhs of rupees (Feb. A.D. 1738, A.H. Ramzan 1150); but before this could be obtained, Nadir Shah, king of Persia, swept over the empire, and the progress of the Maharattas was arrested. After the rout of the imperial forces at Karnal (15th February 1739), the plunder of Delhi, and the massacre of its inhabitants, Nadir Shah left the Moghul army destroyed, the treasury exhausted, the finances all but annihilated, and internal dissensions between the Turmi families of Kamr-ud-Din Khan and Asof Jah, and all those who were desirous of supplanting them. During this state of things, Baji Rao suspended all operations. 'Our domestic quarrels,' he writes, 'are now insignificant. There is but one enemy in Hindustan. Hindus and Musalmans, the whole power of the Dekhan, must assemble.'

On Nadir Shah's departure, Baji Rao moved against Nasir Jang, son of Asof Jah, who was encamped with 10,000 soldiers at Barbanpur, but the young viceroy broke through Baji Rao's army, and advanced to Ahmadnagar on his way to Poona, and Baji Rao came to terms with him. Baji Rao then recommenced his march towards Hindostan, but he died on the 28th April 1740 (A.H. Safar 1153), on the banks of the Nerbadda. He left three sons, Balaji Rao, who succeeded him as Peshwa; Raginath Rao or Ragoba, who was at one time much connected with the British, and was the father of the last Peshwa; and Shamshir Bahadur, to whom (though an illegitimate son by a Mahomedan woman, and brought up in his mother's religion) he left all his possessions and pretensions in Bundelkhand.

During the last years of Baji Rao's administration, he had been engaged in wars in the Konkan. They were chiefly conducted by his brother, Chimraj; and from the position of his enemies in forts and islands, protected on one side by the sea, and on the other by hills and jungles, the wars required extraordinary exertions, and were attended with imperfect success. These enemies were Konajji Angria of Calala, a maritime predatory chief, the Habsbi of Junjira, and the Portuguese. Angria for about 20 years, 1713-1734, remained almost independent; and the Habsbi chiefs were almost as powerful at sea as Angria. The war with the Portuguese originated in the contest between the Angrias (A.D. 1737). It ended in the loss of the Portuguese possessions in Salsette, Bassein, and the neighbouring parts of the Konkan (A.D. 1739). The Maharattas lost 5000 killed and wounded at Bassein.—Grant Duft, Hist. of Marathas, i. p. 547.

BAJI RAO II. was Peshwa from 1795 to 1818, and was the last of the Peshwas. He was son of Ragbhoji, and succeeded his cousin, Madhoo Rao, who had thrown himself from a window and been killed. Baji Rao was a clever but unscrupulous ruler, and had amongst his more prominent officers Nama Farnavis and Tribhakaji Dandlia, both of them unprincipled men. After his defeat at Poona on the 15th November 1717, he retreated with his army to the southern districts of the Maharatt country, but on the 23rd retreat took his steps northwards. Baji Rao continued to elude the forces by which he was surrounded. He failed at Coregaum; General Sir Lionel Smith, with the 2d and 7th Madras Cavalry, and two squadrons of H.M. 22d Light Dragoons, defeated him on the 20th Feb. 1818 at Ashta; Brigadier Fritzer, Colonel Prother, Generals Munro and Malcolm, and Sir Thomas Hislop, had taken the strongholds of Vizierghur, Singur, and Purundhur, all those in the southern Konkan, Badami, Bhagulkot, Sholapur, Chanda, Taher, Belgaum, Tribukh, Mallegaum, Raiygar, and others in the Dekhan. Finally, on the 3d June 1818, he sallied at Bithur, where he passed his life in the manner common to Hindus of those days. He adopted Dundoo Punt as his son and heir, but the Indian Government refused to recognise Dundoo Punt as entitled to the eight lakhs, and to this refusal has been attributed his rapid conduct at Cummur.—Elph. India. See Mutiny.

BAJPAI. HIND. Vajpoy, Vajpe, Vahs. A branch of the Kanouj Brahmanas.

BAJRA. HIND. A large boat, round-bottomed, without a keel, in use for travelling on the lower Ganges, called budgerow by the British.

BAJRA. HIND. Penicillaria spicata. This is a very common millet in India; is not so heating as Jawari or Holena sorghum. It is made into cakes or porridge. Sown in fields at the commencement of the rains. It does not require much water, but it is of the last importance that this should be timely. That grown in the Indian desert is deemed of better quality than the produce of the richer lands of Malwa.—Tod.

BAJRA KAPTA. HIND. Manis pentadaetyla.

BAJRANGA, a name of Bhiravma. It means of thunderbolt frame, from Bajra, a thunderbolt, and anag, the head, Bhir, Bhiravma.

BAJRI. HIND. In the Punjab, a sort of grave of disintegrated rock, used when ground up in forming plasters and stucco. Qu. Is it kaolin?

BAJU. MALAY. A jacket of many different kinds, worn by both sexes.
BAJU or Baju Laut, a maritime people in the Archipelago Islands, who venture far to sea. Many of the Baju remain throughout the year near the Dutch settlement of Macassar, on the south end of the Celebes. They are chiefly employed by the Chinese in fishing for trepang or sea-slug, and are generally involved in debt. The demand against each boat or family usually averages about four hundred guilders (twenty-five pounds sterling), and no instance is on record of their ever having absconded to avoid the payment of their debts. The Baju are commonly called Sea Gipsies. They are found in considerable numbers in the sea which lies between the east coast of Borneo and the west coast of Celebes. They are said to have come originally from Johore, in the Malay Peninsula, the inhabitants of which they much resemble in features and habits. Many of them are settled in permanent villages on the east coast of Borneo, but the greater number live in their boats, which are from five to ten tons burden, during the whole year, and shift their position with the changing monsoon, so as always to keep on the lee side of the island, and consequently in fine weather. They all profess the Mahomedan religion, and differ but little, except in their maritime habits, from the Malays, though they are said to adhere less strictly to the tenets of their faith. They also deal in tortoiseshell, and it is said engage in piratical acts, though they do not pursue it as a profession. They also manufacture an alkali from the ashes of sea-weed, nipah leaves, and the marine plants of salt marshes, with which they traffic. Such of them as reside in permanent habitations have fowls about their houses, and in all respects resemble the other Mahomedans. Their villages are built on posts, and always over the water, and close to the sea, or near the mouths of large rivers, in which the eastern part of the island abounds. They are expert divers, and would be useful in this manner if capitalists should think proper to fish the rich banks of the pearl and mother-of-pearl oysters in Maludu Bay, and amongst the islands of the Sulu Archipelago, which would doubtless be found immensely productive.—*Lori*, p. 335. *Lor's Square*, p. 842. See Orang Laut.

BAKHTIARI. —B. As. S. Jo. v. p. 42.

BAKESWAR, of the Murshidabad district of Bengal. Springs impregnated with sulphuretted hydrogen occur in the bed of the river, and near Talifarsa village are a group of sacred hot sulphur springs, called Bhum Bakeswar.—*Imp. Gaz.*

BAKHAR. MAHR. Historic memoirs.

BAKHD, or fortunate, from which the term Balki is derived.

BAKHRA, a town in Tirhut, where there are many mound-like remains of an ancient Buddhist city, with images and inscriptions. See Kesarah.

BAKSH, HIND., from Bakshidan. PES. A gift, donation, a donor; usually Bux. Khuda-bakhsh, Deo-datus. Bakshi, a military chief, a paymaster; in Turkistan, a troubadour, a wandering singer. Bakshish, a present, a donation or gratuity; in Syria and Egypt, regarded as the drink-money of Europe. The Mahomedans of Syria and Egypt shout for bakshish on every occasion. It is seldom heard in southern India.

BAKHTAR ZAMIN, the Bakhtar country, the present name of the country between Balkh and Kâbul; ancient Bactria.

BAKHTAWAR, a religious mendicant of the Sunyabadi sect.

BAKHTRI, a Ghilzai general, who, under the orders of Kutub-ud-Din, about A.D. 1201 conquered Behar, and in 1203 Bengal; but in his expedition against Bhutan and Assam he was signally defeated, and driven back to Bengal, where he died from vexation, about A.D. 1206.

BAKHTARI, pastoral tribes of Kurds, who take up their warm winter quarters in Arabistan, at the head of the Persian Gulf, but in summer travel northwards amongst the mountains of Kirmân Shah. The inhabitants of Luri-Bazurg are now classified under the general title of Bakhthiari; but originally this name merely applied to a small tribe, one of the twenty-six distinct clans among whom the province was divided. The Bakhtiari comprise, exclusive of dependencies, the Haft Lang, the Chahar Lang, and the Dina ruin. The Bakhtiari tribe, who inhabit the mountains of Luriistan west of Irak, between Shuster and Isfahan, and from Shuster to near Kermanah, often wander to other parts. They have often attacked Isfahan, Nadir Shah alone having almost reduced them. They are named *Parthianobii* by Strabo, and Patiskhâris in the cueeniform inscriptions. Their manners and language have scarcely changed since the days of Cyrus. About 1840 they were conquered and decimated by the Persian Government, and their chiefs kept in perpetual

India, chiefly contributed to the Journal of the Bengal Asiatic Society.

BAKERGANJ, a town in Bengal, 120 miles east of Calcutta. It lies between the Megna and Jessore, is low-lying, and famed for its rice cultivation. The Bakerganj district in 1877 had 1,574,201 souls in an area of 4066 square miles; besides Hindus, there are many Chandal, Napit, and Kaira. A copper plate, in Sanskrit verse, was found here, dated Sanvat 3, of Kesava Sena's reign, which, from the Ayn Akbâri list, makes the year A.D. 1136. The character used in inscriptions is the Gaur, a little less simple than the earlier alphabets of the Pala dynasty. The Sena dynasty was of low origin, calling themselves Sankaya Gauriswara, or Lord of Gaur. There is not any mention of fire-arms, but of bows, arrows, swords, etc.—*B. As. S. Jo.* vol. p. 42.

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imprisonment at Teheran. The country is famed for the expedition of Alexander and his successors' rule. The country south of the great chain probably formed the site of the ancient Elam of Scripture, a powerful nation in the early days of Abraham, before the kingdoms of Assyria and Babylon rose into notice in the east. The tribe in Luristan have a tradition that they originally came from Syria (Sham) under one great chief, and took possession of the mountains which they now inhabit. They export to Khuzistan a small quantity of grain and tobacco, galls-nuts, mastic, cherry sticks for pipes. Their language is old Persian. They have a national dance called chapi. They have rejoicings around the body of one of their number, and if killed in battle their joy is more pronounced. Nadir Shah took a large number into his army, and they behaved well at the siege of Kandahar.

The Ulaki, a branch of the Haft Lang, about 1200 families, occupy the neighbourhood of Teheran in summer, in the mountains near Fellat and Semiran, and on the coast near Busahar in winter. The Janeki are the chief of the Chahar Lang, have many subdivisions, and number about 5000 families. The Mala Madli, a tribe of the Bakhtiari of about 1000 families. They accompanied Nadir Shah in his expeditions against Herat, and on their return settled in the Fellat district.


BAKKA MEENA. HIND. Scops Alcorvandi.

BAKAR or Bakher, opposite to Rohri and Sukkur, is fortified island in the Indus, and was once held by the Damani, latterly by Mir Sobhur of Sind. The effect of the landscape here is wonderfully increased by the beautiful stream, and the immense groves of date trees which fringe its banks. It was ceded to the British by the Talpur dynasty, 29th January 1839.—Mason's Journey, i. p. 362; Imp. Gaz.

BAKKUL. HIND. The fibrous bark of the roots of several trees, used in Malwa as a cheap substitute for string and cord. In Bengal, Agave Americana.—Royle.

BAKLA. DUK. Vicia faba; the garden bean, cultivated as the kidney bean. Bakla Kubti, the bean of Pythagoras. Baklazun, Phaseolus vulgaris; dwarf or kidney bean.

BAKLAT-ul-AHMAKA. ARAB. Purslane; Portulaca quadridiva. Baklat-ul-Faristan, balm; Melissa officinalis, var. Baklat-ul-malk; Pumaria parviflora, W. and A.

BAKLI. HIND. Lagerstræmia parviflora. R.

BAKOLI. HIND. A small green caterpillar that destroys rice crops.

BAKOOMBA. MAHI. Careya arborea; Roxb. 

BAKRAL. PUKHTU. A marriage portion.

BAKRI, a.d. 763, originator of the Moulud-i-Sharif recitations, by Mahomedans, of the birth, miracles, and death of their prophet.

BAKRID, from bakhar, a bull, and eed, a sacrifice; a Mahomedan festival held on the 10th day of the twelfth month of the Mahomedan year, called Zi-ul-haj. It is the festival in commemoration of Abraham offering up his son. The name of this son is not particularly mentioned in the Koran. Some Indian shiitks, however, suppose him to have been Isace; but the Persians all agree that he was Ishmael. This feast is also named Eel-i-kabber (the great feast), and Eeluz-zohna (feast of daylight), and Eel-i-Kurban. In India it is called Bukreef; and in Turkey Kurban-Bairum. Numbers of sheep and goats, sometimes a camel or an ox, are sacrificed on this day, and the flesh distributed to the people.

BAKHOR. To the eastward of Buddh Gaya, on the opposite bank of the Phalgu or Lillajan river, and immediately to the north of the village of Bakor, there are the ruins of a large brick tope, with a stump of a sandstone pillar at a short distance to the northward.—Gaz. N. S., 1864.

BAKSHA. Beng. Rottbdilla galba.

BAKSAR, a village in Outh, on the left bank of the Ganges, which is here a sacred spot for pilgrimage.—Imp. Gaz.

BAKSHI. HIND. Gardenia tetrasperma.

BAKTATURDHA, a title of Ganasha.

BAKU of the Bhot, a hill cloak.

BAKU or Bakon, in the north of Persia, on the shores of the Caspian, a place of pilgrimage, to which Hindu pilgrims even from India resort. It is now Russian territory. It has black naphtha springs, and when the weather is thick and hazy, the springs bubble up higher, and sometimes the naphtha takes fire, and runs like burning lava into the sea. The flaming soil or everlasting fire of Baku is the attraction to pilgrims, and is not less famous than its naphtha springs, which occasionally take fire. Moore tells us of—

'Baku and those fountains of blue flame That burn into the Caspian,'

and in recent years the naphtha has been used as fuel on board these vessels on the Caspian. In Hindu ancient geography, Baku is in Kushia Dwipa. The supply of this article in many places near that town, especially at the village of Balakhatany, has existed for centuries. The naphtha, cozing through a layer of sand, comes to the surface of the earth in the form of a thick black liquid. In 1859, M. Kokoreff, at the suggestion of the chemist Liebig, established a kerosene refinery at Soorakhanak, 12 versts distant from Baku. By 1869 there were 50 other similar establishments there, and 200,000 poods (40 lbs. to the pood) had been by then exported. At the end of a third period of ten years the quantity exported had reached 10,000,000. The principal cause which prevents Baku kerosene from competing with American, is the dearness of utensils to keep it in, and of carriage. At Baku it costs from 35 to 40 kopeks (about 10d.) a pood. It costs at the rate of 40 kopeks a pood for vessels to keep it in, and its cost per pood for conveyance to Astracan is 18 kopeks; to Tsararein (on the Volga), 30 kopeks; to Nijini-Novgorod, 49 kopeks; to Moscow, 63 kopeks; and to St. Petersburg, 86 kopeks.—Jameson's Ed. Journ. 1837-38.

BAKULA. HIND. Minusesops elengii. In Hindu legend, it was beneath a Bakula tree, on the banks of the Jumna, that Krishna fascinated the milkmaids of Brindhabhan with his flute.

BAKUMBER. BENG. Anisomeles ovata.

BAKUR-CHIRIA, or the 'bird's nest,' also called Jodagir, or Hill of Strife. Joda, on the recommendation of an ascetic, erected a castle on it. Doubtless its inaccessible position seconded the recommendation of the hermit, for its scarped summit renders it almost impregnable.—Tod.
BALA BHADRA.

BA-KUR-KHANI. PERS. Armeniaca vulgaris, L. Am.: the apricot.

BAKUS. BENG. Malabar nut, Adhatoda vasica. BAL. the sun-god of the Hindus, identical with the Baal-god of the Egyptians and western Semitic nations. The worship of Baal seems to have been originally astronomical, and subsequently physiological. In the former, the sun was worshipped direct, as yet in India, every morning, and at every solstice or sakrant. In the physiological worship, the female power of Bal was Baal-tis or Bel-tis. These formed an androgyne divinity. The Semitic emblem of Baal was the pillar on the high places, and his companion was the bull or calf,—all identical with the Hindu Ba-al or Bal represented by Siva, whose emblem is the pillar or lingam encircled by the yoni; with the vakha bull, Nandi or Basava, facing in front. See Numbers xxii. 41, xxiii. 14–28.

The worship of the god Bal seems to have been adopted in Egypt and throughout south-western Asia, and sometimes to have been considered that of the creative sun; sometimes in the form of the physiological emblems. The sun-worship of India seems to have had its chief place in Saurashtra, which was in constant intercourse with Egypt and western Asia. Under one or other of these philosophical explanations, Baal or Bal or Belus was the chief god of all the Semitic nations. The Aryan Brahman seems at present to have chiefly adopted the astronomical view; the Rajput and the southern Asians, the physiological. But in India, at present, these philosophies are all confused. At present the sakrant, or Sivarat (night of Siva) is the winter solstice. On it, in ancient times, in India, the horse was sacrificed to the sun, or Balath,—the lord Bal. The Scandinavians termed the longest night the 'mother night,' on which they held that the world was born. Hence the Beltane, the fires of Bal or Belenus; the Hi-ul of northern nations; the sacrificial fires on the Aswa Medha, or horse sacrifice worship of the sun, by the Soorya sect on the Ganges, and the Syrians and Sauroumte on the shores of the Mediterranean. When 'Judah did evil in the sight of the Lord, and built them high places, and images, and groves, on every high hill and under every tree,' the object was Bal, and the pillar, the lingam, was his symbol. It was on his altar they burned incense, and 'sacrificed unto the calf on the fifteenth day of the month' (the sacred Amavas of the Hindus). The calf of Israel is the bull (Nandi) of Bal- Oswar or Esawara, the Apsa of the Egyptian Osiris. According to Colonel Tod, the term of Solomon was to Bal; and all the idolaters of that day seem to have held to the grosser tenets of modern Hinduisum.

'Peer his other name, when he enticed Israel in Sittim, on their march from Nile.'—Paradise Lost, Book I.

Colonel Tod tells us that Balnath was the god Bal of the ancient times of India, and the buldan was the gift of the bull to the sun. He mentions that there are numerous temples in Rajasthan of Balim; and that Balpoor (Machado) in Saurashtra has several, all representing the sun. There is at Balpoor a temple to Balpoor Siva, or Siva of the town of Bal, with its lingam, yoni, and ball of brass; and Bal-eswar is the lord Bal, Maha-bal-Esvar the great lord Bal. In ancient western Asia, Bal and the brazen calf were specially worshipped on the fifteenth of the month, and in India, the sacred day of Bal-Esvar, with his vakha bull Nandi, is the amavasa, the moonless fifteenth day of the month. Amongst the Rajput races, according to Colonel Tod, Har is Bal, and is the patron of all who love war and strong drink, and is especially the object of the Rajput warrior's devotion; accordingly blood and wine form the chief oblations to the great god of the Indus. The Gosains, and the peculiar priests of Har, or Bal, the sun, all indulge in intoxicating drugs, herbs, and drinks. They are usually seated on a lion, leopard, or deer skins, their bodies covered with ashes, their hair matted and braided, with iron tongs to feed the pentential fires; and their savage appearance makes them fit organs for the command of the god of blood and slaughter. The bodies of these Gosain priests, ministers of Har, the god of war, are not burned like the Hindus, but are buried, and a circular tumulus is raised over the remains; and over some classes of Gosains, small tumuli, whose form is the frustum of a cone, with lateral steps, the apex crowned with a cylindrical stone.—Tod's Rajastahan, i. 76, 77; Tod's Travels, pp. 54, 49; Mitner's Seven Churches, p. 100; Layard's Nineveh; Sonnerat's Voyage, p. 160.

BAL. HIND. An ear of corn. Bal-kat, cutting off the ears of corn without reaping the stalks.

BAL. also Bala, also Bala-ka. SANSK. HIND. A child. Kumara, Kumari, a boy, a girl under 5 years of age. Poganda, a boy from 5 to 9. Kisora, from 10 to 16, is a child, a boy, a youth. Under the British, however, the minority is to the end of the 18th year. Women are termed Bal if under 16; Prude, middle-aged; Brid, when forty. Bal-Krishna, Bal-Gopala, the infant Krishna. Many Hindus and many Hindu towns have names beginning with Bal, sometimes referring to infancy, as bal-amra, or young mango grove, sometimes to a deity. —Wilson; Tod's Rajastahan, ii. p. 251.

BALA. BENG. Pavonia odorata, also Hibiscus tortuosus, Twisted hibiscus.

Bala. DUK. Cuscuta root; Andropogon muri- catus. In Bengal, Halietus fulviventer, Viell. In Hindustan, Sida rhombifolia. Also a grub which cates the young plants of wheat or barley when about six inches high.

BA-LA. BURM. Elettaria cardamomum, Wh. and Mast. Malay, Musa sapientum.

BALA, also Bala Bashik. HIND. Valeriana Wallachiana.

Bala-band, or head fillet, the diadem of the Greeks, is in Mewar the symbol of honour, and in the days of the grandeur of that state was held equal to any cordon of Christendom. It consists of one or more cords of floss silk and gold thread tied round the turban, the ends hanging behind the head. The bala-band or silk-en fillet was valued as a mark of the sovereign's favour, and was tantamount to one of the courtly orders of Europe.—Tod's Rajastahan, i. p. 652.

BALABANDI-TIGE. TEL. Ipomea pes-caprae.

Bala Bhadra, son of Nanda, and elder brother of Krishna. He is the patron of agriculture. He was of great strength and irate temper. Hindus believe that Bala Bhadra is Balarana, the ninth incarnation of Vishnu.—Taylor. See Baldeva.
BALABHII, an era mentioned by Tod as occurring in an inscription found at Somnath, commencing 318 A.D. It is named from the town of Balabhi, which was destroyed in 802 Samvat, from which time it may be presumed the era was discontinued. This is also written Valabhi; and in an inscription on copper plates found there, of date A.D. 524, containing grants of lands to Brahman priests, the era used in the inscription is the Valabhi era, corresponding to the 375th of Vikramaditya, or A.D. 319. The ancient kingdom of Balhara was ruled by Balabhi princes. Their chief town, Balabhipura, according to Tod, was destroyed under Silladitya III., by an irrigation of the Parthians, Getes, Huns, or Cathi, or of these tribes combined, and he gives the date as A.D. 524; but Thomas gives A.D. 745, and the Chinese traveller Hiwen Thang visited it in the 7th century. Its ruins exist, about 20 miles west of Bhaonagar in Kattyawar, near the modern town of Wulleh. The extent of the ancient kingdom seems to have been from the Aravalli mountains in the north, to the Tapri. On its destruction, Anhahwara became the seat of government, its princes bearing the title of Baliba-rai; this endured until the 14th century. Colonel Tod says that at all events the Prince of Deo laid the foundation of Anhahwara Puttin in S. 802 (A.D. 746), which henceforth became the capital city of this portion of India, in lieu of Balabhipura, which gave the title of Balika-rai to its princes, the Balhara of the earlier Arabian travellers, and, following them, the geographers of Europe, and supposed to be the Byzantium of Ptolemy. The Udaypur dynasty claim to be the descendants of Lob, the eldest son of Rama of the Solar dynasty. They say that they were first ruling at Balabhipur, but their capital was laid waste by the son of Nushirwan of Persia, A.D. 524. The Rajput queen escaped the general destruction, and gave birth to a son, who was named Goho, from whom the rajahs of Udaipur are descended. Goho established the kingdom of Edur, and eight princes succeeded him on the throne.

The capital of Balabhi was described by Hiwen Thang as 30 li or 5 miles in circuit, with 100 Buddhist monasteries and 600 Buddhist priests; it was called Balabhi or Balabhiyari, was a Buddhist. Ferguson (p. 727) gives the following inscriptions corresponding from A.D. 460 to 718. The ruins are extensive, and are still known by the name of Varnilapura.—Eiphin, p. 211; Cunningham, Ancient Geography of India, p. 323; Elliot's History of India, p. 356; Tod's Rajasthan, i, 49, 102; Ferguson, pp. 405, 727.

BALACHAN or Balachang. MALAY.

Gna-pi. BURM. | Bagon. PHIL. | Trasi. JAPAN.

A condiment prepared in various ways, but ordinarily from prawns, sardines (Engraulis melletta), and other small fish, pounded and pickled. It is one of the largest articles of native consumption throughout both the Malay and Philippine Archipelago, Asiatic Islands, by the Burmese, the Siamese, and Cochinchinese. It is indeed essentially the article known to the Greeks and Romans under the name of Garum, the produce of an Engraulis, a Mediterranean fish. A variation of Balachang is made in Bombay, and sold as an item in Indian oilmen's stores. 13,500 tons, valued at £90,000 sterling, were exported from Burma, from 1st November 1854 to 1st November 1855. It is a kind of caviare. In general, its aroma is too strong for European taste; but some of the best, from Tavoy and Mergi, is of a reddish colour, and is very similar to the anchovy paste of the London oilder. That most in use is made of a species of very small shrimp, which in the fine season, is found in enormous numbers on the borders of the sea; it is salted and pounded in a mortar, and, being made up into light parcels, is sent into the interior, where it is highly esteemed. The inferior kind is made of all kinds of little fish, shrimps, etc., in the same way, but does not bear so high a price. In another mode, the ingredients are placed in a pit to undergo fermentation, and afterwards dried, pounded, and preserved with spices. With the Malays, Siamese, Burmese, and Cochinchinese, Balachan has become a necessary of life, as it serves to season the daily food of these nations. In Sumatra the red Balachang is the best, and it is made of the spawn of shrimps, or of the shrimps themselves, which they take about the mouths of rivers. They are, after boiling, exposed to the sun to dry, then pounded in a mortar, with salt, moistened with a little water, and formed into cakes, which are all the process. The black sort, used by the lower class, is made of small fish, prepared in the same manner. On some parts of the east coast of the island they salt the roes of a large fish of the shad kind, and preserve them perfectly dry, and well flavoured. These are called trobo.—Ainslie; Faulkner's Com. Dict.; Yule's Embassy; Crawford's Dict. p. 27; Marsden's Hist. of Sumatra, pp. 63, 64.


BALADEYA, the Hercules of the Hindus.

BALADEYA PATANA, now called Maha Balpura.

BALA-DITYA-CALU, a Telugu astronomer, who wrote in the 455th year of the Kaliyug.

BALENIDE, R. antipodarum, Gray.

New Zealand whale. | Southern whale.

Antarctic, smooth-backed,, Taku. Peru of N. Zealand.

Is not known in the central parts of the Pacific. But in spring it resorts to the bays of Chili, South Africa, the Brazil, Australia, New Zealand, and Van Diemen's Land. It is smaller than the Arctic whale.

(b) Balena Australis, Des Moulins.

B. antarctica, Lesson.

Right whale of South Sea Sea | Le Grand Baleen du Cap | Gav.

Southern whalebone whale | Coquille black whale of | Sir James Ross.

Inhabits the South Sea; and multitudes were seen by Sir James Ross in very high latitudes.
It is of a uniform black colour. It nearly resembles the B. mysticetus, Linna. It is of value only inferior to that of the sperm whale. It is pursued by the people of the Cape of Good Hope.

(b) Balea Japonica.

The Japan whale is an inhabitant of the coasts of Japan, which it visits periodically. Its head is often covered with barnacles.

(d) Balea marginata, Gray.

The western Australasian whale has very long and slender baleen, with a rather broad black edge on the outer or straight side.

(e) Balea mysticetus, the Right Whale.

According to Lesson, inhabits all the seas of the globe.

Balaenoptera Indica, Blyth, the Indian fin-whale, inhabits the Australian seas, Persian Gulf, Indian Ocean, and Bay of Bengal. It attains a length of about 100 feet, and a circumference of 42 feet. They are often captured off Ceylon, and the Maldives and Seychelles are the headquarters of the whalers who seek these whales; but they are not so much sought after as the species of Balea which yield much blubber. Balaenoptera boops, Linna., and B. musculus, Linna., the great and lesser Orcaul, are both found in European seas. Dr. F. D. Bennet mentions (ii. p. 252) a species of Balaenoptera under the synonym of Balea gibba, Gmel., the humpback of southern whales, as frequently seen in the Atlantic and Pacific Oceans.—F. D. Bennet, ii. 292; Jerdon; Elliot.

BALAGAIIYI. KARN. The right-hand castes of the south of India.

BALAGHAN, a booth made by branches of trees thatched with birch bark.

BALAGHAT, a geographical term to designate a table-land in peninsular India; also the elevated region of the Peninsula of India between the Eastern and Western Ghats, the collectorate of Salem; it means above the ghat. The Balaghat district in the Central Provinces consists of the eastern portion of the central plateau which divides the Central Provinces from east to west, with a rich level tract on its south, in the valley of the Wainganga. Its subdivisions are Burha and Behir. Payin Ghat, or Til-Ghat, is the low country between the Eastern Ghats and the Bay of Bengal.

BALA GHUND. PUSHT. Aëgle marmelos.

BALA - GOPALA. SANSK. From Bala, a child, Go, a cow, and pala, a feeder; a name of the infant Krishna. See Bala; Krishna; Rudra.

BALAHAR. HIND. A low caste servant, a sweeper, a watchman, a village servant. The name is also written Balahar and Bilahar, and seems the same as Balahi, who is described as a man of low caste; a Chamar employed to measure land.

BALAHI, a deity of the Hindus of Gujarat; he is there also called Thakur.

BALAJI RAO was the eldest son of the first Baji Rao. ‘On his father’s death, 28th April 1740, he succeeded as Peshwa, amidst domestic troubles caused by the old enemies of the family, the Pirti-Nidhis, Ragoji Bhonsla, and the Gaekwar, and he got rid of enormous debts that had been incurred in the military operations, chiefly through Bara Matiker, a man of some consequence and of immense wealth. He moved into Hindustan, and occupied Malwa, which was conceded on condition of Balaji helping to drive Ragoji out of Bengal, which its viceroy, Ali Verdi Khan, was unable of himself to do. Balaji marched by Allahabad and Behar to Murshidabad, and intercepted Ragoji, who drew back, but (A.D. 1748, A.II. 1156) was followed and defeated with the loss of all his baggage. Balaji Rao was now opposed by a combination of Ragoji Bhonsla, Damaji Gaekwar, and the agent of the Pirti-Nidhis, but he successfully broke up their league by conceding to Ragoji the right of levying tribute in all Bengal and Behar, if not also in Allahabad and Oudh. About December 1749, raja Saho died. He was without issue, and Balaji Rao, under the authority of a deed which he produced from Saho, declared the son of Raja Ram his successor, under the title of Ram Raja. Balaji Rao undertook the conquest of Ghati-neh, against Salabat Jung, the third son. He marched into the Nizam’s territory, but was compelled to return by forced marches into his own dominions, because of the revolt of Tara Bai, who seized the person of Ram Raja, confined him in a dungeon, declared him an impostor, and carried on the government on her own authority, aided by Damaji Gaekwar. Balaji induced Damaji to visit him, and at the interview he treacherously made him prisoner, attacked and broke up his army, thus deprived of its leader. Salabat Jung advanced to the neighbourhood of Poonah, aided by a subsidiary force of 500 French soldiers and 5000 sepoys, under M. Bussy, who repulsed the assaults of Balaji, beat up his camps, and established a general impression of his superiority. But M. Bussy had to retreat, as his army had not been regularly paid and bounteously beyond the extreme wants of M. Bussy and Salabat Jung. Balaji became involved in the affairs to the south connected with the French and British. He released Damaji Gaekwar, and (A.D. 1755) sent him, along with Ragoba, the Peshwa’s brother, to bring Gujarat into order. Ragoba levied contributions in Malwa. In the end of 1756, Ragoba was again sent to Malwa, from which, on the invitation of Ghaziu-Din, grandson of Asof Jah, he advanced on Dehi, occupied the city, and laid siege to the fortified palace, which held out for more than a month. In May 1758 Ragoba marched and took possession of Lahore, and occupied all the Panjaban, the Daurani chief retiring across the Indus without offering battle. In 1759, when Ahmad Shah was approaching to avenge this, the Mahrattas had 30,000 men in the neighbourhood of the northern provinces, but apart, in two divisions, one of them under Damaji for the other under Malhar Rao Holkar. Ahmad Shah was made suddenly to break the force under Daji Sindia, who fell with two-thirds of his army, and Malhar Rao Holkar was overtaken when retreating towards the country south of the Chambal, and almost destroyed by a Daurani detachment, which had made a dajuigen march for that purpose. Sedasheo Rao Bhaio, cousin of Balaji, was employed at the capital as minister and commander-in-chief in the Dekhan. He had got possession of Ahmadnagar.
and was on the eve of a settlement, afterwards concluded at Udgir, by which large territorial and pecuniary cessions were obtained from Sahafat Jung, and such a burden imposed on the Moghul government in the Dehkan as it never was able to recover from. This success led to jealousy on the part of Ragoba, who, to Sedasheo Rao's remonstrances on the profusion of his hospitality, replied that the Bhao had better undertake the next expedition himself, when he would find the difference between that and serving in the Dehkan. Sedasheo Rao took him at his word, and an exchange of situations was forthwith agreed on. Whatever the nation possessed, either of power or magnificence, was brought forth to give weight to Sedasheo Rao's command, and news of the misfortunes of Sindia and Holkar only stimulated the nation to exertion. Sedasheo Rao was naturally haughty and overbearing, proud of the new greatness of his family, and puffed up by recent success into an overweening confidence in his own abilities, both as a statesman and a soldier. He was accompanied to his command by Wiswas Rao, the youthful son and heir apparent of the Peshwa, and by all the great Brahman and Mahratta chiefs without exception. Many Rajput detachments were sent to join him as he advanced, and Suraj Mull of Bhurtpur is said to have reinforced him with a body of 30,000 Jat. This experienced old chief advised the Bhao to leave his infantry and guns and all his heavy baggage in the Jat territory, where it could be protected by strong forts, and to advance with his cavalry alone, and harass his enemies in the Mahratta manner, and protract the war until the Daurani, who had already been many months in India, should be constrained by the climate to return to their native mountains. This prudent counsel was seconded by the Mahratta chiefs, but was at once rejected by their commander. He slighted Suraj Mull on several occasions, and offered the Mahratta chiefs by his Brahman pride, his imperious mode of exercising his command, and the absence of the freedom and familiarity to which they were accustomed in their leaders. In this manner he advanced to Delhi. Its walls were scaled, and the citadel shortly yielded to artillery. The Bhao defaced the palaces, tombs, and shrines, for the sake of the rich ornaments which had been spared by the Persians and Afghans; he tore down the silver ceiling of the audience hall, and seized on the throne (no longer so precious as of old), and on all other royal ornaments. Their value has been estimated by Mr. Casie Rapp and Grant Duff at £170,000. Suraj Mull, disgusted with what he saw, withdrew to his own territory. The Bhao sent a picked force to attack Cunjupa, on the Jamna, sixty miles above Delhi, where there was a Daurani garrison under an officer of distinction. To prevent this, Ahmad Shah advanced with all his army, but, finding the river near the capital full, he proceeded up to near Cunjupa, where he learned that it had been taken, and all the garrison put to the sword. Ahmad Shah crossed the river by fording and swimming (25th Oct. 1760), and the Mahrattas hastily retired to Paniput, where they threw up works round their camp, encompassed by a broad and deep ditch, and protected by their numerous artillery. Ahmad Shah and his allies advanced, and his force being very small, he too formed an entrenched camp in front of the Mahrattas. The numbers in the respective armies are not precisely known. The Bhao's force consisted of 5,000 cavalry in regular pay, with at least 15,000 predatory Mahratta horse, and 15,000 infantry, of whom 9000 were disciplined sepoys under Ibrahim Khan Gardi, a Mahomedan who had deserted from the French service. He had 200 guns, with numerous wall pieces, and a great supply of musketry. He himself was a favourite weapon with the Mahrattas. Grant Duff estimates the predatory horse and followers at 200,000, and Casi Rao states the whole number at 500,000. Ahmad Shah had about 40,000 Afghans and Persians, 13,000 Indian horse, and a force of Indian infantry estimated at 38,000, part of which were the Rohillas, but the great bulk was a rabble of foot-soldiers. The Bhao had ordered Govind Rao Bandela to collect what troops he could on the lower course of the Jumna, and that chief now appeared in the rear of the Daurani camp with 10,000 or 12,000 horse, who spread over the country and intercepted all supplies. But a body of the Daurani horse, under Attai Khan, nephew of the grand vizir, made a march of upwards of sixty miles, surprised Govind Rao's camp about daybreak, and completely destroyed his party, Govind Rao himself falling in the action. The Daurani force got the command of the open country, and the Mahrattas were at once dispersed and consumed the town of Panipat, and began to feel the severest pressure of want. Continued skirmishes were taking place between the two armies; the Mahrattas made three vigorous attacks on the Daurani lines. Ahmad Shah did not hurry on the war. He had a small red tent pitched in front of his entrenchment, to which he repaired every morning in time for the daybreak prayers, and where he generally returned to dine in the evening, and never rode less than fifty or sixty miles a day, in visiting his posts and reconnoitring the enemy. Among the last efforts of the Mahrattas to obtain relief, was their sending out a foraging party with innumerable camp followers; but the helpless crowd was discovered by the Daurani, and slaughtered in immense numbers. On this the chiefs and soldiers surrounded the Bhao's tent, and urged him to fight and die in the field rather than perish in misery. The Bhao agreed to their wishes; they all partook of betel-leaf, and swore to fight to the last, and orders were given to make the attack the next morning before daybreak. About three in the morning, the spies reported that the Mahrattas were gathering under arms. Shuja-ud-Dowla went to Ahmad Shah's tent and desired he should be awakened (A.D. 6th January 1761, A.H. Jamad- us-Sani 1174). The Mahomedan allies did not make much use of their guns, and as those of the Mahrattas approached, the shot went over the heads of their adversaries. The actual engagement was begun by Ibrahim Khan Gardi, who seized a flag with his own hands, and ordered his men to cease firing and advance with fixed bayonets. Their attack fell on the Rohillas, who were broken after a prodigious slaughter. Their defeat laid open the right of the grand vizir, who commanded the centre of the Daurani line, and who was now charged by the Bhao and Wiswas Rao with the flower of the Mahratta army. In this
charge, Attai Khan, the nephew of the vizir, was killed at his side; the vizir dismounted, and, with the rest who were near him, determined to die on the spot. Shuja-ud-Dowlah's division was next to that of Attai Khan, and, noticing a sudden diminution of the sounds of war in that quarter, he sent Cisi Rao to inquire the cause, and found the vizir on foot in full armour, endeavouring to get his men back into the ranks. Ride to Shuja-ud-Dowlah, said he, and tell him that if he does not support me immediately, I must perish. But Shuja-ud-Dowlah, though he kept his ground, did not venture to take part in the action. The advantage of the battle inclined to the Maharratas, until Ahmad Shah, after rallying the fugitives, and ordering all to be cut down who would not return, gave orders for an advance of his own line, and at the same time directed a division on his left to wheel up and take the enemy in flank. This manoeuvre was decisive; for though the closest combat was raging in the centre where the Bhao and Wiswas Rao were engaged on horseback, and where they fought on both sides with spears, swords, battle-axes, and even with daggers, yet all at once, as if by enchantment, the whole Maharrata army turned their backs, and fled at full speed, leaving the battlefield covered with heaps of dead. The victors pursued them with the utmost fury for fifteen or twenty miles, and as they gave no quarter, the slaughter was very great. The peasants destroyed a large portion of those who escaped from the Daurni, and great numbers who fell into the hands of the Daurni were put to death in cold blood. Ahmad Shah made a strict search for Janejool Sindia, who was concealed by a Daurni chief, and was made away with to avoid detection; he also compelled Shuja-ud-Dowlah to give up Humpham Khan, whom he personally abused, and ordered to be confined, but he died of his wounds within a week. The body of Wiswas Rao was found, and a headless trunk which was believed to be that of the Bhao. The whole number of the slain is stated at 200,000. Almost all the great Maharrata chiefs were killed or wounded, except those who had been left with a force at Dehi, and Malhar Rao Holkar, who was accused of having too early retreated. Madhaji Sindia, afterwards the founder of a great state, was lamed for life, and Nana Farnavis, who long kept off the downfall of the Peshwa's government, narrowly escaped by flight. Never was defeat more complete, and never was there a calamity that diffused greater consternation. Grief and despondency spread over the whole Maharrata people. Most had to mourn relations, and many the destruction of the army as a deathblow to their national glory. Balaji Rao never recovered the shock. He slowly retreated from his frontier towards Poona, and died in a temple which he had himself erected near that city. The wreck of the army withdrew south of the Nabhadda, evacuating almost all their acquisitions in Hindustan. Dissensions soon broke out after the death of Balaji, and the government of the Peshwa never recovered its vigour. Most of the Maharrata conquests were recovered at a subsequent period, but it was by independent chiefs, with the aid of European officers and disciplined sepoys.—Cust Rao's Narrative in As. Res. iii. 97, 123; Grant Duff's History of the Marathas; Sair-i-Muta-akhirin; Elliot's Life of Haji Rahmat, quoted in Elphinstone's History of India.

BALAJI WISWANATH, a Brahman of the Konkan, where he was the hereditary village accountant. He was the chief supporter of the raja Saho; he was a man of great ability both in civil and military affairs. His services in the wars that ensued after Saho arrived in the Dekhan, were rewarded by Saho with the title of Peshwa, and the office of prime minister; and the government was left almost entirely to him, while Saho pursued his favourite field sports of hunting, hawking, and fishing. This commenced the power afterwards acted on by the Peshwas, who became eventually the real rulers of the Maharrata empire. On his demise in 1721, his son, the first Baji Rao, succeeded him.

BALAK, two hills so called, 600 paces asunder, in the district of Balad-ul-Jalaf in Yemen. This district is the land of Sheba, being called to the present time Ard-us-Saba; and Balkees, the queen of Sheba, built a masonry dyke or dam between the two Balak hills. It afterwards burst, and is famed in Arabian story as the Sail-ul-Arun or Sail-ul-Mareb.—See Balkees; Saba.


BALAL, in Karnatica, an honorable appellation.

BALAM. Hind. Cymbopogon aromaticus.

BALAMBANGAN or Balambang Island, called Berobangan by the Malays, nearly 15 miles long, lies in the Balabac Strait, at the north-east side of Borneo. It was once a possession of Britain, and, from the extreme richness of that portion of the island, it might have proved a settlement of great value, but it was relinquished to Holland in 1827. It has two excellent harbours. The principal station on the peninsulae tongue off the southern harbour was determined to be in lat. 7° 12' 51'' N., long. 116° 49' 8'' E.—Horsburgh.

BALAM-CIRA. Hind. Cucumis sativus.

BALAM PULI. Maleal. Tamarindus Indica.

BALAND, a tribe formerly dominant in Ajoree Burhur and the southern parts of Mirzapur. They were expelled by the Chundel Rajputs, and now occupy Munwas, a principality in subordination to the raja of Rewa.—Elliot.

BALANISTUM. Hind. Pomegranate flowers.

BALANITES ÄGYPTIACA. Delie.

Balanites Ägyptiaca, var. 
Ximenia Ägyptiaca, R.
Indica, W. III.

Nanjunda maram, TAM.
Haleluj, : : : 
Arab. Gara or Gari chetta, Tel.
Hinguru Bet Hinga, Hind.

This small, thorny tree has alternate bifoliolate leaves, with greenish-white flowers. It is found throughout the country, and flourishes in black soil. It is cultivated in Egypt; and at Jerusalem it is made into walking-sticks, on which they inscribe the word Jordan in Hebrew characters. It grows in the Panjab from Delhi westward to Rohtuk. It has a girth of 18 inches. Wood soft, and shoemakers' boards are made of it. Its leaves are slightly acrid, and are said to possess anthe-

mantic properties. The fruit, when ripe, can be eaten without inconvenience; but Dr. Roxburgh describes the pulp as exceedingly bitter, and having an offensive, greasy smell. It is about the size of an egg, and covered with a smooth, dry cortex. It is used in native fireworkss; the kernel being scooped out, the shell is filled with
gunpowder, and explodes with a very loud report. A fat oil, called zechun, qu. zaitun? is extracted from the seeds.—Drs. Wight, Riddell, O'Sh., Voigt, Stewart; Mr. Jaaffrey.

BALANOPHOREAE. This order of plants contains several parasites, such as the Rafflesia and also the Cisti trees of Europe, which yield the hypocistus juice, and owe all their properties to the presence of an abundance of gallic acid. The Balanophorae species growing in the East Indies are,

' elongata, Blain. India, Wall. Pen. of India.
' typhina, Wall., Prome, Taong-dong.
' gigantes, Wall., Taong-dong.

A species, called Gochamuli in Hindi, is a curious leafless parasite growing abundantly on maple in the Zennu valley in Sikkim, and also in the N.W. Himalaya. Itoccasions great roots on the maple roots, and on the oaks and other mountain trees, from which the Tibetans form their drinking cups. Dr. Hooker found a small store of these knots, cleaned and cut ready for the turner, and hidden behind a stone by some poor Tibetan, who had never returned to the spot; they had evidently been there a very long time. The Lepeha drink out of these little wooden cups, which are very pretty, often polished and mounted with silver. Some cups are supposed to be antidotes against poison, and hence fetch an enormous price; these are of a peculiar wood, rarer and paler coloured, and Dr. Hooker paid a guinea for one such, hardly different from the common sort, which cost but 4d. or 6d. At Lhasa their price is higher, as they are all imported from the Himalaya. B. gigantea is a favourite astringent remedy in Burma. B. Indica, Wall. Cat. 7224, is found in the forests of the central province of Corely, at an elevation of 3000 to 5000 feet.—The En. Pl. Zeyl. p. 293; O'Sh. p. 569; Hooker, Him. Journ. i. 132.

BALANUS, the barnacle genus, one of the Cirripedia of the Articula. Some of those found on old timbers in India are very large.

BALA RAI. See Balbara; Balabhipur.

BALA RAMA, elder brother of Krishna. His history is greatly mixed up with mythical legends, but he seems to have married Revati. In youth he was the playfellow of Krishna, and in after life the sharer in his toils and his glory. He is the analogue of Heracles. He is said to have rebuilt the city of Rajagriha. A statue of him is at Muttra. He is also called Balabhadra and Baladeva. —Grose, p. 57.

BALA RAMA, the eighth avatar or incarnation of Vishnu.

BALASA PANDU. Tel. Webera tetrandra.

BALASHNORE, a tributary state in Gujerat, of 150 square miles. The title of the family is Babi, from their founder, Sher Khan, Babi.

BALASUR, a town and bay and river in Orissa, the entrance of the bay being in lat. 21° 28' N., long. 87° 4' E. The East India Company formed a factory here. It has a rock from which are made plates, dishes, cups, and household utensils. The district is 2068 square miles, with 770,232 people, Bhumiuj, Pan, Kandara, Khandait, Santal, and Hindus. One of its rivers, the Baitara, is the Styx of the Hindus. There are several seaports and harbours.—Horsburgh; Imp. Gaz.

BALASPUR, in the Central Provinces, contained, in 1867, a population of 780,503, amongst whom,

BALAS RUBY. Badakhshan has been known since the days of Marco Polo as the country producing the real balsas ruby, as well as the laviard or lapis-lazuli, from which is made the beautiful blue pigment called ultra-marine. —Pawlet, East India, i. 184.

BALAZAR, an intoxicating elecutary prepared from the Malaeea bean, the Anacardium; hence the cognomen Al-Baladuri of Ahmad, who was addicted to its use.

BALBAND, the Maharrta alphabetical character. BALBEK. See Baalbek.

BALBIQHO, an offering to Krishna in the early morning.

BALBI, GASPAR, a merchant dealer in precious stones, who travelled to India between 1579 to 1588. In 1583 he visited Pegu, and wrote a book, entitled Viaggio dell'Indie Orientale.

BALBOA. Vaso Nunez de Balboa was born in 1475 at Xeres de los Caballeros, of a noble but poor family.

BALBODII. MAHR. The Deva Nagri alphabet. BAL-CIFHARU, also Balchir and Balchir.

HIND. BEN. Nardostachys Jatamansi; Jatamansi valerian. It is found near standing water at Ajmir; the roots are small, and knotty, and fine, like hair, hence the name; they have a sweet scent, are tasteless; used to heat, strengthen, and excite the system. One tola is the dose. Are very much used also in hair mesalibs or pomades. Also the name of the Andropogon schoenanthus grass, the roots of which are like fine hair, sweet-scented, and much used in cleaning the hair.—Gen. Med. Top. p. 128. See Nardostachys.

BALDÆUS. Philip Baldaens about 1600 travelled in India, and in his book of travels gave a description of the coasts of Malabar and Coromandel. He gives information of the early struggles of the Dutch and Portuguese.

BALDEO or Baladeva, a city near Muttra. It has a statue of Bal Rama, elder brother of Krishna.

BALDEVA, son of a prince of Muttra, and nephew of Kosunt, the father of the five Pandu brothers. Baldeva was cousin of Krishna, and fled with Yudishtra from the battle-field famed in the Mahabharata at Saurashtra. After Krishna's death Baldeva and Yudishtra went southwards, and it is supposed penetrated into Greece. Baldeva has been deified as the god of strength, and is supposed to be the Heracles of the east and west. He is still worshipped as in the days of Alexander, his shrine at Baldeo in Vrij, his club a ploughshare, and a lion's skin his covering. At Ruplas, there is a statue 27 feet 5 inches in height, said to be that of Baldeva, but supposed to be a Jain image. —Tod's Rajasthan. See Bala Bhadra; Krishna; Pandu.

BALDUWA. MALAY. Velvet.

BALDWIN, king of Jerusalem; in A.D. 1111 took Beyrount from the Saracens, but in 1187 it was again lost.
BALFOUR, Edward.

BALFOUR, it had 180. on he. and, MOO on transacted, miles which of charge Ahmadnaggur to Commissioner BALELA. the Egypt, five was rank Vienna, and of Medical, the Survey-General, Surgeon-General, of the Surgeon-General, and of Mahomedan of the Madras Medical Department. During his service, he prepared and edited the Cyclopaedia of India and of Eastern and Southern Asia through two editions in India, in 1858 and 1873, and a third edition is now being printed in Great Britain. On the appearance of the first edition, a review of it in the Madras Journal of Literature and Science said: 'There is no question but that his long residence in India, his scientific researches, and his very variety of duties, eminently fit him for a work of this character, which, however imperfect and incomplete as a whole, will be of great utility, and prove a valuable aid to others.'

As an executive officer, he had been in medical charge of European and native artillery, of native cavalry, and of native infantry, both of the Madras and Bombay armies; had been Staff-Surgeon of Ahmadnaggar in the Dekhan, and Garrison-Surgeon of Bellary, in the Ceded Districts. In the administrative grade, from 1862 to 1870, he served as Deputy Surgeon-General of the Burmah Division and Straits Settlements, southwards to Singapore and the Andamans, twice in the Ceded Districts, twice in the Mysose Division, and for four years with the Hyderabad Subsidiary Force and Hyderabad Contingent. While so employed, he resided in or inspected at nearly a hundred of the cities, towns, and military cantonments, some several times over; and from 1871 to 1876 inclusive he was, as Surgeon-General, the Head of the Madras Medical Department.

For many years he was Political Agent at the Court of the Nawab of the Carnatic, also Paymaster of Carnatic Stipends; from 1858 to 1861, he was Commissioner for investigating the Debts of the Nawab of the Carnatic, against whose estate claims for above a million sterling (Rs. 1,00,80,000) were made. He acted for a short time as Assistant

BALFOUR, KARN. Glass bracelets worn by women.

BALE, of cotton weighs—

In America, . . . 440 lbs. In China, . . . 240 lbs.

" Brazil, . . . 189 " Bengal, . . . 300 "

" Egypt, . . . 350 " Madras, . . . 200 "

" Turkey, . . . 350 " Bombay, . . . 354 "

BALEAN, a timber of Singapore. See Kayu. BALEI, MALAY. A public hall in a village, where strangers are received, public business transacted, and marriages performed. See Morang. BALELA, ITHI-KANI. MALEAL. Zapania nodiflora. 

BALE, of Kashmir, Coriaria Nepalensis. BALELA. HIND. Terminalia bellerica. Balela Sujah, small black myrobalan, fruit of the Terminalia citrina.


BALESWAR, a distributary of the Ganges, which enters the Bay of Bengal, as an estuary 9 miles broad, under the name of Haringhata. The bore does not occur in it.—Imp. Gaz.

BAL-ESWARA, a title of Siva, whom his followers designate Mahadeo, or Mahadeva. He is the same with the Assur of the Scriptures, and has resemblance to Jupiter.

BALFOUR, EDWARD GREEN, L.R.C.S.E., Fellow of the Madras University, Corresponding Member of the Imperial-Royal Geological Institute, Vienna, a medical officer of the Madras Army. He was in India from 1834 to 1876; he rose to the rank of Surgeon-General, and for upwards of five years was the Head of the Madras Medical Department. During his service, he prepared and edited the Cyclopaedia of India and of Eastern and Southern Asia through two editions in India, in 1858 and 1873, and a third edition is now being printed in Great Britain. On the appearance of the first edition, a review of it in the Madras Journal of Literature and Science said: 'There is no question but that his long residence in India, his scientific researches, and his very variety of duties, eminently fit him for a work of this character, which, however imperfect and incomplete as a whole, will be of great utility, and prove a valuable aid to others.'

As an executive officer, he had been in medical charge of European and native artillery, of native cavalry, and of native infantry, both of the Madras and Bombay armies; had been Staff-Surgeon of Ahmadnaggar in the Dekhan, and Garrison-Surgeon of Bellary, in the Ceded Districts. In the administrative grade, from 1862 to 1870, he served as Deputy Surgeon-General of the Burmah Division and Straits Settlements, southwards to Singapore and the Andamans, twice in the Ceded Districts, twice in the Mysose Division, and for four years with the Hyderabad Subsidiary Force and Hyderabad Contingent. While so employed, he resided in or inspected at nearly a hundred of the cities, towns, and military cantonments, some several times over; and from 1871 to 1876 inclusive he was, as Surgeon-General, the Head of the Madras Medical Department.

For many years he was Political Agent at the Court of the Nawab of the Carnatic, also Paymaster of Carnatic Stipends; from 1858 to 1861, he was Commissioner for investigating the Debts of the Nawab of the Carnatic, against whose estate claims for above a million sterling (Rs. 1,00,80,000) were made. He acted for a short time as Assistant

Assay Master at the Madras Mint; and in the Military Finance Department of India he was, at Madras, Examiner of Medical Accounts.

Early in his service he had passed as Interpreter in the Hindustani language; he was for years employed at Punjab, and was Translator to Government (1854 to 1861); and, as a Member of the Board of Examiners, he examined the civil officers in those tongues. He obtained H.H. the Nawab of the Carnatic's consent to the establishment of the Madrassa-i- Azam (Azam being the tahlakus or literary title of that sovereign), and it still flourishes in Madras; and he induced the Mahomedan residents of that city to establish the Madras Mahomedan Library, of which, in 1876, they elected him a life member.

In 1850, his offer to the Government to form a museum in Madras was accepted, and he named it the Government Central Museum. He was its Superintendent till the year 1859, in which year the visitors rose to 552,407. In 1856 he commenced the collection of animals which have found their home in the Madras Zoological and Geological Gardens. In 1857, he established the People's Park. And in 1866 he instituted the Mysore Museum at Bangalore, the visitors to which in 1868 numbered 203,534. While Superintendent of the former museum, he prepared and printed nine catalogues and eight reports on its mineralogical, geological, zoological, and economic collections.

He was honorary Secretary to the Madras Central Committees for the Great Exhibition of 1851, for the Paris Exhibition of 1855, for the Madras Exhibitions of 1855 and 1857, and was a member of the Madras Committees for subsequent Exhibitions at Vienna and Paris. He published a volume of selections he had made from the Persian and Hindustani poets; it is quite a volume de luxe, lithographed with arabesques. He translated and published in Hindustani, Conquest's Outlines of Midwifery, and paid for and printed translations of some in Tamil, Telugu, and Canarese. He translated and published a work on Astronomy in Hindustani, and also a diglot Hindustani and English Statistical Map of the World, which also was rendered and printed in Tamil and Telugu. He contributed to current literature papers on the Migratory Tribes of India; on the Influence of Trees on the Climate of a Country, for which he received the thanks of Government; on the Health of Soldiers; on the Crimes and Disabilities for which the Native Soldiers of the Madras Army were discharged the Service; on the Amount of Education in Madras; on the Commercial Products of the Madras Presidency; on the Molasses, with the genera of Recent and Fossil Shells; on the Epidemic of Cholera at Thayet Myo; on the Vegetables available for Europeans in Burmah; on the Typhoid Fever at Bangalore; on the Ethnology of Hyderabad; on the Sanitary Condition of Secunderabad; and on the Sanitary Prospects of Trinbeghur. He also published two editions of his Statistics of Cholera; two editions of the Localities in India exempt from Cholera; three editions of the Timber Trees, Timber, and Fanci Woods of India and of Eastern and Southern Asia; three editions of the Vyidian and Hakim; two editions of Eminent Medical Men. The Honourable the Court of Directors, H.M. Secretaries of State for India, the Government of India, the Government of Madras, the Medical, the Finance, the Sanitary and other
authorities, noticed his work in favourable terms. When offering to take charge of the Madras Museum, he had intimated: 'I do not wish any remuneration of any kind; but what my offer to be considered as in any way hanging the Government in any arrangements they may in future wish to make;' and the Court of Directors, in acknowledging this, said: 'We have to express our sense of the liberal and considerate terms in which Mr. Balfour offered to undertake the charge.' When about to quit India, the Hindu, Mahomedan, and European community of Madras invited his attendance at a meeting, publicly to record the high sense they entertained of those labours of your life, which, having in view the public good, have pre-eminentiy characterized your career, but also to convey to you the expression of their regard and esteem for your private character. And in the address then presented to him, he was asked to sit for his portrait, to be placed in the Government Central Museum, and it quoted the words of the Mahomedan community, who said, 'The debt we owe him is one of the deepest gratitude, and his name will be cherished in our memories with the highest sense of esteem and respectful attention.' While still at the head of the medical department, M.M., the Queen bestowed on him a Good Service Pension.

The members of the Mahomedan Library, at a meeting at which the leading men of that race and the heads of the European society were present, presented him with an address in the Persian language, gratefully acknowledging that he had founded the institution in 1851; and long after he had retired from the service, the members of the Apothecaries' Fund, their Widows and their Orphans, sent after him to England an address "in grateful recollection of the valuable services rendered by him in 1872."

Balfour, General Sir George, K.C.B., M.P., an officer of the Madras, and afterwards of the Royal Artillery, 1826-1880. He served with the Malacca Field Force in 1832-33; as Brigade Major in the campaign against Kurnool in 1839, and was present at the battle of Zorapole on the 18th October 1859; served as Staff Officer of the Madras Forces in the war against China in 1840-1-2, and was present at the capture of Chusan on the 5th July 1840; Canton, 25th May 1841; Amoy, 26th August 1841; Chusan, 1st October 1841; Chine, 10th October 1841; Ningo, 13th October 1841; Ningpo, 10th March 1842; Tsekee, 15th March 1842; Segona, 15th March 1842; Chapeo, 18th May 1842; Wosung, 16th June 1842; Shanghai, 19th June 1842; Chin-keang-koo, 21st July 1842; Nankin, August 1842; Yang-tse-kiang river, September 1842; and received the Chinese medal. During the war he was Staff Officer of the Madras Forces; he was elected by the army Joint Agent for Captured Public Property; he was Receiver of the Ransom payable under the treaty of Nankin, and he settled and paid the Hong debts due by the Chinese merchants. He was Consul at Shanghai for many years; was employed as a Commissioner to inquire into the Madras Public Works Establishments. He was a member of the Military Board, which had control over every department of the army except as to pay and discipline, and which merged into the office of Inspector-General of Ordnance and Magazines, which he held for several years. In 1850 he was specially commissioned by the viceroy, Lord Canning, to inquire into the condition of the Native and European troops forming the garrison of Banyah; but his latest labours in India, from 1859 to 1862, were as Chief of the Military Finance Department of India. Towards the beginning of 1859 the last embers of the mutiny were just being trodden out; peace had been restored, but with peace had not come prosperity, for the British empire in India had been saved from the perils of revolt and rebellion, to be compelled to struggle a second time for life against the dangers of bankruptcy, as the sepoys' revolt had burdened India with a debt scarcely less to be dreaded than the dangers it had escaped. The large powers which, during the emergency, had of necessity been entrusted to departments, and to divisional and station officers, were still being exercised; extra establishments no longer necessary were being kept up; contracts were being renewed at war prices; and, from the nature of the circumstances, the army was the chief source of expense. At this juncture, Colonel Jameson of the Bombay army, Colonel Burn of the Bengal army, and Colonel Balfour, C.B., of the Madras Artillery, were formed into a commission on the military establishments of the country. They first examined into those of Bombay (18th July 1859), then visited Madras, and finally reached Calcutta in the beginning of 1860, from which, before many months were over, Colonels Jameson and Burn left in ill health, leaving to Colonel Balfour, early in 1860, the entire work. A Military Finance Department for final control and audit was then formed, of which he was appointed chief, and from that date the whole of his efforts were directed to bringing the army military establishments down to the peace scale. The numerical strength of the army, sanctioned on the restoration of peace after the revolt, was for Bengal, 113,095; for Madras, 55,125; for Bombay, 39,270; or a total of 207,490, of whom 71,121 were to be Europeans, and 136,369 natives. Prior to the revolt of 1857, the military charges of India were £11,500,000, and the European army had been lower than any year since 1816; but by the beginning of 1859 this charge had risen to £21,000,000, when the Military Finance Commission was established, and the result of its action became felt. The military estimates for 1860-61, including the carriage department, were reduced to a trible over £16,000,000, and in the following year, Mr. Laing, the financial member of the Supreme Council, intimated that the Military Finance Department had revised the estimates with great care, and they were stated at £12,850,000, or £2,479,000 lower than in 1860-61. Mr. Laing further added that £12,199,242 was the estimated cost of the military establishments as fixed permanently for India, only that in the year 1861-62, reduction of items costing £600,750 could not be completed. The 1861-62 estimate, therefore, was to that amount higher than the estimated permanent expenditure, so that the actual diminution from 1860-61 to 1861-62, in the cost of the army, was £3,229,000. It was further expected that the annual military charges would be brought down to twelve millions in India and two millions in Britain. Mr. Laing, when submitting his budget estimates, and ex-
plaining the changes in operation, stated that the future history of India would not be complete without mentioning the successful labours of Colonel Balfour. Mr. Thurlow, private secretary to Lord Elgin, remarks (The Company and the Crown, pp. 29, 30), that when the Military Finance Department was established after the revolt of 1857, in order to ensure economy in military expenditure, 'General, then Colonel, Balfour was selected for the sole control of this department, under the personal authority of Lord Canning.' 'He was,' adds Mr. Thurlow, 'a man of obstinate ability, and was armed to the teeth with power and promise of support. He conducted the work of pruning with a knowledge of detail only exceed by his zeal in execution.'

So early as 1861, Sir Charles Wood showed that the reductions ordered by the Government of India were expected to amount in the year 1860-61 to £2,500,000, which, with those of the previous year, would make an estimated saving in military expenditure alone of £6,000,000, and he added that if the reductions for 1861-62 were equal to those of 1860-61, and the produce of new taxes came up to the estimate, the expenditure and income of 1861-62 would be balanced. When the accounts were made, the deficit of 1861-62 was only £556,678. To admit of an examination of the results of Colonel Balfour's labours, the following tabular statements are given, showing the increase and decrease of the expenditure during his chiefship of the Military Finance Department:

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Expenditure</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In India</td>
<td>Home Charges</td>
<td></td>
</tr>
<tr>
<td>1857-58</td>
<td>£31,066,767</td>
<td>£31,059,112</td>
<td>£7,655</td>
</tr>
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<td>1858-59</td>
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<td>1861-62</td>
<td>£28,066,788</td>
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<td>£7,656</td>
</tr>
<tr>
<td>1862-63</td>
<td>£27,066,788</td>
<td>£27,059,112</td>
<td>£7,656</td>
</tr>
</tbody>
</table>

Military Charges:

<table>
<thead>
<tr>
<th>Year</th>
<th>In India</th>
<th>At Home</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1855-56</td>
<td>£10,019,436</td>
<td>£1,672,757</td>
<td>£11,692,193</td>
</tr>
<tr>
<td>1856-57</td>
<td>£11,913,131</td>
<td>£1,770,038</td>
<td>£13,783,159</td>
</tr>
<tr>
<td>1857-58</td>
<td>£15,509,925</td>
<td>£3,165,958</td>
<td>£18,675,883</td>
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<tr>
<td>1858-59</td>
<td>£21,650,948</td>
<td>£4,308,856</td>
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<tr>
<td>1859-60</td>
<td>£20,912,363</td>
<td>£2,792,094</td>
<td>£23,704,457</td>
</tr>
<tr>
<td>1860-61</td>
<td>£16,730,006</td>
<td>£2,835,156</td>
<td>£19,565,162</td>
</tr>
<tr>
<td>1861-62</td>
<td>£16,681,900</td>
<td>£2,507,504</td>
<td>£19,189,404</td>
</tr>
<tr>
<td>1862-63</td>
<td>£12,747,302</td>
<td>£1,218,492</td>
<td>£14,965,794</td>
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<tr>
<td>1863-64</td>
<td>£9,459,863</td>
<td>£1,248,341</td>
<td>£10,698,204</td>
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<tr>
<td>1864-65</td>
<td>£12,747,302</td>
<td>£2,792,094</td>
<td>£15,539,396</td>
</tr>
<tr>
<td>1865-66</td>
<td>£16,730,006</td>
<td>£2,835,156</td>
<td>£19,565,162</td>
</tr>
<tr>
<td>1866-67</td>
<td>£14,390,333</td>
<td>£2,682,882</td>
<td>£17,073,215</td>
</tr>
</tbody>
</table>

It will be observed that the military expenditure in India rose to 21 and 20 millions in 1858-59 and 1859-60. But from that year Colonel Balfour's labours began to be felt. The military charges were reduced to £15,730,006 in 1860-61, to £13,681,900 in 1861-62, and to £12,697,069 in 1863-64. When the task was complete, the Government of India bore testimony to the important services which had resulted from his labours. The viceroy of India, Lord Elgin, on Colonel Balfour's return to England, wrote, that a man who, right or wrong, saved the country several millions sterling, well merited some reward. After his return to Britain, he was in 1866 employed on the Recruiting Commission in England. His voluminous and minute evidence before Lord Strathnairn's Committee led to his nomination in 1867 as Assistant to the Controller-in-Chief at the War Office, to assist Sir Henry Storks in the reorganization of the War Office Departments of Control. He was employed there from January 1868 to March 1871, and the result is shown by the estimates for store rates for the years prior and subsequent to his appointment:

1867-68, £1,555,500 | 1869-70, £1,150,000 |
1868-69, £1,491,000 | 1870-71, £1,000,000 |

The honour of K.C.B. was bestowed for his services in this department, and in 1872 he was elected M.P. for Kincardineshire.—Martin's Statesman's Year Book, 1864 to 1869; Thurlow's Company and the Crown, pp. 29, 30; West's Sir Charles Wood's Administration, London, 1867; Home News, 19th February 1869, p. 39; Madras Army List; Minutes of Lord Canning, Sir Bartle Frere, 11th March 1869, the Honourable Lord Cecil Beadon, 7th April 1862, to Sir R. Napier, 9th April 1862, and Earl of Elgin and Kincardine, 10th April 1862; Records of the India Office.

BALGHAH. Hind. Russian leather.

BALHARA, also styled Rashtrakuta, a dynasty who ruled at Malked in the Dekhan. According to Elliot, an ancient dynasty and kingdom mentioned by the merchant Suliman. The Balhara seem to represent the Balabhi sovereigns of Balabhipura, who were succeeded by the Balla princes of Auhalwara Puttun. Their territories included the country of Lata, or Larike, on the gulf of Cambay. According to Colonel Tod (Travels, pp. 147-48), Balhara was a title assumed by the successive sovereigns of Saurashtra. He says the earliest of the tribes which conquered a settlement in the peninsula of Saurashtra was the Balla, by some authors less stated to be a branch of the great Indus-vansa, and hence termed Balika-putra, and said to have been originally from Balika-des, or Balkh, the Bactria of the Greeks. The chief of Dhank is a Balla. The Balla pay adoration almost exclusively to the sun, and it is only in Saurashtra that temples to this orb abound. So that religion, tradition as regards their descent, and personal appearance, all indicate an Indo-Sasithic origin for this race; and in order to conceal their barbarian (M'hehra) extraction, the fable of their birth from Rama may have been devised. The city of Balabhi, written Wuleh in the maps, and now an inconsiderable village, was said to be 12 cos, or 15 miles in circumference. There is a sun-temple at Baroda, dedicated to Surya Narayana; and in Col. Tod's time it was the object of worship of the first minister of the Guicowar, who was of the Purvo caste, descended from the ancient Gueb. There is also a sun-temple at Banars. According to Mr. Edward Thomas, Balhara and Bala-Rai of the sea-going Arabs was a dialectical change from Bara Rai, the great king or lord paramount for the time being.—E. Thomas, Yule, Cathay, i. 183.

BALI, also called Mahabali, king of Mahabali-pana. He was the son of Virochana, son of
Prabla, son of Hiranya Kasipu. His wife was Vindhyavalli.—Dowson.

BALI, SANSK., in all peninsular India and in Ceylon, in the religious rites of the people, means a sacrifice performed to local deities, to earth and air deities, to evil spirits, to the manes of deceased ancestors, and to the Hindu deities Siva, Vishnu, their consorts and incarnations. Bali is the word used in Ceylon to express the worship of the heavenly bodies. The victim sacrificed is generally a cock; and the Baliya are clay images supposed to represent the controlling planet of the individual, and are destroyed at the conclusion of Bali ceremonies. Bali, Bali Akhi, Bali-Dan, and Rakta-Bali, are the names for the sacrifice offerings of flowers, animals, and other articles offered to an idol; also of the food offered to created beings, in small quantities thrown up into the air. In Canara, a woman by eating of Bali-akhi food assumes the profession of a prostitute. The gifts to Vishnu are milk, cocoa-nuts, or dough images, rice, flowers, curds, and fruits; but to Siva and Durga are goats, sheep, and buffaloes, the heads of which, after being cut off, are given to the pujari, and the carcases to the inferior castes. This rite is often practised in times of severe epidemics.—Wilson. See Sacrifices.

BALI, an island in the Eastern Archipelago, is feudatory to the Dutch. Bali and the adjoining island of Lombok in 1881 had a population of 80,498, viz. 78,187 natives, 207 Arabs, 403 Chinese, and 34 Europeans. The Balinese entertain great aversion to a maritime life, and are more rarely to be met with at the European ports than the natives of the other islands to the eastward. They are fairer in complexion, stouter in frame, and more energetic in their dispositions, than the Javanese, and in appearance and dress bear a great resemblance to the natives of Siam, from whom it is probable that they are descended. The entire population of Bali profess a degraded form of the Hindu religion, and the burning of widows amongst them was carried to an extent never known even in continental India. The slaves of a great man were also consumed upon his funeral pile; and when the immense annual loss of life produced by these frightful practices is considered, it is surprising that the island possesses so large a population. Other widows burn themselves or are despatched with a kriss. Keppel mentions that Bali is the only island, however, in the whole Archipelago where the two great forms in the Indian religions—the Brahmanical and the Buddhist—exist together undisturbed. The Balinese are a comparatively civilised race, and very jealous of the encroachments of their powerful neighbours. Bali island has inland freshwater lakes or reservoirs situated several thousand feet above the level of the sea. Bali, Borneo, Java, Timor, the Philippines, the Moluccas, and New Guinea possess almost similar climates, but there are other differences in their natural productions. In Bali, birds are the barbet, fruit-thrush, and woodpecker. In Lombok, the cockatoo, honey-sucker, and brush turkey. In Java and Borneo are many kinds of monkeys, wild cats, deer, civets, and many varieties of squirrels. In the Celebes and Moluccas, the prehensile-tailed cuscus is the only terrestrial animal seen, except pigs and deer. The natural productions of Borneo, Java, and Sumatra have a considerable resemblance. Sumatra has the Indian elephant, the tapir, and rhinoceros; Borneo has the same elephant and tapir; one of the Javan rhinoceros is different, but another occurs in Asia, and the smaller mammals are generally the same in the three islands. The fauna of Borneo and Celebes differ extremely, and this difference continues to the south, the line of separation passing between Bali and Lombok, though these two islands are only 15 miles apart. Bali women, like the Burmese, attend to the selling of goods and merchandise. The Balinese tongue, with its ceremonial dialect and sacred language, is one of the most improved languages of the Archipelago. Bali and Lombok form one of the residences of Netherland India; and treaties have been formed with several neighbouring native princes, of Badong, Belling, Den-Pasar, Karang-Assam, Klong-Koung, Lombok, and Taboeckan.—Bikmore; Earl, Kejpi's Ind. Arch. ii. pp. 143, 386, 389; Almanac.

BALIGH. ARAB. Mature, adult of age. Nabaligh, not grown up.

BALI-PATI, in the Panjab, earrings worn by both sexes of Hindus.

BALI-PRATIPADA, a Hindu festival in commemoration of king Bali being sent to Patala, held about the last days of October. It seems to relate to some war amongst the ancient races of S. India. In Coorg called Bali-payda.

BALIPURA, the Palibrotha of the Greeks, supposed to be the same with the city of Rajagriha.

BALISHT. HIND. A span.

BALISTES, the file fish of the South Seas.

BALIYUS, a term in the Turkish and Persian dominions for a consular functionary. It is supposed that it is originally Venetian, possibly from the Greek basilicus.

BALIJA. Tel. A large tribe of Sudra Hindus, scattered through Telingana. A few of them are foot-soldiers, but the majority are occupied in agricultural labour. A Balja man is Balja-rada; plural, Balja-wanlu.

BALIJAWAR, one day's journey north of the Oxus, has a rich lead mine, and in its immediate vicinity is a large hill, called the Koh-i-Meershah, from which is extracted coal of a good quality, and used as fuel by the inhabitants of the neighbourhood. Silk is produced in abundance, and could be cultivated to an almost indefinite extent. The vale of the Oxus seems peculiarly adapted to this produce, and the best specimens come from Koulbudian and Hazrat Imam, on its north and south bank. The silk of Bokhara is spoken of as being still better.—Papers, Afghanistan, p. 186.

BALIKAN, two low ranges of hills on the E. coast of the Caspian, about lat. 39° 30' N., and long. 54° 30' E., rising 3000 feet above the sea; guses are said to be found. —Bellett, Khiia.

BALIKSH, a lake of Central India.

BALKIES, who succeeded her father Hodhad in Yemen, was properly named Balkama or Yalkama. Her existence has given rise to numerous fables, and amongst others that she was the queen of Sheba, who married Solomon. This Balkes, however, lived about the commencement of the Christian era, and she repaired or consolidated the dam of Mareb.—Playfair. See Saba.

BALIKH, in lat. 36° 48' N., is a town of Afghan-Turkestan, 357 miles N.W. from Kabul, 120 miles W. of Kunduz, 370 miles N.E. of Herat. The province of Balkh is bounded on the N.E. by the
BALKO-BANS.

BallaPoora.

Oxus, E. by Kunduz, W. by Khorasan, and S.W. by the mountains of Hazara and the state of Maimuna. To the S.E. the country is cold and mountainous; but the N.W. parts of it are flat, sandy, and intersecting by broad summits. It is tolerably well peopled by Uzbek, Afghan, Mongol, Turk, and Tanjet or Tajak, who partly dwell in villages, and partly roam with their flocks in search of pasturage. The Uzbek are simple, honest, and humane; but the Tanjet are a corrupt and dissolute race of men, addicted to vices. They have a few Jews and Hindus; the new town has 10,000 Afghans, and 5000 Kapchak, and some Uzbek. The city of Balkh is regarded by the Persians as the ancient source of religion and polite education. The ruins of the old city are in a circuit of 20 miles around. Moorcroft and Guthrie are buried outside the city, but Moorcroft died at Andkhui. In 1860 it fell under Afghan rule. There are many aqueducts, and the country is fertile. The Asiatic balloons of Balkh is named Amul-Aba, the Mother of Cities. It is said to have been built by Kalamurz of Persia, also by the philosopher Zoroaster. It was conquered by Alexander, and included in Bactria. Balkh stands on a plain about six miles from the hills. Its climate is very insalubrious. It is well irrigated by means of aqueducts from the river. It is built on a gentle slope which sinks towards the Oxus, about 1800 feet above the sea. It has repeatedly sent out conquerors, and been conquered. Arases r. is described by some as a native of Sogd, by others as of Bactria, but by Moses of Chorene as of Balkh; and Moses adds that the dynasty was called Balkhavensis or Pahlavian. It was one of the finest cities of Asia, until Chenzhig Khan and Timur almost razed it to the ground on several occasions. In Polo's time it still preserved some signs of its former magnificence. Na'dir Shah, in 1786, conquered Balkh and Kunduz. After his death, these provinces passed, under the Daurani monarchy, into the possession of the Afghans, until, in 1820, Shah Murad of Kunduz asserted his independence. After that date they formed part of the state of Bokhara, but Afghanistan once more asserted her supremacy over them, Bokhara became confined to the northern bank of the Oxus, and Afghanistan extended its rule north of the Hind Kush, from Maimuna on the west to Kunduz and Badakshian on the east.—Vambery, Bokhara, p. 340; Kinneir's Geog. Memoir, p. 187; Chatfield's Hindustan, p. 31; MacGregor's, p. 192; Bellou, 265; Barnaby's Khiva; Kelenko's Central Asia.

BALKO-BANS. Beng. Denirocalamus balcoo.

Balla, a supposed Scythic race formerly ruling in Saurashtra; one of the Rajput race. The byrd or blacksmith of the indus is Tanjan-ka Rao; indicative of their original abodes on the Indus. They lay claim, however, to descent from the Suryavansi, and maintain that their great ancestor, Balera or Bappa, was the offspring of Sava, the eldest son of Ram; that their first settlement in Saurashtra was at the ancient Dhank, in more remote periods called Mongy Puttan; and that, in conquering the country adjacent, they termed it Balaekheter (their capital Balabhipura), and assumed the title of Bala Rai. Here they claim identity with the Gehlot race of Mewar, which long held power in Saurashtra. Before the Gehlot adopted the worship of Siva Mahadeo, which period is indicated in their annals, the chief object of their adoration was the sun. The Balla on the continent of Saurashtra, however, assert their origin to be Induvannas, and that they are the Bhika-putra who were the ancient lords of Aror on the Indus. The Katti people claim descent from the Balla, an additional proof of northern origin, and strengthening their right to the epitaph of the bards, ‘Lords of Multan and Tatta.’ The Balla were of sufficient consequence in the 13th century to make incursions on Mewar; and the first exploit of the celebrated rana Hamir, was his killing the Balla chiefman of Choteela. The chief of Dhank is a Balla, and the tribe yet preserves importance in the Peninsula.—Tod's Rajastan, i. 42, ii. 112.

BALLAM. A principality was founded at Ballali in Gujarath in the middle of the second century of the Christian era (A.D. 144), by Rakhan Sana, an emigrant of the Solar race, which reigned in Oudh. They were driven out of their capital, A.D. 524, under Sidhitya Ill, by an army under Colonel Tod thinks they may have been Persians of the Sasanian race. The princes of that family emigrated again from Gujarath, and at length, founded the kingdom of Mewar, which still subsists. Ballabi is supposed to be the Byzantium of Ptolemy. In one inscription, Druva Sana is described as a follower of Bhagavata, and Dhara-pattah of the sun; all the rest worship Siva.—Eliph. pp. 211, 212.

BALLAI or Ballati. Hind. Of the village community of India, the shepherd who drives the village flock to the common pasturage, and, besides his secréan, has some trifling reward from every individual. It is his especial duty to prevent cattle trespasses. In Central India, the village boundary servant.—Rajasth. ii. p. 506.

BALLAM or Vallam, the great cause of Ceylon, usually made from the angely, Artocarpus integrofella, or Aalur-sata. See Boat.

BALLAPoora. In Mysore, two towns of this name, Chikka and Doddla Ballapooor, about 14 miles apart, of great importance until reduced by Hyder Ali. Chikka Ballapoor is very healthy. Several families of the Morasen Wakaliga are in this part of the country; the women amputate two fingers of the right hand. The sect is said to be a subdivision of the Morasen Wakkal. Every woman of the sect, previous to piercing the ears of her eldest daughter, preparatory to her being betrothed in marriage, must necessarily undergo this mutilation, which is performed by the blacksmith of the village for a regulated fee, by a surgery process sufficiently rude. The fingers are first stripped of their skin, the blacksmith places a chisel over the articulation of the knuckles, and chops them off at a single blow. The story related by Wilks of the origin of this strange practice, is that a Rakshaas (giant) named Vrika, by a course of austere devotion to Mahadeva, obtained from him the promise of whatever boon he should ask. The Rakshaas accordingly demanded that every person on whose head he placed his right hand, should instantly be reduced to ashes; and Mahadeva conferred the boon, without suspicion of the purpose for which it was designed. The Rakshaas no sooner found himself possessed of this formidable power, than he attempted to use it for the
countries the village authorities are still ruling. They greatly vary in number and duties; but there are office-holders who claim to be descendants of the persons who first settled, a thousand years ago and more, in the villages they hold, and similar is to be found amongst the Reddi and Ganda of the south and east. It is this that preserves the Indian villages from the changes which would otherwise have occurred from the irruptions of the many conquering races. Amongst the Maharatta, office-bearers are known as Balute or Alute; amongst the Canarese, as Ayakuru, Ayagarru, or Ayangadlu.

Head officer, Potail, Reddi, Ganda; assistant do., Changala; accountant, or Kalkarni; district do., Despandi; Chaudari, conveyer of trades; the money-changer, assayer, gold and silver smith, is Potadar; the barber, Nhawi or Nat; washerman, Parit, Dhibri; temple servant or Gurno; carpenter or Sutar; potter or Kumhar; gatekeeper or watchman, usually a Pariah or Mhar, Mang, Ramusi or Bhil, called eskar, veskar, tallari; waterman, do., do., do.; astrologer or Josi; shoe-maker or Mhang; Bhat or bari; Maulana or Mulla, a Mahomedan priest.

The Maharatta village head, the potail, is also the civil magistrate, and settles petty civil matters to the extent of two maunds of grain, or four or six rupees, and sends higher claims to the tahsildar. In criminal matters he is only the police, and sends all to the Amin. In lieu of pay for the above services, the potail is allowed from 25 to 50 bighas of land rent-free, the land tax being about 3 or 4 rupees the bigha. For the cultivation of his rent-free lands two or four bullocks would be needed, because from 10 to 16 bighas, according as the rains are heavy or light, are all that a pair of bullocks can get over. There are sometimes two or four potails in a village, not always of the same caste; for instance, the village of Kanhapur, Zillah of Nandair, has four potails, two Maharatta, a Canarese-speaking lingaet, and a Kulkargah; and there are a few Brahman and Mahomedan and Pariah potails, but a Christian potail is unknown.

BALLOT, a fine-grained wood of a good colour, grown on the island of Banca.—Court, p. 134.

BALLOT, a timber of the Andamans, of great transverse strength.

BALLOT VINE, Cardiospermum halicacabum.

BALSAM, Pers. Galls, gall-nuts.

BALSAM, the name given by the people to the caves known as Ellora; also called Yerula.

BALSAM, village municipality; also the individuals composing it. In Hindustan and Bengal, the republic or village system has been greatly disturbed by the repeated inroads and conquests of foreign races, and the long period of Mahomedan rule, and there the village officers and servants are less complete. But even there the headman and the accountant are almost invariably retained, and some of the other officers and servants are also to be found, and in most instances the offices are hereditary, are capable of being mortgaged or sold, are paid by recognised fees and perquisites, by allotments of grain at the time of harvest, or sometimes by portions of land held rent-free or at a low quit-rent. In the Canarese and Maharatta

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BALNA. Mahr. A woman's name, meaning little one.

BAL-NATII, the deity worshipped by the Sauria races in Gujarat, identical with the Syrian Bal. The Bal-dan, or sacrifice of the bull to Bal-nath, is on record, though now discontinued amongst the Hindus. A ring was dug up at the Fort Hill, Montrose, which Colonel Tod considered to bear the symbol of the sun-god Bal-nath; around it is wreathed a serpent. Balnaith, a hill in the Panjab, the most commandary object within fifty miles of the Hydaspes.—Todd's Travels, p. 49.

BALO. JAV. Lacc.


BALLOO, a name of Skardo.

BALOO. SANSK. Sandy. Baloo-desa would be, in the Persian Regist'han, or desert, very applicable to Arabia Deserta.

BA-LOO-LET. BURM. Paratriphia digitata. BALOR, the name applied to Balti by the Dard race. Fossils are found in the Baior hills.

BALPUR-SIVA, or Siva of the city of Bal, a small temple visited by Colonel Tod. In front of the mythical emblem of the god was Nandi, the vahan or charner, the bull in brass, at one time apparently the sole object of worship of the Sauria peninsula.—Travels, p. 54.

BAL-RASKHA. HIND. Gnaphalium, sp.

BALSAM, flowering plants of the genus Impatiens, of which numerous species occur in India and China. Towards the close of the rains, the whole of the Western Ghats of India, the Syhadri range, are covered with the balsam, the valves of the ripe fruit opening at the slightest touch and expelling their seed, from which peculiarity the term Impatiens has been given to the genus. It is a pretty sight to see the hills for miles clothed with flowering balsams. Balsams, on the Khassaya hills, are next in relative abundance (about 2 to 5) to the orchids, both tropical and temperate kinds, of great beauty and variety in colour, form, and size of blossom. The common garden balsam, in its double state, has long been an object of cultivation. It not only has a tendency to vary with double flowers, but has also the power of continuing to produce them when renewed from seeds. To secure fine balsams, save the seed with great care from the finest and most double flowers only, throwing away all whole coloured and single blossoms. Balsams require to be sown thinly in a box or seed-pan. After the plants are 2 or 3 inches high, they should be transplanted out singly in well-manured soil; if to be grown in pots, they should be put in small-sized ones at first, and re-potted into larger when requisite, which will be when the small pots are filled with roots. The soil best adapted for culture is, two parts strong loam approaching in appearance to brick earth, and two parts well decayed manure, with a little lime, which will aid in preventing mildew, so destructive to the balsam; the pots should be well drained, and the plants must never be neglected in watering.—Hook. Rin. Jour.; Riddell's Gardening; Vogt. See Impatiens.

BALSAM, the balsam of the Dutch, balm of the French, balsamo of the Italian and Spanish, according to Calmet, is supposed to be derived from Bals-shemen, royal oil. The term designates the products of several plants, some of them of the S. and E. of Asia, but others foreign to these regions, as Brazilian elemi, called also Acouchi balsam, a resin obtained from the Itea heterophylla. Balsam apple is the fruit of the Monarda of Syria, and is applied to wounds. Carpathian balsam, from two species of pine. Copalmis balsam is from the Liquidambar styraciflua. Hungarian balsam is from the Pinus mugho. Balsam of copaiba is from several species of Copaifa of the West Indies and tropical America. Balsams of Peru is supposed to be obtained from the Myrsopyrum peruifolium of Central America, and one white balsam of commerce is made from it; but white balsam, or myrrh seed, or quinquino, is also obtained from the M. pubescens. Balsams of copaiba, Peru, and elemi are used medicinally. Canada turpentine or Canada balsam is obtained from the Abies balsamea in Canada. Between the bark and the wood of the trunks and branches of these trees are vesicles containing the oleo-resin, which exudes when they are broken. Canada balsam is much used by varnish makers in the manufacture of some of the most transparent varnishes. It is also extensively employed by opticians as a cement. To Balsamodendron opobalsamum, M. Kuntz more particularly refers the Balsam of Greece. The plants in the S. and E. of Asia which yield balsamic products are as under:

- Amyris commiphora.
- Balsamodendron giladense.
- Buchanania latifolia.
- Cuscuta deodea.
- Chloroxylon swietenia.
- Dalbergia sissoo.
- Dipterocarpus alatus.
- angustifoliolus.
- grandiflorus.
- inalmus.
- Roeb. larriam. 
- turbinatus, Gart.

Balsam of Peru, Balsamum Peruvianum. The tree, Myropermum peruifolium, is a native of Central America, from whence, formerly, the balsam was forwarded to Peru for re-exportation to Spain. The drug is obtained by beating and charring the bark, so as to promote the flow of the resin, which is collected by the application of rags to the injured portions of the trunk. It is a resins fluid, and is imported into India as a surgical application. Balsam of Tolou; Baume de tolou, Fr.; Toluitanscher Balsam, Ger.; Balsamo de Tolou, Sp. The source of the balsam of Tolou is imperfectly known.

BALSAMODENDRON, a genus of plants of the natural order Burseraceae, Kth., B. Berryanum, B. Roxburghii, and B. Agallochum, occur in India. Dr. Stocks, under B. Roxburghii, Arnott, unites Amyris commiphora, Roeb., A. agallocha, Hort. Beng., Balsamodendron agallocha, Voigt, Hort. Sub., B. Roxburghii, Arnott, Commiphora Madagascarensis, Lindl. Fl. Med., and a species of Protium, W. and A.; and he describes its species as growing in Arabia, Sind, Deesa, Marwar, the Dekhat, A. rangerabad, N. India, Sambalpur, and the Garh hills. B. Katof is mentioned by Forskal. B. pubescens, Stocks, is a small tree, called Bae by the Baluch, native of Sind, much resembling the Googul tree. Its young shoots are fragrant.—Dr. J. E. Stocks.
BALSIADENDRON AGALLOCHEA. W. & A.


Myrrh, commiphora, Roeb.


This small tree grows to the east and north-east of Bengal, in Silhet, Assam, and the Garo hills, also in the Central provinces and Panjab. Dr. Royle supposes this to produce the gum balsam of commerce, and perhaps of Dioscorides; but b'dellium is got also from B. Mukul and B. Africanum. The whole plant, while growing, is considerably odoriferous, particularly when any part is broken or bruised, and diffuses a grateful fragrance, like that of the finest myrrh, to a considerable distance around. Timber worthless, from the rapidity with which white ants devour it. It burns brightly, and makes excellent torches.

Voigt; Roxb.; Fl. Audh.; Pearson; Jacob.

BALSIADENDRON BERRYI. Arn.

Protium Giladense, W. & A. Amyris Giladensis, Wilde, Roeb.


A large shrub or small tree, a native of Arabia, Ethiopia, and all over the Madras presidency. It forms an excellent hedge, and the whole tree has a grateful fragrance. M. Fee ascribes to this tree three distinct products, balsam of Meecha, a wood called xylobalsamum, and fruits termed carpoolasamum. Tradition is rich in anecdotes relative to the origin of its balsam. The Mahomedans affirm that it sprang from the blood of the slain of Mahomed's conflict with the tribe of Harb, and that the prophet used the balsam for the resurrection of the dead. It is much used in medicine by the hakims as a stimulant, tonic, and somewhat astrigent remedy, and as an external application to indolent sores. It is also employed as a perfume and cosmetic. A mixture of this balsam is made by rubbing together 8 ounces of acacia gum on white muslin, and 2 drachms of Meecha balsam. It is much prized by the Mahomedan physicians as a tonic stimulant, in doses of half to one ounce, three times daily.


BALSIADENDRON EHRBENGERI, Bory., yields myrrh resin. B. mukul, Hooker, yields the b'dellium resin.

BALSIADENDRON GILEADENSE. Kunth.


This plant of Arabia is supposed to be one of those that produce the balm of Gilead, the balm of Scripture and balm of Theophrastus and Dioscorides.—Birdwood, pp. 20, 21.

BALSIADENDRON MYRHRHA. Nees.

Murr, Mor., ARAB. Hoerabul, SANSK. Bola, Bol., SANSK. Valati-polam, TAM.

A native of Yemen; is a small tree with a whitish grey bark, with rough abortive branches, terminating in spines. It yields the myrrh of commerce; the juice exudes spontaneously, and hardens on the bark. It contains gum and resin, as acts as a stimulant expectorant, and is used in bronchitis, asthma, and diseases of women; also as an external application to ulcers and sore throats, aphthous and spongy gums; by hakims it is employed in chronic coughs, induration of the liver, intestinal worms, and amenorrhoea. It is said to cause abortion.—Birdwood, p. 20; Powell's Handb. i. p. 378.

BALSIADENDRON ROXBURGHII. Arn.


A small tree 4 to 6 feet high. It grows in Arabia, Sind, Deesa, Marwar, Aurangabad, the Dekhan, N. India, Silhet, Assam, Garo hills. It produces a valuable gum-resin, met with in all the bazaars of India, and said to constitute the bulk of the article exported from Bengal as East Indian myrrh. Royle considers the Googul identical with the B'dellium of commerce, and he ingeniously traces in Budlyoon and Madelkon (the Greek synonyms of Googul) the θ’διλλιομ and χαιρείν of Dioscorides. The medicinal properties of B'dellium are exactly like those of myrrh, and it is much cheaper. Dr. Ainslie describes the gum-resin as semi-pellucid, yellowish or brown, inodorous, and brittle, softening between the fingers; in appearance not unlike myrrh, of bitterish taste, and rather strong smell. He states that it was then all brought from Arabia and Persia, where the tree is called Darach-i-mulq.—O.S. 287; Birds., p. 20; Royle, p. 177; Birdwood, p. 21; Dr. J. N. Cowle.,

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so that there is no appearance of a town. They have the Khor country on the east, inhabited by a people supposed to be the Chauranei-Scythe of Ptolomy. Iskardo, Skardo, or Little Tibet, was conquered in 1840 for the rajah Gulab Singh, by his general Zorawar Singh, with his Dogra troops. rgyilo, the title of the ruler of Iskardo or Little Tibet, is derived from two Balti words,—rgyil, powerful, and Po, a man. The queen is styled rgyil-mo. Mr. Vigne points to this as the original of the title of Guelph belonging to the royal family of Britain, and of the term Gylden, still used to designate the old kings of Denmark.—Thomson's 'Trs. in W. Himalaya,' 247; Latham's 'Ethn. ; A. Cunningham; Vigne, Narrative; Hooker et Thomson,' p. 225; Yule, 'Cathay,' i. 234.

BALU. HIND. A bear. Balu-Soor, the Indian hog-badger, Arctonyx Collaris.

BALU. HIND. Sand; hence Balu, sandy, and Bal-sundar, sandy soil.

BALUCHISTAN, between lat. 24° 50' and 30° 20' N., and long. 61° 10' to 68° 38' E., comprises the extensive regions between the confines of modern Persia and British territory in the valley of the Indus; to the north Seistan and Afghanistan, to the south the ocean, mark its boundaries. Area, 106,500 square miles; population, 400,000. The western section comprises the subDivisions of Mushki, Kharan, Mushki, Panjghur, Kej, Kolwah, and Jhow; the maritime section includes the provinces of Las, Hormara, and Pessani; the central section is formed of the great provinces of SaraHarwan and Jhalawan, to which are to be added the districts dependent on the capital, Kalat, and which are intermediately situated between the two; and the eastern section includes the provinces of Cutch Gandava, Harand, and Dajil, the last two bordering on the river Indus. The most remarkable features of Baluchistan are its rugged and elevated surface, its barrenness, and deficiency of water. It may be described as a maze of mountain, except on the N.W., in which direction the surface descends to the great desert, and on the south, where a low tract stretches along the sea-shore. The more important valleys are Shal, Mustung, Kalat, Baghwan, and Mungochar.

The valley of Quetta, or Shal, is situated in 67° E. long., and 30° to 30° 20' N. lat. It is about 15 or 20 miles in length, and from 4 to 6 in breadth. It is bounded to the westward by the Chahl Tan range, having a strike of S.S.W. by N.N.E.

The valley of Kanhee is situated to the west of, and runs parallel to, that of Quetta, but extends further south. Its length is about 30 miles, and breadth 5 or 6. It is bounded on the east by the great Chahl Tan range, which separates it from the valley of Quetta, and on the west by a parallel range of much less height, which, towards the north, separates it from the valley of Fishin.

The valley of Mustung is to the south of the valleys of Quetta and Kanhee. It extends from about 29° 30' to near 30° N. lat., and its eastern boundary is nearly defined by the 67° of E. long. It is therefore about 40 miles in length, and varies in breadth from 5 to 8 miles, spreading out towards its upper end, and being gradually contracted towards its lower or southern extremity. It is bounded by parallel ranges, running N.N.E. by S.S.W. of height, probably, from 500 to 800 feet. The range to the eastward is pierced by a pass leading to the Dashti-i-be-Daulat.

The Dashti-i-be-Daulat is an elevated valley or plain, situated to the N.E. of Mustang, at the head of the Bolan pass. Its breadth is from 15 to 20 miles. It has no towns or villages, but is occasionally dotted with the tomans of the Kurd tribe. Some portions of it are cultivated in the spring and summer months, but during the winter it is a bleak, howling wilderness, destitute of trees or any shelter; the snow lies deep on it, and cold winds whistle over its frozen surface. It is subject to the depredations of the Kaka (Khaka, Kakar, Kakarr) tribe of Afghans, and caravans are frequently plundered by them. In the summer it is clothed with the fragrant Terk plant, and its surface diversified by fields of waving grain. It has no streams, but one or two wells have been dug, and water obtained with some difficulty; the cultivators are dependent on rain and heavy dews.

The valley of Mungochar is situated to the southward of that of Mustang, more circular in form, and of much less extent; destitute of trees, save a few stunted mulberries.

The valley of Girvanee is situated south of Mungochar, and is distant about 8 miles from Kalat.

The valley of Ziarat is situated to the westward of, and runs parallel with, the preceding; is of considerable extent, well watered and cultivated.

Baluchistan was early traversed or noticed by Pottinger, Postans, Ferriere, Burton, Masson, and Mohun Lal; and, more recently, other writers have noticed its features and peoples. Dr. Cook (in Trans. Bomb. Med. and Phys. Society) described the territories as consisting of lofty rugged table-lands and level ground, and their climates as exhibiting the severest heat and the most intense cold. He arranged it into five portions—

The great central mountain range or table-land, running north and south, which comprises the provinces of SaraHarwan, Jhalawan, and Las;

The mountain district extending eastward, inhabited by the Murri and Bugti, situated to the south of Sind and Cutch;

The province of the plains, Cutch Gandava;

The province of Makran, diversified by mountain and desert, which stretches westward along the sea-coast;

The great desert of Seistan to the north of the last-mentioned districts.

Saharawan is the more northern of the central provinces, and blends its confines with the Afghan districts of Fishin and Toha, dependent on Kandahar. It has a length and breadth of about 100 miles each way. On its east are parallel ranges of hills, which separate it from Darad and Cutchi, with which it communicates by a pass through which runs the river Bolan, leading from Darad to the Dashti-i-be-Daulat. Mustang district is occupied by the Raisani, Sherwani, Mumud-Shahi, Bangalzai, and Lari; Gurghina is the land of the Sirphera; the Dashti-i-be-Daulat and Merv are held by the Kurd; the Lagano are in Mungochar; the Rosani in Ashi Khan and Pudan, but also subject to Kurdogat, at Iri in Kachi and at Sahrab in Jhalawan; the Ghazghi in Ghazur; the hills west of Khanak are occupied by the Shaikh Husain and Samulari, and the Sunari are in the Dashti-i-Goram.
Jhalawan lies between lat. 26° and 29° N., and long. 65° and 67° 30' E. It includes the countries stretching in a southerly direction between Kalat and the maritime province of Las. To the west, barren tracts intervening, it has the provinces of Mushki, Kharan, and Kolwah. It comprises the districts of Sohrab, Zabbi, Baghwan, Khoozlur, Zidi, Kappar, Wad, Nall, and the hills of the Mingal, Bizanju, and Sumbati. The pastoral tribes in this province are superior in numbers, the great tribes of Mingal and Bizanju giving them preponderance. The Mehmansiri, Musherswan, and Mirwari occupy the Mushki district. Jhalawan is somewhat less mountainous than Saharanaw, and, except its valleys, is very barren. Its people, about 30,000 in number, are chiefly pastoral, very poor and very ignorant. These tribes are largely pastoral and nomadic, and have their allotted portions of the country, which they jealously guard. Many of them are traders and horse-dealers, visiting the chief towns of India.

Kharan has two small towns, one of which, Washak, is occupied by the Nusherwani tribe, who claim a Persian descent, and, in common with the Rajput of Udaipur in western India, trace it to the celebrated Nusherwan.

The deserts of Nushki, Chagai, and Seistan are sometimes collectively called the desert of Baluchistan.

The Kohistan district is a mountain region lying between Kalat and Cutch Gandava, and is composed of several parallel ranges of limestone rock. Its highest mountain, the Chalch Tan, 12,000 feet, is 85 miles east of Kalat. Its two water-courses are the Bolan and the Mula, which discharge into the plains of Cutchi, also the Gaj and the Nara.

The following heights were obtained by the boiling point of water in the route towards Makran and the return route:

Kalat, 3850 feet Nokheja, 3580 feet.
Panderan, 5600 feet Gajer, 2950 feet.
Nogranuma, 470 Juri, 3900 feet.
Baghwan, 470 Tyuk, 4700 feet.
Khoozlur, 330 Wulja Kulgullu pass, 5700 feet.
Nali, 3300 Matta, 5330 feet.
Taigab, 360 Sohrat, 5770 feet.
Greisher, 4173 Rodings, 6580 feet.

Throughout Baluchistan, but chiefly in Jhalawan, are great structures, called Ghurbasta or Ghorbant, constructed by some prior race, and bearing a resemblance to the Cyclopean remains of Europe. They are built across ravines, and evidently intended for tank bands; their vicinity is all terraced.

The southern part of the modern Baluchistan was made known to Europe by the march of Alexander the Great. On quitting Pattala (supposed to be Tatta) on the Indus, he proceeded with his army through the dominions of the Arabita, a part of the province of Las, and in it forded the Arabis (Purnal) river. Westward of that insignificant stream, he traversed the territory of the Kirtha and thence crossing over one range of mountains, he entered the province of Gedrosia (Makran), in which his troops were thinned by the accumulated hardships of thirst, famine, and fatigue. Craterus, with the heavy baggage and invalid soldiers, marched far to the north by Arachosia and Drangiana, which provinces are included in the modern ones of Kandahar and Seistan. Since the middle of the 19th century, many of the valleys and mountain districts of the northern parts have been repeatedly and successfully marched over in the expeditions of the army of British India, though they also have suffered from want of water, from the heat of the hot weather, and the cold of winter.

Baluchistan and British India are in political alliance, the treaties bearing date 14th May 1854, 8th December 1876. Nasir Khan, in the 18th century, after a contest with Ahmad Shah, acknowledged the latter as his suzerain, agreed to furnish a contingent for war services, and accompanied him to Hindustan. He died A.D. 1795. He was a liberal, just, and brave ruler. His son and successor was Mahmut Khan, who died A.D. 1819, and was succeeded by his son Mehrab Khan, who was killed, 13th November 1839, in the storm of Kalat by the British forces. His son Hasan Khan, after a brief reign of Shah Nawaz Khan, regained power, assumed the title of Nasir Khan, and ruled till his death, A.D. 1857; his half-brother, Khudabad Khan. 16 years of age, succeeded him, but was temporarily put aside by Sherdil Khan, after whose murder in 1864 he resumed authority.

Kalat, the chief town, has about 400 houses within its walls, with suburbs comprising other 400 houses. Kalat is situated in a narrow valley, bounded to the east by the hill ranges extending to Cutch Gandava. In the town are many Brahui, a great number of Hindus, and a large proportion of slaves. The entire suburbs are inhabited by Babi and other Afghans. The agricultural classes are nearly exclusively Dehvars, whom Masson regards as the original occupants, and equivalent to the Tajaks of Afghanistan and Turkestan, and, as with them, their vernacular language is Persian.

The Brahui pastoral tribes, belonging to whom is the reigning family, speak a language called Brahui, or Kur Gall.

Cutch Gandava presents a large extent of level surface, has an excessively sultry climate, and great scarcity of water for agricultural purposes. It is inhabited by three very distinctly marked races, the Jat, the Rind (including the Mahbaghi), and the Brahui. The Jats are undoubtedly its early occupants; the Rind are more recent settlers; and the Brahui have acquired a permanent interest in the province only since the time of Nadir Shah. The climate is so oppressive from April to August that communications are nearly suspended, and travelling is attended with great risk, from the hot winds which sweep with fatal violence over the parched, arid plains. No less terrible are the emaciations emitted from the heated surface of the soil. This noxious hot wind is known as the Harm-i-simoom. But in winter its climate is temperate, and the Khan of Kalat, and the Rind, Brahui, and well-to-do Baluch resort to it. It is their wintering land. It has the Bolan, Moolla, and Nari rivers. Its chief towns are Gandava, Bagh, Dadar, Kajak, Leri, Hajji ka Shahar, Kotru, and Mirpur.

Nushki lies between the desert of Seistan on the west and the Gurgchina district of Saharanaw on the east. The Kaisar river runs through it: asafotida and rhubarb grow wild. It is occupied by the Zigger Minghal and the Rakshani Baluch. They have large flocks of sheep and herds of cattle, and remain there all the year round.

Makran, the ancient Gedrosia, is partly Persia
and in part belongs to Baluchistán, lying between Persia and the Baluch province of Las. Its sea-board extends from Ras Malan to Ras Jashk. On its coast line are the districts of Hormara, Pasni, Kolanch, Guadar, Juni, Baho Dastyari, Choaabar, and Kibla; and inland are Kolwa, Panjur, Kej, Tump, Mand, Pishin, Sarbaz, Disaz, Kasarkar, and Geh. It is traversed from east to west by parallel ranges of mountains, and has several rivers, the beds of which are dry for many months. The tribes are chiefly Baluch, Gichki, Boledi, Malika, also Nusherwani, Bizajnur, Narui, Hot, and Rind, and the Brahu Mirwani. Other less important tribes are Ashkani, Band, Birdi, Gaja, Gorji, Jatgal, Kaodai, Kalmati, Ketwari, Lagnori, Kosagi, Kotigi, Mulgi, Maidizai, Puzl, Raisi, Singalu, Shazadah, Shehi, Sanjadah, Sangorif, Wardili, and Zishkhani. The inferior tribes are Bahari, Durzadah, Korwa, Langao, Lori, Lundi, Med, and Zat; and the unorthodox Baluch tribes are the Dal or Zikri, the coast tribes of Med, Korwa, and Raisi; also the Biadish, and the Khoja, or Lutia. The language of Makran is a patois of Persian, with many Arabic words and phrases. The races are true to their undertakings; they number about 200,000 souls. The more important harbours are Summiani, Hormara, Kolmat, Guadar, Juni, and Choaabar.

Panjur district of Baluch Makran consists of a cluster of forts and villages amongst groves of date trees. Kej, the most western district of Baluch Makran, has a cluster of villages and forts, situated in the great valley, about 12 miles wide, that traverses the country of Makran from east to west. The chief families are the Gichki, of Hindu descent, with two clans, the Malikzai and Esazi; also the Raisi and Mulki. Above half the population of Kej are of a religious sect called Zigger, who dispense with many prayers, rites, and ceremonies of orthodox Mahomedanism.

Kolahch province is four or five days from the coast, north of Hormara. It is sterile, but inhabited by the Mirwari, Homersari, Rodahi, and Nusherwani tribes.

Jowo, a small province west of Las, from which it is separated by a range of mountains. Its inhabitants are the Mirwari and Halada tribes, the latter are Brahu, and pastoral.

Las has an area of about 5000 square miles. It is a flat plain, barren, and lies between mountains and the sea, and has the Purali river, the Arabs of the Greeks, and other streams, the banks of which are fertile. Its towns are Bela, Uraj, Summiany, and Lari. The chief inhabitants are the Lassi division of the great Lumi tribe, with Hindu and Khoja traditions.

Bela in Las, built on the Purali river, seems to have been preceded by another town, the sepulchres of which are about five miles westward, where coins and trinkets are occasionally found. Funeral jars are also brought to light, filled with ashes, charcoal, and other incinerated substances. In the nearest point of the contiguous hills separating Las from Jowo are numerous caves and rock temples. Captain Postans says (p. 359) : 'The tribe of Beaveiros, who dwell near Bela, made a practice of selling their children when in want, which appeared to be generally the case, as no difficulty was experienced in obtaining them whenever required.'

Hormara, a sea-coast district of Baluch Makran, has about 1000 Med fishermen, with a few Hindu and Khojak traders.

Passi or Passani, also a sea-coast district, is occupied chiefly by the Kalmati.

Saharawan and Jhalawun are ruled by hereditary chiefs, who have their hereditary standard-bearers. The place of the Saharawan chief, in council and in war, is on the right of the Khan; that of the Jhalawan chief is on his left. Las also has usually been governed by a hereditary chief, called the Jam; but this ruler rebelled, and became an exile in British territory.

The Baluch have three great sections, Nari, Rind, and Maghazzi; and Pottinger, writing in the early part of the 19th century, gave the following list of their subdivisions and the numbers of their fighting men:—

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nari</td>
<td></td>
</tr>
<tr>
<td>Khasoji</td>
<td>150</td>
</tr>
<tr>
<td>Kurdi or Shahidi</td>
<td>4500</td>
</tr>
<tr>
<td>Malika</td>
<td>250</td>
</tr>
<tr>
<td>Rind</td>
<td></td>
</tr>
<tr>
<td>Boledi</td>
<td>900</td>
</tr>
<tr>
<td>Bugti</td>
<td></td>
</tr>
<tr>
<td>Chachri</td>
<td>1500</td>
</tr>
<tr>
<td>Chakna</td>
<td>100</td>
</tr>
<tr>
<td>Dinari</td>
<td>700</td>
</tr>
<tr>
<td>Dirsih</td>
<td>500</td>
</tr>
<tr>
<td>Donaki</td>
<td>80</td>
</tr>
<tr>
<td>Dandhi</td>
<td>1000</td>
</tr>
<tr>
<td>Ghulambulk</td>
<td>700</td>
</tr>
<tr>
<td>Gurchani</td>
<td>3000</td>
</tr>
<tr>
<td>Jalambani</td>
<td>800</td>
</tr>
<tr>
<td>Jatni</td>
<td>75</td>
</tr>
<tr>
<td>Kalai</td>
<td>700</td>
</tr>
</tbody>
</table>

Maghazi:

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abri</td>
<td>3000</td>
</tr>
<tr>
<td>Bokri</td>
<td>2000</td>
</tr>
<tr>
<td>Isabani</td>
<td></td>
</tr>
<tr>
<td>Jakra</td>
<td>4000</td>
</tr>
<tr>
<td>Jakhani</td>
<td></td>
</tr>
<tr>
<td>Jakki</td>
<td></td>
</tr>
<tr>
<td>Kalandaran</td>
<td>700</td>
</tr>
</tbody>
</table>

The Rind, one of the principal divisions of the Baluch tribes, have a tradition that they came originally from Aleppo.

The affinity of the Baluchi to the Persian language affords of itself strong evidence in favour of the supposition that they came from the westward; and the majority of the Baluch nation dwell on the western frontier; neither hair, features, manners, nor language bear the slightest similitude to those of the Arabs.

Brahui Tribes:

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bajai</td>
<td>700</td>
</tr>
<tr>
<td>Bambakazi</td>
<td>900</td>
</tr>
<tr>
<td>Bangalzai</td>
<td>900</td>
</tr>
<tr>
<td>Barjai</td>
<td>1000</td>
</tr>
<tr>
<td>Bhuka</td>
<td>300</td>
</tr>
<tr>
<td>Bhumda</td>
<td>300</td>
</tr>
<tr>
<td>Bizajnur</td>
<td>1000</td>
</tr>
<tr>
<td>Chromozai</td>
<td>1000</td>
</tr>
<tr>
<td>Changozai</td>
<td>700</td>
</tr>
<tr>
<td>Choctwai</td>
<td>700</td>
</tr>
<tr>
<td>Dekhari</td>
<td>4000</td>
</tr>
<tr>
<td>Dinauli</td>
<td>1000</td>
</tr>
<tr>
<td>Gajage</td>
<td>400</td>
</tr>
<tr>
<td>Galasorri</td>
<td>700</td>
</tr>
<tr>
<td>Guzai</td>
<td>500</td>
</tr>
<tr>
<td>Guranangani</td>
<td>300</td>
</tr>
<tr>
<td>Gwarani</td>
<td>300</td>
</tr>
<tr>
<td>Harunri</td>
<td>50</td>
</tr>
<tr>
<td>Hasani</td>
<td>300</td>
</tr>
<tr>
<td>Imam Haushani</td>
<td>3000</td>
</tr>
<tr>
<td>Israioni</td>
<td>1000</td>
</tr>
<tr>
<td>Jainsi</td>
<td>700</td>
</tr>
<tr>
<td>Jadohi</td>
<td>150</td>
</tr>
<tr>
<td>Jamalzai</td>
<td>1000</td>
</tr>
<tr>
<td>Kalamzai</td>
<td>1000</td>
</tr>
<tr>
<td>Kala Dari</td>
<td>700</td>
</tr>
<tr>
<td>Kamburani</td>
<td>1000</td>
</tr>
<tr>
<td>Kanhazni</td>
<td>700</td>
</tr>
<tr>
<td>Kari</td>
<td>1500</td>
</tr>
<tr>
<td>Kurshahi</td>
<td>300</td>
</tr>
<tr>
<td>Khuda</td>
<td>300</td>
</tr>
<tr>
<td>Kuli</td>
<td>400</td>
</tr>
<tr>
<td>Laghi</td>
<td>3000</td>
</tr>
<tr>
<td>Mehrumdani</td>
<td>500</td>
</tr>
<tr>
<td>Mahmoud</td>
<td>3500</td>
</tr>
</tbody>
</table>
The Brahui appear to have been a nation of Tartar mountaineers, who settled at a very early period in the southern parts of Asia, where they lived a nomadic life in small khels or societies, headed and governed by their own chiefs and laws, for many centuries; and at length they became incorporated, and obtained their present footing at Kalat and throughout Baluchistan. Some amongst them affirm that the name is a compound of an affix boon, and rob, a word said to mean a hill, the Brahui being called in one quarter of the country, Nuri, which means 'lowlanders,' i.e. literally not hillmen, a name they received from the Brahui when they came amongst them, and evinced a preference for the champagne districts, low villages, and plains. The Brahui imagine themselves the aborigines of the country.

The Baluch and Brahui take their tribal names either from the chief under whom they serve, the district or country to which they belong, or the traditions as to whence they derive their descent. The Gurgani, Sherwari, and Sherzai take from gurg and sher, respectively a wolf and a lion; the Lumri, from lumri, the fox; the Jamalzai, Changozai, Shadanzai, and Gulzai, from the terms jama, change, shad, and gull, severally meaning beautiful, good, happy, and rose; the Dodzai, from 'do,' two, being two united tribes, etc.

The Kurd, who inhabit the Dasht-i-be-Daulat, doubtless came from Kurdistan, and made choice of the Dasht-i-be-Daulat. Many of the Jhalawan tribes are undoubtedly of Rajput origin; and until lately the practice of infanticide prevailed amongst them. Near Bagwan was a cave in the rock filled with the dried mummies-like bodies of infants, some of which when seen had a comparatively recent appearance. Burton states (Seine, p. 244) that the Baluchis were in the habit of putting to death their female children by concubines and unmarried girls, either by means of opium or drowning in milk.

Grammars of the languages show that the Baluch is of the Aryan or Sanskrit stock, and the Brahui of the Scythic or Turanian family. Lieut. Pottinger mentions that the Baluchi tongue partakes considerably of the idiom of the Persian, and at least one-half of its words are borrowed from that language, but greatly disguised under a corrupt and unaccountable pronunciation. The Brahui, on the contrary, is, he says, so dissimilar in its sound and formation, that he did not recollect to have marked in it a single expression in any way approaching to the idiom of the Persian.

Dr. Caldwell regards the Brahui as derived from the same source as the Panjtab and Sindi, but it unquestionably contains a Dravidian element. The discovery of this element beyond the Indus river, supports the view that some of the Dravidians, like the Aryans, the Graeco-Scythians, and the Turco-Mongolians, entered India by the N.W. route. According to Mr. Campbell (pp. 54-56), Brahui is nearly Aryan (Indo-Persic), with a Turanian element. The consequence of the people of these two classes, Brahui and Baluch, is, as unlike, in most instances, as their languages, provided they be descendants of a regular succession of ancestors of either; but the frequent intermarriages which take place amongst them have tended in some degree to blend together the peculiar characteristics of both, so that in many families, and even in whole tribes, they have ceased to exist.

The typical Brahui are certain tribes in Saharanw and Jhalawan.

The Brahui are a nomade race, always residing in one part of the country during summer, and migrating to another for the winter season. They likewise change their immediate place of resort many times, in search of pasturage for their flocks,—a practice rare among the Baluch tribes. The Brahui, instead of the tall figure, long visage, and raised features of their fellow-countrymen, have stout, squat features, short, thick bones, with round heads, short, and flat linements. Numbers of them have brown beards, and are bearded. The Kamburani, the chief tribe, are subdivided into three distinct gradations of rank, called Ahmedzai, Khani, and Kamburani. The first supplies the khan; the Khani are of the secondary rank of chiefs. The term Kamburani includes all the remainder of the tribe, but in common is applicable to the whole body. They receive wives from, but do not marry their daughters into, other tribes.

The Baluch tribes, Rind and Magzhi, are settled in Cutch Gandava, to which fertile plain they have emigrated at different periods from the province of Makran, and have become incorporated with the Jat, or cultivators of the soil, as the subjects of the Khan of Kalat; a few of these likewise reside in the hills to the N.E. of Cutch Gandava, and skirts of the deserts north of Kalat. The Saece, who formed part of Alexander’s army, and whose country is stated by Wilson to have been that lying between the Pandianisan mountains and Sea of Aral, still, it has been said, exist as a tribe of the Brahui of Jhalawan.

The Baluchis have by no means a pure and unbroken descent from any one source. They claim to be Arabs from Aleppo. In many cases the outline of their physiognomy is very similar to that of the Arabs of Egypt and Syria; and if such a Baluch were dressed in the Arab dress, it would be exceedingly difficult to detect his nationality. Others are Sindians who fled to the hills on the invasion of their country by the Mahomedans.

The whole of the tribes, Brahui and Baluch, are nominally subject to the Khan of Kalat as chief of all, but his power varies with his popularity. The nomadic tribes reside in tomans, or collections of tents. The tents are made of goat’s hair, black or striped; the furniture is very simple, a few metal cooking-pots, a stone hand-mill, some rough carpets with a rug, a distaff for spinning wool, and a hookah, are all that are usually found in a Brahui tent. That of the chief may perhaps be better furnished, and he is richer than his neigh-
bours in flocks and herds. The dress of the poorer classes is made up of a long tunic, trousers loose at the feet, and a black or brown overcoat or cloak, usually of felt, kummerbund and sandals. They wear a small cap, either fitting tight to the outline of the head, or dome-shaped, with a tassel on the top. Those of the higher classes are elaborately ornamented with gold thread. Few wear turbans; but the Baluchi have them preposterously large, of white muslin. The higher classes are somewhat better dressed, and carry longees or scarfs, which they throw around their shoulders in exactly the same manner as a Scotch plaid. Instead of the cholo, Baluchi women generally wear the gaggheho, a long shift opening behind between the shoulders, and with half arms. It is generally made of red or white stuff, reaches almost down to the ankles, and is elaborately worked at the breast. Red is the fashionable colour. Among the poorest no trousers or drawers are worn under it.

The women tie their hair in a knot behind, brushing it smooth in front, and keeping it in place by a kind of fixature. The colour of the hair is frequently brown or red. The men wear their hair long and flowing over the shoulders, whilst a luxuriant beard falls over the breast.

Baluchistan is rich in mineral productions; copper, lead, iron, antimony, sulphur, and alum abound in various parts; while common salt is too plentiful to be advantageous to vegetation. On the high road from Kalat to Cutch Gandava is a range of hills from which red salt is extracted. Sulphur and alum are to be had at the same place.

Ferrier saw quantities of white and grey marble in the mountains to the westward of Nushki, but it does not seem to be at all prized by the Baluch. The best timber the Baluchi have is the Upoors, the Zizyphus jujuba and tamarind trees, both of which are remarkably hard and durable; also the Babul, Farnesian mimosa. Lye, or tamarisk; Neem, or Melia azadirachta; Pipul, or Ficus religiosa; Sisoo, or Dalbergia sissoo, Rosburgh; Chinar, Platanae orientalis. The Brahui, unlike all other Mahomedan people, have no syuds, pias, mullas, or fakirs, or any persons pretending to inspiration or sanctity amongst them, and are compelled, while holding the craft in due reverence, to seek them amongst strangers.—Richard F. Burton's Scinde, p. 244; British World in the East; Ritchie; Ferrier's Journeys; Pottinger's Travels, Beluchistan and Sind; Masson's Narrative; Masson's Journeys; Masson's Kalat; Postans' Personal Observations; Dr. Cook; Imp. Gaz.; Caldwell's Comparative Grammar; Mr. (Sir Geo.) Campbell, pp. 64–56.

BALUN-GACH. Beng. Sweet basil; Oeium basilicum.

BALUNGOO. Hind. Seeds of Dracecephalum R5oleanum; black, one-eighth of an inch long, pointed, mucilaginous, and slightly aromatic.

BALUR. Hind. PERS. Crystal; rock crystal.

BALUS. Lah. BAKK. D. CAN. Argemone Mexi-

BALUSU KURA. Teh. Canthium pavi-

BALUW. Hind. Quercus incana.

BALUTA.IllegalAccessException

BAMBOO.

BAMBOO. The most gigantea of the grasses, these and many genera and species, which are applied to so many useful purposes, that it would be difficult to point out an object in which strength and elasticity are requisite, and for which lightness is no objection, to which the stems are not adapted in the countries where they grow. They vary in size from that of a reed to that of a tall and slender palm tree; and the South Asia genera comprise species of arundinaria, bambusa,
BAMBOO.

beesha, three of dendrocalamus, with species of
gigantoehia, nautus, and phyllostachyus.

For building purposes, they are used for frame-
works of houses, the uprights, flooring, planking,
roofing, and thatching, with all the needed scaf-
dolding;

Also for all household furniture, chairs, seats,
bed-posts, couches, beds, tables, blinds, screens,
and mats; also as pans, baskets, buckets, boxes,
hollow cases, cooking pots, and cups; likewise
as tongs, forks, and knives; also for pipe-sticks,
usual instruments, weaving implements, and
handles for umbrellas and parasols.

Conveyances of kinds, palanquins, dholoees,
palanquin and dholoee poles, litters of kinds,
biers, carts, tent poles and shoulder poles, are all
made of bamboo.

For war and the chase, they make bows, arrows,
and quivers; lance, javelin, and spear shafts; spears,
daggers, and arrow heads; stockades, rockets; fire-
works, and the sumpitam blow-pipe.

Fishers make stakes for nets, fishing-rods, fish
poles, and crab nets.

For agricultural purposes, the harrow, the hoe,
the clod-crusher, durable water-pipes, conduits,
levers for wells, fences, raised floors for rice stores,
portable stages, hencoops, bird-cages, the floors
and supports of bridges, ladders, platforms.

For seafarers, the bamboo provides spars, oars,
yards, masts, deck planking, flag poles, outriggers,
and rafts for floating heavy timber; while for the
learned, books, paper, rulers, and pencil are all
made of bamboo.

Bamboo bows and arrows are in common use
wherever the bamboo is obtainable. The harder
and thicker sorts, split and formed with tapering
ends, make a very strong and elastic bow; a narrow
strip of the outer skin of the same is used for the
string; and the slender, reed-like kinds make
excellent arrows. One of the few agricultural
implements used by the Papuans, a spud or hoe
for planting or weeding, is made of a stout bamboo,
cut somewhat like a spear head.

Ladders are made of two bamboos of the required
length, by cutting small holes just above each
ring, to receive the rungs or steps, formed of a
more slender bamboo. Malays make wonderfully
light scaling-ladders, which can be conveyed with
facility where heavier machines could not be
transported. In their search for honey and bees-
wax, the tribes of the Archipelago make a ladder
by driving bamboo pegs into the tree three feet
apart, and a straight bamboo is fastened to their
outer ends, thus forming with the tree a ladder,
which they build higher as they ascend.

The bamboo can be split with great facility and
accuracy, and, owing to its being hollow, it can be
easily cut across or notched with a sharp knife or
hatchet. By cutting off the end very obliquely
just beyond a joint, a very sharp cutting point is
obtained, suitable for a spear, dagger, or arrow
head, as effective as a weapon as iron. Such
spears are used by all the Malay races. The masts
and yards of native vessels in the Archipelago are
almost always formed of bamboo, as it combines
lightness, strength, and elasticity in an unequaled
degree. Two or three large bamboos form the best
outriggers to canoes, on account of their great
buoyancy. They also serve to form rafts; and in

of huge bundles of bamboos. The Dyaks make
bamboo bridges to cross streams, and also carry
footpaths along the face of precipices, formed
wholly of bamboo ingeniously hung from over-
hanging trees by diagonal rods of bamboo so as
to form true suspension bridges. The flooring of
Burma and Malay houses is almost always of
bamboo. They are split lengthways twice, and
the pieces tied down with a rattan; or the bamboo
are split down one side, opened out and spread
flat. In Lombok and Macassar, houses are made
entirely of bamboo,—for floors, doors, and
roof all being of this one material. In every
article of their furniture,—chairs, sofas, and bed-
steads, blinds, screens, mats, baskets. For water
vessels, some of the lighter kinds are cut into
lengths up to five feet, a small hole being knocked
through the seata of the joints and three or four
of these vessels are tied together and carried on
the back. Water pipes and aqueducts are also
made from bamboo tubes; measures, drinking
vessels, water dippers, tobacco boxes, and tinder
boxes. Single joints of bamboo make excellent
cooking vessels for rice, fish, and vegetables.

They serve, too, for jars; and pipes and hookahs
can also be formed from them. In Sumatra, the
framework of the houses of the natives is chiefly
composed of this material. In the floorings, whole
stems, four or five inches in diameter, are laid
close to each other, and across these stems laths
of split bamboo about an inch wide are fastened
down with filaments of the rattan cane.

The sides of the houses are closed in with the bamboo,
opened, and rendered flat by splitting or notching
the circular joints on the outside, chipping away
the corresponding divisions within, and laying it
in the sun to dry, pressed down with weights.

Whole bamboos often form the uprights; and the
house is generally roofed in with a thatch of
narrow split bamboo, six feet long, placed in
regular layers, each reaching within two feet of
the extremity of that beneath it, by which a treble
covering is formed. Another and most ingenious
roof is also formed by cutting large straight
bamboos of sufficient length to reach from the
ridge to the eaves, then splitting them exactly in
two, knocking out the partitions, and arranging
them in close order with the hollow or inner sides
uppermost; over which a second layer, with the
outer or convex sides up, is placed upon the other
in such a manner that each of the convex pieces
falls into the two contiguous concave pieces,
covering their edges, the latter serving as gutters
to carry off the rain that falls upon the upper
convex layer.

In China, the shoots are boiled, pickled, and
comitted; the roots are carved into fantastic
images of men, birds, monkeys, or monstrous
perversions of animated nature, or are turned into
oval sticks for worshippers to divine whether the
gods will hear or refuse their petitions. The
tapering culms are used for all purposes that
poles can be applied to,—carrying, supporting,
propelling, and measuring; by the porter, the
carpenter, and the boatman; for the joists of
houses, the ribs of sails, the shafts of spears, and
the wattles of hurdles; the tubes of aqueducts,
and the handles and the ribs of umbrellas and
fans. The leaves are sewed upon cords to make
rain-clouts, swept into heaps to form manure, and
matted into thatch to cover houses. Cut into
sprinths and slivers of various sizes, the wood is worked into baskets and trays of every form and fancy; twisted into cables, plaited into awnings, and woven into mats for scenery of the theatre, the roofs of boats, and the easing of goods. The shavings even are picked into oskam, and mixed with those of rattan to be stuffed into mattresses. The bamboo furnishes their bed for sleeping and the couch for reclining, the chopsticks for eating, the pipe for smoking, and the flute for entertaining; a curtain to hang before the door, and a broom to sweep around it; together with screens, stools, stands, and sofas for various uses of conveniences and luxury in the house. The mattresst to lie upon, the chair to sit upon, the table to dine from, food to eat, and fuel to cook it with, are alike derived from it; the ferule to govern the scholar, and the book he studies, both originate here. The tapering barrels of the 'song' or organ, and the dreaded instrument of the lictor, one to make harmony and the other to strike dread, the skewer to pin the hair and the hat to screen the head, the paper to write on, the pencil handle to write with, and the cup to hold the pencil, the rule to measure lengths, the cup to gauge quantities, and the bucket to draw water, the bellows to blow the fire, and the bottle to retain the match, the bird-cage and crab-net, the fish-rod and sumpitan, the water-wheel and aqueduct, wheelbarrow and cart, etc., are one and all furnished or completed by this magnificent grass, whose graceful beauty when growing is comparable to its varied usefulness when cut down.

In the Malay Peninsula and Sumatra, the bamboo is formed into a wind instrument. On nearing one of these, says a writer, our ears were saluted by the most melodious sounds, some soft and liquid like flute notes, and others deep and full like the tones of an organ. These sounds were sometimes low, interrupted, or even single, and presently they would swell into a grand burst of mingled melody. I can hardly express the feelings of astonishment with which I paused to listen and look for the source of music so wild in such a spot. It seemed to proceed from a clump of trees at a little distance, but I could see neither musician nor instrument, and the sounds varied so much in their strength, that their origin seemed now at one place and now at another, as if they sometimes came from mid air and sometimes swelled up from the mass of dark foliage, or hovered, faint and fitful, around it. On drawing nearer to the clump, my companions pointed out a slender bamboo which rose above the branches, and whence they said the musical tones issued. I was more bewildered than before, but they proceeded to explain that the bamboo was perforated, and that the breeze called forth all the sounds. Here was the most wonderful of all the applications of the bamboo, converting an entire bamboo, rough from the jungle, and thirty or forty feet in length, into a musical instrument by simply cutting a few holes in it. These are called riba ratib, or ba perinda (storm or plucking bamboo). As we proceeded, and when the notes had died away in the distance, our ears were suddenly penetrated by a crash of grand thrilling tones, which seemed to grow out of the air around instead of pursuing us. A brisk breeze which soon followed, and imparted animation to the dark and heavy leaves of the gumut palms, explained the mystery, while it prolonged the powerful swell. As we went on, the sounds decreased in strength, and gradually became faint, but it was not till we had left the bamboo of the wind far behind us, and long hidden by intervening trees and cottages, that we ceased to hear it. Marsden, in his Dictionary, gives the quotation, 'Terlalu amat mardi buniyina seperti buluh perinda rasania,' which he translates, 'Most melodious was the sound, affecting the sense like supernatural music.' Those seen in Ramban and Nanning had a slit in each joint above a certain height, so that one bamboo possessed 14 to 20 notes, each of which varied in itself according to the strength of the breeze. The joints decrease in their bore from the bottom to the top, and the slits also differ in their size and shape.

In Timur, a musical instrument is formed from a single joint of a bamboo by carefully raising seven strips of the hard skin to form strings, which remain attached at each end, and are raised up by small pegs wedged underneath, the strings being prevented from splitting off by a strongly plaited ring of the same material bound around each end. An opening cut on one side allows the bamboo to vibrate in musical notes when the string is pulled. The gamelans of Java is made by sets of gongs and metallic plates.

About Hong-Kong and Canton, several kinds of the bamboo are very common. There is a yellow variety with beautiful green stripes painted on its stems, as if done by the hand of a most delicate artist. But, like the Indian varieties, they grow in dense bushes, their stems are not remarkable for their straightness, and the large joints and branches which are produced on all parts of the stem give it a rough surface, and consequently render it unsuitable for fine work. These tropical jungly-looking bamboo disappear in the more northern latitudes, and in their places we have the mowchok, the long-sin-chok, the hoo-chok, and one or two others, all with clean stems and feather-branches, suited for the most delicate kinds of work, and all 'good for food.' These bamboos invariably grow in a rich yellow loam on the alluvial banks of the rivers.

Almost all the common paper of China is made from bamboo foliage. In the Himalayas, also, large water-tanks are constructed in the fields for steeping the bamboo stems in a solution of lime. They are then taken out and beaten upon stones until they become quite soft, or till all the flinty matter which abounds in their stems is removed. A fibre for textile purposes can be got from bamboo. To prepare the fibre, the knots or joints are cut with a circular saw. A quantity is then placed in a tub or boiler having a perforated steam-pipe at the bottom. Cold water and then caustic soda is put in, the quantity of the latter being governed by the quantity of the bamboo, and determined by experiments, since some kinds of bamboo require more soda than others. Steam is then turned on, and the boiling kept up for four or five days with the caustic soda. The caustic liquor is then drawn off and fresh water poured on, and then another boiling for four days. This is repeated. The bamboo is then put into a sort of mangle machine, with a roller of 3800 lbs. to crush it. Several other processes then take place, and the fibre is then put up in bales ready for scouring and dyeing, and for mixing with wool, silk, cotton, or any other fibrous substances. It is said to mix
readily with almost anything, and takes colours without difficulty. A fungus like a mushroom grows at the root of the bamboo, and it is regarded by the Burmese as quite a specific for worms. Some European physicians also deem it a superior anthelmintic.

The best places for bamboos are near water, wells, tanks of rivers. The bamboos can up almost their entire length before they throw out any of their branches,—an interesting provision of nature; for if the lateral shoots were developed before, they could not possibly rise through the thick network of branches above, and attain that form of grace and beauty which nothing in nature can surpass. The ordinary great bamboo of India is known to grow 40 feet in 40 days in the moist jungles, and Indian bamboos at Cairo grew 10 inches in one night. In Ceylon, the rapid growth of the bamboo was made use of under native rule as a means of carrying out a sentence of a cruel death. The criminal or victim was laid on the ground over a bamboo shoot, which speedily made a way through his body.

The Garo, Bodo, and Kachari races perform sacrifice before a bamboo fixed into the ground. Bamboos are taken to Britain chiefly as dumpage in the holodes of vessels, and used principally for making umbrella sticks, light garden seats, and handloom weavers' reeds, etc.

Bamboo Rice.—The bamboo flowers once in 30 to 60 years, and die. In most districts in which they grow, the bloom makes its appearance in January, and by the end of March the seeds are ripened, when the natives watch for the first shower of rain to throw them down. On the Shervey hills it rained heavily on the 1st and 2nd of April in 1872, and on the 3d groups of native men, women, and children were seen entering the bamboo jungles at the base of the hills, with baskets, sieves, and brooms, for the purpose of collecting the seed for food. A Madras measure of the seed when cleared yields half a measure of grain; the grain is small, about one line in thickness, a quarter inch in length, of a light brownish colour, oblong in shape, pointed at both extremities, and rounded off on one side, and on the other it is flat, the germinal spot being placed at an extremity facing the rounded side, and indicated by a slight depression at the part. The grain is readily boiled, when it has all the appearance, taste, and flavour of the ordinary rice, the Oryza sativa. One Madras ollcock of the clean grain, weighing 164 tolas, when boiled yielded 24 ollocks of boiled rice, weighing 292 tolas by weight. The grain makes good healthy food, and is largely partaken of by the poor in districts where it can be collected; in some parts of India the grain is eaten raw; also used to distil country arrack from, and like ordinary rice on all occasions when procurable. Large flowering in the Soopah forests took place in the spring of 1864, during which about 60,000 people assembled from neighbouring districts to collect the seeds, which they used as rice. Fever is said to prevail where tracts of bamboos are seeding. Capt. Sleeman mentions that all the large bamboos, whose clusters and avenues formed the principal feature in the beauty of Dehrâ Doon ever since the valley became known to us, or for the last quarter of a century, ran to seed and died on one season, as well those transplanted from the original stock the previous season as those transplanted twenty years ago. The people of the hill and jungly tracts of central India calculate ages and events by the seedings of the hill bamboos; a man who has seen two Kutungs, or two seedings of the bamboo, is considered an old man,—perhaps sixty years of age.

Immense quantities of fine bamboos are floated down the various rivers of the western coast of India. They are one of the riches of those provinces. They are ordinarily 60 feet long and five inches in diameter near the root; these are usually purchased standing at 5 rupees per 1000, and small ones at 3 rupees per 1000. Millions are annually cut in the forests, and taken away by water in rafts or by land in carts. From their great buoyancy, they are much used for floating the heavier woods, as Terminalia tomentosa and Dalbergia arborea, and piles of them are lashed to the sides of the pattinars going to Bombay. The larger ones are selected as outriggers for ferry boats, or studding-sail booms for small craft. In addition to the vast export by sea, it is estimated that two lakhs are taken from the Soopah taluk eastward. The Malabar bamboo is much smaller than that of Pegu (Bambusa gigantea), which is 8 inches in diameter. Immersing in water, or, better still, in a solution of sulphate of iron or lime water, extracts the sweet sap, which would otherwise induce decay. But when it is intended to split the bamboos for reapers, this should be done before steeping them in the metallic bath. The merchants on the western coast of India prefer the water-seasoned bamboos which have been months in the water attached to the rafts that are floated down the Nelambur and Sedasheghur rivers to the sea. The bamboos are brought down in immense floats, tied together in bundles of fifty by the root ends, which are turned towards the fore part of the float. Enormous quantities are annually rafted down the Ganges and Ramganga rivers, and down the Ganges canal.

Bamboo Caps.—The official summer caps of the Chinese mandarins are made from the rind of a crocked bamboo.

Bamboo Galls, Chuh-juh, Chln., morbid excrescences which grow to the size of a hen's egg on the stalks of the bitter bamboo (Ku-chuh, Chln.). They are said to have injurious properties.

Bamboo Juice, Chuh-lil, Chln., is prepared by heating short pieces of green bamboo so as to drive out the sap at the cut ends, and is given in catarrh, fever, etc.

Bamboo Sugar, or Tabashir, is found in the hollows of the bamboos. It is a silicate, and quite inert, but the natives have great faith in it as a stimulant. Its properties are said to be by them of a very heating nature. Tamil practitioners say the root is diuretic, that the bark curbs eruptions, the leaves emenagogue, and that the tabashir, which is found in the old cavities of the joints, is useful in paralysis and flatulence.—Oriental Herald, ix. p. 296; Calcutta Catalogue; Fortune's Residence in China; Fortune's Wanderings in China; Smith's China-English Cyclopedia; Von Mueller.

BAMBOUA. BURM. Careya arborea.

BAMBUSIA, the bamboo genus of tropical plants of the order Paniaceae. There are numerous species in the south and east of Asia, mostly
in regions where the climate is warm and moist. The stems grow in clusters, from 10 to 100, from the same root-stock, and are straight for 18 or 20 feet. When in flower it is usually destitute of leaves, and as the extremity of every ramifications is crowned with blossom, the whole plant seems one entire, immense panicle.

A. Argetis, Poir. Mountainous and dry desert places in all China, Cochín-China, and the Malay islands. Stems crooked, often a foot thick, a foot and a half long, and nearly solid.

B. Amahussana, Amboyna and Manipa, has short joints and a thick wood; upper leaves with stinging hairs.

B. Apus, Schultes. A gigantic species on Mount Salak in Java; stems 60 or 70 feet high, and as thick as a man's thigh; leaves very large, taper-pointed.

B. Aristata, Loddiges. Slender stems, smooth, not spiny; native of E. India; an elegant species.

B. Arundo, Klein, of Chawuree, furnishes the Mahabaleshwar walking-sticks.

B. A. Rheedii, Sch. Amboyna; rises to 60 or 70 feet high.

B. Atra. Leaf-stalks covered with stinging hairs. Stems black and shining, and found in Amboyna. It is the Leleba nigra of Rumphius.


B. Balcooa, Roxb. Dendrocalamus balcooa, Voigt. Balcooa bans; Dhoil balcooa, Beng. Of gigantic size, and reckoned the best for building purposes. Before using it, it is steeped in water for a considerable time.

B. Bitung, Schl. Found in Java; remarkable for its extremely broad and scabrous leaves.

B. Blumeana, Sch. Java; stems as thick as a child's arm.

B. Glans, Loddiges. India. Not spiny. Leaves covered on the under surface with very close bright glaucous bloom, scarcely above an inch long, and not more than two lines broad, not growing above two feet high, with entangled branches.

B. Maxima, Poir. Cambodia, Bali, Java, and various islands of the Archipelago. Grows 60 to 70 feet high, and as thick as a man's body. Its wood is, however, very thin.

B. Mitis, Poir. Cultivated in Cochín-China; wild in Amboyna. Stems thin, but sometimes as thick as a man's leg, 30 feet long, and said to be very strong.

B. Multiplex, Lour. Stems 12 feet long, and an inch thick, cultivated for hedges in the north of Cochín-China.

B. Nana, Roxb. Pelan, Pe-Nangwa, BURM. | KEU-fa., ... CHIN. Burma; China. Makes most beautiful close hedges and fences.

B. Nigra, Loddiges. Canton, where its stems, not more than a man's height, are cut for walking-sticks and handles of ladies' parasols. Grows in England.

B. Picta. Common in Ceram, Kelanga, Celebes, and other islands. Joints 4 feet long, and about 2 inches thick; wood is thin, and consequently used principally for light walking-sticks. It is, however, extremely strong.

B. Prava forms large woods in Amboyna, which come down to the coast. Its leaves, 18 inches long and 3 or 4 inches broad, have stinging hairs.

B. Pubescens, Loddiges. Not spiny; native country unknown. Stems 30 feet long, and an inch and a half in diameter.

B. Spina. Canta Banso, Uria. Extreme height, 80 feet; circumference, 14 feet. Abounds in Ganjam and Gumsur.

B. Spinosas. Arundo arbor, Linn. | A. bambos, Linn. Behur Bans, ... BENG. | Wagna Khlys, BURM.

This middling-sized and very elegant species grows from 30 to 50 feet high, in the vicinity of Calcutta, and in Burma. Its stems, almost solid, have strong sharp spines, and grow so close together as to form an almost impenetrable thicket. It has a smaller cavity in its centre than others of the genus, and a staff of it is put into the hand of a young Brahman when being invested with the sacerdotal thread.


B. Strica, Roxb. Dendrocalamus strictus, Nees. Nastus strictus, Sm. Bar, ... HIND. | Sandanapa Vedara, TEL.

Somewhat spiny. Its great strength, solidity, and straightness render it fit for many purposes.

Spear or lance shafts are made of it.

B. Tabacaria, Poir. Grows wild in Amboyna, Manipa, and Java. Its stems, with nearly solid joints 3 or 4 feet long, but not thicker than the little finger; when polished, make the finest pipe sticks. The outside is so hard that it emits sparks of fire when struck with the hatchet.

B. Tulda, Roxb. Dendrocalamus tulda, Voigt. | Tulda, or Pika, bans.

Is common all over Bengal, and grows rapidly to 70 feet long and 12 inches in circumference, rising to its full height in thirty days. Important in strength by steeping in water. The Jowa bans with long joints is one variety, and the Basini bans used to make baskets is another.

B. Verticillata, Willd. 15 or 16 feet high. The leaves occasion so much itching, that this kind is troublesome to collect. It is the Leleba alba of Rumphius, who says the edges of its leaves are so sharp as to wound the gatherers. It is found in Amboyna.

B. Vulgaris, Wendl. Its stems are from 20 to 30 feet long, and as thick as a child's arm. In favourable seasons it has been observed to grow 18 inches per diem. Besides these may be named B. Brandisi; Beechyana, flexuosa, marginata, nutans, palida polymorpha; regia and tul- doides.—Transactions of the Agr. and Hortic. Soc. of India, iii.; Roxb.; Eng. Cyc.; Manson's Tenas- ceris; Cieghorn's Reports; Poole's Statistics of Commerce, p. 10; Dr. Hill's Hist. Journ. ii, 311, 281.—Merrill's Chinese Products; Marraden's Swin- nerton; Von Mueller; Kurz.

BAMBUS-BOOK, the Chinese, contains the record of the Imperial dynasties from B.C. 1991 to A.D. 1264. The chronological connection of its dynasties is as under:

I. Dynasty Hia, the first emperor, Yu, beginning B.C. 1991, reigned 432 years.

II. Dynasty Shang, began B.C. 1539, lasted 509 years.
III. Dynasty Tahan, began B.C. 1050, lasted 269 years; the emperor Yen Yang began to reign B.C. 781.

Confucius lived under his dynasty, and he recorded the observations of the solar eclipses from B.C. 431 upwards to 720.

IV. Dynasty Yao, began 269 B.C., and lasted 99 years.

V. Dynasty Han, began B.C. 206, and lasted to A.D. 264, a total of 469 years.

BAMIA. Egypt. Abelmoschus esculentus.

BAMIA. Ar. ? the little edible fish known as the Bombay duck.

BAMIAN. The pass at Bamian town is 8946 feet above the level of the sea. It is the great commercial route from Kabul to Turkestan; the several passes to the eastward are less frequented on account of their difficulty and their elevation. The valley is in lat. 34° 50' N., long. 67° 54' E., is about one mile wide, and is bounded by nearly perpendicular steeps, in some parts so close as to exclude the mid-day sun. The pass leads over a succession of ridges from 8000 to 15,000 feet. The Harakotal pass, at the entrance to the Bamian, or, more correctly, the Lighan valley, is nearly 10,000 feet, while two others near the town of Bamian are about 8500 each. The Hadshehjak, leading from Bamian to Kabul, is the most formidable, and is almost 12,000 feet above the sea. It is the only known route over the Hindu Kush for artillery or wheeled carriages. Bamian town has been conjectured to be the site of Alexander ad Caucassum; but it lies north of the Hindu Kush, and Alexander is supposed by some to have moved to the south of that mountain. The town and its vicinity are remarkable for relics of antiquity, colossal idols, the castle of Zohak, the fortress of Syadabad, and the ruins of Ghulghuleh, with numerous cells excavated for about 8 miles in the mountain-sides. The impression is that the idols and cells are Buddhist remains. Of three idols sculptured in bold relief on the cliff, according to Eyre, one is about 160 feet high, a smaller one 120 feet; but Burns, Moorcroft, Gerard, and Vigne all have stated other dimensions. The greater figure is called Sang Sal, and supposed to be that of a man. The smaller, called Shiah-Muma, supposed to be a woman; a third figure being called that of a child. The figures have been injured by cannon-shot, some say by Aurangzeb, some by Nadir Shah. The caves or cells are of great extent; some exhibit considerable artistic decorations. One of them under the larger idol would lodge half a regiment. They are supposed to be residences of the Buddhist priests. On the summits of neighbouring hills are towers, supposed to be pyramids. The whole valley is filled with the ruins of tombs and other edifices. The ruins of the city of Ghulghuleh are extensive; it was taken by Chenguiz Khan, its people all destroyed, and the city overturned. The ruins of what is called Fort Zohak are 8 miles from Bamian town. It is attributed to king Zohak of Persia. Its ramparts are 70 or 80 feet high. The early political vicissitudes of Bamian must have been the same as those of Bactria and Kabul. We find there successive vestiges of Greek, Scythian, and Sasanian rule, and of the Buddhist and Mithraic forms of worship. In the early ages of the Christian era, or perhaps for a century or two before, Buddhism prevailed at this place. Such of the caves as are appropriated to Buddhist mendicants were embellished, and the statues of

Sakya Muni (Buddha) were hewn out of the rock. At a subsequent period, the emblems of the fire-worship and its altars succeeded, until these were in turn displaced by the Arab and the Kohn. Bamian is rich in minerals. Gold is found at Fuladat, also in Kohn-bani, and in the hills of Ilatif north of Kohn. There are ten or twelve lead mines in a defile in the neighbourhood, also ores of copper, tin, and antimony. It is said also to have sulphurous springs.—Burney, Ride to Khiva; Costwack on Central Asia; Vambery’s Bokhara; Bellowe, p. 205; MacGregor, p. 195; Moorcroft’s Travels, ii. pp. 387-393; Burnes’ Travels; Vigne’s Narrative, pp. 185, 193-197; Masson’s Journeys, p. 288-295; Tod’s Rajastan, i. p. 22.

BAM-MARGI, a depraved Hindu sect at Benares, who follow the teachings of a Bamo, or woman.—Sherring.

BAMO, in long. 97° 30' E., and lat. 24° 4' N. Bamo, properly Mang-mo, is a frontier town lying between Yunnan and Burma, in the Shan territory. It has the Pu-long tribes and the Khiyen around it. From Bamo to the Burmese frontier is 46 miles; Bamo to Minm, 90 miles, in Shan and Chinese territory. A route by Bamo from Burmah into China is in the province of Yunnan, near which, in the Burmese traditions, their ancestors formerly dwelt. The present city is situated about 40 miles W. of the Chinese frontier, and Chinese form about one-half of the population; the remainder are Shan and Burmese. It carries on a trade by means of caravans with some of the large cities in western China, in woollen, cotton, and silk goods. British trade between Rangoon and Bamo, from a few hundred pounds in 1857-58, attained in 1873 to a million sterling.

BAMTELE, an important Rajput tribe in the eastern parts of the central Doab.

BAMUN-HATI. Beng. Clerodendron siphonanthus.

BAMUNIPAT, a holy mountain.

BAN. Hind. A forest; wild, uncultivated, as Sandar-ban, Tar-ban, sandar forest, Palmyra forest; also written bun.

Ban Ada, Zingerbe longiflorum, wild ginger, Rohb.

Acer, Favia Indica.

Asarhoo, Gossypium herbaceaum.

Bati, wet land.

Bhanta, wild Solanum melengana.

Bill, Bhulbas.

Biral, Felis leopoldina Bengalensis.

Burbuti, Phacelosus rostratus.

Chalala, Lea crispa.

Chandarto, Flaggellaria Indica.

Char, Desmodium gyrans.

Chok, Quercus semicarpifolius.

Chori, also Boro, a high jungle grass with leaves like those of the sorghum. Wild elephants are very fond of it.

Chirping, Tricosanthus lobata.

Choose, the wild yak.

Gz cotton wool, raw cotton.

Gab, Diospyros cordifolia.

Ghi, Clerodendrum officinale.

Gao, Bos gaurus.

Goou, Areca tricolor.

Gus, Solanum melengana.

Gumak, Cucumis pubescens.

Gutthina, Allium tuberosum.

Huldee, Cucumis aromaticus.

Joeme, Clerodendron inerne.

Jum, Artisia humilis.

Jim, a weed about 3 feet high, which springs up with the autumn crops. Much sought after by fakirs who practise alchemy.
BANA-PRASTH.

BANAGANAPILLY, the town of a chieftain in the Ceded Districts of the Madras Presidency, between Kurnool and Cuddapah, in lat. 15°N. and long. 78°E., with an area of about 275 square miles; population, 45,208. It was held first by a Moghul chief, but is now in the possession of a Syud family. There are diamond mines in a low range of hills about half a mile from the town. The matrix of the gem is a breccia lying under compact limestone, of which the hills in the neighbourhood are composed. The breccia is composed of a mixture of coloured Jasper, quartz, and hornstone, cemented by a silicious paste. It passes into pudding-stones of rounded pebbles of the above, cemented by an argillo-calcareous earth of a loose friable texture, in which the diamonds are found.

BANAJIGA, a linga sect.

BANANA.

Kan-taia, Pa-taia, CHIN. Arati Pallam, TAM, Mou, ... HIND. Pandoo, ... TEL.

Banana is a W. Indian and tropical American term for the plantain tribe Musacee, to which, in India, the term plantain is usually given; there are few species, but many varieties. Their fruits are largely eaten. The stem of Musa taxillaris, of the Philippine Islands, furnishes the Manilla hemp. In the valleys of the south of the Peninsula of India, and of the Dindigul mountains, M. superba is found wild. Major Munro has seen the wild plantain at 7000 feet above the sea, in the Khondah slopes of the Neelgherries. A similar variety, having seeds surrounded with a gummy substance instead of a pulp-like fruit, was found by Dr. Forsyth in Palo Ubi, near the southern extremity of Cambodia. In Batavia, also, there is stated to be a variety full of seeds, which is called Pisang batu or Pisang bidu, that is, seed plantain. In Khassa the name of the wild plantain is Kairem, and the cultivated Kakesh. That cultivated in Nepal has been called M. Nepalesia; and a similar species may be seen growing below the Mussoorii range, as well as near Nabu. The wild fruit in all the situations consists of little else than the hard, dry seeds. The common edible varieties of M. paradisiaca, or Musa sapientum, flourish even in the poorest soils, and also near brackish water. The nates of Bengal generally prefer the larger and coarser fruited kinds, called banana, to the smaller and more delicately tasted fruit known as the plantain, which is alone esteemed by Europeans. The edible varieties extend through the Indian Archipelago northwards as far as Japan, while in China are found M. coccinea and M. Cavendishii, M. carata, grown in Chittagong. Again, M. glauca is indigenous along the Malayan peninsula. Dr. Helder mentions that twenty varieties are found in the Tenasserim Provinces; and the Malays reckon forty varieties of the cultivated banana, and the Philippine islands carry them to fifty-seven, both people having a distinctive epithet for each variety. The qualities are as various as those of apples and pears in Europe, the ordinary sorts being a very indifferent fruit.—Hooker's Hist. Jour. ii. p. 268; Boyle's Fibrous Plants; Crawford's Dict. p. 31.

BANANG. MALAY. Yarn, thread.

BANAN-PHAL, of Sutloj. Strawberry; Fragaria vesca, L.

BANA-PRASTH, properly Vana-prasth, a Hindu who has become a hermit in the third stage of
his life's career; who has retired to the forest and become an ascetic.

BANAS, and Koterrie or Kotesiree, are rivers near Sauganee in Udaipur (Oodeypore). The Banas river runs through Jeypore.

BANAT. HIND. Broadcloth.

BANULA. HIND. Cotton seed.

BA-NAWA, a sect of fakirs in India.

BANCA DEV, also called Banga, a deity of the Gonds. See Banga.

BANCA ISLAND, northern point, is in lat. 1° 52', long. 125° 24' E. It is hilly, and of middling height. St. Paul's mountains, contiguous to its south end, are 930 feet high; but Parmasang and Manuopen hills, on the west side of the island, are respectively 1350 and 1617 feet in height. The Straits of Banca are bounded on the east by this island, and on the west side by the coast of Sumatra. The Straits extend from Lucepara island about 129 miles, with an undulating course to the N.W. The Straits are one of the most frequented in the Indian seas. Banca has a population of 69,312, of whom 18,140 are Europeans, 40,592 are slaves, 20,063 are Chinese, and 136,020 Arabs. Its area is 237 square miles. The Chinese have been attracted to it by its very valuable tin mines. Banca is inhabited by four distinct races of people. The Orang-Gunung, or hill-people, the aborigines in the interior, lead a wild kind of life, but are submissive to the regulations established by the Government. The sea-coasts are occupied by Malays from Sumatra; they are extremely indolent, all the labour, either in cultivating pepper or working the mines, being performed by the Chinese, consisting of between fifteen and twenty thousand souls. The Orang-Laut, or sea-people, who are similar in their habits to the Bajau Laut on the coasts of Borneo and Celebes, live entirely in their little prahuas, and move about the coasts. They subsist principally by fishing, and were always ready to give information to the piratical rovers. The discovery of tin attracted numerous foreigners, chiefly Chinese, who, with the working of the mines, introduced the first attempts at agriculture and commerce. During many years this small island had been a haven for pirates, which for a district of the same extent equals the metallic wealth obtained annually from the mines of Mexico. The Anten district contains the richest of the tin mines. — Court; Earl's Archipelago; Horsburgh; White's Voyage, p. 228.

BAN - CHAR, also Baro. HIND. A high jungle grass, with leaves like those of the sorghum. Wild elephants are very fond of it.

BANCOONG OR Bacoong Bay, in Sumatra, opposite the river and village of same name, in lat. 2° 52' N., and long. 97° 38' E., where ships find shelter.—Horsburgh.

BANCOORAH, a town and its district in the Burdwan division of Bengal, lying between lat. 22° 54' and 23° 37' N., and long. 86° 49' 15" and 87° 55' E., with an area of 1346 square miles, and 526,772 inhabitants. The town is on the left bank of the Dalkissur, in lat. 29° 14' N., long. 87° 6' E., and 29 miles from Raniganj, 101 miles from Calcutta. It is a fertile district, with much coal and iron ore. Coal is worked at Raniganj.

BANCOOT, in lat. 17° 57' N., and 114 miles east of Bombay Castle, has 10 feet on the bar at low water. The town of Bancoot, on the northern part of the Angria country, surrendered to Commodore James on the 8th April 1756, and was called Fort Victoria.—Horsburgh.

BAND. PERU. HIND. A band, tie, dam, dyke, causeway, bank, or bundle of ropes. Bandah, a slave, a servant; Bandi, a slave girl; Bandiran, a prisoner; Band-o-lust, settlement. Band is also an embankment across a valley, or across a dip of the ground to form a tank. The whole of the Karnatic is covered with such tanks, some of them very small, sufficient only for a small field, others of lake-like dimensions; one near Cumbum is eight miles in circumference, and one near Hyderabad is about seven miles in circumference. The word is from the Hindi word bandhuna, to tie or bind; hence also the Bandana handkerchiefs. Several bands or embankments in Persia are celebrated, — Band-i-Ahwaz and Band-i-Shahzada, across the Karun river; Band-i-Amir, over the Kur river, the Bandamir of Moore's poetry.

BANDA. BALL. Area catechu.

BANDA, a gur of the Sikh religionists, who succeeded Guru Govind. He was tortured to death by Farokhshir, emperor of Delhi, A.D. 1716.

BANDA. HIND. Viscum album.

BANDA. HIND. A perfumed cosmetic powder, the Abr of the Arabs. See Abr.

BANDA, a town and district in Bundelkhand, between lat. 24° 53' 15" and 25° 55' 30" N., and long. 80° 2' 45" and 81° 36' 15" E., with an area of 2908 square miles, and 657,684 inhabitants. The town is on the right bank of the Keyn river (Ken, Caine), had a population of 72,800, and is 620 miles from Calcutta. Banda district is an irregular triangle, separated on the N. and N.E. by the river Junna from the Futtehpur and Allahabad districts. The S.W. and S. are bounded by the Ken, and partly by the second range of low hills forming the flank of the table-land of Bundelkhand.

BANDA, a group in the Archipelago consisting of ten islands; the largest is Lontar or Great Banda. It is crescent-shaped, and Pulo Pasing. Banana island, Pulo Kapal, and the island immediately to the south, form the arc of the crescent, and the others are on the outer circle. Within this area are three other islands, the highest of which is Gunong Api, next Band A Neira, N.E. of which is Pulo Krakka or old woman's island. D'Abreu, a Portuguese commander, was the first European who visited the nutmeg group, and for nearly a hundred years the Portuguese monopolized the trade. In 1609 the Dutch attempted to take these islands, but as the war lasted eighteen years, and the natives had all fled to the neighbouring islands, the Dutch had to cultivate these islands with slaves, and, when slavery was abolished, with convicts, of whom, in 1865, there were about 3000. Almost all the island is covered with nutmeg trees, grown under the shade of the Canarium commune. Banda and its three islands enclose a secure harbour, and the water is so transparent that living corals and minute objects are seen below. Of the birds is a very handsome fruit pigeon, Caropphaga convina, which feeds on the mace, and is found also in Ke and Matabello; and a small fruit dove, Ptilonopus diadematus. The area of the whole group is only 176 geographical square miles, but in five of them all the nutmegs consumed in the world are grown, and for twenty years they annually yielded 580,000 lbs. of nutmegs, and
137,000 lbs. of mace, Dutch weight. In 1865, about 450,000 nutmeg trees were in the Banda group. In some trees the mace is white. Unlike Ambaya, it is unhealthy, and exposed to constant danger from the Gunong Api volcano, which has many times burst in eruption, devastating and blasting the neighbouring region with showers of scorching ashes. This Fire Mountain is the curse of the group, not only when in eruption, but on account of the insalubrity it spreads around. The base of the volcano, called by the French the Grenade of Banda, occupies the whole surface of the islet, to which it gives a name. Its height is about 2000 feet, covered with magnificent vegetation, commencing at the line where the waves cease to beat, and continuing upwards to the point where the lava ceases to flow, being cooled by the air. The nutmeg is not cultivated on Gunong Api, and the isle is inhabited only by a few immigrants from Timor. Up to 1820, people occupied the base of Gunong Api, and cultivated the nutmeg trees. On the 11th June 1820, a little before noon, in an instant, without any warning, an eruption occurred of such violence that all the people at once fled to the shore and crossed over to Banda Neira. From its summit rose great masses of ashes. Lontar is merely part of the walls of an immense crater about (if the circle were complete) six miles in diameter, and Pulo Pisang and Pulo Kapal are two fragments of the circle. On the average, an earthquake occurred once a month in Lontar. The volcano has burst forth in 1586, 1598, 1609, 1615, 1632, 1690, 1696, 1712, 1765, 1775, 1778, 1820, and 1824. It is 2321 English feet high, but has several times been ascended. On one occasion, sand and stones, heated till they gave out light like living stones, fell on every side like hail, set fire to the woods, and soon changed the mountain-side into one immense cone of flame. The south-west monsoon then blowing, carried the sand and steam over to Banda Neira, and destroyed all its mines, parks and its drinking water. The eruption continued incessantly for thirteen days, and did not wholly cease for six weeks. During this eruption the mountain was apparently split through in a N.N.W. and S.S.E. direction. An eruption of ashes occurred on the 22d April 1824. Banda is only separated from Gunong Api by the narrow Sun Strait, and has suffered from a great sea wave. The water first streamed out from the land, and left dry a vessel that was riding at eight or nine fathoms. It then returned in a great wave from the ocean, which rose 25 or 30 feet over the low western part of the village, and engulfed Fort Nassau. Professor Bikmore supposes that the whole of the old volcano, Banda Neira, Gunong Api, and Lontar, and the area they enclose, was raised for a moment, the water streamed out from the straits between them, and returned with violence as the area subsided. When first discovered by Europeans, the inhabitants of Banda had made considerable advance in civilization, although still much inferior to that of the Malays and Javanese. About three-fourths of the inhabitants are mixed races, Malay, Papuan, Arab, Portuguese, and Dutch; but the aborigines doubtless were Papuans, and a portion of them still exists in the Ke islands, to which they emigrated when they first took possession of Banda. —Temminck, Possessions Neerlandaises, iii. 290; St. John's Indian Archipelago, i. pp. 134, 155; Bikmore's Travels; Horsburgh; Valmont de Bomare, Histoire Naturelle, iv. 177, 181; Hoyendrop, Coup d'Œil sur Java.

BANDA. Hind. Literally service; an expression used by Mahomedans in saluting superiors, and in addressing letters to their parents and persons in authority.

BANDAHL. Beng. A spur projecting into a river.

BANDAH-NAWAZ, a Mahomedan saint or holy man who is buried at Kulburga. His name and title was Syud Muhammad, styled Gesu Daraz of the long locks. A Mahomedan festival is held on the 16th of Zu-l-Kaichah in his honour.

BAND-AHWAZ, a dam across the river Karun in Khuzistan. The whole river passes through the weir, about forty yards broad, at its west end. —Layard; Chesney; Selby; MacGregor, p. 56.

BANDAIR HILLS are separated from the Panna range by the valley of Lohargaon, rising from a platform from ten to twenty miles wide. Average elevation 1700, but amounting on some of the higher elevations to 3000 feet. The hills are generally of sandstone, intermixed with ferruginous gravel. The basin of Lohargaon is of lias limestone. The outer limit of this hilly tract is marked by abrupt isolated hills.

BAN-DAKHUR. Hind. Syringa emodi. BANDALA, in the Philippine Islands, a fibre extracted from the harder and stronger outer layers of the Musa textilis, employed for cordage. —Royle.

BAND-AMIR. A dam erected about the 12th century across the river Kur by Azad-ud-Dowla, a former prince and governor of Fars. Its object was to raise and throw the water into irrigation channels. The dam consists of a straight bridge of thirteen arches. —Morier; Malcolm; Kinneir; Ouseley; MacGregor. See Benamir.

BANDANA. Hind. A term applied to a cotton print; also to a kind of silk or cotton handkerchief with bright figures, etc., upon it made generally of sandstone, intermixed with ferruginous gravel; from bandhna, to tie; because, in India, the parts intended to remain undyed were tightly tied. The Indian manufacture has almost ceased, British dyers having imitated them by white figures formed on a ground of Turkey-red by means of an aqueous solution of chlorine. This is made to flow down through the red cloth in certain points which are defined and circumscribed by the pressure of hollow lead types inserted into plates of lead contained in a hydraulic press. The press is furnished with a pair of pattern plates, one attached to the upper block of the press, and the other to the moveable part of it. From twelve to fourteen pieces of cloth, previously dyed in Turkey-red, are stretched over each other as evenly as possible, and then rolled round a drum. A portion of the fourteen layers equal to the area of the plates being drawn through between them, the press is worked, and the plates are brought together with a force of upwards of three hundred tons. The solution of chlorine is then allowed to flow into the hollows of the upper lead plate, whence it descends on the cloth and percolates through it, extracting the Turkey-red dye, the intense pressure preventing the bleaching liquor from spreading beyond the limits of the figures perforated in the plates. When a certain quantity of bleaching liquor has passed through,
water is admitted in a similar manner to wash away the chlorine. The pressure is then removed, and another square of the fourteen layers is moved forward under the plates, and the process is repeated. When all the pieces have been discharged, they are winced in water, and further treated so as to improve the lustre both of the white and of the red.—Faulkner.

BANDAR. HIND. A monkey.

BANDAR. SUTLEJ. Capparis spinosa, L.

BANDAR SINGH. Pandar, TAM. A Singhalese affix of nobility.

BANDAR, PERS. A harbour, a seaport. A prefix, as Bandar-Abbas; in India, a suffix, as Machili-bandar, Lakpat-bandar. From this comes the harbour Bandar boat of British sailors. The harbourmaster or governor of a place is the Shah-bandar, or king of the harbour. Like Kalka or Patna, a bandar is a mart on a river bank.

BANDARA. Mahr. Hymenodictyon excelsum. BANDAR ABBAS, in lat. 27° 10' 35" N., and long. 56° 18' 48" E., a port on the east of Kirkman in Persia, 108 miles S.E. of Shiraz, distant from Isfahan 740 miles, and from Teheran 1000 miles. It is in a bay of the Gulf ofOrmuz. It contains about 89,000 inhabitants, Persians, Arabs, Kurds, a few Armenians and Bedouins. It has only two or three fathoms of water at high tides from the shore, and a heavy surf rises from the S. and S.E. winds, which are frequent, and ships seek shelter at Ormuz and Kishm. It is the ancient Harmozia. Its former name, Garmun, was changed A.D. 1662, when Shah Abbas, aided by the English, drove off the Portuguese, but towards the close of the 17th century it again fell into a subordinate position. Nevertheless the route of Bandar Abbas leads by one of the natural passes into the heart of Persia. The summer heat is so great that it is then almost abandoned, the people going to Minab, fourteen miles distant; but in winter the landing of goods recommences for Yezd, Isfahan, Shiraz, and Kirkman. Exports are Persian carpets, tobacco, dried fruit, sulphur; and imports piece goods, earthenware. It is suited for an emporium of trade. Sulphur is brought to Bandar Abbas and to Muscat from mountains a little way in the interior from Muscat.—Pelly; MacGregor, p. 57; Goldsmith's E. Persia, i. 227; Findlay; Osley's Travels, i. p. 165; A Journal from Calcutta to Aleppo, etc. p. 11, London, 1798; Kaince's Geographical Memoir, p. 201.

BANDAR MANCHE, a large canoe. See Boat.

BANDAR REG, a small town in Fars, Persia, thirty-two miles N.W. of Bushahr. It was the stronghold of the celebrated pirate, Mir Mohanna, once the terror of the Persian Gulf. It was taken by the English, and the fortifications razed.

BANDARRI, a race in Bombay who climb the palm trees and cocoa-nut trees for palm wine. From habit, these men attain extraordinary dexterity in ascending the loftiest trees, with little other assistance than may be afforded by the natural rings or sheaths of their slender stems. The costume of the Bandarri is a close crimson cap, round bound round the head with a small handkerchief, the depending corner protecting his neck from the influence of the sun. A stiff leather kick descends to the knee, fastened round the waist with a thong, which secures the necessary implements of his calling, and supports a strong hook, on which the Bandarri swings a chatty, previous to commencing his ascent.—Postans' Western India, i. p. 89.

BANDARU. Tel. Dolouea Buchannania, D. C.; D. angustifolia and dioica, R. II. 256.

BANDARU. HIND. Gardenia tetrasperma.

BANDWAR, a numerous tribe of the Baniya of Hindustan, with 36 clans, who intermarry.—Sh.

BANDELKHAND. See Bundelkund.

BANDENG. MALAY. A palatable fish, much resembling the salmon in taste. They are reared in fish-ponds, and the young are sold at 18 Rs. per redan of 5500 small fish. At the change of the east and west monsoon, the coast is yearly visited by Madurese fishermen, who come to catch the young bandeng for the fish-ponds.

BANDHAGURU. See Senapathi.

BANDHAL GOTTI, a Chauhan Rajput tribe in Bundelkhand and Benoudia.—Wilson.

BANDHAIRA. MALAY. A hereditary elective officer of Johore.

BANDHRIK. HIND. Also written Bandhu-kamu, Pantapetes Phosmea, L.; also Ixora bandhurea, R. i. 376.

BANDI. HIND. A female slave; also a court minstrel.

BAND-i-BERBER. It is said that a day's journey from Baniyan to the S.W. are the remains of an extensive fortress, called Band-i-Berber, erected near a large lake.—Moorecraft's Trees, ii. pp. 387-393.

BANDICOOT. In India, the Mus giganteus. It is the English corruption of the Telugu words, pandi-koka, pig-rat; it weighs 3 lbs. Its bones are fragile, and it is very easily killed. Its nests, when rifled, are frequently found to contain considerable quantities of rice, stored up against the dry season. The Australia bandicoot is the Peta meles nasuta of St. Hilaire, a marsupial animal.—Tennent's Ceylon, p. 45.

BAND-i-FARIDUN, a dam in Khorasan, 6 miles N.W. of Kalandarabad, near Mashad, with channels to fertilize the lands of Faridun.

BANDIGURVINDZA. Tel. Adenanthera pavonina. Bandi Murugudu, Getonia floribunda.

BANDITA CHERTO. Tel. Erythrina indica.

BANDO-BAST. HIND. Final settlement.

BAND PAT. HIND. Clitorea ternatea.

BANDRI. HIND. A grass about 3 feet high, found in rice and kodo fields, used as fodder for cattle.

BANDUK. HIND. A musket, a fowling-piece. Toradar banduk, a matchlock. Si-paia banduk, a heavy gun, requiring a strong support; a kind of jazal, but carried in the field.

Banduk-Masaladar, a gun fired with a percussion cap,—'masala,' the percussion composition.

Banduk Pathar-kalah, a matchlock with flint pan.

Banduk Rakh-dar, a gun, rifle-bored.

BANE. Flee-bane, insect-bane, mosquite-bane, bug-bane, rat-bane, etc., are insecticidal substances. The dogbane family 'Apocynaceae' are truly poisons. Nerium piseclium bark, which contains much useful fibre, proves deadly to fishes. Dogs refuse to sleep on rugs beneath which mint has been placed, and this simple plant thus affords a good means of ensuring cleanliness. Deer refuse to approach crops in which the safflower, Carthamus tinctorius, has been intermixed. White mustard sown round vegetables, as the cabbage, prevents the intrusions of caterpillars. Snakes are said to avoid
the fennel plant, as well as all places strewn with fennel seed (Nigella sativa). Dill grown in cabbage beds protects the cabbages from caterpillars. Broad beans growing close to the gooseberry bushes protect the bushes from the caterpillars. The pyrethrum is said to protect vines from the phylloxera. The tansy wood of the oleander is employed as rat-bane. To destroy flies, a decoction of quassia placed in a plate is frequently had recourse to. In southern Asia, plants of the 'Ghi-gowar' or 'Kalbunda,' the Aloe perfoliata, are suspended with their roots upwards, with a longitudinal incision in each leaf, to permit the aroma of the juice to become apparent, and disperse mosquitoes from the room. Flies, fleas, and mosquitoes avoid rooms in which branches of pennyroyal have been suspended. In India, mosquitoes are smoked out by burning chips of resinous wood. A species of ant, Fornica smaragdina, well known in Malabar and the wooded parts of India, is employed in the N.W. Provinces to destroy the nests of wasps that have established themselves in a house. They are said to destroy all the wasps, but become so infuriated that their own indiscriminate attacks are nearly as bad as those of their foes. Honegger states that the twig of the walnut tree. Juglans regia, is kept in a room as a means of dispelling flies; that when flea-bane is roasted, flies take to flight; and when sprinkled on the floor, fleas disappear. Dr. Hooker mentions that Clerodendron leaves bruised are used to kill vermin, fly-blowes, etc., in cattle. The Inula pulicaria, or flea-bane, a common roadside plant in Britain, strewn or burned in any place destroys gnats and fleas; and the same properties are attributed to the common ox-eye daisy of Britain, Chrysanthemum leucanthemum. 'Camomille rouge,' the beautiful red Pyrethrum (P. cemeum, formerly Chrysanthemum cocineum), in England a pretty ornamental garden flower, is prepared from the flower heads of the plant, which, when dried and crushed, form the famous Persian flea powder. Sprinkled in beds, etc., it kills all disagreeable and hurtful insects; and the small quantity of the spirit distilled from it destroys insects in greenhouses, or can be applied to vegetable life in the open air against green-fly, house-fly, etc., without injuring the plants. More than twenty villages in the district of Alexandropol are occupied in the cultivation of the red chamomile. It is said also to destroy maggots which breed in wounds, a property which the valuable decamulli gum of the Gardenia lucida and chlorof orm also possess. The pyrethrum powder seems the same as the well-known picroict of Kurdistan, is largely imported into Turkey, and during the war was greatly used in the barracks and hospitals of Turkey and the Crimea. Its introduction into India merits favourable consideration. Pyrethrum Indicum and P. Sinense grow in the Tenasserim Provinces. The odor of the common flowers of Britain, P. parthenium, is disliked by bees; and these insects may be easily kept at a distance by a person carrying a handful of the flower heads. The 'akarakarum' of India, the Pyrethrum officinale, or common pellitory, may perhaps have equal power. Chrysanthemum Indicum, the common Gool Dawudence, of which there are several varieties, grows all over India, and is worth a trial. Natives of India suspend in their houses a few branches of the milk-hedge (Euphor-
probably dipped in some preparation to make them burn. Hot alum water will destroy red and black ants, cockroaches, spiders, chintz bugs, and all the crawling pests which infest houses. Take two pounds of alum and dissolve it in three or four quarts of boiling water; let it stand on the fire until the alum disappears, then apply it with a brush, while nearly boiling hot, to every joint and crevice in closets, bedsteads, pantry shelves, and the like. Brush the crevices in the floor of the skirting or mop boards, if you suspect that they harbour vermin. If, in whitewashing a ceiling, plenty of alum is added to the lime, it will also serve to keep insects at a distance. Cockroaches will flee the paint that has been washed in cool alum water. Sugar barrels and boxes can be freed from ants by drawing a wide chalk mark just round the edge of the top of them. The mark must be unbroken, or they will creep over it, but a continuous chalk line half an inch in width will set their depredations at naught. Powdered alum or borax will keep the chintz bug at a respectful distance.—Tennant's Ceylon; O'Sh.; Hooker, Him. Jour.; Honighberger.

**BANEBERRY.** Actea spicata.

**BANG.** Hind. Or bhang. Cannabis sativa.

**BANGALORE.** Ben. Amomum subulatum.

**BANGALORE,** in lat. 12° 57' 37" N. long. 77° 36' 56" E., a large military station and town in Mysore. At the flagstaff, the mean height of the cantonment above the sea is 2949 feet, according to Ad. Sch., and 2874 according to Babington. The climate is almost European as to coolness, but at the more exposed parts is unfavourable to young children. The fruits and vegetables of Europe all grow well, and many Europeans are settled there. Average rainfall, 36 inches. Bangalore Pettah or civil town, was taken by storm by the British on the 21st March 1791; and a battle was fought on the 6th December 1791.

According to a legend, it was anciently named Yalabunka Naad, but its ruler, Vira Babala Roya, about the 12th century, having lost his way, found shelter from an aged woman and a meal of Auvara Bangaloo (the Hala Kanada name for boiled gram), and he named the village Bangaloor, and gave it to his hostess.

In 1881, on the coming of age of the present ruler of Mysore, Bangalore was transferred to the British. Bangalore city in 1871 had 142,513 inhabitants, of whom 105,632 were Hindus, 21,587 Mahomedans, and 15,294 Christians. Public buildings for the administration of Mysore were erected during the minority of the present ruler. There are many Christian churches; and the French Catholics and several Protestant sects are spread over Mysore district. There is a college, and the Mysore Museum, which the editor founded in 1865. The manufactures consist of woolen and silk fabrics, iron and steel.

**BANGALORE,** a district of the Nundidrug division of Mysore, has an area of 2914 square miles, with 828,354 inhabitants in 1871, chiefly Hindus. The Konati number 5641; the Nagarta, 4888; the Wakkaliga, 222,653; the Lingaet, 56,430; Kumb, 46,167; Banajiga, 29,936; Tiglar market gardeners, 28,780; wandering tribes, 12,036; and wild tribes, 1738.

**BANGALOW,** from banglah. Hind. A single-storied house.

**BANGALZAI,** a Baluch tribe, occupying exclusively Ispirinji, but reside also at Shal and Mouthing, and in winter repair to Talli near Lehri.

**BANIAN,** a group of islands in the Eastern Archipelago, occupied by the Manguianes, a mild and industrious people.

**BANGANGA,** a tank at Walkeshwar, near Bombay, failed to have been produced by Krishna firing an arrow at a spot to obtain water.

**BANGAR,** Hind.; of Cis-Sutlej, high land requiring irrigation by wells. See Bhangar.

**BANGARI,** Hind. Vangueria spinosa.

**BANGARMAU,** a pargana in Umo; its inhabitants are so fond of display, as to have given occasion for the saying that one with nine gold stripes in his turban will earn his livelihood by gathering cow-dung.

**BANGARO MAE,** a wood of the Kel islands, well adapted for masts.

**BANGASH,** a people claiming Afghan descent. The Samalzai clan are of the Shiah sect. They are noted for their bravery, and could turn out 700 fighting men.—Lit.-Col. MacGreg. iii. p. 65.

**BANGAS JAMPACCA,** Malay. Michella champaca.

**BANGHI,** Tam. A heavy mail post.

**BANGI,** Tam. In Timnevally, a form of village tenury by which the lands are redistributed once in every six years among the villagers by lot. It is the same as the wesh (waish) of the Aghans.—W.

**BANGKA,** also called Katna. Hind. An aquatic beetle which eats rice plants. It is said to take a leaf for a boat and to paddle itself from stall to stalk. It is harmless when the water is let off from the field.

**BANG-KONG,** a sash or waist-cloth of cotton or silk.

**BANGLA.** Hind. A kind of betel leaf.

**BANGLES.**

Bangrian, . . . HIND.; Wallaee, . . . TAM.; Kadiam, . . . SANSK.; Galzoo, . . . TEL.

Glass, gold, and silver bracelets worn by women throughout the East. The Chinese make them of a clouded or plain vitreous substance, to imitate jade stone or chalcedony. For export they are packed in boxes containing 1000 pairs, each box estimated to weigh a pikul. Bangles are imported into, and also exported from, Madras and Bombay. In four years, the imports were to the value of Rs. 1147, chiefly from Bombay. The exports were in number 1,935,000, of the value of Rs. 5078, and to Bombay and Sind.

Glass bangles are largely made in many parts of India, a workman turning out 600 or 700 daily. Some are of beautifully tinted glass. Jade bangles in Yunnan sell at Rs. 125 the pair. In Bengal, a bangle of iron is put on the left hand of the Hindu bride by her mother-in-law, with a benediction that she may be ever blessed with her husband, and she marks the middle of the bride's forehead with vermilion. The iron or other metal bangle denotes the ayestree or married state.

**BANGNI,** a Dulla tribe.

**BANGRA.** Beno. Wedelia calendulacea.

**BANGRA,** a cloth made from the gigantic sing-
BANJAR.

The Bahrup Banjara are mostly Hindu, and lead a more wandering life. They are divided into the five tribes, Rahtar, Chauhan or Koori, Powar,Tuwar, and Barka, who are again subdivided into tribes or got. They claim to have come from Chittur. They intermarry, but not with members of the same got. They have a close relation with those of the Dekhan; each community has a chief at its head, styled Naik, to whom they yield implicit obedience. The Banjara are scattered in communities all over India. In the south of India they style themselves Gohur. They are met with from Kashmir to the south of India, and keep in Tandas or encampments. Their Tanda, Hind, Kepa, Manir, in the extreme south of India have become greatly broken up, for they are predatory, engage in gang robbery; many of them are to be seen in jails; in the Mysore territory their women and aged men are breaking metal for the roads; and the rapid extensions of roads and railroads have done much to exclude them there from their trade as carriers and collecting merchants. But in Berar and throughout the Hyderabad country they are still in large numbers, collecting from the lone hamlets the small quantities of grain, cotton, and wool obtainable, and bringing them to the larger markets. Their means of carriage is solely the bullock and the cow. Some of these are magnificent; and it is a grand sight to see a Banjara Tanda, laden with cotton or grain, traversing the country through pathways and tangled trees and brushwood, so entwining that portions of cotton are taken up at every step. Their value as travelling merchants, in times of scarcity or great demand, is in calculable, for no other means could bring in the small stores of outlying hamlets. They will shortly disappear from traffic as rail and metalled roads increase. The Banjaras are men of great energy. They have in some places fixed homes. Throughout Berar, and in the northern parts of the Hyderabad territory, some of them are to be found settled in villages as servants of the potters, and are recognised as village Banjara. On the borders of Rohilkhand, towards the Feral, they have considerable settlements, are prominent landowners, proprietors, and important people. A numerous tribe are spread along the foot of the Himalayas from Hurdwar to Gorakhpur, engaged in agriculture.

Wilson says they are partly of Hindu and in part of Mahomedan belief; and some of the Bahrupura Banjara are, it is said, accepted as guarantees for agreements, similarly to the Charan and Bhat; but their name, Bahr-rupa, meaning many disguises, does not bear this out.

The Banjar is also called by the Dekhan people Lambana. The Banjara man is a Gohur, a man; and this is their own tribal name; a woman, however, is a Banjarini.

The goddess Marri-Ai is a great deity with the Dekhan Banjar, and they invoke her in their private solemo oaths. They use a broken branch of the Azaderacha Indica, the nim tree, or, as they call it, Lim Ka Dagla, in their solemn oaths. They lay one on the ground, and will say to a woman whose virtue is in question, ‘If you be not a whore, lift it;’ and her lifting it or otherwise establishes her innocence or her guilt.
Their dress and appearance are singular, more particularly the women, and their social habits and customs distinctive. The men wear the usual Pagri and Dhoti, whilst the dress of the women consists of a bodice, Chuli, with long sleeves, and a petticoat or skirt hung from the waist in ample folds, consisting of coarse cotton prints of bright colours, and a sari or scarf of a similar texture, which is carelessly thrown over the shoulders, giving them a picturesque appearance, when combined with the brass and deer-horn ornaments and gaudy-coloured tassels of cotton, with which their arms, ears, nose, neck, ankles, and toes are profusely decked. They have small, well-turned hands and feet; their movements are easy, graceful, and stately, rendered slow from the quantity of ornaments they wear. The hair is parted in the centre, combed back, plaited, and ornamented with a profusion of silk or cotton tassels. They seldom change their clothes, till they are tattered and torn, and are only renewed by a new suit. The women possess considerable natural charms, are as active as the men in their business avocations, and they carry burdens when travelling, chiefly their children, provisions, or utensils. They are capital needle-women, making their own jackets and petticoats, and frequently embroider these tastefully. The material used by the women of some branches of this tribe is manufactured from the fibre of a species of nettle, which is woven into cloth for themselves, and these are tastefully dyed in various colours, to suit their peculiar taste in this respect, frequently over-gaudy. They visit the most remote and hilly regions and hilly hamlets, to collect and transport grain and other commodities to more civilised parts; no jungles or wild beasts deter them from travelling. In some districts they are addicted to thieving and thuggi. They settle their own disputes, either by arbitration, or by the decision of their naiks, and seldom or ever complain of their fellows. Their code of laws prescribes punishments for all crimes, the verdict of which, when carried out, is never disputed. Their priests exercise the power of life and death over the community, but this is masked under the cloak of religion and supernatural agency; and, as a tribe, they are bound to secrecy whenever the extreme penalties of their laws are carried into effect. Un chastity is strictly punished with death; frequently both the woman and man suffer when detected, and their corpses are buried or burned together, and neither the justice nor execution are ever complained of. They recognise no Civil Authority, keep aloof from settled races, interfere with no one, and allow of no interference among them in the matter of their laws or customs, etc. As carriers, distance and climate have no difficulties for them. They undertake extensive engagements in exporting merchandise, chiefly grain, cotton, cloths, oil-seeds, etc., and carry them out with the utmost good faith. They never play false when once the work is undertaken by them; no instance has been known of goods entrusted to their care having been robbed. They are looked upon by other classes of natives with a superstitious dread, so that they can traverse the wildest and most jungly tracts with impunity and perfect security. It is reported that the Banjara of the hill districts of Bisram, Cuttack, and Jeypore, practise the Meriah sacrifice, as also do those who trade between Nagpur and the coast. Dr. Shortt, from personal inquiries in Orissa, Nagpur, Hyderabad, South Arcot, Vizagapatam, Jeypore, etc., was satisfied that sorcery, witchcraft, human sacrifice, and infanticide prevail among different clans of the tribe. Each community is localized by the term of 'Tanda,' having its own leader, who is said to lead a peculiar ecstatic life. On occasions of sickness among themselves, or murrain amongst their cattle, the priest is consulted, and should he attribute such visitation to sorcery, he fixes the guilt on some individual belonging to the community, when the supposed sorcerer is immediately ruthlessly seized, and murdered in a manner dictated by the priest, to abate the evil. An execution is coolly and deliberately carried out in the most summary manner, and the deed is buried in oblivion. The practice of infanticide is in vogue among them, in consequence, it is said, of the large sums of money required to ornament their girls, in addition to the large dowries which they have to bestow on marriage. It is reputed that the practice is carried out by placing the newborn infant in an earthen vessel or chatty, the mouth of which is tied over with cloths steeped in a decoction of turmeric, and ornamented with flowers, some trilling ceremonies being carried out. The chatty is taken to some remote place in the jungles, and there buried. Some of the Khond tribe carry out a similar practice as regards their female children.

The Banjara generally possess large herds of cattle, which they convert into pack animals; and they are divided into a number of classes, each of which, as a rule, no other class of natives do; and none of these is more peculiar than the Custom of the Khond Banjara in their Cattle. In carrying to market the jagi (sacred cows), the Banjara have a custom peculiar among all races of the country. The cattle are let loose as soon as the march is over, to enable them to pick up what they can by browsing in the vicinity. The Banjara are independent of villages generally, and they travel as far as they can. As soon as the encampment is fixed on, he unloads his bullocks, and packs the loads in tiers, and over them he stretches an awning of cloth or a cumby, as protection from the weather. At night, the cattle are tied round the packages in a circle; in the midst, the Banjara lights a fire and lies down to sleep. He is up at sunrise, loads his bullocks, and proceeds to the next station; the distance travelled is generally from 10 to 15 miles a day. On these journeys, one or more of their women accompany them. These men were the great grain carriers of the Moghul armies, and came down with them into the Dekhan early in the 17th century. Two brothers of the Chars, one of the three great tribes into which the Banjaras are divided, are said in the year 1730.
to have possessed 180,000 bullocks, which carried Asof Jah's provisions for him during his raids. So much were these carriers prized by that Wazir, that he gave to these two brothers, Jhangi and Bhangi, the following prescriptive rights, engraved on copper in gold letters:

'Rangan ka pani,
Chapar ka ghas,
Din ka teen khun masaf,
Aur jahan Asof Jah ka ghore,
Wahan Bhangi Jhangi ke baal.'

Or—

'Water from the pots of my followers,
Grass from the roots of their huts,
Three murders a day pardoned;
Only where Asof Jah's cavalry are,
There must Jhangi Bhangi's bullocks be.'

This was to induce them to keep up with the army, and stop their complaints of want of grass and water for their cattle. The descendants of the house of Bhangi still possess the above engraving.

Witchcraft still obtains among them. There is a hut set apart in nearly every Tanda, and devoted to Mittu Bhukia, an old freebooter. No one may eat, drink, or sleep in this hut, and it is simply used for devotional purposes. In front of this hut is a flagstaff, to which a piece of white cloth is attached. Worship and preparation is always gone through before the commission of crime by those who worship Mittu Bhukia. By all criminals Mittu Bhukia is worshipped as a clever freebooter; but he is more thought of south of the Wardha. The white flag in front of a hut is a sign that the Tanda worships Mittu Bhukia, and it should therefore be watched carefully for days, when they are suspected of having committed crime.

The men who have agreed to and arranged the particulars regarding the carrying out of their scheme, meet at night at this hut, where the image of Satti is produced. Ghi is put into a saucer, and into this a wick is placed, very broad at the bottom and tapering upwards. This wick standing erect is lit; an appeal is made to Satti for an omen, those worshipping mentioning in a low tone to the god where they are going and what they purpose. The wick is then carefully watched, and should it drop at all the omen is propitious; all immediately get up and make an obeisance to the flag, and start then and there for the business they have agreed on. They cannot return to their homes before they start, because they must not speak to any one till their business has been carried through. When engaged in a robbery, if challenged, the men who have gone through the ceremony may not reply. If any one of them reply the charm is broken, and all return home. They must again take the omens and worship again, or give up the attempt altogether. But they generally prefer to make certain of the man who is venturesome enough to challenge them, by killing or injuring him so severely that he cannot meddle with their other arrangements. If one of the gang sneeze on the road, it is also fatal to the enterprise; they must return to their Tanda at once.

Predatory races in the Mahrrata country and North Canara district are said to assume the dress and ostensible occupations of the Banjara. The Bahnh-Rupa Banjara (many guises) may be of these pretended tribes. The Turki subdivision has the Aliya and other branches. The Bhuyarya subdivision claim to have been Rajputs from Central India. Their name is said to be derived from Vana, a forest, and jara, forest wanderer. Banjara women wear the same personal ornaments as are on the figures in the caves of Karli.—Wilson's Glossary; Baron Hugel's Travels in Kashmir and the Panjab, p. 81; Mr. (Sir George) Campbell, p. 107; Dr Shortt's Report; Pioneer.

BANJARASSIN, a province of Borneo.

BANJER. JAV. An inundation.

BANJHOKA, a tract of country near the Yuzufzai possession, along with Buner, Bajawar, Astor, and Swat.

BANJI. HIND. Quercus incana, heavy oak.

BANK. Bankq; Armen; Banke; Dan; Banque, Fr.; Banken, Ger.; Banco, Italian; Bank, Port.; Banc, Saxon; Banca, Sp.; Banek, Sw.

Thee have been banking transactions from the most ancient times. Mr. George Smith purchased for the British Museum 2500 dated tokens, which enable us to follow for several centuries the monetary transactions of the great Babylonian banking firm of EgiBi and Son. The series goes back as far as the reigns of Sennacherib and his son Esar-Haddon. The Greek and Roman mints furnished the early coinages of the Argive king Peidon and of Servius Tullius. To the earliest of the Greek trapezites, Philoctates of Corinth, Themeistocles entrusted 70 talents (£16,000). Of other Hellenic bankers were Archestratos, and his clerk and successor Pasion, the most famous among the powerful Athenian money-dealers. At Sparta there was Glaucus, the story of whose late but genuine honesty is given in Herodotus. The discovery at Pompeii of 192 tabellas found in the house of the banker Lecius Gallicius Jucundus, gives the latest records of his payments to the exchequer of the doomed city, being dated A.D. 62. The Latin words Argentarii, Mensarri, and Nummularii are derived respectively from argentum, which means silver, from mensa, a table, and nummus, a piece of Roman money. Banking, as understood by the moderns, took its origin during the existence of the Florentine republic in the middle ages. The Bank of Venice commenced business in 1157. The Bank of England was first chartered in the reign of William and Mary in 1693. In India, most of the banking business has been in the hands of Hindus; they do little as depositaries, but are chiefly lenders. They number 118,000 adult males, as bankers proper. The first banks in India were started respectively at Calcutta, 1770; at Madras, the Carnatic Bank, in 1791; and at Madura, only as late as 1840. The present Bank of Bengal was opened for business on the 1st May 1806. It is therefore the oldest and most successful of all the banks that have ever existed in India. The Government of India being the owners of a large number of its shares, it has always received the vigilant supervision of various officers of Government. Since it commenced operations, its average rate of dividends has been about twelve per cent. per annum. One year it paid as high as twenty; another year, when heavy frauds had taken place, they fell to two and a half. There are now, 1882, about twenty-four banks in various parts of the E. Indies, in Madras, Bombay, Calcutta, Rangoon, Singapore, Hong-Kong, and other towns; and great British houses and houses of Hindus of the Vais and
BANKA.

Bhatya castes are also doing a large banking business, as banks of deposit, banks of discount, and banks of circulation. The latest charter is entitled The Presidency Banks Act, No. XI. of 1876. The liability of shareholders is limited to the amount of their shares; the transactions of the banks, except as agents, are confined to India and Ceylon. Those in which the Indian Government are interested are called public, while those not so conducted are said to be private, and depend on the honour, reputation, and good name of men in high position in private or public life. Their capitals are as follows, viz.:—Bank of Bengal, Rs. 2,00,00,000; Bank of Madras, Rs. 50,00,000; Bank of Bombay, Rs. 1,00,00,000.

BANKA. Tel. Gum gum arabic; also any viscous plant, and applied to species of different genera. Banka-baddu, Vitis Linn, Wall. B. Quetan, Zizyphus, sp. Banka Nakkeria, Cordia myxa, L.; and B. pavili, Portulaca, sp.

BAN-KAHU. Hind. A large sword used in athletic games; also a large vice for table use. Banka is a musical instrument, also the upper piece turned from the performer, forming it into the shape of the letter S.

BANKA. Tel. Gum gum arabic; also any viscous plant, and applied to species of different genera. Banka-baddu, Vitis Linn, Wall. B. Quetan, Zizyphus, sp. Banka Nakkeria, Cordia myxa, L.; and B. pavili, Portulaca, sp.

BAN-KAHU. Hind. Vitex negundo.

BANKAI, a weight in the Straits of Malacca at Singapore, 835 or 836 grains, at Penang somewhat less.—Simmonds.

BAN-KATTI. Hind. In the land rules of India, the rights acquired by clearing jungle land and bringing it under cultivation.

BAN-KHA. Burm. In Amherst, a timber, colour grey, used for house posts and other common purposes. Terminalia belerica, Roxb.

BAN-KHAI, also Barauulda and Mudi. Hind. Lands on which cotton was grown during the past season.

BANKOK is about 27 miles up the Menam river of Siam. It is built upon an island, in lat. 13° 58' N., and long. 100° 34' E., on both branches of the river, generally with 7 fathoms water close to each side, and navigable for vessels up to 250 tons at all seasons of the year. The river is the highway for communication with all parts of the country, though several ancient canals have connected rivers in the interior and made passages to the coast. It is the capital and seat of trade in Siam; is 14 miles in direct distance from the sea, or 25 miles following the windings of the river. The walled city is on the east bank. All the well-to-do people live in wooden houses, while the poorer class consist but composed of bamboos and palm leaves. Many of the people have their permanent homes on rafts moored along the banks of the river. Numbers of shrines and temples and pagodas are to be seen in every direction, built with the most durable materials, and in the most costly manner. Bankok is supposed to have a population of about 200,000, of whom three-fifths are Chinese, and the remainder are Siamese, Peguans, Laos, Cambojans, Tavoyans, Cochin-Chinese, Malays, Mohomedans, Hindus, and Christians, the descendants of Portuguese born in the country.

BANKS. In the oceans on the south of Asia are several extensive banks, some of them full of peril to sailors, but from which fishermen draw large quantities of fish, Agar-agar, a marine lichen extensively used in China, trepang or sea-ling, and mother-of-pearl shell, etc. A continuous submarine bank extends all along the E. side of Asia from lat. 8° S. to 6° N. It is 1200 miles from N. to S., and 1500 from E. to W., and embraces Borneo, Java, Sumatra, and the Malay Peninsula. This vast area is all under 100 fathoms deep, but the greater part from the Gulf of Siam to Sumatra and Java is under 50 fathoms.

Borneo and the Philippines are connected by two narrow submarine banks, over the northern of which rises Palawan, and the Sulu islands over the southern.

Formosa is connected with the mainland by a submerged bank under 100 fathoms, including Hainan to the S.W., and Japan on the N.E., and under 200 fathom, including Madjico and Lo-choo islands.

To the east of the great bank which stretches out from the Malay and Siamese peninsulas, as far as Java, Borneo, Sumatra, and the Philippines, is another bank, which unites N. Guinea and the Papuan islands, as far as Aru, Mysol and Waigiu, with Australia. The Australian bank commences near the N.W. Cape, and extends in a N.E. direction to New Guinea, where it terminates at the base of the high but narrow mountain range that unites the eastern and western parts of that island, and separates the Banda Sea from the Pacific. It is at this point that the edge of the bank is most remote from Australia, the distance to the nearest part of the N. coast being 400 miles. It appears again on the S. coast of New Guinea, near Torres Straits, and extends along the N.E. coast of Australia, the Great Barrier Reef being on its outer edge. The Aru Islands and New Guinea are thus united to the continent of Australia; and the kangaroo, long supposed to be peculiar to Australia, is found both in the Aru Islands and on the southern part of New Guinea.—A. R. Wallace, pp. 349, 373.

BANKSIA ERICIFOLIA. Its dried cones are used by the natives of Australia for retaining fire.—Bennett, i. p. 61.

BANNA. Hind. Viburnum foteus.


BANNERS.

Bannière, . . . . Fr. Bandiera, Insegnia, Fr.
Banners are in use with all military, and for designating the religious ceremonies of all the races and nations and religions of Asia. They are of various shapes and sizes, and of different colours; and the phrases so familiar to Europe as to lowering and displaying the colours are in use in Asia. In India, the invocation Angriz ka bhaota kaim, May the British flag stand fast, is common. The Yuzufzai Afghan, in a war, advanced against the British with 'scarlet' banners, though scarlet is a forbidden colour to Mahomedans. It is unlawful for them to use it on banners or standards; and it is not known how these strict Mahomedans so far transgressed the 'traditions of the elders' in this matter. The Tartar armies of China are arranged under the separate banners of their leaders.

BANNI. Hind. Payment in kind.

BANNU. A British district in the Panjab, lying between lat. 33° 10' and 33° 15' N., and long. 70° 26' and 72° E. Area, 3786 square miles; and population in 1868, 287,547. The Indus passes

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through the district, and the Bannu valley is drained by the Kurram and Tochi, which unite and join the Indus. The annual rainfall is 11½ inches. The population is now almost wholly Pathan, but remains of a Grecian occupation are found, also of a later Hindu race. At Akra, and other places in the valley, coins are found with Greek or corrupted Greek inscriptions. In 1865, at Rohri, the river laid bare coins, and heads of statues with the unmistakeable well-shaped features of Grecian art. Broken Hindu images are also found. The Marwat, a noble race, but haughty and sly, hold the southern part of the valley. There are 26,222 Hindus, of whom 20,809 are Arora, and 493 Sikhs. The Marwat are good agriculturists.—Istn. Gaz.

BANUR-KULAY. BANOG. BEI. L. Vexet negundo, L. BANOG, a bill to the west of Mussoori, 7545 feet above the level of the sea, in lat. 30° 28' 29" N., and long. 75° 3' 25" E. The river Jumna flows towards the northern face of Banog and Badray, and bounds the settlement of Mussoori on the west. Mussoori was first resorted to as a sanatorium in 1823.

BANOTSARGR. BANOT-SARGAR. BANSA. BANTAM. BNTAM, Kwar-Sud. A rope (barra), thicker than a man’s arm, is made of makra grass, and that village party in whose quarter the rope is broken, or by whom the rope is pulled out of the hands of the opponents, remain the champions during the ensuing year, and retain possession of the rope. The first voyage made by the Dutch was in 1595 in which year their first fleet with Houtman (who had been previously employed by the Portuguese in the East India service) sailed direct to Bantam. At this period the Portuguese were at war with the king of Bantam, to whom Houtman offered assistance, in return for which he obtained permission to build a factory at Bantam.—Raffles’ Hist. of Java, i. p. 22.


BANSLOCHUN. Hind. Tabashir; a silicate deposited in the joints of a bamboo. It is said to be found in old bamboos only, and about one bamboo in three yields it. Used by natives as a stimulant and tonic, in doses of about five grains. It is a very pure kind of silex. Some of it approaches opal in appearance and composition.

BANSMATI. RICE is the best in the Panjab; that of Bora, in the Peshawar district, is also highly esteemed; properly Bas-marti.

BANSUR. Hind. A weed growing in the Doab, near the Jumna, difficult to eradicate from arable land, and very injurious to growing crops.

BANSWARA. A state in Rajputana of 1500 square miles. It is ruled over by a chief with the title of Maharawal. He is a Sosodia Rajput; but the population (in 1875, 150,000) are nearly all Bilis, and of a wild and turbulent character. The town is in lat. 23° 32' 34" N., and long. 74° 27' E. It has 33 feet stories. Banswara was originally part of Mewar, but became independent of it prior to the establishment of the supremacy of the British Government, who recognised it as a separate state. In 1812, the chief of Banswara offered to become tributary to the British Government on condition of the expulsion of the Maharratas; but no definite relations were formed with him till September 1818, when a treaty (No. IV.) was concluded, by which, in consideration of the protection of the British Government, the Rawal agreed to act in accordance with the advice of the British Government, to abstain from disputes and political correspondence with other chiefs, to pay a tribute equal to three-eighths of his revenues, and to furnish troops when required.—Treaties, etc., iv. p. 177.

BANT, a race of Canara, who believe that persons who die a violent death become demons, called paisachi.

BANTA-CHAUDAS. Hind. A village game played in the N.W. Provinces on the 14th of Kwar-Sud. A rope (barra), thicker than a man’s arm, is made of makra grass, and that village party in whose quarter the rope is broken, or by whom the rope is pulled out of the hands of the opponents, remain the champions during the ensuing year, and retain possession of the rope. The first voyage made by the Dutch was in 1595 in which year their first fleet with Houtman (who had been previously employed by the Portuguese in the East India service) sailed direct to Bantam. At this period the Portuguese were at war with the king of Bantam, to whom Houtman offered assistance, in return for which he obtained permission to build a factory at Bantam.—Raffles’ Hist. of Java, i. p. 22.

BANTAREA, wood rangers, formerly holding rent-free lands in quittance of police duties in the northern parganas of Gorakhpur.—W.

BANTI CHETTU, Tagetes patula, L.

BANTU, a great race on the eastern side of Africa. To the Bantu family, in its eastern, middle, and western branches, are respectively ascribed, first, the so-called Kafrs and Zulus, with the Bechuanas and Matabele of Livingstone, and the Shalihi and Nyamwesi of the Tanganyika route; secondly, the tribes of the Lulaba and Ulunda central region, to which Commander Cameron and Mr. Stanley found their way; thirdly, the nations of Lower Guinea and Angola, of whom Captain Burton and Mr. Winwood Reade reported. The unity of race among the various inhabitants, from the Victoria Nyanza in the east, and from the Gaboon of the west coast, to the exceptional Bosjesmen and Hottentots at the Cape, is a fact of high importance. These populations, generally speaking, have more capability than the Gold Coast and Slave Coast Negroes of receiving permanent impressions of a civilising character; the missionary experiences among them have not been so unfavourable. Their pastoral and agricultural industry, where they are not exposed to the cruel persecution of kidnappers for the slave trade, provides amply for their secure subsistence.

BANU, a terminal honorific name of the Afghan women, as Arjamand Banu Begum.

BANUR-KULAY. Beng. Cantharospernum.
BANYA.  


BANYA. HIND. Also pronounced Vania and Wania, the V and W being frequently substituted for each other in many dialects of India. This race or caste are known to the British as Baniars or Banyans. They are a Hindu people of the Vaisya caste, following wholesale and retail trade, but the Marwari, Kshatriya Rajputs, also adopt the title. Of all Hindu sects, the Banya and the lingaust abstain the most rigidly from eating flesh; hence probably is derived the term Banyan day on board ship, the ration of that day, which, when on full allowance, occurred once a week, including no meat. The Banya are a very important race. Every hamlet in India contains the shop of the Banya, who is the dry grocer, and sells meal and the fine flour of wheat, with suji or semolina, millets, meal of millets, rice, split peas, and pulses of many kinds, for all these are used in the diet of the people, which is almost exclusively farinaceous. He sells also parched rice and parched peas, also gram or horse pulse, and generally every article of food except vegetables and meat, with which he has no concern, except preserves dried fish and prawns. Besides these, he has condiments, salt, chillies, black pepper, green and dry ginger, garlic (but not onions) and asafetida, a small taste of which never fails to startle a peculiar lichen, by Brahmanas and other high caste Hindus, to flavour made dishes. He has also spices, cassia, cardamoms, cloves, and mace, sugar and gur, or unclarified sugar. He has often to sell on credit, from which the usual disputes arise; and as he lends money also, usually at 3 per cent. per mensem, with compound interest, the Banya is a most indispensable, and yet the most disliked person in the Hindu community. In the 10th century of the Christian era, an attempt is said to have been made by the famous raja of Bulala, in the ancient Bengal metropolis at Gaur, to degrade the Banya caste, probably from differences of religious opinions and sectarian feelings, of which, however, nothing whatever is known beyond the bare tradition of the fact. Their opulence and enterprise have always kept up the respectability and dignity of the class. The Banya from Gaur who settled in Satgong in the Hooghly district during the last three centuries, have been trading with the Portuguese of Hooghly, with the Dutch of Chinsurah, the French of Chandernagur, and the British at Calcutta. The Mullicks of Calcutta belong to them. But the Banya of Bengal have ceased to wear the sacrificial thread. Throughout the wildest parts of the mountain ranges on the N.W. Frontier, throughout Afghanistan and Baluchistan, to the frontiers of Russia, Banya shopkeepers are to be found. The Marwari who take Vanis as their designation, though found everywhere in British India, form no part of the permanent population. The N.W. Provinces are entirely in the hands of Banya, who point to the west as the districts whence they come. Gujerat, Malwa, and the Bombay Presidency are full of them. They are numerous all through Hyderabad in the Dekhan. They are not warlike, but engage in shopkeeping and manuscript transactions and banking business. They are acute men, and excellent accountants.—Sir G. Campbell; Travels in Hindostan.

BANYAN. ANGLO-HIND. A merchant, a shopkeeper. The word is supposed to have been obtained from the Gujarati word Vanum, trading classes.—W.

BANYAN TREE. The Ficus Indica, the Barka-jhar of Southern India, the Arbor de Bais of the Portuguese. It throws down aerial roots, which support the larger branches, and these again throw down other roots, till, as Milton wrote (Paradise Lost, ix.), the tree becomes "Such as at this day, to Indias known, In Malabar or Dekhan, spreads her arms, Branching so broad and long, that in the ground The bended twigs take root, and daughters grow About the mother tree, a pillared shade, High overarched and echoing walks between. Through every road, the Indian herdman, shunning heat, Shelters in cool, and tends his pasturing herds, At loopholes cut through strictest shade." Several of these trees have attracted attention from their dimensions. Four miles distant from Fort Saint David, was one under the shade of which Mr. Ives quotes Mr. Didge as computing that ten thousand men might stand without incommoding themselves. Dr. Frazier saw one of those admirable trees, near Surat, in the year 1783. In the Botanical Gardens at Calcutta, a great banyan tree has been long the pride and ornament of the garden. In 1807, Dr. Falconer thought it to be about only seventy-five years old. People were alive next year, who remembered well its site being occupied in 1783 by a date-palm, out of whose crown the banyan sprouted, and beneath which a fakir sat. This tree, for the thirty-four years from 1834 till 1868, had not increased in size, having been lopped under some misapprehension, and when paced by the editor in 1863, its dimensions were identical with what he had found in 1834, viz. 100 yards in diameter and 360 in circumference. The banyan seed hardly ever vegetates on the ground, but its figs are eaten by birds, and the seeds deposited in the crowns of palms, where they grow, sending down roots that embrace and eventually kill the palm, which decays away. Had the Calcutta tree been growing in 1849 over the great palm-stove at Kew, only 30 feet of each end of that vast structure would have been uncovered. When the banyan tree embraces a date or palmyra or cocoaen tree, the latter are seen growing out of it, this is called by Hindus a marriage of the trees. These are encouraged, and many are to be seen near the Kistna river, on the left bank to the N. of Kurna. As the banyan tree gets old, it breaks up into separate masses, the original trunk decaying, and the props becoming separate trunks of the different portions. Lady Faulkland, writing from the western coast, tells us that about 8 miles from Wace was a banyan tree, covering a space of ground of 3 acres. The shade was complete; and separate picnic parties might take place under it, and not interfere with each other. There were countless avenues, or rather aisles like those of a church, the pale-grey stems being the columns, which, as the sun fell on them, glittered in parts like silver; and here and there were little recesses like chapels, where the roots from the boughs formed themselves into delicate clustering pillars, up and down which little squirrels were chasing each other, while large monkeys were jumping from bough to bough, the bougha crackling and creaking as they leaped. At Mhuwa, in the Sattara collectorate, were two trees, one 450
yards in circumference, the other 350 yards. They were known to be 200 years old, and may be double that age.—Hooker, *Hist. Jour.* ii. p. 246; *Oxley's Travels*, i. p. 80; *Pennisant's Hindoostan*, ii. p. 51; *Postans’ Western India*, i. p. 182; *Lady Pakkland's Chow-Chow*. See *Ficus Indica.*

BAN ZARDAK, a fortress in Kirmanshah, immediately overhauling the town of Zobah. This is the stronghold of Kolwan, to which Yeze-jird, the last of the Sassanian kings, fled after the capture of Ctesiphon by the Arabs. It is a noble specimen of the labour bestowed.—*Rawlinson.*

BAOBAB. ENG. Adansonia digitata. One was seen near Gunner in Fasshol, 95 feet in circumference. Its inner bark, stripped off, beaten and dried in the sun, can be made into paper. They are to be seen in the Peninsula of India, growing as curiosities. In Western Africa, the trees grow to an enormous size. The fruit resembles a gourd in form, and contains a pleasantly acid pulp. Trees are found, especially between the Senegal and Gambia, with a circumference of 70 to 90 feet. One seen by Humboldt was estimated by him as being 5150 years old.

BAO CHAN. DUKH. Psoralea corylifolia.

BAOLI. HIND. A well, corruption of Baori; also an ear ornament.

BAONEE, the only Mahomedan state in Bundelkhand. Nawab Ghazi-ud-Din Khan, grandson of Asaf Jah Nizam-ul-Mulk of Hyderabad in the Dehkan, received from the Peshwa a grant of 52 villages near Kalpi, of 49 of which, at the time of the British occupation of Bundelkhand, his son Nasir-ud-Dowlah was in possession. In 1863, as a reward for various liberal measures adopted by the ruling Nawab, and particularly the abolition of transit duties within the limits of his state, Government sanctioned an addition to his complimentary titles. The state is said to cover an area of 127 square miles, with a population of 20,000 souls, and to yield a revenue of one lakh of rupees.—*Treaties*, p. 251.

BAORA, a predatory vagrant tribe on the Bhatti territory and western parts of Dehi. They resemble the Kanjar and Gudheca, and subsist chiefly by stealing. Baora of Gujranwala are also called Hijra.

BAORASI. HIND. The Jangle Mahal are a low caste of cultivators and palanquin-bearers. The Baori has the heron as the emblem of their tribe; its flesh must not be eaten by them. Colonel Dalton considers that the fact of Baori being still in possession of Ghatwali tenures as ancestral, shows that they had once a proprietary interest in the soil.—*Wils. Gloss. ; Dalton, Ethnol.* p. 327.

BAP, HIND, father. Bap-re, the British say Bobbery, an exclamation of pained surprise.

BAPAI-PANDU. TEL. Carica papaya.

BAPANABURI. TEL. Ehetría buxifolia, R.

BAPANS, also Bapaoti. HIND. Paternal inheritance.

BAPARITI. MALEL. Thespesia populnea.

BAPCHI, seed of a small bush found near Ajmir; very mucilaginous, coating, and demulcent; taken in sherbet.—*Gen. Med. Top. of Ajmir.*

BAPHALLI. HIND. Convolvulus pluricaulis.

BAPHIA NITIDA, the African camwood dye.

BA-PHOLA. Dr. Stewart gives 'Ba-phola' and Baphor as the vernacular names of a species of colocinum in the Salt Range; the seeds, he says, are called 'isasgol,' which seems the ordinary

Plantago.—*Masson's Journeys*, i. 338; *Stewart; Honigberger.*

BAPOTA is from Bap, father, and the termination 'ot,' of or belonging to, and by which clans are distinguished, as Kurran-sot, descended of Kurran; Mansin-got, descended of Man Sing. The ryot (cultivator) is the proprietor of the soil in Mewar. He compares his Right therein to the a'khya d'huba, which no viceroyalties can destroy. He calls the land his bapota, or patrimonial inheritance. He has Menu in support of his claim in the text. 'Cultivated land is the property of him who cut away the wood, or who cleared and tilled it;' an ordinance binding on the whole Hindu race, and which no international wars or conquest could overturn. A Brahman may spill his blood on the threshold of his dwelling, or in the field in dispute, which will be relinquished by the owner but with his life. The Pat Rani, or chief queen, on the death of prince Uma, the heir-apparent of Mewar, in 1818, bestowed a grant of 15 bighas of land, in one of the central districts, on a Brahman who had assisted in the funeral rites of her son. With grant in hand, he hastened to the Jat proprietor, and desired him to make over to him the patch of land. The latter coolly replied that he would give him all the prince had a right to, namely, the tax. The Brahman threatened to spill his own blood and obey the command, and gave himself a gash in a limb; but the Jat was inflexible, and declared that he would not surrender his patrimony (bapota) even if he slew himself. In short, the ryot of Mewar would reply even to his sovereign, if he demanded his field, in the very words of Naboloth to Ahab king of Israel, when he demanded the vineyard contiguous to the palace: 'The Lord forbid it me, that I should give the inheritance of my fathers unto thee.—*Rajasthan*, i. 494, 510.

BAPPA, son of Nagadit, when only three years old, was conveyed to the fortress of Bhandar, where he was protected by a Bhil of Yadu descent. Thence he was removed for greater security to the wilds of Parassar. Within its impervious recesses rise the three-peaked (tri-cuta) mountain, at whose base was the town of Nagindra, the abode of Brahmons, who performed the rites of the greatest temple in Mewar. In this retreat passed the early years of Bappa, wandering through these Alpine valleys, amidst the groves of Bal, and the shrines of the brown calf. Several of the twenty-four Gehlot tribes issued from the founder, Bappa. Shortly after the conquest of Chitore, Bappa proceeded to Saurashtra and married the daughter of Emagol, prince of the island of Banderiva. With his bride he conveyed to Chitore the statue of Vyan-mata, the tutelary goddess of her race, who still divides with Eklinga the devotion of the Gehlot princes. The temple in which he enshrined this islandic goddess yet stands on the summit of Chitore, with many other monuments assigned by tradition to Bappa. Bappa signifies merely a child.' He is frequently styled Syeel, and in inscriptions, Syeel Adhes, 'the mountain lord.' The Mori prince, from whom Bappa took Chitore, was of the Tak or Takshae race, of whom Nagnéché or Nagén Mata was the mythical mother, represented as half woman and half serpent, the sister of the mother of the Scythic race, according to their legends. According to Sir H. Elliot, when Mahomed bin Kasim, the general of Walid,
overran Gujerat about A.D. 718, and advanced to Chitore, Bappa met and entirely defeated him, and after this he was raised to the throne of Chitore, where his descendants still reign. After a long and prosperous reign, Bappa abdicated and departed to Khorsan. In the reign of Khoman, his great-grandson, Mahmun, governor of Khorsan, invaded Chitore, but was defeated and expelled by Khoman after 24 engagements.—*Eliot, Hist. of India; Tod's Rajasthan*, p. 594.

**BAPUNGA.**

Tel. Psoralea corylifolia.

**BAQUA,** from *Baqa.*

**BAQAI,** from *Baqa.*

**BAQAI,** Fr. of *Mauritius.*

Pandanus odoratissimus. See Pandanus.

**BAR.**


Bar, an intoxicating liquor prepared in western India from the Calotropis gigantea.

**BAR.**

**FERS. HIND.** A load; an occasion. Bargir, a trooper not providing his horse, but serving on one supplied by the State or by a contractor; also infantry soldiers.

**B&E;R.**

**HIND.** Ficus Indica, the banyan. Of Murree hills, Quercus dilatata. A solid bamboo, the Bambusa stricta. Bar of Hazara hills, the cotton plant.

**Bar.**

**PANJ.** Large sandy wastes between the several rivers of the Panjtab, cultivation being confined to belts on each bank. The plants growing on them resemble those found on the wastes bordering on the Caspian Sea; and most of the genera which abound in the southern steppes of Russia have representatives on the Bar. Species of saliosa, salicornia, and sueda cover every patch of saline land in the Panjtab, and are largely used for the manufacture of sajji, or impure carbonate of soda; kurreel (Capparis aphylla), jhau (Tamarix Indica), the furush (Tamarix orientalis), Zizyphus vulgaris, which compose almost the whole tree vegetation of the Bar, have also cutaneous rafts on the shores of the Black Sea and the banks of the Volga.

**B&RA.**

**HIND.** Wind; metaphorically, Cholera morbus.

**BA&RA-B&ANKI,** a town and district in Oudh. The district is of 1769 square miles, with a population of 1,112,165. The district has been fought over from prehistoric times, between professors of Buddhism, Brahmanism, Mahomedanism, and the British, the latest efforts being in 1857-8, when the queen of Oudh took refuge amongst its people. ‘I have seen,’ then wrote the British general, ‘many battles in India, and many brave fellows fighting with a determination to conquer or die, but I never witnessed anything more magnificent than the conduct of these zemindars.’ A remnant is there of the ancient dominant Bbar, with Ahir 96,857, Fasi 74,303, Kurmi 134,087. The poppy is largely grown; in 1873, 7111 acres were under cultivation. The average yield of opium, 1400 manzars or 1025 cwt., for which the Government paid, at 10s. the £1, or £2800. Other races are the Chambar, Khsathen, Brahman, Mahomedans.

**BAR&BAR.**

In Bengal, at 19 miles to the north of Gaya by the road, there are several groups of granite hills, called Kauwa-Dol, Bharabar, Nagajruni, and Dharalet. All of these possess some Buddhistic remains; but the most interesting are the caves of Barabar and Nagarjun, which have been left out of the solid rock. The Barabar caves are now known by names connected with Brahmanism. The Lomas Rishi and Satgurra are the largest; next in size, Gori Koobha or Nag Arjun, Visawmitra, Karuna Chopra or Kurn Chopar, the Sudana or Ngop; they are seven in number. The largest, the Nagarjun, is 46 feet by 19 feet 5 inches. Next to it are the Lomas Rishi and Sudana. Six of them have inscriptions, in the oldest form of the Pali character, identical with that used in Asoka’s lats. They all seem to have been completed between B.C. 252 and 214, during a great part of Asoka’s reign. The Lomas Rishi has no inscription, but it seems to have been formed in the 3d or 4th century A.D. On Barabar highest peak is a temple with a lingam sacred to Sdihesswar. At the base of the ragged peak of Kauwa-Dol is an enormous figure of Buddha.—*Dr. Ferguson.*

See Baragom.

**BAR.**

**BATSALI.**

**Tel.** Ficus setosa, Wall.

**BARA-BHAO.**

Hind. lit. largest price rate, a form of loan, by which a cultivator, borrowing, undertakes to repay with interest at the highest rate of the season. Suppose a farmer, at the beginning of the season, when wheat is at 20 seers the rupee, borrows 10 rupees on bara-bhao at 5 seers interest; and supposing grain subsequently at any season range up to 25 seers, he will have to pay 15 man as interest added to 64 man as principal, in all, 79 man, having borrowed only a few months previously what was equal to 5 man. This rate of interest is about 33 per cent. for the short loan.

**BARA-BRAHMAN,** also styled Maha-Brahman, a class of Brahmins in northern India, in humble avocations, performing the funeral rites of strangers.

**BARADARI.**

**HIND., from barah, ‘twelve,’ dari, ‘a door.’ A house having twelve doors, an open building, a summer house, pavilion.”

**BARA GALI,** a small sanctuary of the Hazara hills, on the road from Broach to Marri.

**BARAGOZA,** the modern Broach. A native of this city was in the embassy from King Pandyon to Augustus at Antioc. His name is given as Zaramano Chidus or Zarnamochecus. He accompanied Augustus as far as Athens, and there immortalised himself before the emperor.—*Col. Rev.*

**BARAHA or Varaha.**

**BENG.**

Hind. The bear avatar of Vishnu. See Varaha, a hog.

**BARIHAAT or Gopevare,** two towns in Garhwal, from which were obtained two bronze tridents, with inscriptions of about the 7th century.

**BARAH BHUIYA,** a dynasty which Colonel Dalton believes once ruled in Assam. The country to the north of the Brahmaputra, from one end of the valley to the other, is full of great works ascribed to this people. Buchanan, in his account of Dinajpur, narrated a number of extant or distinguished persons of the Bhuiyia race came to the Kaludarye river, the boundary between Kamrup and the ancient Matsyades, took up their abode there, extended their sway, and executed great works.—Dalton.

**BARAH-SADAT,** a powerful tribe of Syuds on the eastern parts of the Muzzafarnagar district. Some of their ancestors served Humayun, Farokhsir, and Aurangzeb.

**BARAH-SINHA or Buriydi of Bengal, eastern**
and northern skirts of India, the twelve-tined stag, Rucerus Duvaucelli of Cuvier.

BARAH-THAKURA. Twelve small hill states between the Jumna and Sutlej. See Baraich.

BARAK. HIND. A flag planted on land newly taken up.

BARAK, amongst the Hazara, a cloth of camel’s hair.

BARAK, the horse on which Mahomed ascended to heaven in his dream.

BARAK or Surma, a tributary to the Brahmaputra. It is an offshoot from the Jiri, which leaves in lat. 24° 48’ N., long. 93° 13’ E., through Cachar and Silhet, S.W. into the Megna. Length 200 miles. Banks low and marshy along the valley of the Cachar. The Barak is navigable for steamers, and is the chief means of communication between Cachar and Silhet. Its affluents, the Jiri, Chiri, Jatinga, Chengar, Khol, and Kato-Khal, are navigable for country boats.

BARAK, one of the three sons of Zirak, the ancestor of the Barakzai, of which tribe Dost Mahomed Khan, of Kûbul, was the head.

BARA KUTA, a fish of the Arabian Sea, with numerous teeth.

BARAL. HIND. Artoecarpus lakoochea.

BARA-LACHA, a pass in the Kangra district, lat. 32° 49’ N., long. 77° 28’ E., and 15,000 feet above the sea, but can be crossed by ponies and laden yaks. The Bara-lacha range of mountains, which forms the watershed between the Indus and its first affluents, is regarded by Alexander Cunningham as the western continuation of the Himalaya. The Eastern Himalaya divides the watershed of the Iaspis-po from those of the Ganges and its tributaries. The Western as well as the Eastern chain separate the great Hindu family of India from the Bot of Tibet. Some mixed races are found to the south of each chain; the Lahuli and Kanawari to the west, and the Gurkha and Bhutanis to the east. The inferior mountains of the eastern chain generally run at right angles to its axis, whereas those of the western chain are mostly disposed in subordinate parallel ranges. There are thus two distinct and independent ranges to the south of the Western Himalaya, both stretching in the same general direction from north-west to south-east, which may be termed the Mid-Himalaya, and the Outer and Sub-Himalaya,—the term Siwalik being that applied to the lowestmost sandstone ranges.—A. Cunningham.

BARA-MADAH. Pers. A vestibule, an entrance hall, a verandah.

BARA-MAHAL, a fertile district in southern India now known as the collectorate of Salem. It contains soils impregnated with soda. It is a plain elevated about 800 feet above the sea.

BARA MARECA. MALE. Dolichos cultratus; Canavalia gladiata.

BARAMOOLA, a pass into Kashmir leading through the valley, and by which the Jhelum leaves the valley. It is open all the year round for horses and foot-passengers. It is in lat. 34° 10’ N., long. 74° 30’ E., and is the only pass into Kashmir practicable for an army. The town is on the right bank.

BARANDA, a hill deity.

BARANGAN. MALAY. Sulphuret of arsenic.

BARANGI. HIND. Clerodendron infortunatum.

BARANGHA, a genus of mammals of the family Mustelidae, tribe Semi-plantigranda, and order of the Carnivora. B. Nipponesis, Gray, is of Nepal. Lutra barang, of the Malayian islands, has been placed by Dr. Gray into the genus Barangia, otters with hairy muzzle, rather long toes, and rudimentary claws.

BARANI, land dependent on the rains. Barani, a rain-coat, so called from baran, rain; an overcoat; generally pronounced in southern Persia as baroon and barooni. Both Barani and Oima are overcoats; the former, confined to men of some rank, is an ample cloak, with large sleeves, that shrouds the whole person, and is made, according to the fancy and means of the wearer, of coarse or fine broad-cloth, of shawl, or even of velvet, lined with every kind of material, from the richest fur down to the coarsest chintz, and embroidered, often very richly, with silk, gold, or silver. The Oima is more commonly used, and is more exclusively calculated for riding. It somewhat resembles a lady’s riding habit, fitting tight to the shape from the neck to the waist, where it is gathered into plaits, and swells out above the girdle, falling in ample folds to the feet. It is generally made of broad-cloth, varying in quality.—Ouseley’s Tr. ii. p. 94; Fraser’s Journey into Khurasan, p. 69.

BARANKI CHETTU. Tel. Butes superba.

BARANO, of Kaghan. Quercus annulata.

BARANUS. HIND. Rhododendron arboreum.

BARAPATALU. Tel. Indigofera glandulosa, Wild. It abounds in the north-west parts of Rajahmundry; also I. trifoliate, W. and A.

BARAR. HIND. A blight which affects rice crops.

BARARI, of Chenab. Capparis spinosa, L.

BARAS. ARAB. A kind of leprous so called.

BARAS. HIND. A year. Bars-Glanth, annual knot: birthday, on which day a knot is tied on a cord kept for that purpose.

BARAT. ARAB. Marriage procession. The Shab-i-Barat, or night of record, is a Mahomedan festival held on the night of the 14th of the month Shaban. In the north of India, lamps are lighted and prayers said in behalf of deceased ancestors.—Wilson.

BARATGAON, near Gaya, is the ancient Nalanda. It was celebrated for its monastery, now a mass of brick ruins, 1600 feet long by 400 feet deep. Ten thousand monks and novices of the eighteen Buddhist schools here studied philosophy, law, science, medicine, and practised devotion. It was three times destroyed by opposing sects.—Imp. Gaz. See Barabar.

BARAT-KHAND. The channel which separates the island of Dwaraica from the mainland. It is filled up, except in spring tides.

BARA-WAFAT. ARAB. HIND. The great death; a solemn festival on the 12-13th of the Mahomedan month Rabi-ul-Awal, on which date, A.H. 11, Mahomed died; also called Weadat-i-Sharif, otherwise called the ’day of death,’ or ’death day.’ In some large towns, especially those in the north, where there are educated men, daily meetings are held from the first to the twelfth day of Rabi-ul-Awal, when the more learned deliver lectures on the different events that occurred during the lifetime of their great and esteemed master and friend, which events are contained in the Koran. On the eleventh day, the ceremonies, etc., are performed with great magnificence, and the whole hall in which the party is assembled
Baryat.

is beautifully lit up for the occasion. Every facet of the prophet's life is then rehearsed by the lecturer, in order to excite their feelings at the loss of their great master. In the evening, a very grand procession, resembling that of the Moharram, passes through many of the streets in the town. During the procession may be seen a good display of fireworks of every description. The following day the richer Mahomedeans light their houses up very beautifully, and sit up the greater part of the night reading the Koran, etc. Much food is also distributed to the poor.

Baryat, of Benares, betel-leaf and betel-nut sellers.


Barbara, a Kaolin used in Delft for making porcelain.—Powell.

Barbaramu. Tel. Acacia Arabica.

Barbary.}


The Greeks applied the term Barnaros to everything foreign, and to every race not speaking Greek, and it was afterwards taken up and used by the Romans. It was a term similar to the Gentile of the Jews, to whom every person not circumcised was a Gentile; to the Hindu, every man not twice born is a M'Helecha; to the Mahomedan, every man not believing in Mahomed is a Kafir; to the Chinese, every one not a Chinese is a Fan or E. Arabs observe that Indians, unless brought young into the country, never learn its language well; and they have a term to express the vicious pronouncement of a slave or Indian.—Barbaret al-Hund, the barbarism of the Indian. The Greek 'Barbaros' appears to be derived from the Sanskrit Vararavana, an outcast, a barbarian, a man with curly hair. Ajum in Arabic literally means foreign; but in the southern part of Arabia, Al Ajum is applied to the opposite part of the coast of Africa. By the Turks, Persia is bald-ul-Ajam, or Ajamistan; and the north-eastern coast of Africa is Bar-el-Ajam. The Arabs divide the world into two great bodies,—first themselves, and secondly 'Ajami,' i.e. all that are not Arabs.

E means barbarian or foreigner, and it is almost certain that the term was formerly applied by the Chinese strictly in this sense. Dr. Morrison, an eminent Chinese scholar, rendered the letter E as foreigner; but in subsequent translations he changed, and rendered it Barbarian. Mandarin of Fu-chu-fu, however, distinctly stated that the word was equivalent to, and synonymous with, foreigner, and that there was nothing whatever offensive in the term.' At Ningo, on Mr. Lindsay objecting to being called E, he was called 'Yuen,' another term for a foreigner. The Chinese also called the British 'Hung Mou Yin,' literally Red-bristled Man. The gentlemen of Lord Macartney's embassy were frequently asked by the Mandarins if they were Hung Mou Yin. The British were also called by the Chinese 'Quot,' which means devil or spirit. The Si-fan races of western China get their China name from the words meaning western aliens, and is applied by them to the people of Sakyul, Ando, Tho-chu, Gya-rung, and Manyak.

Gya, in the Tibetan, means a stranger, a foreigner, hence Gya-filing, a Frank foreigner.

The Arab, the Persian, and the Moghul races, who speak the Turko tongue, designate the natives of India as the Kala-Adni, or black men.—Playfair's Aden; Burton's Mecca, ii. 26, 264; Muller's Lectures, p. 84.

Barbarike Emporium is supposed to be the ruined town of Bambhara or Bambhara, on the head of the Ghara creek, the site of the most ancient seaport of Sind.—Cunn. Anc. Geog. p. 294.

Barbary, a region of Africa, between the Atlantic Ocean, the Mediterranean Sea, and Egypt. It is 2200 miles in length and 500 in breadth, containing the countries of Barca, Tripoli, Tunis, Algiers, Fez, Morocco, Tafiset, and Balad-ul-gerid. It was known to the ancients by the names of Mauritania, Numidia, Africa Proper, and Lribly.

Barbecue, drying grounds for coffee.

Barber.


Amongst Hindoos barbers there are many different classes. They are considered a low caste of Sudras. A Hindu poet says, 'Among the sages and warriors, amongst the beasts the jackal, amongst the birds the crow, and amongst men the barber, is the most crafty.' (Ward, iii. p. 122.) The barbers' wives cut the nails and dye the feet and the hands of the Hindu women, and are midwives. The castes of Teling barbers in Madras are the Reddi Bummala, Nalum Mangala, Sree Mangala, Chata Coooro, Pongkanatu, Saljara Mangala, Arava Mangula, Palay Mangula, Bree Mangula.

Barberry, plants of the Himalaya and Neithgherries, species of the genus Berberis. Russout, which is used among natives for sore eyes, is extracted from the roots. Its virtues have of late been much extolled as a remedial agent in fevers, but beyond being a good tonic in weak digestion consequent on fever, it possesses no antiperiodic powers, and will never be equal to quinine or the bark of the Bibiree green-heart tree of British Guiana, a large forest tree attaining an altitude of 80 feet and found on the rocky hill-sides on the borders of the South American rivers, and belongs to the Laurel tribe. The active principle in Warburg is extracted from the Bibiree, and forms the essence of the drops given in those severe forms of jungle fever seen at Mysore and in the Wynad.

Barbet, birds of the family Megalaimidae, comprising the genera Megalaima, Cyanops, and Xantholoma. The species in S.E. Asia are Megalaima vires, the great barbet; M. lineata, Viell.; M. caniceps, Franklin; M. viridis, Gm.; and M. hayi; Cyanops Asiatica, Lath.; and C. Franklinii, Blith; Xantholoma Indica, Lath.; X. Malabarica, Blith; and X. rubri capilla, Gm. In the Tenasserim mountains it swarms from 3000 to 5000 feet elevation, not higher nor lower; and from the first level it suddenly and entirely supplants M. lineata, the Pokong of the Burmese. As long as day lasts, the woods amongst the Danha hills resound with its cry—Piow, piow, piow, etc. etc. Another barbet, resembling apparently M. Indica, is also pretty common from 1000 to 3500 feet, but it settles solely on the summits of the highest trees, calling

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BAREILLY.

out Tapral, tapral, tapral, by the hour together. The greater red-headed barbet (Megalaica Indica, Lath.; M. Philippensis, var. A. Lath.) gives out from its throat an incessant din, in sounds which resemble the blows of a smith hammering a cadron, and is known by the British in India as the coppersmith.—Tennent’s Ceylon, p. 242; Tickell.

BARBOSA. Odoardo Barbosa was a cousin of Magellan, was with him at the capture of Malaca, and accompanied him in his circumnavigation of the globe. In 1515 he wrote a book, entitled The Coasts of East Africa and Malabar, in which he describes these coasts, also Bijanagar, Bengal, Orissa, Further India, the Indian Archipelago, and China, and the trade of the eastern seas as it was found by the Portuguese on their first entering them. He gives a detailed account of the trade in rubies, diamonds, emeralds, and other precious stones; also of the drugs and spices, the perfumes and dyes. He describes Cambay as a remarkably well built city, in a beautiful and fertile country, filled with merchants of all nations, and with artisans and manufacturers like those of Flanders. He speaks with much precision of Sumatra. On the death of Magellan, he was elected joint commander of the Spanish Expedition.—Elph. p. 427; Morselen’s Hist. of Sumatra, p. 6.

BARBUS. A genus of fishes. B. mossel. B. Ham., and B. Neilli, Day, of the south of India, are known as the Mahasorer.

BARCHHA. HIND. Quercus floribunda.

BARC-HA. HIND. A spear or lance with a wooden stock, carried by fakirs; also the lance of cavalry soldiers.

BARD.

Bardo, Pocée, . . . Fr. | Bhat-Raj, . . . HIND.
Bart, Wideshaken, GEH. | Vate, poet, . . . IT.
Bardai, Bardet, . . . HIND. | Poets, Vardo, . . . SP.

The Bardai of the Rajput is the prototype of the bard of the Saxon races, reciters of warlike poetry, of whom Tacitus says, 'With their barbarous strains they influence their minds in the day of battle with a chorus of military virtue.' The Bards of India are the Bhat and the Charun. The Bhat are found all through Peninsular India, where they are respected, though not revered. The Bhat or Bards of Central India are of three sorts,—the Magadha or historian, the Sota or genealogist, and the Bard or court minstrel, whose duty in older times it was to salute the king or chief in the early morning, wishing him long life and prosperity. Bards from their sacred character are often employed as convoy of travelers, and of their property in tandas or caravans. Throughout Rajputana they are regarded as a sacred order, and as the hereditary guardians of history and pedigree. They chant their own verses, or legends from the mythology of India. Bhat-Raj claim to be Khatatriya, whose occupation is to proclaim the titles of kings and be their eulogists. In Malwa and Gujerat, it was usual for travellers to hire a Charan to protect them, and if robbers appeared, he stepped forward waving his long white garments, and denouncing in verse infamy and disgrace on all who should injure travelers under the protection of the holy members of Siva. If this failed, he stabbed himself with a dagger in the arm, declaring that his blood was on their heads; and if all failed, he was bound in honour to stab himself to the heart. Elphinston mentions that the Bhat and Charan of the west of India were revered as bards, and in some measure as heralds, among the Rajput tribes. In Rajputana they conducted caravans, which were not only protected from plunder, but from legal duties. In Gujerat, they carried large sums in bullion through tracts where a strong escort would be insufficient to protect it. They were also guarantee of all agreements of chiefs among themselves, and even with the government.

Their power is derived from the sanctity of their character and their desperate resolution. If a man carrying treasure is approached, he announces that he will commit trage, as it is called; or if an engagement is not complied with, he issues the same threat unless it is fulfilled. Malcolm mentions that Charans, particularly of the Maru class, who are mendicants, attended at feasts and marriages in great numbers, and were in the habit of extorting large sums, at the latter, by threats (if not satisfied) of sprinkling their blood on the parties met on this joyous occasion; and these threats had been too often carried into execution to make them be deemed idle by the superstitious Rajputs. The Charan women are distinct from all the other population, both in dress and manners. They often resided in separate villages; and the traveller was surprised to see them come out in their long robes, and attend him for some space, chanting his welcome to their abode. The Charans are everywhere treated by the Rajputs with great respect, the highest rulers of that race rising when one of this class enters or leaves an assembly. Brahmas are less esteemed than the bard.—Todd’s Rajojastan, i. 39, 67, 540; Burton’s Scinde, p. 302; Malcolm’s Central India, ii. p. 135; Elphinston’s Hist. of India, p. 364; Hindu Theatre, ii. p. 276; Infanticide, p. 78; The Hindoos, p. 75.

BARDWAN, a town in Bengal, in lat. 23° 14' 10" N., and long. 87° 53' 55" E., built on the left bank of the Damodar. It gives its name to a revenue division of 12,719 square miles, with a population of 7,286,957, and through which the rivers Damodar, Dhalkeor, Khari, and Ajai flow. In the 16th, 17th, and 18th centuries, it was successively held by Mahomedans, Hindus, and Mahrattas, but it was ceded to the East India Company in 1760, and since the close of the 19th century it has been under a permanent settlement. Its coal mines at Raniganj, about 44 in number, its sari and dhoti silk fabrics, its iron, gold, silver, and brass wares, and its agricultural produce, form its sources of wealth. Its coal area is about 500 square miles. About 564,933 tons of coal are yearly raised. The Maharaja of Bardwan is the oldest and wealthiest of the Bengal zamindari chiefs, and the family keep up a regal state. They have been uniformly friendly with the British.

BAREILLY, a city in the Rohilkhand division of the N.W. Provinces, in lat. 28° 22' 9" N., and long. 79° 26' 38" E., which gives its name to a British revenue district. The district has an area of 2,092 square miles, and, in 1872, a population of 1,507,139 souls. It is a level plain just below the last slopes of the Himalaya. During the 17th and 18th centuries, it changed hands amongst Mahomedan and Mahratta chiefs. In 1811 it was ceded to the British. In 1805, 1816, 1837, and 1842, there were disturbances, and in the Mutiny it was in rebellion from the 31st May 1857 to the
7th March 1858, when the city was retaken. Its best cultivators are the Kurmi, Lodh, Murai, Jat, and Chamar. Mahomedans number about 306,682 souls. Hindus, 1,197,588,—Brahmans, 76,442; Rajputs, 44,669; Baniya, 30,726; Ahor, 47,238; Chamars, 132,798; Kurmi, 166,280.—Imp. Gaz.

BARG.

Baniya, 1562; i-tambui, Fa. 1549; 1572 i-anab, i-haiina, "i-wiisma, Arab. i-murad, Port.

BARILLA.

Bari-Doab consists of an elevated central doral plateau, called Ganj-i-Doab, or bald tract, in the Manja or middle part. This, on both sides, makes a sudden drop, there called dihaya, down to a flat alluvial tract of several miles in width, running along either river, and producing tamarisk and jhund.

The soil of the Ganj-i-Bar is intensely arid, and often saline, and produces only jali and some salsolaceous plants, with a few bushes of jhund. On the occasion of heavy rain in its upper part, the Ravi and Beas become flooded, and injury results to the low-lying land on the borders of the latter river. The Ravi, in July 1873, rose 12 feet in two days, and came down at 74 miles an hour. The Bari Doab canal is 212 miles in aggregate length. It cost £1,251,443.—Cal. Rec.

BARID SHAII, a dynasty which ruled at Beder from A.D. 1498 to 1572. The kings were—

Kasim L, A.D. 1496 A.H. 904 Kasim II, A.D. 1569 A.H. 965
Amir L, ... 1504 910 Mirza Ali, ... 1572 1000
Ali, ... 1549 945 Mirza II, ... 1591
Ibrahim, ... 1562 990.

BARIIJ. SANSK. Lotus.

BARIJAMU or Barujap chettu. Tel. Erythrina Indica, Lam.; mooshy wood.

BARIK ERANDI. HIND. Small-seeded var. of Ricinus communis.

BARIKI, Tel. Adiantum lunulatum, N. L. Burtn. Sapinum cordifolium, R. Hirze Indica, R.
BARIK TIIL. DUK. Sesamum orientale.

BARI-KUDU-VADU, also Bariki. Tel. A village menial, servant, messenger, watchman, scavenger.—W.

BARILUS RUGOSUS. Day. A fish in the rivers below Kotagbbery, called the Indian or spotted trout. B. barii, Barch: Ham., of the rivers of Bengal and Hind, is the bhola or trout. B. barna, B. Ham., is also called Bali bhola, Bahri, Barel, and Barna.

BARILLA, soda, kelp.

Kali, ... ARAB. Jarrilla, Solda, ... PORT. Soude, Barille, ... FR. Socien, ... RUS. Sajikhar, Khar, GUL. HIND. Appelacramm, TAM., Tel.

Barilla, kelp, salosa soda, and natron are all carbonates of soda. Barilla is prepared by burning sea-weed and the plants that grow in the marine lagoons or salt-water lakes of most of the seaboads of South-Eastern Asia. In the Archipelago, quantities are produced by the settled populations or by migratory fishing races, and it is largely brought to India from the Persian Gulf. In India, barilla is obtained from Salicornia Arabica, W., of Sunderbun and the Coromandel coast, and from S. Indica, W., of Malabar. The genus Mesembryanthemum is rich in alkaline carbonates, and the plants from which the sea-shore. Dr. Roxburgh was of opinion that the two species of Salicornia and one of Salsola, which are extremely abundant on the Coromandel coast, might be made to yield barilla sufficient to make soap and glass for the whole world. There are now more economical processes for procuring this substance from dhobi's earth (native carbonate of soda), and from sea salt. But Dr. Helenus Scott received the gold medal of the Society of Arts, for sending from Bombay the mineral alkali, the Saji Matti of Bengal, the Appelacram of the Tamil people, which occurs in immense quantities in many parts of Bengal, especially in the districts of Moughir, Purnea, and Cawnpur. It contains from 40 to 50 per cent. of carbonate of soda, with organic

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matters, clay, sand, and oxide of iron. The salts can be extracted by washing the mineral without incineration, but the organic matter is dissolved at the same time, and gives a deep brown solution from which pure crystals cannot be obtained. The firing destroys this substance, and then the solution is colourless; but care must be taken not to push the heat beyond low redness, for the alkali at a higher temperature combines with the sand and clay, and the whole runs into a green glass, insoluble in water. The earth of a large tract of unproductive land in the Puttocoottah and Trevandy taluqs of Tanjore is greatly impregnated with impure carbonate of soda, and a small export trade goes on of dhobi's earth. In the years 1826 to 1830, the late Mr. Hart and Dr. Macleod worked it on the large scale, and about 1000 tons of barilla, containing 25 per cent. of pure alkali, and equal to the best Spanish, was the estimated produce. In Europe, this salt is prepared either by burning sea-weeds and lixiviating the ashes, the product being termed kelp and barilla, or by decomposing common salt by sulphuric acid, and then roasting the resulting sulphate with chalk, sawdust, and fragments of iron. The mass when washed gives the carbonate of soda. The celebrated lake of Loomar produces six principal varieties of natron salts, to which the natives give the following names:—1. Dulla; 2. Numuck Dulla; 3. Khuppul; 4. Pappree; 5. Bhookeee; and 6. Mahd Kiar. Dulla and Numuck Dulla are used for dyeing silks, fixing colours,—also as medicines, and in the manufacture of bangles. Of Khuppul, there are two kinds, one of greater value than the other, and this salt is used in fixing the red dyes of cloth. Pappree is used in the manufacture of bangles, of which there are two manufactories near the lake. When these are in full operation, bangles are manufactured in large quantities, each man being able to manufacture from 600 to 700 daily. The eyesight of these men fails soon, owing to the entire want of protection from the glare of the furnaces.—Scientific Records of the Madras Government; O'Shaughnessy.

BARI-MAI. HIND. Galls of Tamarix Indica.

BARING. HIND. Myrsine Africana.

BARINA, also Bari-venka. Tel. Trophis aspera, Retz.

BARINA. Tel. Epicarpus orientalis.

BARISAL, a town in the district of Bakarganj, in Bengal, 136 miles from Calcutta, to the north of the Twenty-four Parganas. Barisal guns, a term applied to thundering noises which are heard occasionally in the delta of the Ganges and Benga.

BARJ, of Kangra; Zizyphus flexuosa, Wall.

BARJALA. Beng. Sida cordifolia, Linn.

BARJAPU CHETTU. Tel. Erythrina Indica.

BARJURI, root-bark of a climber found in Rajwara; tasteless. One-fourth of a tola is a dose; is given to women after child-birth, in 'luddoo'; said to augment the secretion of milk, to relieve the after-pains, and to strengthen.—Gen. Med. Top. BARK.

Kukster, . . . ARAB. . . . Scorzâ, . . . TR.

Pattaya, . . . CAN. . . . Kult Kaya, . . . MALAY.

Ecorce, . . . Fr. . . . Patta, . . . MALEAL.

Bauwminde; Barke, Gen. . . . Barco, Cortea, . . . SP.

Chal, Post, Patta, HIND. . . . Pattay, Patta, TAM. Tel.

The barks of trees are largely in use in medicine and the arts in all parts of the world. In the arts, the bark of the oaks, of species of Rhus, of the Acacia Arabica, of species of Eucalyptus, are largely used in tanning; and that of one of the oaks furnishes the cork of commerce. The wattle bark of Australis is largely used; in India, that of the Acacia leucophloea is employed as an ingredient in the distillation of arrack, and that of A. Arabica in tanning. Many barks of the plains of India furnish useful basts for cordage; and cloth is obtained by extracting the layers of cellular tissue which form a tubular sheath enclosing the woody parts of other plants. Species of Grewia, Hibiscus, and mulberry of the East Indies furnish these most abundantly, as also do the Eriodendron anfractuosum and the Acacia robusta, some of them being woven into cloth. The barks of species of cinchona, now introduced into India, have long been employed in medicine, as also that of Michelia champaca. See BARK.

BARK OF Kâbul, a soft fabric of camel's hair. Bark shurti, camel-hair cloth.

BARKA, a non-Aryan race of India.

BARKAL, an inferior tribe of Rajputs in Balandsahar.


BARKHAN, a district of Baluchistan, occupied by the Khidrani.

BARKHAUST. PERS. The breaking up of an assembly; the departing of a visitor.

BARKHAUSiÄ REPENS. Smith.

Hu-hwang-lien, . . . CHIN. . . . Ko-ku-ku-tseh, . . . CHIN.

A plant of Kan-suh and Shen-si, in China; root used as an astringent.—Smith, p. 33.

BARKING DÉER of Nepal, Cervulus moschatus.

BARKUK. PERS. Armeniaca vulgaris.

BARLAAM and Josaphat, a story supposed to have been written by Joannes Damascenus to give a simple exposition of the principal doctrines of the Christian religion, and a disquisition on the merits of the principal religions of the world.—Chaldean, Egyptian, Greek, Jewish, and the Christian. It is a novel, and the story was taken from the Lalita Vistara, the legendary life of Buddha. Barisal drives in is the four drives of Buddha, so famous in Buddhist history. The pillars or towers raised to commemorate these drives were still standing at Fataliputra at the times of Fa Hian's and Hiwen Thsang's visits to India. The story became a most popular book during the middle ages. In the east it was translated into Syriac, Arabic, Ethiopic, Armenian, and Hebrew; in the west it exists in Latin, French, Italian, German, English, Spanish, Bohemian, and Polish. As early as 1204, a king of Norway translated it into Icelandic; and at a later time it was translated by a Jesuit missionary into Tagala, the classical language of the Philippine Islands. In the Eastern and Western Churches, Baralam and Josaphat have both risen to be saints; in the
BARLERA.

Eastern Church the 26th of August is the saints' day of Barlaam and Josaphat, and in the Roman Martyrology the 27th November is assigned to them.—Max Müller, Chips, iv. p. 186.

BARLERA, a genus of plants of the natural order Acanthaceae. The following species occur in the East Indies—bispinosa, ciliata, cerulina, cristata, cuspidata, Courtallia, dichotoma, Hochstetteri, polytrichaa, longifolia, prionites, nitida, obovata, hirsuta. Some of these are cultivated as flowering plants. B. Roxburghii grows in the northern parts of Bengal. B. dichotoma is the sada jati of Bengal.

Barleri cerulina, Roxb. iii. 30.

Barleri cristata, Linn.

Barleri longifolia, Linn.

Barleri prionites, Linn.

BARMECIDES.


Barleri prionites, Linn.

Kantcha-jati, Beng. Mulu-gomanta, Tel.

Koletta vitia, Hind. Neermooli vayr, Tam.

Kuruntaka, Sansk. Paicheha mulu-gor.

Shem muli, Tam. auto.

One of the most common and at the same time most elegant of the small shrubby plants of India. It is in flower all the year round, and every soil and situation seem to suit it. The juice of the leaf is slightly bitter, and rather pleasant to the taste, and is a favourite medicine of the Tamil practitioners. It is found in those catarchial complaints of children which are accompanied with fever and much viscid phlegm; it is generally administered in a little honey, or sugar and water.—Ainslie.

BARLEY.


Barley is largely cultivated in Europe, Asia, Africa, and America; but there are several species, viz. H. coelestis, distichum, hexastichum, jubatum, maritinum, muginum, and vulgarum, some one or other of which is preferred in different localities. It is extensively grown in the north of India, occasionally on the Neelgherry mountains, and in the hill regions in the south. Two kinds are grown in Oudh on light soils, and not irrigated. The kind called Jan is grown everywhere; the other, called Dasawri, is grown on the banks of rivers. It is there sown in October, soils for 2 or 2½ maunds for 1 reepee, and in Gujerat was for many years one of the cheapest grains. In the Punjab, in the Sutlej valley, Hordeum coeleste and H. hexastichum are grown at an elevation of 15,000 feet, the headdress variety of H. coeleste being most esteemed. Barley constitutes one of the Burmese seven kinds of saka or cereal grasses. Hordeum distichum, or two-cared barley, is that commonly cultivated in Britain. As met with in commerce, the seeds or grains are usually enclosed in the pale or husks; denuded of these they form 'Scotch or pot barley.' When produced they constitute 'pearl barley'; and this again reduced to powder is called 'patent barley.' In 100 parts the following were found in Bombay bazar barley, unhusked.—Moisture, 8.00 per cent.; Nitrogenous matter, 10.94 per cent.; starchy matter, 77.14 per cent.; fatty or oily matter, 1.65 per cent.; mineral constituents (ash), 2.27 per cent.

The best test of barley is its fitness for malt; and breweries now exist in full working order at Murree, Kussowli, Simla, Naini Tal, and also in the Neelgheries. The native indigenous barley of the Neelgheries is unfit for making malt, and it yields only ten bushels per acre; whereas the English seed barley yielded on the Neelgheries thirty-five bushels per acre. The barley of Afghanistan has always been remarkable for its fine quality, being rich in flour, a good protein, and bone-forming elements, as proved by the strength, bone, and muscle of the Afghan horse, galloway, and powerful ponies or yabies. Tibet barley sold from India to Scotland was not considered worth the trouble and expense of culture. One hundred pounds of good barley judiciously malted will yield 8 lbs. of malt. The bushel of malt weighs 35 lbs.; and the distiller of pure malt whisky calculates on obtaining 2 gallons of proof spirits from 1 bushel of malt in average years. Hence a block of Indian compressed malt, weighing 105 lbs., represents 6 gallons of proof whisky.—Hassall; Mason's Tenasserim; M'Cutcheon; Cleg-ior's Punjab Report.

BARLEY SPROUTS.

Meh-ya, Chin. Meh-meh, Chin.

BARLOW, Sir GEORGE, Baronnet, a Bengal civilian, succeeded Lord Cornwallis as Governor-General, from the 10th October 1805 to the 31st July 1807. He was afterwards Governor of Madras, and during his administration the officers of the Madras army mutinied. He wrote Ten Tracts on his Government in India.

BARMAB, Chinas. Taxis baccata.

BARMECIDES. The Beni Barmek, an old noble Persian family, who, before they embraced Mahomedanism, had been the custodians of the sacred fire. Khalid-ibn-Barmek became vizier to Ibn-us-Safah, the first of the Abbasie khalifs, and his son Yahya succeeded him in that office. His grandson Jafar was the constant companion of Harun-ur-Rashid. The vices of this family were very great, even in oriental life. They were Dehguna or heiros of the land. Jafar was the constant companion of Harun-ur-Rashid, abroad in all Harun's nightly walks, and at home along with Abu Nawaz the jester-poet, and Masrur the black headman. Jafar was distinguished for his eloquence, his gentleness, his generosity, and high intellectual attainments. Harun gave his sister Maintanah to Jafar as a wife, under a promise of continuance, which was not kept, and Arzu, a slave of Rashid's wife Zobaidah, told Rashid that children were born. How Jafar fell is variously related, but all the stories show that Harun's jealousy of Jafar's power induced him to assassinate his friend. Harun slew Arzu; ordered Masrur to bring masons in the evening, then slew his sister, buried her in her own rooms, and ordered Masrur to kill
and put the masons in sacks, and throw them into the Tigris. On Thursday, when Jafar waited on Rashid he was graciously received, and allowed to return home; but Masur was sent to recall him, to take him into a tent and behead him. Jafar seeing the object of it, pleaded with Masur, and induced him to go for fresh instructions, but finding Rashid determined, Masur returned and beheaded Jafar while praying, and flung the bleeding head at Rashid's feet. Rashid wept sorely, but he sent to Medina for the two sons of Jafar and Ma'mnunah, wept over but killed them too, and buried them in a pit with the box with their mother's remains. Yahya, Jafar's father, and Al-Fadhl, Jafar's brother, were imprisoned, all their property was confiscated, and more than a thousand of the Barracides were slain.

BARHOTAR. Hind. A free grant given to Brahmans for religious purposes. Barhpajia, land given to Hindu priests, resumable at will.


Barnacles belong to the generic lepas, otion, balanus, and scalpellum.

Barak, an opprobrious name given by the Turks to their Christian converts. The word is derived from Burmak, to twist, to turn. —Burton's Mecca, i. p. 33.


Baroda, a city in lat. 22° 17' 30" N. and long. 73° 16' E., is the capital of the territory of the Gaekwar, to which it gives its name, and includes all the parts in Gujarat belonging to the family. The area is 4939 square miles, and its population is 2,000,223: 91-27 per cent. being Hindus, with 46,544 Srawak or Jains, 8/3 per cent. Mahomedans, and the Parsees are 7283. Other races are Bhutela Brahmans, Kumhi, Rajput, Koli, Bhi, Bhat, and Charan. Its lands are much intermixed with British territory. The principal rivers are the Saraswati, Sabarmati Mahi, Nerbadda. The ancient name of Baroda is Chandanavati, having been, it is said, founded by Chandu, rajah of the Dor tribe of Rajputs, not unknown to legendary lore. But, like all ancient cities of India, it has borne various names. Chandanavati, 'the City of Sandal-wood,' was changed to Viravati, or 'Abode of Warriors;' and again to Barpotra, or 'Leaf of the Bar,' perhaps from some fancied resemblance in its circumvallation to the shape of the leaf of the sacred banyan tree. From this the transition to Baroda was simple, and the Gaekwars seem inclined to let it rest under its present designation. This family sprung, in 1720, from Damaji Gaekwar, Sirdar Bahadur. He was an officer under Khandi Rao Holkar. The family title is Sena Khas Khel Shamsher Bahadur. The population of the Baroda city is 112,057. —Todd's Travels, p. 245.

Baroli, in Central India, not far from the falls of the Chambal, has three Hindu temples, one with a pillared porch. It has also a chori, or nuptial hall, in which a Huna (Hun) was married to a Rajputni. —Ferguson, iv. p. 50.

Baros, Tapas, and Singkel are three Dutch settlements on the north-west coast of Sumatra, south of Aceh. Baros is a place of some trade, in lat. 1° 56' N. Its principal exports are camphor and benzoin. Baros camphor is much prized by the Chinese.

Barothi, a tribe of Ahirs in Mysnuri.

BAROZA or ganda barosa, the oleo-resin exuding from the 'chili,' or Pinus longifolia.

Barozhi, residents in the town of Koork in Sibi, a semi-circular bay, 25 miles across, in the hills N.E. of Dadur, and irrigated by canals from the Narra river.


Bar Pushutun, the upper, higher, or western Afghans dwelling west of the Khabar pass.

Barpyal. Hind. of Sealkote. Land left for a year after an exhausting crop.

Barqandaz or Burkandaz, Hind. Pers., from Barq and andalz, literally lightening-thrower. An armed policeman, a matchlockman, a peon armed or unarmed.

Barra. Hind. A rope used on the Banta Chaudas day, the 14th of the Kooro Sadi. —Elk.


Barrackpur, a civil and military station in the Twenty-four Parganas of Bengal, in lat. 22° 45' 40', long. 88° 28' 52', on the left bank of the river Hugli, 14 miles by rail from Calcutta. It has a residence for the Viceroy. Lord Auckland, when Governor-General, endowed a native school at this place. Its population, 5951. The natives call it Chanka, after Job Charnock, who founded Calcutta. In 1824, the 47th B.N.I., when ordered for Burma, mutinied here; and in 1857, 29th March, the sepoys of the 34th Bengal N.I. openly mutinied.

Barracks for soldiers in India are built of stone or brick, and those of Burma and Singapore are of wood, raised on piles above the ground. Barracks generally had, from the first, been ground-storeyed, but latterly the principle has been adopted of building them of two storeys, with verandahs, and using the lower storeys for day purposes.

Barrada or Baradi, the Chrysorrhoea or 'Golden Stream' of the ancient geographer, is the river of Damascas. As soon as it issues from the cleft in the mountains, it is immediately divided into three smaller courses. The largest, which is the middle one, runs directly to the city, and is there distributed to the different public fountains, baths, and cisterns; whilst the other two, branching off right and left, contribute mainly to the luxuriant vegetation which adorns the environs. South-east of the city their scattered waters unite again into one channel, and, after flowing towards the eastern hills for two or three hours, are finally lost in a marsh, which, from one side view, appears like a lake. —Robinson's Travels, p. 115.

Barrage, a great dam constructed at the point of the delta of the Nile, near Cairo, with the object of distributing the waters of that river throughout Lower Egypt. It was a conception of Mahomed Ali, and was executed by a French engineer, and has proved one of the most successful forms of artificial irrigation. It has raised the waters of the Nile by 154 to 21 feet, and has irrigated 100,000 acres of Lower Egypt. There was in 1863 a heavy rise in the Nile, under which several parts of the Barrage gave way; but these were repaired, and the Barrage strengthened, and it resisted a heavier rise which occurred in 1866. —C. Millet, p. 23.


Barral. Hind. Himalayan sheep, the Ovis
ammon; the wild snow sheep of Kamaon and Garhwal. See Capra; Ovis.

BARRANKI. Tel. Trophi aspera, Retz.

BARRE. Hind. Safflower seed.

BARRIEN ISLAND, in lat. 12° 16' N., long. 93° 54' E., in the Bay of Bengal. It is a volcano of small extent, and covered with trees, except near the crater. It is a conspicuous object, and white scoriae are always visible, and sometimes smoke is to be seen. The cone is 975 feet above the sea level. The diameter of the island is 2970 yards, or 1¼ mile.

BARRIER REEF is a term usually applied to the vast reef which fronds the N.E. shore of Australia, also to that on the W. coast of New Caledonia; but the same kind of reef occurs off Tahiti, in the Society Archipelago and Caroline Archipelago. The great barrier reef, which runs north and south, at a distance of 7 to 18 miles, from the Queensland coast, is submered in parts generally to a shallow depth, with here and there a sandbank or island with vegetation, or a channel open to the sea. The water within the barrier reef is everywhere studded with islands, islets, coral banks, and hidden reefs. The Australian reef extends, with a few interruptions, for about 1100 miles, at from 20 to 90 miles distant from the land. The enclosed sea is from 10 to 60 fathoms deep, with a sandy bottom.

The barrier reef on the W. coast of New Caledonia is 400 miles long, and for many leagues seldom approaches within 8 miles of the shore. A barrier reef 33 miles long lies about two miles off the northern shore of Rossell Island.—Darwin; Moreby, p. 3.

BARRINGTONIA ACUTANGULA. Gartn.

Stravadium rubrum, D.C. | Eugenia racemosa, Linn.
Mesoroccus coccineus, Lour. | "acutangula, Linn.

St. coccineum, D.C. | BENG. Sjeria Samstravadi, MAL.
Hijjul | Tiwur, BOMBAY. Eila-middella-gas, SINGH.
Kyai-tha, BURM. Kadami, TAM.
Samandar Phal, HIND. Kanapa, Kanagi, BENG.

This large, handsome tree, with dark, scarlet-coloured flowers, belongs to the natural order Myrtaceae. In appearance it is like a well-shaped, regular, middle-sized oak; it flowers about the beginning of the wet season. It is met with in the hotter parts of Ceylon, up to no great elevation. It grows in Saharanpur, the Morung hills, Bengal, Chittagong, in both the peninsula of India, and is plentiful in the Tharawaddy district. The wood is of a red colour, hard, of a fine grain, used in constructing carts, and equivalent to mahogany, but tough to work, and short-grained. Dr. Massey says the tree is very abundant in the Tenasserim forests, of which it is a great ornament.

The seeds are used in native medicine.—Drs. Royle, Voigt; Roxb.; Th. Zeyl. ii. p. 119.

BARRINGTONIA RACEMOSA. Roxb.

Butonica sylvestris alba, R.; | Eugenia racemosa, L.
Samandra pana maram, MAL. | Deyamidella, SINGH.
Samstravadi, | Samandra pallam, TAM.

This stout timber tree is a native of Ceylon, where it grows in the warm, moist parts of the island up to an elevation of 1500 feet, also in the Moluccas, Penang, the delta of the Ganges, and Malabar. Its root is slightly bitter, and is considered by the Hindus to be aperient, cooling, and febrifuge.—Flora Andrica; Voigt; Thwaites; Roxburgh.

BARRINGTONIA SPECIOSA. Linn.

Butonica speciosa, Lam. | Maurnea Aristacea, L.

Kayai gye, BUM.

This large beautiful tree is a native of Ceylon, on the sea-shore between Galle and Matura; of the Tharawaddy districts of the Pegu forests, the Tenasserim Provinces, the Malay Archipelago, Singapore, the Moluccas, and the South Sea Islands. It is very plentiful in Pegu. Its wood is red, hard, of a fine grain, and equivalent to mahogany, and used in making carts. Aiming says its seeds are employed in Java for intoxicating fish.—Drs. O'Sh., M'Cull., Roxb., Voigt.

BARI TUKAR. HIND. Cajanus Indicus.

BARROW, a monumental heap erected as a grave mound over the dead of the Celtic and Scytheic races. The Romans styled this a tumulus. But it is not known that any such have been found south of the mountain range that runs from the Caspian sea to China. Raised to a considerable height, the barrow was a noble, and has been the most enduring, sepulchral monument. In such the remains of the departed were placed on the surface of the ground, and the earth heaped up. The Scriptures tell us that the body of the king of Ai, slain by Joshua, was placed at the entrance of the city, and over it was raised a great heap of stones. Herodotus mentions the barrow of Alyattes, king of Lydia, which has been identified by modern travellers. It was 1300 feet broad, and nearly a mile in circumference. Burial-places, surrounded by circles of stones, are found in the Nappur province, in the Nizam's territories, in the Coimbatore, Madura, and Neillgherry districts, in the hilly country of Chuttia Nappur, and in many places in great numbers. Those opened near Kanuppe contained iron implements, with broken pieces of pottery. The stones of those of Europe and India, have similar cup marks.—North American Review.

BARROW, JOHN, author of Travels in China. BARSANGA. BENG. Bergera Konigii, Linn.

BARSAT, HIND., PECS. Rain, rainy season. Barsati, scrofulous sores which break out on horses in the rainy season.

BART. HIND. of Kaghan. Prunus padus.

BARTAKOO. BENG. Solanum melongena.

BARTAM. MALAY. Eugenia sonniana, Griffith. A palm growing on the hills about Ching, Malacca, and Penang, used in Penang in making mats for the sides of houses, also for thatch, and for all the purposes to which those of the Nipa frutescens are applied.

BARTANG. HIND. Plantago major.

BARTH. HIND. A kind of alloyed metal.

BARTHI or BART, a Hindu fast-day, during which certain grains and pulses, called phalasa, are lawful food.

BARTHHEMA. Ludovic Bartheuma (Vartona), a native of Bologna who travelled in the east. He began his travels and visited Mecca in A.D. 1503, and in 1506 he visited Malacca.

BARTHOLOMEW DIAS had a squadron fitted out for him by John II. of Portugal, and, setting sail in August 1486, was the first who rounded that famous cape to which, from the storms he encountered, he gave the name of Cabo dos Tornementos, or Cabo Tornementosa.—India in the 15th Century. See Dias.

BARIHUA. HIND. Hymenodictyon excelsa.

BARTOLOMEO. Fra Paolo da San Bartolomeo, born at Hof, in Austria, A.D. 1748, a bare
footed Carmelite, a member of the Academy of Velitti, and Professor of Oriental Languages in the Propaganda at Rome. He resided in different parts of the East Indies between 1776 and 1789, and wrote his Voyage to the East Indies, with an Account of the Manners, Customs, etc. of the Natives, and a Geographical Description of the Country, which was printed at Rome in 1796, a German edition at Berlin in 1798, and in London, by W. Johnston, in English in 1800. His name prior to embracing a monastic life was John Philip Wesdin. He published a Sanskrit Grammar at Rome in 1794. His travels were chiefly along the Coromandel coast.

BARNDI, Mahi, Morinda citrifolia.

BARTONDI, also called Daron. HIND. Gunpowder.

BARZHA, HIND. A rare plant, belonging to the family of Solanaceae, having white flowers, and a sweet odour.

BARTHARI, the author of a metrical Sanskrit grammar. His aphorisms are entitled Karika.

BARTUNG, seed of a bush, brought to Amur from Delhi, considered cooling and astrin- gent, used in sherbets in diarrhoea.—*Med. Top.*

BARU. MALAY. Kawal, JAVAN. A gossamer-like substance, found at the base of the petals of the gomuti palm, the Arenga saccharifera. It is imported into China, where it is applied like oakum for caulking, also for tinder.

BASANTI, king of Persia, contemporary of the emperor Justinian. He translated into Pehlevi the Pan- chatantra or Hitopadesa, the source of the Kalila o Dunma. He travelled to India, got the book, and also brought back translations of medical books. He declined all rewards except a dress of honour, and only stipulated that an account of his life and opinions should be added to the book. The account is a kind of 'religio medici' of the 6th century, and shows us a soul dissatisfied with traditions and formularies, striving after truth. Fardusi, in his Shah Namah, gives a somewhat different account of Barzuyeh. In a preface of later date by Ali, son of Alshah Faresi, the names of Bidziz and Namahelshin are mentioned.—*Chips, iii. and iv.* p. 168.

BAS. HIND. A perfume, or a disagreeable odour. Basi, smelling, putrid, stale. Badbas, bad smell.

BASAAL. MALEAL. Embelia baseal, D. C.

BASALT, a rock of the older volcanic series, of a black colour, and homogeneous in appearance, containing 91-2 per cent. of silica, alumina, and oxide of iron. It occurs, columnar, in several parts of British India, in the great volcanic tract of the Dekhan, at the hill fort of Gawilghur, and on the banks of the Nerbudda. That vast volcanic formation extends over more than 200,000 square miles, and contains, breaks up, or alters all the other rocks from beneath which it has forced its way. South of the Godavery, basaltic dykes burnt through granite, argente, porphyry, gneiss, hornblende-slate, generally with an east and west direction.—*Colonel Sykes; Carter's Geol.; Western India.*

BASANT or Basanta. HIND. The spring-time. The Suevi, or Suiones, erected a celebrated temple at Upsala, in which they placed the statues of Thor, Woden, and Friya, the triple divinity of the Scandinavian Asi, the Tri-urnti of the Solar and Lunar races. Thor, the thunderer, or god of war, is the analogue of Har, or Mahadeva, the de- stroyer; Woden is Buddha, the preserver; and Friya is Oonnia, the creative power. The grand festival to Friya was in spring, when all nature revived; then boars were offered to her by the Scandi- navians, and boars of paste were made and eaten by the penansary. Similarly, Vasanti, or spring personified, the consort of Har, is still worshipped by the Rajput, who opens the season with a grand hunt, led by the prince and his vassal chiefs, when they chase, slay, and eat the boar. Personal danger is disregarded on this day, as want of success is ominous that the Great Mother will refuse all petitions throughout the year. In Tamil countries, on the day that the sun enters Aries, bands of twelve young women, of the non-Hindu races, persecute the streets. They have a basket of shavings which they surround, and bending low they circumambulate, clapping their hands and singing; in this they represent the twelve signs of the zodiac, with the sun in the centre.—*Tod.*

BASANTI. HIND. A bright, pale lemon-yellow colour, the favourite colour of Krishna; also the yellow garment worn by Hindu religious mendicants, also by Rajputs when about to sacrifice themselves in a hopeless conflict. This forlorn hope is termed the jathar.

Basant-mail Surkh, yellow colour with crimson tint. Basanti-Panchmi, a Hindu seasonal festival.
about the 9th February, in honour of Basanth, the spring, in Hindu mythology personified, and
an attendant of Kama, the god of love. The
basanth or spring songs, and the megh or cloud
songs of the monsoon, are full of melody. A spring
festival is observed at Lucknow. See Vassanth.

BASED. HIND. Goods, property. Basati,
pedlar’s wares, pins, looking-glasses, antimony,
pumice boxes, etc.

BA-SAUH. Tin. A cross between a bull and
a yak cow.

BASEVA. In the south-west of the Peninsula,
about the 12th century, there sprang up a new
saiva sect, between whom and the followers of
Ramanuja a religious war was carried on, during
which the raja of Kalyan was killed, and his
capital destroyed. The founder of the new sect
was Basava, son of a saiva Brahman. While yet
a boy, he refused to assume the sacred thread,
because the initiatory rites required adoration of
the sun; and in A.D. 1135 he fled from his home,
accompanied by his sister, to Kalyan, the capital
of Karnatika, whose ruler was of the Jaina reli-


gion. Here he joined his maternal uncle, a
Brahman, and the raja’s minister, who gave him
employment, also gave him his daughter in mar-
riage, and Basava became prime minister on his
uncle’s death. He had great influence over his
king, to whom he is said to have lent his sister.
He spared no efforts to extend the views of his
sect, and the bulk of the people from north of
Kalyan to Mysore adhered to him. But King
Bajal opposed the movement, and was assassinated
by two fanatics, on which the Kalyan kingdom
closed. The views put forward by Basava were
to change the worship of Siva. The linga, as
an emblem of Siva, was always to be worn on
the person, and called Jangama Linga, or loco-
motive linga, or living linga, in contradistinc-
tion to the linga erected in the Saiva temples,
called Shavara Linga, or the stationary linga.
Basava inculcated the doctrine of the equality of all
men; that the distinctions of castes were brahmanal
institutions; that man is the living temple of the
deity; that women should be protected, and per-
mitted to teach their doctrines, unchasteness alone
causing her to forfeit her claims to respect. Basava
is said to have disappeared at a Saiva lingam
temple, at the Kapila confluence of the Kistna
and Malparba, but his sister’s son, Chinn Basava,
extended the sect. His followers are known as the
Jangam sect, also Lingaet, Lingadhara, Linga-
want, and Linghamat. They are Vira-Saiva
Hindus, holding the doctrine of the Aradhyas
Brahmans, and carry the lingam enclosed in a
gold or silver casket suspended from the neck,
or bound round their arms, folded in a cloth or
handkerchief. Nearly all the Hindus speaking
Canarese are of this sect, and their numbers may
be estimated at about 6,000,000. They are almost
exclusively engaged in civil vocations, and are
rigid vegetarians. They are perhaps the most
bigoted of all the Hindu sects. In their early
career they persecuted the Jaina sect. — Dowson;
Garrett.

BASAVA, the name of Nandi, the sacred
Vahan bull of Siva, in Canarese.

BASAVI. TEL. The Murli of the Mahrratras;
Deva-Dass women devoted to the gods in the
Hindu temples. The Basavi women are usually
devoted to the god Siva, and become prostitutes.

But they are also called Linga Basavi, or Garudu
Basavi, according as they are devoted to one or
other deity. They are called also Jogni, also Murli,
and are married sometimes to a knife, sometimes
to an idol. In many parts of the south of India, the
low non-Aryan castes thus devote their young
women, in order that they may follow prostitution
openly, under the cloak of a religious rite, and
they are very numerous in the Canarese, Maharati,
and Telugu countries. It is not easy to trace the
origin of this custom; but in the Myletta festivals,
which were connected with the worship of Basal
or Moloch, the women, as slaves to the goddess,
were obliged to purchase exemption from being
sacrificed, by prostitution. Almost all the Jewish
prophets down to Jeremiah complain that this
service was carried on in the high places by the
Murli.

BASDEO, a kinsman of Krishna.

BASELLA ALBA. Linn. White basil.

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BASELLA ALBA. Linn. White basil.
it, as far east as the confines of Kunwar. The valley of the Sutlej, in the western part of Basha-
hir, from Rampur downwards, has an elevation of little more than 3000 feet, Rampur, 140 feet
above the bed of the river, being 3400 feet above the level of the sea. The river at the height of
the rains is an impetuous torrent of great size.—

BASMA.

BASOTI. Turk. A commander, Minbashi of 1000, Oobashi of 10, and Yuzbashi of 100 horse-
men. Bashli-bazook, irregular cavalry, called Hyta along the valley of the Tigris and at Mosul,
and Bashi-bazook in Roumelia and Anatolia. They are collected from all classes and provinces.
The Hyta-bashi, or chief of the Hyta, is furnished with tazkara orders for pay and provisions for
from four or five hundred to a thousand or more horsemen. They find their own arms and horses,
although sometimes they are furnished by the Hyta-Bashi, who deducts a part of their pay until
he reimburses himself. The best Hyta are Arba-

BASHAN.

mian, Malay. The Malay is the ancient province, and has probably been the seat of many
small, numerous tribes. It has no precise geographical limits, and the inhabitants are

BASHAN of Scripture, the modern Hauran.

BA-SHARRA. ARAB. HIND. According to law, a sect of fakirs.

BASHI. Turk. A commander, Minbashi of 1000, Oobashi of 10, and Yuzbashi of 100 horse-
men. Bashli-bazook, irregular cavalry, called Hyta along the valley of the Tigris and at Mosul,
and Bashi-bazook in Roumelia and Anatolia. They are collected from all classes and provinces.
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from four or five hundred to a thousand or more horsemen. They find their own arms and horses,
although sometimes they are furnished by the Hyta-Bashi, who deducts a part of their pay until
he reimburses himself. The best Hyta are Alba-

BASKANOS OPITHALMOS. Gr. Evil eye.

BASKETS.

Tavon; Teng; BURM. Kuta.; MALAY. Tokra.; HIND. Canasta.; PORT. Bakul; Kranjang;

BASPA.

Ambung.; MALAY. Kede.; TAMB. Raga; Bronong; 

Gampa; TEL.

In use in most countries, made of various shapes, and from such materials as the district can furnish,
—bamboo, rattans or canes, leaves, and midribis of the coconut, the date palm, and the palmry

BASKING SHARK. Selacera maxima.

BASIL. ARAB. Allium cepa; an onion.

BASMA. HIND. Indigofera tinctoria.

BAS-MATTI. HIND. The finest quality of rice;

BASPA RIVER.

the name to mean in one Hind. words,—bas,

BASMA. HIND. Agati grandiflora.

BASOKA. Beng. Adhatoda vasica.

BASOTI. HIND. Colebrookia oppositifolia.

BASPA RIVER, an impetuous stream, a feeder of the Ganges. It runs in a beautiful valley. The
climate is intermediate between the dry one of Spiti and the moist one of Garhwal.—Cleg. Panj.
BASSAII.

BASSRAH, or Bassora, in lat. 30° 30' N., long. 47° 33' E., a town in the province of Baghdad, on the right bank of the Shatt-ul-Arab. It has about 12,000 inhabitants. It is built on a canal, about 14 miles from the river. The banks are fringed with walnut, apple, mulberry, apricot trees. It is called by the Arabs Al-Sura, from Be-al-Sura, signifying the stone on which it is built. Khaliif Omar, in a.H. 15, wishing to combine the commerce of India, Persia, and Arabia, and secure that of Sind and Gujerat, laid the foundation of this place near to the confluence of the Euphrates and Tigris. The united stream, called the Shatt-ul-Arab, empties itself at the distance of 80 miles into the Persian Gulf, and commands the navigation of the surrounding countries with the coast of India. The site of Bassrah is low, and from this circumstance is much subject to inundation when the river overflows its banks. Caravans of Persia and Arabia, and merchants from all nations, resorted here for the sake of traffic.—Greeks, Jews, Armenians, Banyans, and Moors.

BASSAD. Arab. Coral.

BASSADORE POINT is the N.W. extremity of Kishm, in lat. 26° 39' N., long. 55° 22' E. It was once a flourishing settlement of the Portuguese. It was made the headquarters of the Indian Naval Squadron in the Persian Gulf in 1824, and continued so until 1864, when that service was abolished.—McGregor, iv. p. 67.

BASSANA. Hind. Agati grandiflora.

BASSANT DENDIU of Beus. Hypericum perforatum, L.

BASSAR. Hind. of Kanawar and along the Satlej. Capparis spinosa; European eaper.

BASSARI MARA. Can. Ficus infectoria.

BASSEIN, a town on the banks of the western branch in the Irawadi delta, in lat. 16° 46' N., and long. 94° 48' 10" E. It names one of the revenue districts of British Burma, with an area of 6517 square miles, pop. 322,689 souls. The Bassein creek is subject to the bore; the creek joins the Rangoon and China Buckne rivers.

BASSEIN (properly Wasi), a town and port in India, in long. 72° 51' 20" E., lat. 19° 20' 20" N. The mouth of the river is in lat. 19° 18' N., long. 72° 49' E. Bassein is an ancient and now desolate city, 30 miles from Bombay, on the Gora Bunder river. The old fort of Bassein was built by the Portuguese in the early part of the 16th century; it was taken after a protracted siege by the Maharrats in 1739, and by them utterly devastated. In 1780 it was captured by General Goddard, but in 1782 restored; and in 1818, on the defeat of Baji Rao, it was again resumed. Pop. 3356.

BASSES. The Great Basses, called Kaman-Paz by the natives of India, is the name of a ledge of silicious limestone rocks, nearly a mile in extent, elevated a few feet above water, on which the sea breaks very high in bad weather. According to native tradition, a mangoda of brass was formerly erected thereon; but at present only a long flat rock appears, which is completely covered when the surge runs high. This dangerous ledge is about 9 miles from the shore, in lat. 6° 10' 5" N., long. 81° 28' E. There is a safe channel between it and the main, with about 7 to 14 fathoms. The Little Basses are in lat. 6° 24' 4" N., long. 81° 54' E., and 21 miles N.E. 1/2 E. from the Great Basses. They consist of a ledge of rocks a little above water, with others contiguous, and struggling rocks projecting under water a great way from the dry ledge. It is distant from the shore 6 or 7 miles; the channel inside the Little Basses is not safe for large ships. The Basses are believed to be the remains of the great island of Giri, swallowed up by the sea (Mahanawso, ch. i. p. 4). They may possibly be the Basse of Tolyenia's map of Taprobane.—Hors.; Tenanit. Ceylon, p. 309.

BASSIA, a genus of plants of the natural order Sapotaeeae. B. Parkii, Dow, is an African tree; Bl. of the Mauritiuss; and B. cuneata, Bl. of a tree of Java. —Dr. Marn.

BASSIA BUTYRAGEA. Rooh, Butter tree. Falwa; Phalawara, Hind. Yel-pote, Euphor.

This tree has smallish white flowers, grows on the Almora hills, in Nepal, and also in the lower hills and warm valleys of eastern Kamaon. Extreme height 30 feet, with large unbranched foliage. Timber light and unessential. Its fruit is eaten by some. The product that has commercial value is the solid oil which is expressed from the kernels,—a beautiful white, solid fat. The kernels are bruised into the consistence of cream, put into a cloth bag, and a stone put on the top to express the oil, which immediately hardens, and is of a delicate white colour, but melts at a temperature above 120° Fahr. It is used as a lubricant in rheumatism. It keeps for months. In Kohilkhand sugar is obtained from this tree.—Rooh.; O'Sha: Royale, H. H. Bot.; Exh., 1862; Voigt; Hooker, Hinn. Journ. See Shea Butter; Vegetable Butter.


Pachonta, ... Can. Pausenthula Pala, ... Tam.

A majestic tree, 100 feet high, and up to 12 feet in girth, common in the mountain shola of the Western Ghats of Madras, up to 3000 or 4000 feet. The timber is hard, not unlike sal in its grain, and takes a good polish. It is much employed by planters for building purposes, and might be used for furniture. A sort of gutta exudes from the trunk, which is known as pala gum, or Indian gutta-percha. It might be used as a bird-line, or for encasing telegraph wires.—Cleghorn's Foresta; Beddome, Fl. Syl., p. 43.

BASSIA GRANDIS. Thw.

Ionandra grandis, Thw. Meeris, ... Singh.

A very large tree in Ceylon, Central Provinces, and Saffragram district, at an elevation of 36,000 feet. The seeds yield an oil similar to that of Bassia longifolia.—Beddome, Fl. Syl., p. 254.

BASSIA LATIFOLIA. Wild. Mahwa tree. Mahula, ... Beng. Madhuka, ... Sansk.

Mahwa, ... Beng., Hind. Kasthlipe, ... Tam.

Moho, ... Marh., English, ... Tel.

Pomana, ... Marh. Lippa chatta, ... Engl.

This tree grows in the mountainous parts of the Cireacs, in Bengal, the Terai, Oudh, Gwalior, Panjab, Malwa, Nagpur, and Gujerat. It is planted near the Oudh villages in groves. The tree is common all over the Bombay jungles, both on the coast and above the ghats. It is abundant in parts of the Nurpur pargana of the Kangra district, where the two small taluks of Man derive their name from the prevalence of the tree. This tree attains a height of 50 feet and a girth of 12 feet. A cubic foot unseasoned weighs 77 to 80 lbs., and 60 lbs. when seasoned; its sp. gr. 1'056. In the Cireacs it is never felled.
by the natives, and it is also preserved in Nagpur, on account of its large flaky flowers, which are dried and eaten raw by the hill tribes, and are fermented and used in distilling mahwa arrack. The flowers in the Panjab sell at 50 seers the rupee for this purpose. The flowers are sweet-tasted. It flowers in the hot season. Jackals are particularly fond of them. They fall spontaneously as they ripen, and are gathered and dried by a few days’ exposure in the sun; when thus prepared, they much resemble a dried grape, both in taste and flavour. Either eaten raw or dressed, they afford a wholesome, strengthening food.

Mahwa oil, obtained from the kernels of the fruit, is sold at 95%, is an article of common consumption in India, and may often be met with under the names of Mowha or Yallah oil in the London market. The cost of the oil extracted is 5 rupees per maund. The proportion of oil yielded by native processes is about half the weight of the seed; it so much resembles ghee, or clarified butter, that, being cheaper, it is often mixed with that commodity, and used in victuals. It is burned in lamps, and applied externally as a remedy for wounds and all cutaneous eruptions. The timber in Nagpur is from 10 to 20 feet long, and in girth 4 or 6 feet; and attains its full size in 80 years. The character of its wood seems to vary in different localities. In the Panjab, its wood is described as of a cinnamon colour, hard, close-grained, heavy, and durable, and good for building purposes. Captain Sankey says that in Nagpur it is of a pinkish colour, and weak; while, from being invariably rotten at the heart, 4 to 6 inches square of really good sound timber is all that can be reckoned on, and it is eagerly devoured by white ants. Dr. Gibson, however, says that the wood, particularly the large logs brought from the Buria forest and Kum hill-forests, is extensively used for house and cart purposes in Gujerat, but seldom appears in the market in Bombay. Mr. Powell says that the tree gives a good and durable wood, but small; and though not abundant in the Panjab, the wood is hard and strong, and in request for navies of vessels, carriages, etc.—Rozh.; Vogt; Birdwood; Exch., 1862; Powell’s Panjab; Cleghorn’s Report.

**BASSIA LONGIFOLIA.** *Willd.* Wild sapota.

Kan-Zau, ... **BURM.** Enna Karriar maram? **TAM.** Ellupi, ... **MALEAL.** Yappa? **JPA;** Pinda, **TEL.** Mi-gass; **TEL-M.** Singh. Oodooga of. **WYNAD.** Ilupa. **ELPA,** **TAM.**

This good-sized tree attains to a height of 50 feet and 6 feet in girth. It grows in the hotter parts of Ceylon, especially in native gardens, in Coimbatore, on the Malabar coast, in the Wynad, in the Bombay forests north of the Goa border, and in plantations along the southern coast of Coromandel. The wood is ideal for Bassia furniture, but its leaves are narrow, and its flowers much more flaky. It flowers in the month of May, and the seed ripens in August and September. The oil stains linen or woollen cloth as animal oil does; the fatty substance of B. butyraea, when rubbed on cloth, leaves no trace behind. The wood is as hard and durable as teak-wood, but not so easily worked; nor is it procurable of such a length for beams and planks, except on clay ground, where it grows to a considerable height, but in such a soil does not produce so many branches, and is less fruitful than when in a sandy or mixed soil. They require little attention and watering, and being of so great use, there should be plantations of them on high and sandy grounds, where no other fruit trees will grow. A cubic foot when unseasoned weighs 70 to 75 lbs., and when seasoned 60 lbs.; sp. gr. 0.960. Mr. Rohde says that Jppli wood of the Telugu country is valued for keels of ships, and for planking below the water line. Exposed to the wind and sun in the log, it rends into strips, but it is considered a good wood for treenails, for platform carts, and for the more substantial parts of furniture, and it is comparatively free from the attacks of the Teredo navalis. In the Wynad it is an ordinary-sized tree, and its wood is much used in the construction of carts, where great strength is called for. In Ceylon its wood is said to last from 90 to 120 years, weighs 61 lbs. to the cubic foot; and is there used as keels for chonies, for bridges, and in house-building. The seeds contain about 60 per cent. of oil of a bright yellow colour; 12 lbs. of seed, in the ordinary native rude way of expressing, produce 2 gallons (English) of oil. The oil or its seed might form an important article of export. It makes excellent candles and soap. Its chief use is, however, for burning in lamps, and when fresh, as a substitute for butter in native cookery. In medicine, the oil is used externally to cure cutaneous disorders; and the leaves, milk of the green fruit, and bark, are boiled in water and used as a remedy in rheumatism.—Dr. Wight, Cleghorn, Roxb.; Thei. iii. p. 175; Beddome.

**BASSIA PARKII,** the Shea tree or Stea tree of Africa, called also the African butter plant, might be introduced into India. A solid oil is obtained from its fruits by drying them in the sun, and then boiling them in vessels in water.—V. 1784, iii. 190, 727.

**BAST.** Pers. From bāstān, to fasten, a sanctuary, a refuge. Like Kedesh of Galilee, Shechem of Samaria, and Hebron in Judea, the sanctuaries of Kumm, and the Great Mosque in particular, are famous places of refuge (or bāst, as it is termed) for all persons who have committed crimes, or fallen under the royal-displeasure. Such is the sanctity of the holy Fatima’s mosque, that the king himself dare not arrest a criminal who has there sought protection. The Persian custom of bast somewhat resembles that of the Jewish cities of refuge, the Alsatia of London, the precincts of Holyrood at Edinburgh and Westminster, etc. The custom prevailing in the East, of having places of asylum, owes its origin probably to the Mosaic law concerning the six cities of refuge. Formally the whole mahalāh, or quarter of Bībad, was reckoned bast, or sacred. The principal mosque, the stables of the king and nobles, and place of residence of the king, from 3°17’ N., long. 50°29’ E., is a ruined town in Irak-I-Ajam, in Persia, 80 miles on the road from Teheran to Isfahan. It was taken by the Afghans in 1772. The tomb of the sister of Imam Raza is there, its bars of solid silver and gates gold plated. Kum is the most celebrated of the sanctuaries of Persia, and Shias frequently fly to it for shelter.—Morier; Kininer; K. Abbott; Malcolm; Ouseley; Taylor; MacGr. iv. p. 276; De Bode’s Trav.

**BAST.** is the Sha of the Burmese, and Nar, Hind., Tam., Tel. The bast of plants is the liber or cellular tissue, consisting of tough elongated vessels.
which can often be separated and converted into fibrous material, and made useful for cordage and matting. That best known to Europe is a product of Russia, and obtained from the lime or linden tree, the Tilia Europea, and converted into mats and shoes. In the East Indies, species of gewia, of hibiscus, and of mulberry, are remarkable for this product; and the Theng-ban-sha, the Pa-tha-you-sha, the Sha-phyu, the Ngau-tsoung-sha, Sha-nee, and Eewg-ot-sha are basts of Arakan. The basts of Akyab and Burma are Heng-kyo-sha, Dam-sha, Thanot-sha, Wapeelo-sha, and Sha-yong, and others, all used in preparing cordage for boats, nets, etc.; wholesale market price, 2 rupees 8 annas per maund, and all are of the inner bark of large trees. The Sha-nee, Sha-phyu, and Theng-ban-sha of Akyab are more plentiful, and used in preparing cordage for boats, nets, etc., and wholesale market price, 1 rupee 12 annas per maund. The Guand-young-sha of Akyab is used for cables and strong nets, the whole and net price being 3 rupees 2 annas per maund; and all these fibre are much used by the inhabitants of that province.

The Glam tree bark is from the Melaleuca viridiflora, Malaysia. The Talee trap (Artocarpus, sp.) is used for fishing-nets at Hassang.

The Talee Taras is of Singapore; and there is a bast used as twine in Siam.

The bark cloth of the Malay Peninsula and Keda is manufactured by the Semang, an oriental Negro tribe; and that of the Celebes (Kaili) is made from the bark of the paper mulberry. Mr. Jaffrey, at the Madras Exhibition of 1857, exhibited a very powerful bast from the Eriodendron anfractuosum. A bast or nar from Acacia robusta, has been used for all purposes to which Russian bast is applied in gardens in Europe. The material is strong, tough, and durable, also pliable when wetted; this bast could be procured cheaply and in large quantities, as the roots, when the trees are cut down, throw up numerous young shoots to the height of from 6 to 12 feet in one year. The bark of this tree is also a powerful tan.

BASTAK, a febrile state, situated between lat. 20° 37' and 17° 40' N., and long. 80° 18' and 82° 21' E., and 170 miles east and 120 miles broad, with an area of 13,062 square miles, and 78,856 souls. The people chiefly Gond. The raja is of a very ancient family, and claims to be of the purest Rajput blood. In Bastar, the leaf-ordeal is followed by sewing up the accused in a sack, and letting him down into water waist deep; if he manage in his struggles for life to raise his head above water, he is finally adjudged to be guilty. Then comes the punishment. The extraction of the teeth is said in Bastar to be effected with the idea of preventing the witch from muttering charms; but in Kamaon the object of the operation is rather to prevent her from doing mischief under the form of a tiger, which is the Indian equivalent of the loup-garou. The people are little advanced in civilization. The Gond are the most numerous; the deities are Dantawari or Mauli, also Mata. Human sacrifices were made to the former, but since 1842 arrangements to prevent such have been adopted. The dress of the Gadwa women is very peculiar.

BASTAR. Hind. Callicarpa lausa.

BASTAR, an Anglo-Indian term employed to designate some plants and animals which have resemblance to others;

Bastard Aloe, Agave viripara.
Bastard Cedar, Cedrela tonsa; Guazuma tonentosa; Chicklassia tabularis; Symmondsia ferruginea.
Bastard Ebony, in Ceylon, is their Kadamp-Beriy, probably a species of Dalbergia.
Bastard Floriken, one of the smaller species of bastard, the genus Otis.
Bastard Mahogany, Cedrela toona.
Bastard Poon, Sterculia fistida.
Bastard Sago Palm, Caryota urens.
Bastard Teak, Chiri Toku, Tel., is a term applied to the Erythrina Indica, Lam., or 'Moochy wood,' on the Nargi hills. The Ŷándail give it to Dillery (now Wormia) bracteata, W. i. 358, and it is given also to Butea frondosa; in Bombay the Ban-Teak or Ben-Teak (literally wild teak), being the Lagerstramia microcarpa.

BASTI. Hind. A hamlet, a village, a town, from Basna, to inhabit; a Jain temple.—Elliott.
BASTINADO, the Felēk of Egypt, or ChobKhurdu, literally stiching-stick, of the Persians.
BASTIA, Hind. Callicarpa lausa.
BASU, Beng. An honorific suffix in Bengal to Kayasth families, which Anglo-Indians pronounce Bhose. See Kayasth.
BASUK, Beng. Adhatoda vasicum.
BASUNTEE, Beng. Hiptage madabolta.
BASWAPUR. See Diamond.

BAT. Fenn-fuhl, Tien-shuH, Sham Gaihal, Bar-
Fuh-Yih, .... CHIN. bhagul, .... HIND.
Crostier, Fr. Tranza, Papistrello, IT.
Fleder Maus, .... Germ. Vespertilio, LAT.
Nukteris, ..... CH. Taos Pacchi, TAM.
Angul, Othelopus, Holm. Gud, BAR.

The bat is mentioned in Lev. xi. 19, Dent. xiv. 18, Isa. ii. 20, and Baruch vii. 22, and is generally referred to as an unclean animal, or as illustrative of ungodly things. With the Chinese the bats are regarded as creatures of good omen; and they believe that by eating preparations made of the bat, the eater will acquire the long life and excellent eyesight of the animal. The fruit bats (Pteropus), or flying foxes, as they are often called, constitute a well-marked section of the bats belonging to the warmer parts of the old World. They are frugivorous, and do great damage in gardens and plantations. The families and genera of the Cheiroptera of South-Eastern Asia are arranged by naturalists as under:—

FAM. Pteropoliadae; Genus, cynopterus, pteropus.
FAM. Vampyridae; Genus, euclops, hippociderus, megadaras, rhinolophus, rhinopoma.
FAM. Nocteolobiidae; Genus, nyctinomus, taphous.
FAM. Pteropoliidae; Genus, pteropus, barbastellus, kerr- voula, lasius, murini, myotis, noctulinia nyctophilus, nictitecias, plecotus, scotophilus, vespertilio.

Some bats of Ceylon, as Rhinolophus affinis, var. rubidus, Kelvar, Hipposideros murinus, var. fulgens, Kelvar, also H. speoris, var. aureus, Kelvar, have brilliant colours,—bright yellow, deep orange, and a rich ferruginous brown inclining to red. The Pteropus Edwardsi, Geoff., is eaten by natives of India and Ceylon, and its flesh is said to resemble that of the hare.

Of nine species of bats sent by Captain Hutton from Missouri, four were European, and included in the Fauna Britannica. These were Barbarostelus communis, Gray, Myotis murinus, Geoff., M. pipigremis, Schilder, and Scotophilus serotinus, Schild. See Cheiroptera; Mammals.
BATAVIA.

Batavia, the ancient Jakatra, situated on the banks of the large river Tjil-ji-wung in Java, has always been the capital of the Dutch possessions. The islands of Java and Madura in 1880 had a population of 19,797,077 souls, 19,542,835 being indians, 10,528 Arabs, and 906,914 Chinese; and Batavia district, 941,347. Batavia town is in lat. 6° 9' S., long. 106° 51' E., 60 miles E.S.E. of the Straits of Sunda. Batavia was founded by the Dutch in 1619. It was taken by a British force from India in 1811, but restored in August 1816. It is the residence of the Governor-General of Netherland India, is defended by a citadel and a large garrison, and has an extensive marine arsenal. The bay and harbour are well adapted for commerce, and a considerable trade is carried on in pepper, rice, sugar, coffee, indigo, spices, hides, and teak-wood. The chief imports are opium and piece-goods. The anchorage is sheltered by the islands at the mouth of the bay. — J. Ind. Arch.; Bikmore, p. 56.

BATAVIA.

Shakr-kand-alu, Beng. Shankar Kanada, SANSK.
Ka-Zon, BURM. Rakt-alu, SINDH.
Ka-Zong-oo, Batata Kaka (yellow), TEL.
Thim-ba-Nyan, Vulli Kallangu, TAM.
Ghensay, CAN., Tel. Sukkarai-vulli.
Kissing Conforms, ENG. Chella gadda dampa, Tel.
Nat-ralu, Bat-lalu, NATURALIST. Chiragadam.
End-rec, Batana, Malay., Maken (var. edulis), rhiza.
Katafa Kastilla, Malay., Sukkara-veela.
Kappa kalenga, Maleal. Zardak Lahori.
Batanya, the natives are well-proportioned, of a copper colour, and medium stature. They are very ugly; their hair is black, and cut short. Their usual dress consists of a piece of cotton passed round the loins, and a peculiar-looking conical hat, surmounted with a tuft of goat's hair. In rainy weather they wear a cloak of rushes, through which the water cannot penetrate. The sole covering of the women is a piece of cotton cloth, fastened below the bosom, and reaching down to the knee. — Maryat, Ind. Archip. p. 26.

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BATHING.

BATCHIAN, a large island fronting the S.W. part of Gilolo. It is about 52 miles long by 20, and is separated from Gilolo only by a narrow strait. Oki, Batchian, and the three southern peninsulas of Gilolo, possess no true indigenous population. The Batchian Malays differ very little from those of Ternate. Their language, however, has more of the Papuan element in it, with a mixture of pure Malay, showing that they are formed from stragglers of various races. The Orang Sirani (qu. Nasrani or Suryani) are Christians of Portuguese descent, like those of Ternate. Many of these have a Portuguese physiognomy, but their skin is generally darker than that of the Portuguese. They speak Malay, with a large number of Portuguese words and idioms. A third race is the Galeas men from Gilolo; and a fourth race is a colony from Timor, in the eastern peninsula of Celebes. They have a very light complexion, open Tartar physiognomy, low stature, and a language of the Bugis type. They are an industrious agricultural people, and supply the town with vegetables. They make a good deal of bark cloth, similar to the tapi of the Polynesian. A cylinder of bark is taken off and soaked and beaten till it be as thin and as tough as parchment. It is used for wrapping up clothes; also dyed with a bark dye, and sewed into jackets. The Orang Sirani are very fond of dancing. In three hundred years they have changed their language and lost all knowledge of their nationality, but in manners and appearance they are almost pure Portuguese. Everywhere in the east, where the Portuguese have mixed with the native races, the offspring are darker in colour than either of the parent stocks. This is the case with the Orang Sirani, and with the Portuguese of Malacca. This is not the case in South America, where the Macabees, the offspring of the Portuguese and Indian, is often fairer than either race, but always fairer than the Indian. Batchian is the most eastern point in the globe inhabited by any of the quadrumana. Cycnothece nigreens, found all over the Celebes, is abundant in some parts of the forest of Batchian. Casseau ornatus, gray, the Belidens ariel, or little flying opossum, and the civet cat, Viverra zebetha, Wall., are found in Batchian. Carpodapha persicicollata is the great green pigeon. Semiportera Wallacea, gray, is a paradise bird; the general olive plumage of the male is very sober, but it has a pair of white feathers about six inches long sticking out straight from each shoulder, and the crown of the head is glossy, and pale metallic violet. Lusus garrulus, a red lory; Charmosyna placenta, little forkeet; Goeffryrea cyanically, a green bird of the parrot tribe; Excrustus azureus, a deep blue roller; Nectarina auriceps, a golden-capped sun-bird; Tanyptera Isis, racquet-tailed kingfisher. Nicobar pigeon occurs in Batchian, New Guinea, the Kaia islands, and in small islands near Macassar and Java. Batarctostomus cinerinos, a great-scooter of Batchian and Moluccas. Among insects, the Pieris aruna, a fine butterfly of a rich chromo colour. Megachile pluto, Smith, a wasp-like insect with immense jaws, like a stag beetle.

Batchian has gold, copper, and coal; hot springs and geysers occur in it. It consists of sedimentary and volcanic rocks and coralline limestone, with alluvial plains. The hills are abrupt, and mountains lofty; the climate moist, and a grand and luxuriant vegetation.—Bikmore, 299; Wallace, ii. 19, 23.

BATE, also written Beye, or Pirate's Isle, a low island of considerable size, forming the extreme northerly point of the Saumatra peninsula, in lat. 22° 24' N., and long. 99° 20' E. Even at the Greek invasion, the Sungara of Bate were daring, reckless pirates, notorious men steeped in crime, and hardened in defiance of all human law. According to the mythological hero-worship of the Hindus, it was in Bate that Krishna or Kanya acted the part of the Pythian Apollo, and redeemed the sacred books, slaying his hydra foe the Takshas, who had purloined and concealed them in one of those gigantic shells whence the island has its name.—Posters' Western India, ii. 4, 5.

BATELA or Botilla, on the Malabar coast, a coating (one-masted) sloop of 30 to 85 tons burden; the Batela of Sind is described as a flat-bottomed boat.

BATHING.

Sar Nahana, Ghussal, Hix. | St'n'anam, | Tal., Tel. | Hamaan lens, | Abi-angana, |... |... |... |... |... |... |... |...

Bathing amongst the Jews, Mahomedans, and Hindus, is a religious rite; and in Turkey, Egypt, and Persia, public baths are established in the principal cities. Mahomedans have two kinds of ablution, or lustration; the 'Ghussal,' or legal washing, is for all classes, after any kind of bodily uncleanness, such as the polluting nocturna, menses, coitus or child-birth, for until purified it is unlawful to eat, pray, touch the Koran, or go to the mosque. If the legal Ghussal be not conceded, nevertheless, before prayer, the Wazzu or washing, in a prescribed manner, of the face, hands, and feet is indispensable. It occupies two or three minutes. The Wazzu is only adopted when any minor cause of impurity, as in performing the natural functions, has occurred. Where water is not to be had, the Tycamum, or rubbing the face, legs, and hands with fine dust or dry sand, suffices. In Persia, periods are allotted for women to go to the bath. Ouseley notices that the bath-horn, Buq-i-Hamam, is sounded to announce that the city baths are heated and open for the reception of women,—this bath trumpet being sometimes a horn, sometimes a conch shell. In British India there are no warm baths, either for Hindus or Mahomedans; in the larger towns, and in club-houses, there are a few private swimming baths for Europeans. Hindus generally resort to a river-side or tank; and Mahomedans and the Christians bathe in their own enclosures.

The priests of ancient Egypt purified themselves by bathing in the morning in the waters of the Nile. The story of the Jews is described in Mark vii. 2-5, where he mentions that when the Pharisees saw some of the 'disciples eat with unwashed hands they found fault; for the Pharisees and all the Jews, except they wash their hands oft, eat not, holding the tradition of the elders. And when they come from the market, except they wash, they eat not; and many other things there be, which they have received to hold, as the washing of pots and pans, brazen vessels, and of tables.' And up to the present hour the Hindu ritual is almost identical.

The Hindu purification after child-birth is performed on the 16th day; Mahomedans adhere to the Hebrew forty days. The Hindu
BATHO.

Sth'nanam is ordinarily performed once daily, in the early morning, their evening ablution not involving the head, but from the neck. The Abhiangana Sth'nanam of the Hindus is that, generally twice a week, in which the head is anointed with oil, and corresponds to the anointing of the Jewish ceremonial, and to the Indian Mahomedan's Sar-Nahana, or head-washing, of which perhaps the initiatory head-washing rite of certain craftsmen in Great Britain is a remnant, as possibly may, similarly, be the feet-washing as a marriage ceremony. In Britain, the bride’s feet are washed; and in the south of India the engaged couple wash each other after the ceremony (pali-kal-kazhu-viradu, Tamil) of washing his intended father-in-law’s feet. Along the banks of the Ganges at every large place, crowds of nude men and women are to be seen at certain hours of the day, bathing close together. Mr. Layard tells us that amongst the Tiyari of the Nestorians, the girls and women bathe, unrestrained by the presence of men, in the streams or at the doors of their houses. In Japan there are bathing-houses, in which, at Hakodadi, both men and women of the lower ranks assemble. Mr. Hodgson tells us that on one occasion, at Yodo, the bathers of both sexes indiscriminately sallied out to see them pass. When Mr. Aitoeck went, preceded by a band of music, to the Governor’s Yamun, all the bathers of both sexes came out, to gratify their curiosity by a good long gaze on the novel spectacle. Amongst the Maori of New Zealand, both sexes bathe together in the hot waters of the volcanic regions.

The functions of the skin cannot be preserved in healthy activity, nor the changes of climate effectually guarded against, without the frequent use of the bath. The warm, tepid, cold, or shower bath, as a means of preserving health, ought to be in as common use as a change of apparel. On a large scale, baths are economically heated by steam. The sickly, the aged, the weak, and the intemperate should avoid the use of the cold bath, which should seldom be used in the higher table-lands of India, even by the strong.—Somner’s Voyage, p. 161; Hodgson’s Nagasuki, 252; Layard’s Nineveh; Robinson’s Travels, ii. 149; Ouseley’s Travels, i. 501.

BATHO, a deity of the Cachari race.

BATHU, also Bathua. HIND. Chenopodium album, much grown in the hills of the W. Himalaya. In the Panjab, Amaranthus frumentaceus. BATIN, a tribe of weavers in the Madura and Tinnevelly districts, which speak a slang dialect.—Wtl.

BATOOLA. HIND. Cicer arietinum.

BATOR NIBU. BENG. Citrus decumana.

BATTIA.

BHATSALI-KURA. Tel. Linn. var. quadrifida.

BATRACHIA. sub-class of animals of the class Reptilia, including all the frogs. It is arranged by some naturalists into three orders, (1) Batrachia salientia, (2) B. gradienta, and (3) B. apoda. The order B. salientia has the families Ranidse, Discoglossidae, Rhinodermatidae, Bufonidae, and Polypedatidae; the order B. apoda has but one family, Cecididae. Mr. A. R. Wallace arranges the Amphibia into the orders (1) Pseudo-philia, (2) Batracina Urodela, and (3) B. Anoure. Mr. A. R. Wallace’s list of the order Batrachia, such as the Siren of Carolina, the Protopus of Illyria, the Axolotl of Mexico, and the Menobranchus of the North American lakes, retain their gills during life; but although provided with lungs in mature age, they are not capable of living out of the water. Such Batrachians form an intermediate link between reptiles and fishes.—Tennent’s Ceylon, p. 320; A. R. Wallace, Distribution, i. 101. See Frogs; Reptiles.

BATRACHIA GRUONIENS. Linn. The natives attribute poisonous qualities to these fishes, and reject them even as manure. The eaking sound they emit has been noted by Buchanan. They are capable of living a considerable time out of their element.

BATSON BISH. Beng. Aconitum ferox. BATTA. HIND. Difference or rate of exchange; extra allowance. A mutiny occurred in the Bengal army in consequence of an order, dated 1st January 1766, abolishing double batta for the officers of the army. They were ordered to send in their resignations by the 1st May 1766. The mutiny was suppressed by Lord Clive.

BATWA or Battak, a collection of tribes inhabiting the interior of that part of Sumatra which lies between Acheen and the now decayed empire of Menang Kabon. They are under separate chiefs. The Batta in the north of Sumatra occupy from the country of the Rawa on the river Rakun on the east side, Natal on the west side, as far north probably as the latitude of Diamond Point on the east, and Gumong Abong-Ang on the west, and border on the Achinese. Their total number is 357,860, but others have estimated it at 1½ million. The Batta of Mandailing and Rertibi are muscular, square-built, and strong, but averse to all severe labour. The men are generally better built than the women. Real beauty amongst the women is rare. The Batta have a true and keen memory, and in their assemblies have now a grave and now a lively eloquence, which generally remains free of bombast. Insanity is hereditary in many families. They have polygamy; young and married women are chaste. The Batta loves palm-wine, is honourable, humble to superiors without being slavish; he will not suffer defamation or insult. He is frugal, but hospitable. But he is fond of gambling; is covetous, and exceedingly lazy. He is intrepid and courageous in the chase.

The more barbarous and indolent tribes are in the interior of Bata-bara, Assaham, Beclah, and Puan. The Batta alphabet has nineteen letters, and they write from the bottom to the top, in the reverse of the Chinese way. Their language bears a great resemblance to Malay. To a considerable knowledge of letters, of useful arts, and tolerable...
industry, some tribes add cannibalism. Moor, Leyden, Marsden, and Crawford first brought to notice that they are cannibals. Sir Stamford Raffles mentions by his Memoirs, p. 327, that he had been informed that the old people quietly suspended themselves by their hands from the branch of a tree, and then children and neighbours danced around them, exclaiming, 'When the fruit is ripe then it will fall.' And when the old, unable to hold on longer, fell to the ground, they all cut them up and eat them. Most writers, but lately Captain Low, in No. 3 of Journal of Royal Asiatic Society, describe them as cannibals. The Karau Karu tribe in the districts bordering on Acheen are not cannibals. The Padimbola tribe (Mr. Anderson terms the tribe Perdimbanan) were the most barbarous and most addicted to eating human beings. Other Battak eat prisoners of war and criminals as a punishment, also eat their aged and infirm relatives; but the Padimbola waylay travellers, kill and eat them. A chief stated as the manner of eating the criminals and prisoners, that three posts were fixed in the ground; to the middle one the body of the prisoner or criminal is fastened, and his arms and legs are extended to the two others, in the figure of a St. Andrew's cross. On a signal being given, every one entitled to share in the feast, rushes on him with hatchets and knives, and many only with their teeth and nails; he is thus in a few minutes entirely cut or torn to pieces; and so keen are the guests, that they often wound each other's hands and fingers (Moor, p. 128). The lives of criminals are redeemable. Polygamy is practised to a great extent, but each wife has a separate hearth in the one-roomed house. Women and children can be sold by the husband and father. Their dead are buried with much ceremony; the bodies of persons of rank being retained for a long time, and finally buried with a sacrifice of animals.—Memoirs, p. 427; Newbold, Brit. Settlements, ii. 370; Moor.

BATTAL. HIND. Buonumus fimbrirat, or E. Hamiltonii; in Kaghán, it is Pyrus aucuparia.

BATTAR. HIND. A person who performs the ritual worship of a Hindu idol.

BATTEDOMBE. SINGH. Calyptranthes Caryophyllina.

BATTEE SAL. HIND. Dipotocarpus alatus.

BATTI. HIND. A candle, a pastile; a roll or stick of scaling-wax, lacquer, or any other substance used up in this form.

BATTIA, a Hindu sect who worship Vishnu and his incarnations, as Ballaji at Panderpur and Tripati. They have a great reverence for their guru, whom they style maharaja, and place at his disposal tan, man, and dhan,—body, mind, and means,—and recently in Bombay scandalous immoralities regarding, and careless treatment of their women were disclosed. They are generally merchants, and some give annually 5 or 10 per cent. of their profits. In Bombay, in 1811, there were 9417. See Ballaji; Bhattia; Vallabha-Charya.

BATTICALOA, a small town on an island, long. 81° 49' E., and lat. 6° 42' N., on the east coast of Ceylon. Its estuary abounds in crocodiles.—Yule, Cathay, ii. p. 451.

BATTLE-AXE of Thor is the cross. Patee is the swathika cross of the Buddhists, and the monogram of Vishnu and Siva. Thor's symbol of governance was the letter of the Samaritan alphabet, the tan or tao in its decussated form. It is the mark which the prophet Ezekiel (ix. 4) was ordered to place on the foreheads of the faithful in Judah; and Indian women still place it on the foreheads of grain. It is placed on the jars of the water for the Ganges and Indus, and in the south of India is the emblem of disembodied Jain saints. It is the mystical Topkapi of the Chinese Buddhists, is the chief ornament on the sceptre of the Bon-va deities of Tibet, and is expounded on the Arctus or musical bell borne by Hal-govind.

BATTLES OF INDIA. Anciently, the Sodha and Raktor Rajput and the Jharja of Gujerat dismounted in the presence of the enemy, and fought on foot. After the fatal battle of Kadasia, the Persian general Takharjan dismounted to fight with Zahir, the Arab champion. This was a common practice of Europe in the middle ages. The emperor Conrad's cavalry followed it in the second crusade, and the English when fighting at Northallerton the battle of the standard. Sir John Hawkwood, a knight of Edward iii., introduced the practice into Italy; and the English followed it in the battle of Crevant and Verneuil. Of the chief battles and sieges in India from which British supremacy has resulted, are that at Plassey, by Lord Clive, in 1757, against the Mahomedan power in Bengal, no Perreira being given to the battle-field, from that circumstance that it was covered with the pulp tree Butea frondosa. The siege of Seringapatam in 1799 was of importance; also the battles of Assaye and Argaum, fought by Sir Arthur Wellesley in 1803 against the Maharattas. In 1803, Alighur and Laswari, both won by Lord Lake and General Fraser against Sindia's battalions of Maharattas, trained by Perron. The battle of Deeg in 1804; Mahidpore, in 1817, against the Maharattas; Ashti, in 1818, against the Maharattas. In 1819, Aigirgh; in 1824-25-26, against the Burmese; and in 1826 Buhtrup fell. In 1840 and 1842, against the Chinese; 1845, against the Amirs of Sind by Sir Charles Napier. In 1846, against the Sikhs at Sobraon; 1848, Mutien; and again, in 1849, against the Sikhs at Gujerat, and in 1856, in south Persia. In 1857 and 1858-59, in northern India, at Dehi, and Lucknow, against the native soldiers in revolt, and nearly the whole of Hindustan and Oudh in rebellion. The progress of the British in India has been by dissimilar military tactics. When in the field, as with Lord Clive at Plassey, with Sir Arthur Wellesley at Assaye, with Lord Lake at Laswari, Fattcheughir, and Afzalgarh; in 1818 at Nagpur; in 1824-25-26, in Burma with Sir Archibald Campbell; in China, 1841-42, under Lord Gough; against the Sikhs, at Gujerat, under that command; and against the Persians, in 1856, under Sir James Outram; in 1880, by Sir Frederick Roberts at Kandahar,—the battles were won by boldly throwing the stable British troops, however few in numbers and after long marches, against the less coherent native levies, however numerous; and in the siege operations against Seringapatam, against Gawilghur, and against Bhurtpur both in 1805 and 1826, by persevering determination. Lord Clyde's operations of 1858-59, however, were marked by the very methodical reduction of vast bodies against the revolted soldiers and rebellious races; by the measured, ponderous, but slow tramp of splendid infantry, with the cavalry.
and artillery in aid. The only cavalry movement of note that occurred, was after the battle of Cawnpur, when, on the 9th December 1858, Sir Hope Grant, with the 9th Lancers, some native cavalry and horse artillery, moved 25 miles to the Sheo-majore ghat on the Ganges, and attacked the flying rebels, defeating them, and capturing all the guns, without, on his side, a single casualty. Sir H. Rose had defeated the army of Gwalior before that city on the 20th; and on the 21st June 1858, Sir Robert Napier, with the 14th Light Dragoons, some native cavalry, and a battery of artillery, not 600 in all, went in their pursuit, and came up with the 6000 sepoys, with their 30 guns, at Jowra Alipur, where he charged into the thickest of the enemy, and completed their dispersion. But of the 100,000 native soldiers who revolted in May and June 1857, though many died from disease, probably not more than 40,000 from first to last were killed or wounded. In that revolt, from May till the 30th September of 1857, the British soldier, aided by the few native troops who remained staunch, in all 45,000 British and 60,000 native, had to struggle for their lives against 120,000 sepoys troops and an equal number of civil rebels, every one of whom in Oudh and Rohilkhand had been born a soldier. The first aid that the British got was from the Sikh levies sent by Sir J. Lawrence from Lahore. In all, the British and native troops rose to about 150,000 before the end of 1857; and before July 1858 there were 80,000 British soldiers in India. But up to September 1857, the smaller number of 43,000 British and 60,000 natives had to comb for their lives against not less than 300,000 combatants, 120,000 of whom had been regularly trained soldiers or partially trained police. Before the end of September 1857, Delhi had fallen, and the part relief of Lucknow before the receipt from Great Britain of other aid than a wing of the 5th Fusiliers and the 90th Light Infantry.

The real relief of Lucknow took place on the 6th December 1857. After Lord Clyde’s arrival, Lucknow remained to be besieged, and captured, Cawnpur to be released from the Gwalior Contingent, and Oudh and Rohilkhand cleared from the armed rebellion; and under Sir Hugh Rose, Central India was restored to British supremacy. Towards September 1857, and from that time onwards, British troops came in (and amongst the first of these came Lord Clyde), at first in small bodies, and then in large, until the entire reinforcement of 50,000 men had arrived from Britain to re-establish the British key-mancy. As matters of history, it may be well to record here the strength of British soldiers in India in the years preceding and succeeding the revolt.

<table>
<thead>
<tr>
<th>Year</th>
<th>In India, British Soldiers</th>
<th>Year</th>
<th>In India, British Soldiers</th>
<th>Year</th>
<th>In India, British Soldiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1852</td>
<td>43,709</td>
<td>1853</td>
<td>46,792</td>
<td>1854</td>
<td>47,146</td>
</tr>
<tr>
<td>1854</td>
<td>46,792</td>
<td>1855</td>
<td>46,003</td>
<td>1856</td>
<td>45,104</td>
</tr>
<tr>
<td>1855</td>
<td>46,003</td>
<td>1856</td>
<td>45,104</td>
<td>1857</td>
<td>45,327</td>
</tr>
<tr>
<td>1856</td>
<td>45,104</td>
<td>1857</td>
<td>45,327</td>
<td>1858</td>
<td>55,403</td>
</tr>
</tbody>
</table>

1 Of these, 5000 in Persia. 2 Of these, 4000 in Abyssinia.

Throughout British India generally, the object of those with whom the British from their first entry on the arena had come in contact,—the Mahomedans, Mahrrattas, Sikhs, Sindians, and Afghans,—had been personal, either to gain new lands, or to hold such as were in their possession; and impressed by the habits and customs of age, they have mostly been ready to yield or retreat when pressed, with the belief that they could regain or return when opportunity recurred; for, except the Sind Amirs, not one of all the ruling powers in India and its borders, with whom the British came in contact, had possessed authority in the country longer than the British themselves.

The battles fought by the British in the 18th century were chiefly for existence and for a standing ground; and the names of the great Lord Cholm, Colonel Lawrence, Sir Barry Close, Lord Cornwallis, General Harris, General Wellesley, Sir David Ouchterlony, General Gillespie, Lord Lake, Lord Gough, Sir Donald Stewart, Sir Frederick Roberts, have been conspicuous amongst others of their countrymen.

The Karnatic came into the British possession, partly by gift, partly by treaties, and in part as the result of battles fought in the 18th century against Mahomedan and Hindu princes and chiefs, whom the French aided. Amongst these may be enumerated Sholinghur, taken 27th September 1781; Negepatam, surrendered 16th November 1781; battle of Cuddalore of 18th June 1783.

The taking of Bangalore from Tipu Sultan on the 21st March 1791, gave a permanent position in Mysore, but it was eight years later, when Seringapatam was stormed, on the 4th May 1799, that the country came under British control, by the reduction of the French on the throne of the relative of former Hindu rulers.

The campaign of 1803 commenced on the 7th August. It was directed against Sindia and Perron and the Bhunala raja of Berar. These two Mahrratta powers had 72 regular battalions officered by Frenchmen, and 200,000 troops untrained, but from the sources whence they were drawn, such took even a higher social standing than their soldiers of the line. Before the end of December there were gained by the British four battles, amongst which were Assaye, and Argaum, and Laswari; the British completed eight sieges and storms, and effected the almost total destruction of the 72 trained battalions, the dispersion of the rest of their armies, the capture of 735 pieces of cannon,—the British force being about 55,000 regular troops, amongst which were 10,000 British soldiers. To effect these results, Sir Arthur Wellesley had been moving northwards, taking the insignificant fort of Gaugrwa, and Gaugrwa, in the Vindhyas, also Aiciviar; while Lord Lake moved southwards, fighting the battle of Laswari, against the battalions of Sindia and Perron. At that time, also, Jeswant Rao Holkar, when he opposed the British in 1806, had 100,000 regular troops, amongst whom were 60,000 light horse, and 130 guns, with the fortress of Chandore and Galinghur. From the tactics adopted, this moveable force baffled the British commanders and all the military power of India from April 1804 till the 15th February 1805. On the 2d April 1805, Jeswant Rao Holkar was again defeated by Lord Lake, who marched all night, and at daybreak entered Holkar’s camp, which he completely broke up. In this, in going and coming, Lake marched 50 miles. Lord Lake
BATTLES OF INDIA.

subsequently, in December 1805, marched in his pursuit 405 miles in 43 days, from Secundra to the Beas river at the Razghat. In Jeswant Rao Holkar's final overthrow, Lord Lake marched 350 miles in a fortnight to reach Delhi, which Sir D. Ochterlony was defending against Jeswant Rao Holkar. But on Holkar's abandonment of Delhi on the 14th and 15th October 1804, Lord Lake followed him, and at length, with a small body of 3000 British horse and artillery, amongst which were the 8th and 27th dragoons, made a forced march of about 48 miles, defeated the forces of Holkar, about 60,000, near Farrakhabad, followed 10 miles in pursuit, and returned to camp, making a journey of about 70 miles in 24 hours, with a loss of 22 dragoons killed, and 20 Europeans and natives wounded.

Amir Khan, the Rohilla chieftenant of Rohilkhand, forsook the raja of Bhurtpur, but was followed by General Smith, whom Lord Lake sent in pursuit. After a march of 700 miles in 43 days, Amir Khan's army was overthrown and defeated at Afzalghar, at the foot of the Himalayas, on the 2d March 1804, and Amir Khan was conveyed across the Ganges and Jumna in March, but he rejoined Holkar's camp under Bhurtpur.

Delhi, battle of, 11th Sept. 1803
Aligur, assault of the fortress of, 4th Sept. 1803

The Jat rulers of Bhurtpur were inclined to side with Jeswant Rao Holkar. Bhurtpur is on the borders of the desert of Rajputana. When besieged by Lord Lake in 1805, with 10,000 regular soldiers, four determined assaults were made on January 9th and 22d, and February 20th and 21st, but in each instance repulsed, though at the close, the besieged, on the 10th April 1805, yielded to terms. In those four fruitless attacks, the British loss was 3203 killed and wounded, of whom 103 were officers. In 1825, however, during the Burmese war, puffed up by the belief that their mud fort was impregnable, they again drew down the anger of the Indian Government, and it was again besieged, and, on the 18th January 1826, successfully invested by Colonel Combermere. Agra city was taken on the 17th, and the fortress on the 19th October 1803. Sir David Ochterlony, a general officer of the Bengal army, for 8 days defended Delhi against the Mahratta Jeswant Rao Holkar, repulsing repeated assaults, though with open breaches, till on the night of the 15th October 1804, on the approach of Lord Lake, Holkar withdrew. From that time the Moghul emperor of Delhi became a stipendiary of the British. The Nepal war ended on the 12th March 1816. It was successfully conducted by Sir David Ochterlony; but there fell General Gillespie, who had relieved Vellore when it was seized by rebels in 1808, and who had distinguished himself in Java in August and September 1811. Several tracts in the mountain valleys of the Himalaya were then ceded to the British Indian Government.

The territories on the north-west part of peninsular India have been chiefly acquired from the Mahratta rulers, as the results of war and victories gained, and fortresses taken. Bombay island came by gift from Portugal, as part of the dowry of King Charles the Second's bride. The principal battles were in the beginning of the 19th century, and, in 1817, 1818, and 1819, fought by General Wellesley, Sir Thomas Hislop, and Sir Thomas Munro. Of these—

Ahmadnagar, surrender of city, 11th Aug. 1803
Assaye, battle of, 23rd Sept. 1803
Gawilgarh fort.
Berliampore surrendered, 16th Oct. 1803

Ahmadnagar city was taken by Sir Arthur Wellesley on the 11th August 1803, and immediately afterwards he received the surrender of the fortress, long regarded as the key of the Dekkan.

Poona, city of, taken, 19th Nov. 1817
Seestulbilles, battle of, 26th and 27th Nov. 1817
Napur taken, 20th Nov. 1817
Do. re-taken, 30th Dec. 1817
Jubbulpur, battle of, 19th Dec. 1817
Mahulpur, battle of, 21st Dec. 1817
Corgooys battle of, 22nd Dec. 1817
Copauldrug, storm of, 14th May 1819
Ghanda, siege and storm of, 20th May 1818
Amulnair, surrender of, 30th Nov. 1818
Asirgarh, siege of, 9th Mar. 1819
Do. surrendered unconditionally, 30th Apr. 1819

Sind fell to the Indian Government, from the Mahomedan Talpur dynasty, after the battles of Meaneecz, on the 17th February 1813, and of Hyderabad, on the 24th March 1813, both fought by Sir Charles Napier, and this gave the course of the Indus up to Multan. The Punjab was twice engaged in war with the British Indian Government, in 1814, and again in 1819, after which the entire Sikh dominions were incorporated with those of British India, and a rapid increase of its resources followed.

Moodkee, battle of, 18th Dec. 1845
Ferozahah, battle of, 21st and 22nd Dec. 1845
Aliaw, battle of, 25th Jan. 1846
Lahore, annexation to the British, Dec. 1845
Do. occupied by the British, 22nd Feb. 1846
Do. treaty of, 9th Mar. 1846
Sobraon, battle of, 16th Feb. 1846
Multan, city of, taken by storm, 24th Jan. 1849
Do. unconditional surrender of, 22nd Jan. 1849
Modraj and garrison of, 22nd Jan. 1849
Chillianwalla, battle of, 13th Jan. 1849
Gujerat, battle of, 21st Feb. 1849

Political difficulties with the Barakzai chief, Dost Muhammad Khan, induced the Indian Government, at the close of 1838, to resolve on displacing him, and replacing the deposed king, Shah Shuja ul Mulk. This was done after a series of successes and severe reverses, in one of which an entire British Indian brigade was destroyed by climate and the sword. It was the greatest disaster that ever befell the army of India. The chief battles fought were—

Ghazni, capture of, 23rd July 1839
Do. re-capture of, 6th Sept. 1842
Kabul taken, 7th Apr. 1839
Do. re-occupation of, 16th Sept. 1842
Khielat, storm and capture of, 13th Nov. 1839
Jalalabad, battle of, 7th Apr. 1842

In 1878-79, political difficulties again led to war, and Kabul, Ghazni, and Kandahar were again occupied, and battles fought, in which Sir Donald Stewart and Sir Frederick Roberts were victorious.

The territories held by the British, west of the Indus, consist of a strip on the bank of that river, and, in Arabia, on the peninsula of Aden, taken on the 18th January 1839.

The possessions east of the Ganges have fallen to the British arms from two powers. The first to engage in hostile operations were the Burmese, from whom, after a series of operations in 1824, 1825, and 1826, territories in Assam, in Arakan, and in Tenasserim were gained. But war again recurred in 1852, and further territories were annexed at the mouth of the Irawadi; so that
from the mouth of the Indus to Singapore, almost the entire seaboard became British territory. The principal occurrences were:

1st War.

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th May</td>
<td>Rangoon taken</td>
</tr>
<tr>
<td>25th May</td>
<td>Cheduba, taken from the Burmese</td>
</tr>
<tr>
<td>15th Sept</td>
<td>Bayon taken</td>
</tr>
<tr>
<td>9th Sept</td>
<td>Martaban taken</td>
</tr>
<tr>
<td>9th Dec</td>
<td>Kemmendine taken</td>
</tr>
<tr>
<td>21st Feb</td>
<td>Rangapore taken from the Burmese</td>
</tr>
<tr>
<td>19th Mar</td>
<td>Arakan, capture of,</td>
</tr>
<tr>
<td>24th Apr</td>
<td>Downeaw taken</td>
</tr>
<tr>
<td>1st Oct</td>
<td>Prome, Burmese defeated near</td>
</tr>
<tr>
<td>19th Jan</td>
<td>Molloen, Burmese defeated at</td>
</tr>
<tr>
<td>19th Feb</td>
<td>Burman Empire, peace with</td>
</tr>
</tbody>
</table>

21st War.

<table>
<thead>
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</tr>
<tr>
<td>6th Apr</td>
<td>Martaban taken</td>
</tr>
<tr>
<td>15th May</td>
<td>Bayon taken</td>
</tr>
<tr>
<td>3d June</td>
<td>Pogu, capture of</td>
</tr>
<tr>
<td>9th Sept</td>
<td>Prome</td>
</tr>
</tbody>
</table>

With China there have been two wars, in 1841 and again in 1859 to 1860—1, from which several small districts were ceded to the British. In the earlier war the chief battles were as under:

Chusan, capture of, 5th July 1840

Do., re-capture of, 1st Oct 1841

Chuenkee, taking of, 17th Jan 1841

Bougue Ports, taking of, 26th Feb 1841

Canton captured and ransomed, 25th May 1841

Ameoy, capture of, 26th Aug 1841

Chinhas, capture of, 10th Oct 1841

Ninpo taken, 18th May 1841

Chuing-fang-fu, battle of, 21st July 1842

Chapoe, capture of, 18th May 1842

Ceylon, long a Portuguese and Dutch territory, was taken by the British at different times, viz:—

Colombo taken, 16th Feb 1796

Kandy taken, 18th Feb 1815

Kandian country, British entered the, 11th Jan 1815

The central parts of peninsular India have several times needed coercion. At Kittoor, a battle was fought on the 23d October 1824, and the fort was besieged and taken on the 5th December of that year. Badami fort was taken by storm on the 18th February 1818, and was again captured on the 10th June 1841; and as a continuation of the same events, Punalla and Powan-gur were captured on the 1st December 1844.

Kurnool, held by a feudatory Pathan chief, lying between the Ceded Districts and the Hyderabad territory, was surrendered to the East India Company on 15th December 1815, but on the 18th October 1839 was again taken possession of, and on the same day a battle was fought at Zorenpur, a few miles off, the nawab of Kurnool taken prisoner, and the territory annexed.

In 1854, cruelties carried on for a long series of years by the raja, brought on him the hand of the Indian Government, and, after a series of operations, Coorg was captured, after a battle, on the 8th April 1854.

In the interval of one hundred years here reviewed, the British India troops, under the East Indian Company's administration, were composed both of European and native soldiery, armed according to the European mode, as artillery, cavalry, and infantry, and similarly disciplined, but aided by levies of horse and foot with a less perfect or less extensive organization, and termed irregular. In the early wars there were few or no European soldiery, and but small bodies of native troops; but these gradually increased with expansion of territory and more concentrated opposition, and the European and native forces in India were in the years

Europeans. Natives.

1830-40 33,604 196,889
1842-43 46,726 220,947
1850-57 45,522 232,224

In 1857, the revolt of the Bengal native army occurred, and the policy since then has been to augment the European arm, remove all sepoys from the scientific corps, and reduce their numbers. The composition of the Indian army in 1857 and 1865 was as under:

<table>
<thead>
<tr>
<th>Artillery</th>
<th>Cavalry</th>
<th>Infantry</th>
<th>Sappers</th>
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</thead>
<tbody>
<tr>
<td>1857</td>
<td>6,944</td>
<td>13,076</td>
<td>22,694</td>
</tr>
<tr>
<td>1860</td>
<td>19,072</td>
<td>46,945</td>
<td>438</td>
</tr>
</tbody>
</table>

In their opponents, the British forces have had to encounter clouds of horse, as in the Maharrata camps; brave foot-soldiers, as in the Afghan, Gurkha, Sindian, Sikh, Tartar, and Mongol; and native armies trained by European officers, Italians, French, and Germans. But those with the native rulers have appeared in the field with every weapon and armour of defence mentioned in history, swords and spears, shields, bows and arrows; and up to 1867, in Hyderabad, soldiery with bows and arrows were still to be seen passing in review in the war pageant of the Nizam's Langar, and are the national weapons of several races in the Vindhyas and Satpura hills.

The chief sieges, battles, etc., of the British, in S.E. Asia, have been as under:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>19th Jan</td>
<td>Aden captured</td>
</tr>
<tr>
<td>17th Oct</td>
<td>Agra, city of, taken</td>
</tr>
<tr>
<td>19th Oct</td>
<td>Agra taken</td>
</tr>
<tr>
<td>11th Mar</td>
<td>Ahmadnagar, surrender of city of</td>
</tr>
<tr>
<td>11th Oct</td>
<td>Allighur fortress, assault of</td>
</tr>
<tr>
<td>29th Jan</td>
<td>Alivw, battle of</td>
</tr>
<tr>
<td>30th Aug</td>
<td>Ameoy, capture of</td>
</tr>
<tr>
<td>30th Nov</td>
<td>Amulhur, surrender of</td>
</tr>
<tr>
<td>19th Mar</td>
<td>Arakan, capture of</td>
</tr>
<tr>
<td>30th Mar</td>
<td>Aroet, taken by Lally</td>
</tr>
<tr>
<td>4th Oct</td>
<td>Assigur, siege of</td>
</tr>
<tr>
<td>30th Mar</td>
<td>Assigur, capture of</td>
</tr>
<tr>
<td>23d Sept</td>
<td>Assaye, battle of</td>
</tr>
<tr>
<td>21st Mar</td>
<td>Bangalore taken</td>
</tr>
<tr>
<td>15th Feb</td>
<td>Badalm, storm and surrender of fort of</td>
</tr>
<tr>
<td>10th June</td>
<td>Do., capture of</td>
</tr>
<tr>
<td>18th Aug</td>
<td>Bandi taken</td>
</tr>
<tr>
<td>18th Oct</td>
<td>Berhampore, surrender of</td>
</tr>
<tr>
<td>19th May</td>
<td>Bassein,</td>
</tr>
<tr>
<td>18th Jan</td>
<td>Bhurpourt stormed</td>
</tr>
<tr>
<td>18th Dec</td>
<td>Bougue Ports, taking of</td>
</tr>
<tr>
<td>9th July</td>
<td>Burman Empire, peace</td>
</tr>
<tr>
<td>19th Feb</td>
<td>Calcutta taken</td>
</tr>
<tr>
<td>21 Jan</td>
<td>Canton captured and ransomed</td>
</tr>
<tr>
<td>25th May</td>
<td>Chandia, siege and storm of</td>
</tr>
<tr>
<td>20th May</td>
<td>Chandermungoor, taken possession of,</td>
</tr>
<tr>
<td>14th Mar</td>
<td>Chapoe, capture of</td>
</tr>
<tr>
<td>18th May</td>
<td>Cheduba taken from the Burmese</td>
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<tr>
<td>27th May</td>
<td>Chinhas, capture of</td>
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<tr>
<td>10th Oct</td>
<td>Chuenkee, taking of</td>
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<tr>
<td>1st Jan</td>
<td>Codaloo, battle of</td>
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<tr>
<td>13th Jan</td>
<td>Chosar, battle of</td>
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<tr>
<td>1st Oct</td>
<td>Do., re-capture of</td>
</tr>
<tr>
<td>16th Feb</td>
<td>Colombo taken</td>
</tr>
<tr>
<td>6th Apr</td>
<td>Coorg, battle and capture of</td>
</tr>
<tr>
<td>1st Jan</td>
<td>Corygaam, battle of</td>
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<tr>
<td>14th May</td>
<td>Cupaoldrug, storm of</td>
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<tr>
<td>15th June</td>
<td>Cuaidloore, battle of</td>
</tr>
<tr>
<td>14th Oct</td>
<td>Cuttack taken</td>
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BATTLES OF INDIA.

BAUHINIA.

There were 8050 men, augmented afterwards by the force from Bombay, according to Major Hough, appeared before Bhurtpur in January 1805. During four successive attacks, each increasing in desperation, Lord Lake was repulsed, with loss of 2910 killed and wounded.

First assault. ... 456 Third assault, ... 894
Second do. ... 573 Fourth do. ... 987

BAUHINIA, a genus of plants of the natural order Fabaceae; the generic name was given to it from the twin form of the leaf, in honour of the twin brothers Bauhin. The number of species is considerable; and some are shrubs, and some are trees which yield useful woods, astrignent gums, fibrous barks. Dr. Hooker mentions that a thousand feet above Punakabaree in the Outer Himalaya the prevalent timber is gigantic, but scaled by climbing Bauhinia, is used in the office of the British adventurer, with sometimes sheets of the woods. The flowers-buds of almost all the Bauhinas are eaten by the natives of India. The seeds taken from the huge pods of B. racemosa are eaten in the hills of the N.W. Himalaya. The pods look like pieces of thick undressed leather, about a foot long and an inch or two broad; they are placed over the ashes of a fire till they roast and split open; the flat soft seeds are taken out and eaten; the flavour is pleasant, but the seed is not wholesome. The woods are often of a dark colour. The following are the principal species:—

Of the officers, 25 were killed and wounded in the assault. Lord Lake, with an original force of
Bauhinia acuminata, L., mountain ebony.

B. Candida, Ait. not Rozb.

Bauhinia brachycarpa, Wall., the Blai-jin of the Burmese, attains to nearly three or four feet at Taong-dong and in the Tenasserim Provinces; its wood is white-coloured, and adapted for fancy work and cabinetmaking.

Bauhinia diphylla, Buch.

This small tree grows in Burma, on the banks of the Irrawady at Yanan-guem and Taong-dong, also at Masulipatam, Cuddapah, Guntur, and Nellore. Its flowers are pure white, of middling size. The natives make temporary ropes of its bark for securing thatch, matting, or fences. The barks of several other Bauhinias are used similarly. Ara nar is the bark of B. parvifolia, of which matches for matchlocks are made.

Bauhinia Malabarica, Rozb., the Bo-ay-gy-in of the Burmese, a native of Malabar, where it blossoms in October and November. It also grows in Assam, and is common in the plains of British Burma, where its wood is used for the crossing pieces of harrows, house posts, etc. A cubic foot weighs 42 lbs. The average length of the trunk to first branch is 15 feet, and average girth at 6 feet from the ground is 4 feet.

Bauhinia parviflora, Vahl., the Kosunda of the Punjab. A great climber in the Siwalik tract. Timber of a small size, from 5 to 6 feet in length, and 2 to 3 feet in diameter. Its gum is used medicinally.

Bauhinia purpurea, L. B. Coromandeliana, D.C.

Dev Kanchan, BENG. Shegup Mutthari, TAM. Saral-mara, CAN. Bodanta Chettu, TEL. Chovana Mandara, MAL. Pedda-are, TEL.

A tree with very large, deep rose-coloured, fragrant flowers, which appear at the commencement of the rains. It grows in the Mauritius, Coromandel, Burma, Assam, and Oudh, the Kheri pass, Garhwal, and Kanaon, also in Canara and Sunda, both above and below; most common near the Ganges valley. It attains a large size in the mountains of India. Its timber is hard, close-grained, and very durable, and of a fine, reddish-brown colour, and can be had in lengths of 12 to 15 feet, and 30 to 35 inches in girth. It is strong, and good for agricultural implements, but seldom large enough for building.

Bauhinia racemosa, Lam. not Vahl.


This immense climber is found all over British India, all through Burma, and along the forests of the Siwalik hills and the hot valleys of the Himalaya, from the Doughs of the north-west to the valley of Assam. Its flowers may be seen hanging in elegant festoons from the tops of lofty trees. The bark when stripped off is of a reddish-brown colour, and the natives of the mountains make ropes of it; the stems are usually cut in July and August; the outer bark, being stripped off, is thrown away, and the inner is used for ropes as wanted, by being previously soaked in water, and twisted when wet. It is also said to be boiled and beaten with mallets, which renders it soft and pliable. The fibre makes very strong ropes, but rots if kept constantly in water. Major Swetenham describes its strong coarse ropes as answering well for suspension bridges. Its bark is also made into matchlock matches. The wood is small, but the heart-wood is exceedingly hard and fine. The leaves are eaten by buffaloes, etc., and are used for packing, and for making umbrellas, being put between strips of bamboo, so as to overlap each other. They are also favourite leaves for the platters, used at the marriages of Brahmins, etc.

Bauhinia racemosa, Linn., Rod Bauhinia.

Myoxh-bge-ga, BURM. Naja balli, MALEAL. Esculapian Bauhinia, Eng. Gunda gilles of. STEHET.

This trailing, climbing Bauhinia has small whitish flowers, which turn to a yellowish colour. It grows in the Konkans, Moluccas, Assam, is not uncommon about Gowhatti, and is a common species at Sylhet, where it runs up over trees of the largest size. It is remarkable for its contorted branches, and is said to have formed the type of the snake rod of Esculapian which he brought with him from India. Its fibrous bark is made into cloth and rope, but the fibres are harsh and stubborn.

Bauhinia tomentosa, Linn.

Ma-ha-bge-ga-wa, BURM. Petan, SINGH. Yellow Bauhinia, ENG. Cat-attii, TAM. Kanehana, MALEAL. Trivialiapatram, TAM. Usamaduga, SANSK. Tira vala conany, TAM.

A native of Ceylon, Malabar, and Coromandel; bears a large sulphur-coloured flower; and the upper petal has usually a deep purple spot on the inside. It is a large shrub, never exceeding 12 feet in height. Its wood is very hard, but too small to be of much great value in commerce. This, like the B. racemosa, has a strong, very dark-coloured wood, hence the names Kat-attii, wild ebony. Even the younger branches show the heart-wood very dark brown; the bark of this is also employed as extemporary cordage. Native practitioners prescribe the small dried buds and young flowers in certain dysenteric cases; they have little sensible taste or smell, though the leaves, when fresh and bruised, have a strong but not unpleasant odour. Their astrigency is probably due to the presence of tannin.

Bauhinia Vahl, W. and A.

B. racemosa, Vahl, Roxb. | B. scandens, Roxb.

Chamboolee, DUK. Boila, NEPAL.

Malu, HIND. Aila, TAM. Lah-val, MALEAL. Shvalee, TEL.

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This is an immense scented shrub, with a circumference of stem of 1 foot, and largeth white flowers, that turn yellow. It grows in the Thull Ghats, ravines at Khandalla, Morning mountains, in the Dehra Doon and Kausan; it abounds in the jungles in the North-West Provinces of India, and near the mountains of Ganjam and Gumsur, and yields a fibre which is extensively used in rope-making. The leaves are a foot in length and breadth, and have rounded lobes; they are used as platters for eating from, and for making the 'tallari,' or small umbrellas worn on the head; also for packing and lining baskets, and for house thatch, and bark for ropes. Legumes pendulous, from twelve to twenty inches long, covered with a brown velvet down. The kernels of the large and broad pods have a sweet aromatic flavour, and are eaten like almonds by the natives. When the husks are fresh, the natives roast them to get at the kernels; when old, they open of themselves. The kernels possess tonic and aphrodisiac properties.

Bauhinia variegata, Linn., Mountain ebony.


An ornamental tree with variegated flowers. It is sparingly found in the Bombay forests, and there it never reaches a size for a 10-inch plank. The wood, however, is hard and good. In Ganjam and Gumsur it is tolerably common, and used for firewood. Common in Burma and at Ajmir. When in blossom the tree is very splendid, and the fragrance delightful. The flower-buds are eaten as a vegetable. Its buds are sold fresh in the bazaar at Lahore as a vegetable, which are eaten prepared with animal food.

Var. a. Purpurascens.

Bidal, . . BEND. Ma-ha-hla-ga-ni, BURM. Rakta-kanchan, . . " Segapoo Munthari, TAM. Kuvalara, . . SANSK.

A tree with beautiful large purple flowers, four petales light purple, the fifth deep purple tinged with cream and red. It is one of the most stately of the Bauhinias, and grows in the Peninsula of India, in Serampore, Pateram, Monihari, and Puraneya.

Var. b. Candida.

Kana-raj, . . . HIND.

A shrub with large flowers, with four white petals in its flowers and one with a sulphur colour within. It grows in Nepal, Oudh, Bengal, Assam, Islamnagar, and Prome. — Drs. Ainslie, Brandis, Cleyhorn, Gibson, Hooker, Honinberger; Madras Museum; M'Clelland, Mason, O'Sh., J. L. Stellart, Riddell, Roxb., Royle, Voint, and Wright; Elliot, Fl. Andh.; Jaffrey; Drury, U. Pl.; Madr. Ex. J. Rept.; Capt. Macdonald; Mendis; Beddome.

BAUJHONO. Uins. In Ganjam and Gumsur, a scarce tree, of extreme height 45 feet, circumference 5 feet, and height above ground to the intersection of the first branch, 22 feet. The wood is strong, and used for heavy wheels.— Capt. Macdonald.

BAULEA, a boat of the Ganges river.

BAULU of Chenab. Corinaria Nepalensis.

BAYA-KHANI, a golden coin of Persia, value Rs.5.

BAVENA. CAN. Melia azedarach.

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BAYAZID ANSARI.

BAVER. Sind. Vachelia farnesiana.

BAVUNGI. TEL. Celastrus paniculatus, Willd.

BAWA. MAHR. Cassia fistula.

BAWA. HIND. A son; a mode of address among the fakir or darvesh sects. Bawa Boodun alias Hyat Qulundur. See Baba Boodun. Bawa ud Deen, a venerated saint. Bawa piare ke fuqeran, a class of devotees.

BAWADA. HIND. A herb of N. India, used in rheumatism.

BA-WA-NET. BURM. Gendarussa vulgaris.


BAWAR, a section of the Koli tribe of Rajputana. The Bawar, Bawari, and Bhaora or Bhaora are possibly parts of some great race, which were dispersed in prehistoric times. The Bawari are predatory, and scattered throughout India. Wilson describes them as robbers by profession, and known in different places by different appellations, but call themselves Bawari, and using a dialect which is said to be spoken in parts of Gujerat. They seem to be the Bhora of Southern India, who are styled Harn-pardi and Harn Shikari, and are the wild fowlers of the jungles and forests. The Bawari of Central India are excluded from the tribe if they kill a heron or a dog. In regard to the heron, it is the emblem of the tribe, and its flesh they must not eat. A race called Bawari are swineherds.

BAWEAN, or Lubeck island, forms a portion of the residency of Sourabaya. It is in lat. 5° 90'S., and long. 112° 38' W. (Greenwich), and contains about 44 English square miles. The country in general is very mountainous, and it is only near the sea that some plains are found, on the largest of which, about 3½ miles in circumference, the principal village, Sangkapura, is situated. The Baweans are probably descendants of the Madurese, whose language with a few modifications prevails, though they differ from them in dress; but in this respect agree closely with the Bugis. The inhabitants of the Dessa Dipanga excel in the Javanese language. The people come every year to Singapore to serve as groovers, labourers, and drivers. Coal is found in Dessa Kalompe; hot springs occur all over the island, one with a temperature of 125 Fahr.—Journ. Ind. Arch., No. 7.

BAWR. PUSHT. A leopard.

BAYA. HIND. Ploceseus Philippiensis. JAV. Crocodile. MAHR. Cassia fistula. HIND. In the Lower Doab and Rohilkhand, a person appointed in the bazaar to measure grain.

BAYAZID, lat. 39° 24' N., long. 44° 20' E., a town in Asiatic Turkey, 140 miles S.E. of Erzerum on the S.W. of Ararat. It gives its name to a province. The reigning family are Kurds of the Zilanli tribe; Russia destroyed what could not be carried off.—MacGregor.

BAYAZID ANSARI, a religious reformer, who founded the Rashidi sect. He appeared among the Yuzufi Afghans about the latter part of the 16th century. He set aside the Koran, and taught that nothing existed except God, who filled all space, and was the substance of all forms. He soon formed a numerous sect, and established his authority in the Sulimani and Khaibar hills, and over the neighbouring tribes. His followers were defeated with great slaughter, and he died soon after of grief and vexation. His sons dug up his bones, and bore them in an ark at the head of
BAYBERRY TREE.

B'DELLIUM.

their column; but they ceased to be formidable beyond their hills till about A.D. 1585, when Jallala, one of the youngest, assumed the command, and exercised it with such vigour, that the ordinary government of Kâbul was found incompetent to resist him. Akbar's action against him was suspended, in consequence of the total rout of the army he sent under Zain Khan and Raja Birbal against the Yuzufzai. Jallala took Ghazni A.D. 1600, but was soon driven out, pursued, and killed. The sect, however, survived, and Jahangir and Shah Jahan continued their wars against them. Bayazid was nicknamed Pir-Yarik, or the sult of darkness.—Ladyden's Account of the Raunshent Sect, As. Res. vii. p. 363.

BAYBERRY TREE. Eugenia pimenta.

BAYENGI. Hind. Wool of the Tibet sheep.

BAYGOONA, Uria(?). A Ganjan and Gumaur tree, leaves red in spring.

BAYLA NAVA MARAM. Tam. Dinduga tree, Andersoniæ, sp.

BAY OF BENGAL. See Bengal.

BAZ. HIND. A falcon.

BAZAR. Hind. A market-place. In Egypt and in most cities of Asia, most of the great thoroughfare streets and many others have a row of shops along each side, not communicating with the superstructures, which latter are divided into separate lodgings, inhabited by different families, and seldom by the persons who rent the shops beneath. These streets are called in Arabic 'S'ook.' A whole street of this description, or a portion of such street, mostly contains shops appropriated to a particular trade, and is called the S'ook of that trade. In general the shop is a small recess or cell, about 6 or 7 feet high, and between 3 and 4 feet wide, the floor of which is even with the top of a raised seat of stone or brick, called 'yaqub,' between 2 or 3 feet high and about the same in breadth, upon which the shopkeeper usually sits. The front of the shop is furnished with shutters, which, when closed at night, are secured by a wooden lock. Those in India are usually held in an open street or open quadrangle, and are attended to by men. Those of Burma are large wooden or iron buildings, and the sellers are almost exclusively women, the women of Burma generally being active commercial agents. In all oriental countries it is the custom for the purchaser to seek out the seller, and to make an offer for what he wants. These two customs are opposed to the practice in Europe; and where the purchaser is a stranger, and ignorant of the ordinary value of the article he is purchasing, that of the East leads him into overpaying, and to his regarding orientals as lying impostors.

BAZ BAHADUR, an officer of the Afghan kings, who held Malwa at the time of Akbar's accession (A.D. 1556). He was defeated and expelled by Adam Khan, an officer of Akbar. Baz Bahadur had a Hindu mistress, who is said to have been one of the most beautiful women ever seen in India. She was as accomplished as she was fair, and was celebrated for her verses in the Hindi language. She fell into the hands of Adam Khan on the flight of Baz Bahadur; and finding herself unable to resist his importunities and threatened violence, she appointed an hour to receive him, put on her most splendid dress, on which she sprinkled the richest perfumes, and lay down on a couch with her mantle drawn over her face. Her attendants thought she had fallen asleep, but on endeavouring to awake her on the approach of Adam Khan, they found she had taken poison, and was already dead.—Khaji Khan, Tr. of a Hind. p. 198.

BAZIGAR and Nut, jugglers, acrobats, and tumblers. The Nut may be considered as the gipsies of Hindustan. Both are wandering tribes, and have each a slang language; they live principally by juggling, fortune-telling, palmistry, and other means, and are alike addicted to thieving. The gipsies are governed by their king, the Nut by their nardar bouthah. They appear to be equally indifferent on the subject of religion, and in no respect particular in their food, or the manner by which it is obtained. According to a list furnished by Captain Nair, the languages adopted by these tribes would appear to possess a very strong affinity to each other. The Bazigur are subdivided into seven castes, viz. the Charree, Af'byeeen, Bynsa, Purbuttee, Kalkoor, Dorikine, and Gungwar, who intermarry. They say they are descended from four brothers. They practise the Mahomedian rite of circumcision; they regard Tan-Sin as their tutelar deity; consequently they look up to him for success and safety in all their professional exploits. These consist of playing on various instruments, singing, dancing, tumbling, etc. The two latter accomplishments are peculiar to the women of this sect. The notions of religion and a future state among this vagrant race are principally derived from their songs, which are beautifully simple.—Cole. Myth. Hind. p. 319.

BAZIN. Pere Bazin, a Jesuit, who accompanied Nadir Shah as his physician in the last years of his life. When Nadir was assassinated in June 1747, on the following morning, the Afghans and Uzbaks, 4000 in number, led by Ahmad Shah, Abdali, unaware of his master's death, and in the hope of rescuing him, fell on the Persians, but had to retreat to their native country, which they did in good order. Bazin was a spectator of the action, 'au milieu des balles et des sabres.'—Lettres Edifiantes, vi.

BAZIRA, Aornis, was the place fixed on by the Greek dynasties for a military garrison. There were military colonies of Macedonians established, at Alexandria ad Caena, Aigrium, and Bazira, and garrisons at Nysa, Ora, Massaga, Peneleotic, and at Aornis, a mountain range, supposed by some to be the mountain of Mahab in the Pir-Panjal or Mid- Himalayan range. See Awar; Bactria.

BAZU-BAND. Hind. Armlet.

B'DELLIUM. Eng. Fr.

Aflatoon; Moqul. ARAB. Gugal. GEJ. HIND. Kar-a-wa. BURM. Bealoah; HAM. Moom-yah; CHIN. Gugal; SINGAL. Badleyum, B'dellion, Gr. Kungiliam; TAM. Madekhanon; Guggilam; TEL.

This fragrant gum-resin, as met with in commerce, is the product of various trees. Dr. Ainslie, p. 29, was not inclined to regard it as a product of any of the trees of India, and pointed to the Darakh-i-mukul of Persia as the plant producing it. That of Africa is from Balsamodendron Africanaum; the Sicilian B'dellion is obtained from the Daneus Hispanicus, D. C.; but in all essential properties these are identical with the
Gugul of the Indian bazaars, a product of the Commiphora Madagasacarensis, Lindley, the Amrysis commiphora, Roch., the Bakousedron commun, Wight and Arnott, and a native of Sylhet, Assam, and Madagascar. At the Madras Exhibition of 1855, two varieties of the B'dellium from the Amrysis commiphora, were exhibited, the solid gum, and the balsamic fluid, as obtained from the tree. The Indian Gugul much resembles myrrh, and is said to be largely exported as that drug. Dr. Royle considered the Gugul as identical with the B'dellium of commerce, and indicates the Greek names of B'dellium, Badleyun, and Madekhu, as the B'hdllau and B'dllau of Dioscorides. The B'dellium of Genesis ii. 12 and Numbers xi. 17 is supposed to have been the gum-resin of Balsamusdron Roxburghii, Arn. (B. pubescens, Stocks'a and B. Mukul, Hooker). B'dellium, in Bombay, is imported from Cutch and the Persian Gulf. It is re-exported to China and to England under the name of myrrh. B'delach of Scripture (Gen. ii. 12, Numbers xi. 7) is supposed to be B'dellium gum-resin of Asia Minor. Roxburghii is a musky, Charlie Birdwood; O'Sh.; M. J. J. Royle's Ill. Him. Bot.; Faulkner.

BEADS. Without Be-charagh, without a lamp, deserted. Be-samajh, without discretion. Be-baq, an acquittance in full. Be-dana, a seedless grape; also a sort of mulberry. BEAD PLANTS. Several plants in India produce bright-coloured seeds, used as beads. Amongst these is the red seed with a black eye of the Abrus precatorius, Sweta Kooneh, Beng., Gondamani, Tam., which is also used by the Burmese as a weight. The Karen in the southern provinces cultivate one or two species of Job's tears for the seed. The Pwo clan plant a species yielding round seeds, which are used to ornament the borders of the men's tunics, but they are never seen on a woman's gown. The Sgau, on the contrary, cultivate a species bearing an oval seed, and use them merely for embroidering female dresses. In Province Amherst, the Pwo seldom appear in their native costume, and many deny that their tribe ever had any other than that which they now wear, which is Burmese. Abrus precatorius seeds are strung together as beads, necklaces, bracelets, and other ornaments, and also as rosaries, hence the name precatorius. The common variety are red with a black spot, whilst other varieties produce various-coloured seeds. The white sort resemble pearls. Reused into a fine powder, goldsmiths use it to join together the more delicate parts of golden ornaments. The shining scarlet seeds of the Adenanthera pavonina are used as weights by jewellers, and are made into ornaments, in the form of beads, bracelets, etc. The round, hard black seeds contained in the hairy pericarp of the Canna Indica are made into necklaces and other ornaments. The Utrassum beads are the very rough seeds of the Elaeocarpus lanceolatus, (Utrassum, Tam.; Oodraj, Duk.) They are brought to India from Java, of which country the tree is a native, are about the size of small nut-megs, and are made into bracelets for European ladies. The saiva Brahmas and the pandarans, religious devotees of the saiva sect of Hindus, who live by alms, wear them round their heads and necks, and form them into various. The dark-coloured oval seeds of the Caryota urens are made into buttons, and are used as beads by Mahamalas (Koondel-panel munnie; Tam.; Erinnampa, Can.). The dark-coloured roundish seeds (Kodad-panel munnie, Tam.) of the Carypha inbuctridera are used as beads by the Dassari wankoo, Hindu devotees who live on alms. The Tulasee beads (Tulacee vary munnie, Tam.; Toolai kemunke, Duk.) are made from the root of the holy basil, Oecium sanctum, a plant sacred to Vishnu, and held in esteem by all his worshippers, many of whom wear it round their necks and arms. A very handsome bead is made by polishing the betel-nut, called by the Tamil people Pask munnie.


Beans are in general use in all countries for personal ornament, as necklaces, ear and nose drops, and for ornamental work, and are made of glass, ivory, wood, the inferior and the precious gems; cornelians, onyxes, rubies, emeralds, pearls, seeds, abalaster, magnesite, nacre, coral, gold, silver, and date stones are all used as beads; rosaries likewise consist of beads. Glass beads are manufactured in China for export to India and the Archipelago, and are largely exported from England to Africa, sometimes to the value of £10,000 to £20,000.

BEAMI. MALEAL. Herpetesia munniens.


The various kinds of beans cultivated in the gardens of Europe are largely grown in India, —Viola falla or Windsor beans, and the various species and varieties of phaseolus or French beans. China is rich in many kinds of bean, some of them indigenous. A bean grown at Shan-tung has its oil and oil-cake largely imported into Shanghai and Ningpo, its oil-cake being used as manure. French beans are of white, black, and yellow colour. The dwarf white bean sooner than the other sorts, which require sticks at least six feet high, and strong. The Portuguese bean or chevaux-de-frise pod has four fringed edges, the angles jagged. Broad and Windsor beans should be sown in the cold weather, in drills the same as peas, each bean at six inches apart, the rows sufficiently separated to admit a person to pass between them for picking, weeding, etc.

Bitter bean, the Hu-lu-pa and Ku-tan of the Chinese, are small, pale, reddish-brown seeds of a leguminous plant, introduced into the south of China. Bean-curd, Tau-fu of the Chinese, is largely used as a condiment in China. It is an emulsification of a species of Dolichos, D. soja. The bean is boiled and skinned, and ground with water to a pulp, which is strained, and water added. In this state it resembles bony calabashes or curled milk, and is called tau-fu-lua, or bean-curd jam; the water is sometimes all strained off, and it is then sold in slices, or small seeds called huang-tze are added. The Rev. Mr. Gray says the bean flour is sifted through coarse calico, and then through a finer sort, and is then boiled for an hour over a slow fire, until it

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thickens to a consistence suitable as food; it very much resembles blanc-mange.

Bean-sprout, the Tau-yu of the Chinese, are the germinating sprouts of the Dolichos soja bean, artificially raised by the Chinese in large quantities for wood in winter. — Smith, Chin. Mat. Med.; Gray, ii. 136.

BEAR.

Dub. UGIS, L. 
Huang. Chn. 
Dob. ETHIOPIAN, HEB. Deep, Pers.
Ours. Po. 
Arktos. GR. 
Rich; Balu. HIND. 
Orso. IT.

The bear is of the genus Ursus, of the mammal a plantigrade animal. Four Indian species are known, viz. U. isabellinus of Horsfield, U. labiatus of Blainville, U. Malayensis of Raffles, and U. Tibeatanus of Cuvier. U. isabellinus is, according to Gray, the U. Syriacus of Hemphil and Englem. and that known to Himalayan sportsmen as the brown, red, yellow, white, grey, orl snow bear, or Tibetan snow bear, and is the Harpat of Kashmir, for it inhabits Tibet and the snowy regions of the Himalaya and high Central Asia generally.

U. labiatus, Blainville, is found all over India, Ceylon, and Assam, and is the Balu or Reech. It has received several scientific synonyms, attaching it to the genera Brandyopsis and Melurs; and its names in English, five-fingered sloth, sloth bear, and ur sine sloth, have corresponded. It is readily domesticated. When wild, it lives on roots and honey.

Ursus Malayensis occurs in Arakan, Malaya Peninsula, Sumatra, Java, Borneo, and in Indo-Chinese countries generally.

U. Tibeatanus, the black bear of Himalayan sportsmen, inhabits the forest region of the Himalaya, and is very rare in Tibet, though met with in its lower forest. It is identical with U. isabellinus. The brown and black bears never associate, and when they meet, one invariably attacks the other; the black seems always the assailant.

Bear-gall, Hsiang-tan, CHN. In China, a soft, black, sticky bolus-like substance, having a bitter aromatic flavour. It is very costly, but seldom genuine. It is given in homoeopathic doses in abdominal and hepatic ailments.

Bear’s-grease. To prepare it, cut off the fat in long strips, and put these into empty bottles; when filled, cork down the bottles, and place them all day in the sun. The fat soon melts, and now looks like oil, but when cool, becomes quite firm and white. Capital for cleaning guns, for it prevents rust; scented with bergamot, etc., it is much prized for the hair.

Bear’s-paw, Hsian-fan, CHN., is regarded in China as a great delicacy. — Williams’ Middle Kingdom, p. 319; Smith; Gray; Adam; Blyth. 

BEAR. The Great Bear in astronomy is the Dab-i-Akbar of Persian astronomers.

BEARDS.

Bart. BARBA, L. 
Beard. DAX, GER. 
Bare. DUT. Beas, Pers.
Darbi. HIND. Thadi, Tam.
Barbe. FR. Gadamu, Tel.

The beard is worn by most Mahomedans, and by several of the Christian sects of the East. In Europe, from the 12th to the 15th century, the Christian clergy wore the beard long, till the laity began to follow the example, when Leo x. ordered the priests and abbeys to shave. Most Mahomedans of the Shafein school, however, clip their moustaches exceedingly short; some clean shave the upper lip, the imperial, and the parts of the beard about the corners of the mouth and the forepart of the cheeks. In anointing the body, the beard is also attended to; and in the utterance of any holy name or prayer, Mahomedans rub their hand down over their face and mouth and beard, catching as it were the sacred sound, and filling the beard with it.

The Persians and Afghans have a magnificent growth of hair on their faces. The Sindiand Baluch have also a good quantity. The emperor Akbar so disliked the use of beards, that he would scarcely admit a person into his presence who wore one. Beards are dyed red or black with henna (Lawsonia), or blue with indigo. Many of the Sikhs and Rajputs wear the beard, but, generally speaking, Hindus and Burmese shave off the hair of the face. In western Asia, in ancient times, they had figures of bearded men, the symbolic representation of the union of the male and female principles in nature-worship. This is plainly the intention in the statues of the Aphrodite Barbata, which are to be seen occasionally in the museums. The Goddess of Love of Cyprus was Asiatic and oriental. Dr. Bartel calls her a Semitic deity of Assyrio-Phoenician origin, identical at first with the Asharoth of these peoples. — Gatton’s Vacation Tourists, p. 351; Burton’s Mecc.a, ii. p. 333; Elphinstone, 472.

BEARER. ANGLO-HIND. A palanquin-carrier; also a house servant.

BEARROOT, hunting eagle of the Kirghia.

BEAR-PIG, or hog-badger, Arctonyx collaris.

BEAR-WOOD or Biair wood, of Meena forest, Abbottabad, Hazara; also, of the Malayanus of the Himalaya region.

BEAS, a river of the Panjab; this and the Jeholun, Chenab, Ravi, and Sutlej, form the Panjnad, that joins the Indus near the southern extremity of the province. It is the Bibasis of Ptolemy, the Hypaphsis of Arrian, and Hypasias of Pliny; it was also known as the Beah and Veya, and now locally by its Sanskrit name Vipasa, corruptly Bipasha. It is, however, also said to take its name from a sacred pool at its source, called Vyas Rihs, situated in the Rottang pass, at the head of the Kulu valley. It rises in the snowy mountains of Kulu, on the south verge of Rottang (Ritanka) pass, lat. 32° 24’, long. 77° 11’, 13,326 feet above the sea, runs south to Sutlej, at Endrass length 290 miles. Its chief tributaries and affluent are the Parbatii; Sainj, 35; Comati, 55 miles; Ul; Gaj. About 10,000 square miles are drained by it. The scenery of the Beas is particularly beautiful, and differs from that of the Ghaghra and Chambal. Above Sultanpur there is abundance of kail trees; the dhar-chil of Chamba, elm, maple, oak (two species), and walnut. On the Parbatii, not far from the sacred hot spring of Mani Karan, there is a considerable supply of box (Buxus sempervirens), also of ‘Shamshad’ of the Cupressus torulosa (twisted cypress), and of the olive (Kahu). A large forest of chin (Pinus longifolia) is found below Karsole on the Parbatii. The higher slopes there are dense forests of the less valuable pines, and of the alpine oak, Quercus semicarp-
BEAUMONTIA GRANDIFLORA.

There are gold washings in its sands. From Manoli forest to Larji the fall appears to be nearly 60 feet per mile. From Larji to Mandi, a distance of 25 miles, the fall is 1000 feet, or 40 feet per mile. From Mural, a distance of 150 miles, the fall is only 1600 feet, or 10-06 feet per mile. Polygony prevails in the Beas valley, but the general immorality is ascribed to the large numbers of Yarkandi traders.—Arrian: History of the Panjab, p. 15; Hook, et Thom.; Mrs. Hervey's Turfary, i.p.85; Cumingham; Clegborough's Panjab Report, p. 84.

BEAUMONTIA GRANDIFLORA. Wall., the Echites grandiflora of Roxburgh, one of the Apocynaceae, is a gigantic climbing shrub, growing in Chittagong, the Khassya hills, and Nepal; flowers in February, and is very showy; found by Dr. Hooker in the Terai east of Siligori, ascending the loftiest trees, and clothing their trunks with its splended foliage and festoons of enormous funnel-shaped white flowers. B. Jerdoniana, R. Wright, of the Coorg jungles, attains similar heights.

—Roxb.; R. Brown; Hooker, Jour. i. p. 401.

BEAVER.


Neither the large nor the little beaver occur in India; but the tails of the latter, the Ondatra Americana of Tiedmann, the Castor Zibethicus of Linnaeus, Fiber Zibethicus of Cuvier, Ondatra of Lacepede, the musk-rat of Canada, and musquash of the Cree Indians, form a considerable article of import into India, being regarded by some races as aphrodisiac.

BEBBEH, the chief family of the Kurd clan of Kermani; the members are the hereditary chiefs of the clan, hence their whole territory and the people are now called the government of the Bebbeh or Baban. The clan was originally established at Fizhdher in the northern mountains, near Sikenah, on the frontier of Persia.—Rich's Kurdistan, i. p. 80.

BEBEHAN, one of the three districts of Fars, the other being Laristan and Faras proper.

BEBINA. Hind. Mussaenda frondosa.


Treapang, the esculent Holothuria, or sea cucumber of the sea of the Archipelo, sells at Singapore at 18 to 70 dollars per pikul. One species, the H. truncula, is abundant on the reefs at Batavia, Tahiti, and is 6 to 8 inches long, and 2 to 4 inches broad. Another species is 3 feet long, with a cylindrical body. A settlement of Sandwich islanders was formed on Fenning's Island in the N. Pacific to collect treapang for the China trade. That of the Torres Straits is assocted into the red fish, which bring $140 per ton at Sydney; the black fish, $120; and the tent fish, $80.—Moresby, p. 136. See Holothuria; Treapang.

BECHEI. Hind. An Indian variety of the Cucumis dromedarius.

BECHIAUCORI, a wood of Nepal, called also Sulla and Suraahooli, or Dhoobkee, on account of its resinous quality. Its branches are used as torches; the fragrant turpentine which it yields is employed in sacrifices and in medicated salves; and its wood is converted into rafters for houses.

—Smith's Nepal, p. 67.

BECHNE-WALA JOGI, a sect of Jogis peddlars and mendicants.

BECHUI or Beh-chandee. Hind. In Raopore, this substance, if pulverized, resembles arrowroot, and is made use of by natives on their part or fast days, prepared in various ways. It is obtained from the lignon tree which issues from the stems of a jungle plant, after being soaked in running water for some days. The Gould race prepare the Beh-chandee. It can be had in any quantity in the Jubulpurazar, but most of it comes from Mundla and Sheone. It appears to consist of the dried sections of a farinaceous root containing bassorin, and allied in composition to salpe.

BED.


John v. 8, 9, says, 'And the man took up the bed and walked.' The bed of an oriental is seldom anything besides a carpet or mat, or a felt as thick as a bed quilt. Men carrying such bedding may be seen daily on the highways. The Hindus of the south of India usually sleep on the floors of their houses, but all of them have right dressed-in which to sleep, that of the women being generally a loin-cloth like a kilt, called Padawi, Tam., Koka, Tel., made of cotton or of the fibres of one of the hemp plants, though many lie down in their day dress, as in Exodus xxii. 27. Mostly all Mahomedans in India use cot's to sleep on, when able to afford them, and every Mahomedan bride takes a cot or charpai to her husband's house, as part of her 'jahez' or furnishings. In Burmah the poorest person sleeps on a cot with mosquito curtains.—Ward, Hindoos.

BED. Hind., Pers. Salix, sp., the willow, also Calamus rogatong, the cane rattan.

Bed-i-Anjir, the castor-oil plant.

Bed-i-Mushik, Salix Egyptiacen, S. Capreca. Willow-flower water is the arak-i-bed-i-mushik.

Bed-Kist is a species of Salix.

Bed-Lala, S. tetrasperma.

Bed-Majnun is the S. Babyloncns.

Makhan bed or pakhian bed, Saxifraga ligulata, Bed-ul-Ashar, Calotropis gigantea.


BEDALI or Bedalika. Hind. Griffithia fragrans.

BEDA-TIGE. Tel. Ipomea pes-caprae, Sweet.

BEDDOME, COLONEL, a Madras military officer, wrote on the snakes, the ferns, and timber trees of the Madras Presidency. His Flora Sylivatica of the Peninsular tree, a work of great research, gives also notices of Ceylon trees.

BEDEE. Of the Sikh sects, the highest class are the Bedee, as being descended from Guru Nanak, the founder of the sect. They form, by virtue of their descent, the hereditary priesthood. They are to be found in all parts of the Panjáb: in the districts lying at the base of the Kangra hills, at Gujranwala in the middle of the Rehna Deob, at Gogira on the Ravi, and at Shahpur on the Jehulum, and a few at Rawal Pindi; they are also occasionally to be met with to the south of the Sutlej. But their home and stronghold is at a town named after their founder, Derah Dalew Nanak, on the Ravi, near Butalla. So notorius
had been the crime of infanticide among them, that a Bedee was generally known by the opprobrious title of Kowee Mar, or ‘daughter-slayer’. The Bedee adopted as their patronymic the name of the tribe to which their ancestor Nanak belonged. But there are Bedee still of that original tribe, who are not descendants of the Guru, nor, indeed, Sikhs at all. With these men pride alone prompted to the crime. The fear of poverty arising from marriage expenditure would have little weight with them, as, unlike the impoverished Rajputs, they were generally men of wealth and affluence; they held fertile jaghirs, and their priestly coffers were well filled with the offerings and dues of their race. But in defence of the unnatural custom, which they did not attempt to deny, they, like the Rajput races, were ready with a traditional obligation laid upon them by an indignant ancestor. The story is thus given by Major Herbert Edwardees:

—When a bridegroom and his party were departing, the two sons of Dharm Chund accepted presents from them except the oldest. The weather was hot, the party out of temper, and they took a malicious pleasure in taking the young Bedee farther than etiquette required. When the lads returned home footsore, Dharm Chund asked if the Khutra had not bid them to turn back sooner. The boys said “No,” and it was then that the old man, indignant at all the insults which the bridal of his daughter had brought upon him from an inferior class, laid the inhuman injunction on his descendants, that in future “no Bedee should let a daughter live.” The boys were horror-stricken at so unnatural a law, and with clasped hands represented to their father that to take the life of a child was one of the greatest sins in the Shastras. But Dharm Chund replied, “that if the Bedee remained true to their faith, and abstained from lies and strong drink, Providence would reward them with none but male children, but, at any rate, let the burden of the crime be upon his neck, and no one else’s.” And from that time forth Dharm Chund’s head fell forward upon his chest, and he evermore walked as one who bore an awful weight upon his shoulders. With consciences thus relieved, the race of Bedee continued for three hundred years to murder their infant daughters, and if any Bedee, out of natural feeling, preserved a girl, he was excommunicated by the rest, and treated as a common sweeper. —Brown's Indian Infanticide, pp. 115-117.

Beder. In the tract lying between the Mysore, the Hyderabad, and the Mahatta territories, are several petty sovereignties, such as that of the Nawab of Banganapilly, a Syud family in the east of the Ceded Districts; until 1839, the Mahatta of Kurnool ruled on the right bank of the Tungabhadra river; further west is the Reddi chief of Gadwal; the Mahatta chief of Sundur, one of the Ghurpa family; the Khatriya Raja Narapatii of Anagonda, the descendant of the great king Rama of Vijnagar, who was overthrown by a combination of the Mahomedan kings of Golconda, Kullburga, Bijapur, and Ahmadnagar; the Pathan nawabs of Shahnur, the Ghurpa chieftains of Gugjundurgur, and Akalkot, and at Ghurgunta, and Beder Zorapore, are the descendants of that Beder soldier, Pid Naek, to whom Aurangzeb, for aid given at the siege of Bijapur, granted a small territory in the Raichore Doab. The Beder race now have only these two small sovereignties. Some of them in Zorapore are tall, well made, robust men. A small body, engaged in cultivation, occupy the plateau of Ramandrug. The town of Zorapore is in the centre of a rocky amphitheatre, admirably suited for a predatory band. They are fond of the chase, and hunt the wild boar with large dogs. They are in various stages of civilisation, but those in Mysore are perhaps most advanced. In parts of Mysore they form a considerable part of the population, and have many poligarmships. Their name is variously pronounced — Beder, Baida, Baida, Waida, Vedda, Vedar, Veddr, Vedan, and Bedan. They are the race that gave their name to the Pindara, who harassed Central India for nearly fifty years. Some of them have become Mahomedans.

The Beder of Zorapore and Ghurgunta drink spirits, eat the hog, crocodile, porcupine (Sambu), manis (Ali), iguana, bullock, cow, buffalo, cat, rat, bull, fox, and jerboa rat. Beder families often devote their daughters to some idol. She is branded with a seal (Muddirai), and becomes a Basavi or Murli. Their men often become Dasari, who are celibates, and subsist on alms. Wilson describes the Mysore Beder as a race who live by the chase, as hunters, fowlers, and are considered in Mysore as coming originally from Telingana. Many of the Bedera are grain carriers. Until the middle of the 19th century, a small tribe of Baidara-wanlu, or Beder people, remained in Bellary; they were Mahomedans, kept numerous little horses, which they used for carriage. They were great carriers, and had been of use in several military operations, and a small body then occupied the Ramannulla hill.

Beder, in lat. 17° 53' 0" N., long. 77° 34' E., a walled town in the Dekhan, near the right bank of the Manjera, 75 miles N.W. of Hyderabad. The top of the minaret is 2550 feet, and the base is 2250 feet, above the sea. Beder was the capital of the Bahmani dynasty, which ruled up to the middle of the 16th century. This dynasty joined the quadruple confederation, formed with the Nizam Shahi, king of Ahmadnagar, the Adal Shahi, king of Bijapur, and the king of Golbarga, to overthrow the Sind sovereignty of Bijanagar, near Bellary, when the sovereign Rama Raja was defeated, taken prisoner, and beheaded at Kala Chabutra. Beder is surrounded by a great curtain, now much dilapidated, and on one of its bastions is an old welded gun, 21 feet long. Many great cupola tombs are on the plain to the S.W. The inhabitants, in 1866, were few and poor. Beder, Bijapur, Berar, Golconda, and Ahmadnagar, in the 16th century, were five independent Mahomedan kingdoms, but about the time of Baber’s invasion they were absorbed by the powerful neighbours. In 1572, Berar was absorbed by the Nizam Shahi dynasty. A peace was concluded here between Salabut Jung and Baji Rao in 1751.

Beder Ware is a tatanagane work which has been described by Drs. Heyne, Buchanan Hamilton, and Smith, and Captain Newbold. It is a metalurgical compound of considerable interest, and the articles made of it are admired for the elegance of their form, as well as for the gracefulness of the patterns with which their surface is covered. Though the groundwork of this composition appears of a blackish colour, its natural
Beder Ware.

Bederi ware is characterized by its color, which is either pewter or zinc. Dr. Heyne informs us that it is composed of copper 16 oz., lead 4 oz., and tin 2 oz. These are melted together, and to every 5 oz. of the alloy 16 oz. of zinc are added, when the alloy is melted for use. But to give it a black color, which is described as a black color vehicle, it is scraped, probably from bringing out the black metal, and is dipped into a solution of sal-ammoniac, salpetro, common salt, and blue vitriol. Dr. B. Hamilton saw an alloy of zinc 12,360 grs., copper 460 grs., and lead 414 grs., melted together, and a mixture of resin and beeswax introduced into the crucible to prevent calcination. It was then poured into a mould made of baked clay, and the article handed over to be turned in a lathe. Artists then inlay flowers or other ornaments of silver or gold. They first smear it over with sulphate of copper and water, which gives the surface a blackish color, and enables the artist more easily to distinguish the figure which he draws; this he does with a sharp-pointed instrument of steel, and cuts it with small chisels of various shapes, and then with a hammer and punch fills the cavities with small plates of silver, which adhere firmly to the Bederi. It is then polished and stained, as described above. The various articles made from it are vases, wash-hand basins and ewers, hookah-bottoms, spittoons, cups, and dishes, small boxes, and weights. These are inlaid commonly with silver, but sometimes with gold. The patterns are usually as much to be admired as the forms of the vessels. Though usually called Bederi, it is manufactured at other places. According to Captain Newbold, the mould of the vessel is first prepared, in the usual manner, of clay turned into shape on a wheel; over the smooth surface of the mould a coat of wax and resin in equal proportions, with a little oil, is laid, of the thickness of the sides of the vessel required; over the wax another thick coat of clay is applied. Gradual heat is next resorted to, to harden the clay part of the mould, but principally to melt out the wax, which of course leaves a vacuum in the space it occupied. Into this space the molten alloy is poured, cooled, the mould broken, and the vessel in rough taken out, polished, and set aside, to receive a black colour, preparatory to inlay, from a smearing of Mor toota (blue vitriol). The alloy itself is of a pewter white colour, and is composed of the following proportions:—1 seer Just (zinc) to 1 Chittak or 6 Shahi piece weight of copper. The pattern of the ornamental device to be inlaid, either in silver or gold, is next drawn lightly with a steel point on the blackened surface of the vessel, and then cut out to the depth of the inlay required, with a tiny delicately-pointed chisel, worked by a small hammer. A thin bit of paper is pressed into the excavated pattern to receive the impression; taken out and placed upon a thin plate of silver (the inlay), which is itself laid out evenly on a bed of mixed wax and resin, and cut into the exact shape of the impression. The cut-out bit of silver is then pressed into its corresponding cavity engraved on the side of the vessel, and firmly inserted by means of a steel point. This done over all parts of the vessel, it is again polished preparatory to receiving its finishing coat of black. This is done by subjecting the vessel to a gentle heat, and smearing it with a mixture composed of—1 tola (lbhur) Shorah ki Mutti (salpetre), 3 masha Nousadar (sal-ammoniac), ground up into the consistence of cream with brackish water. After allowing this mixture to lie upon the vessel for a few hours, it is washed off with a little brackish water. The inlaid silver devices are little altered in colour, but the intervening portions of alloy remain of a permanent dead black. He witnessed the whole process of inlaying, and could not help admiring the precision, beauty of touch, and celerity with which it was performed by a ginnet, which caste and a Daima were the only persons skilled in the art. It seems divided, however, into three branches,—the mould maker, smelter, and inlayer.

In 367 there was only one family. Bederi ware does not rust, yields little to the hammer, and breaks only when violently beaten. According to Dr. Hamilton, it is not nearly so fusible as zinc or tin, but melts more easily than copper.—Royle, Arts, etc., of India, p. 471; Letter from Captain T. J. Newbold to Major-General Fraser; Dr. G. Smith in M. E. J. R. Bi Bai. Hind. A pulpit.

Bedisa Tivva. Tel. Vitsa latifolia, R.

Bedinur, also called Hyder Nagar, also Nagar, a town 4000 feet above the sea, in Mysore, formerly a large and populous city of great strength, but the population in 1851 was 1255 souls. It was taken by Hyder in 1768, and again in 1783 by General Stewart, who was afterwards attacked by Tipu, and the whole destroyed or made prisoners. When sacked by Hyder, the booty obtained is said to have amounted to twelve millions sterling. Hyder established a mint, and here struck the first Hyderi pagodas.

Bedinur, at the foot of the Aravalie hills, within the bounds of Mewar, had, as one of its ancient chieftains, Rao Soortan, of the Solanki tribe. He was a lineal descendant of the famed Balhara kings of Anhalwara, who were expelled from Anhalwara in the 13th century, and migrated to Central India, where they obtained possession of Tonk-Thoda and its lands on the Bunis river; but Lilla, the Afghan, deprived Soortan of Thoda, and restricted him to Bedinur. His daughter is distinguished in Indian annals.—Rajasthan, i. 673.


Bedouin, the Bedawi of the Arabs, may be described as comprising those in the western bordering on Yemen, Hejaz, Palestine, and Syria, and along the banks of the Euphrates; also those of the Najid, and central provinces of Arabia, all of whom migrate but little (?); those who have crossed the Euphrates, and those who migrate or roam all over the deserts.

The Shammar emigrated from Jabil Shammar, in the 17th century, into the northern desert, and they were forced across the Euphrates by some tribes of the Anazah. They have four great tribes,—Jerba, Fadagha, Salama, and Es Safik.

The Anazah are the greatest and most powerful of the Bedouin populations. They are a great people, pastoral, nomadic, dwellers of the desert. They claim descent from Adam. They were dispossessed of Najid by the Wahabis in the early part of the 19th century, and they migrated largely to the north, occupying the deserts between Syria and the Euphrates in summer, and returning to the south as far as Najid in the winter, bartering for grain and goods with the merchants of the border towns of Syria, such as Damascus, Hamah, Homs, and Aleppo. The different Anazah tribes
have each their own separate pastures, and trade with different towns. The profits of the Aleppo merchants alone have been stated at £50,000 a year. They are proud of their race, and despise the Turk, but often fail in their mercantile agreements. They have two divisions of the Bisher, the Walad Ali and Jelas. Abdul-Wahab, the reformed, belonged to the Mekran, a branch of the Messalaky Anazah. When they migrated to the north, they forced the Shammar across the Euphrates, after fierce battles, and hostilities continue. Some have remained in Najd, some in the desert east of Palestine and Syria. The Walad Ali at Khalbar are masters of all the Haj route from Syria. They migrate north to the Harun and Damascuses. They are rapacious and predatory. It was the Walad Ali who defeated the French troops under Kleber. They have many fine horses. Other clans or tribes are the Bani Sahar, Amur, Amarrah, Erfaddi in Najd, Ruwlah and Jelas, who migrate from Damascuses. The confederate tribes are the Fadan, who are predatory; and other clans and tribes are the Shincilat, Hirsa, Adjadjara, Al Ghaban, and Jedaa, the seven Sabha tribes; the Abadat, Duan, and others. Obaid and Tai, ancient and still powerful tribes, are in the neighbourhood of Mosuil, where they sell their wool, for they are rich in live stock. The Taif came from Yemen to the Tigris. Montifish, Al Hindi, and Slaid, tribes of Irak or Turkish Arabia, are scarcely in Arabia. The Montifish are fishermen, and breed horses. Al Hindi are wealthy. They are agricultural and pastoral, sowing, and returning to reap in autumn. The Slaid are cultivators; have a breed of large white asses, much used in Syria. The Tai at one time settled in Yemen. Hatem, one of the tribe, was celebrated for his generosity. The Tai had seven families. 

Mowali, of the northern desert, came from Hejaz, and their shaikh claims to be descended from the Abbassi Khalifs. The strife for the district between the Shammar and the Mowali lasted fifty or sixty years. The Hudadiv are peaceable, wealthy shepherds. The Weldi are agricultural, on both sides of the Euphrates. They were formerly in Mesopotamia; some are tributary to the Shammar, and some to the Anazah. 

Abghedat is a wealthy tribe, dwelling in tents, both pastoral and agricultural. 

Beni Khalid, a numerous tribe, which has spread from Hassa to many parts of the desert. Ferdoon, Ghes, and Lahap (the last a Mowali clan) are nomadic, but grow grain. 

Sohni are carriers, and have some wealth. They make soda. 

Bans Said, north of the Shass, on the right bank of the Euphrates, are wholly predatory, riding horses in their forays; do not cultivate, nor breed horses, nor trade. 

Subia, on the right bank of the Euphrates, below the Weldi. They are constantly at war with the Shammar of Al Jazirah, and on that account are protected by the Anazah. They have large flocks of sheep and camels, and have good horses. Some families grow grain. 

Al-Glat, Al-Medjadama, Al-Bala, Al-Mesha-hads, Al-Bashkch, Al-Baslim, are small tribes of no military repute. 

Hernanl, a warlike branch of the Koresh tribe of Mecca. Many of them in Syria are employed as irregular horse. 

Agkel tribe are carriers. They are numerous, and have large herds of camels; travelling and settling all over Arabia as agents or peddlars. 

Bedouin tribes who dwell permanently among the mountains only rear sheep; the camel-breeding Bedouins migrate with the seasons. The Bedouin is described by Chateaubriand (Itineraire, i. 421): ‘La tête ovale, le front haut et arqué, le nez aquilin, les yeux grands et coupes en amandes, le regard humide et singulièrement doux.’ Every Bedouin grows his hair unshorn from infancy. The young men plait their locks on each side; they never wear the fez; every Bedouin smokes. Bedawi are really the inhabitants of Central Arabia. Reading and writing are almost unknown to them, but they speak the purest and softest Arabic, and the Meccans and others resort to them to obtain a just pronunciation. The Bedawi pronunciation is best, that of Mecca and Hejaz next, and after these come that of Bagdad and Yemen.—Major R. D. Upton, Gleanings from the Desert of Arabia, p. 204; Lady Anne Blunt, ii. 164. 

Beda, a migratory predatory tribe found in most Bengal districts, usually under the special surveillance of the police. They are a branch of the Bazigar or Nat, and sometimes call themselves Manjhi and Mahalli. They are migratory jugglers, fortune-tellers, rope-dancers, beggars, and fowlers, and have a slang language. They submit to circumcisions, and call themselves Mahomedans, but they have many Hindu customs and idolatrous practices, and consult Brahmins on particular occasions. Though scattered, homeless, and migratory, they are in communities in different localities. 

—As. Soc. Res. ii. 458; Dalton, Bengal, 326. 

BEE.

Abelle, . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
BEE.

strongly against the combs. The bees hurry through the outer door, when the farmer, introducing the sickle, cuts down the combs nearest to him, leaves undisturbed about one-third of the combs close to the outer door, and then replaces the inner platter. Not above one-hundreth part of the community is destroyed. The produce is less than the ordinary yield of a good swarm in England. The honey is light-coloured, and of a taste as pure and as sweet as that of Narbonne. The paensanity of Kashmir eat it raw, or mixed with various articles of common food, whilst the most wealthy substitute it for sugar in preserving fruits. It is customary to take the hive every year, and the end of September or beginning of October is found the best season for this operation, a little time still remaining for the bees to add to the portion left for their support during five months. The bee of Kashmir is almost domiciled; it is a little smaller than that of Europe, though a little larger than the domesticated bee of Kamaon and of Garhwal. Occasionally the honey made by the Bhoura bee of Garhwal is intoxicating. The Bhoura is compelled to take a more extensive range, and, in the scarcity of food during the short summer, to be less select in regard to its quality.

The bees at the marble rocks of the Nerbulda are the Apis dorsata, and are said to be easily irritated from March to July. On one occasion they attacked an Englishman, Mr. Biddington, and in trying to escape them he was drowned. Captain Forsyth mentions (p. 40) that one of his baggage ponies was stung to death. Writing from Colombo, Ceylon, Mr. Benton says he had seen two native races of bees there, and the comb of a third. One is stingless, but worthless. One race is Apis indica, and the other Apis dorsata. The latter is certainly a wonderful bee; builds in the open air, on branches, often making combs six feet long; and thirty natives have each taken a load of honey from the same tree. Writing from Java, he had seen two of its combs. These were three feet by three and a half feet, and were one and a half inches thick when the brood was reared, and had about twenty cells to the square inch.

Bees in Abyssinia build their combs in the trunk of the baobab, and the honey is deemed of superior flavour.

In Ceylon, bees are all wild. They collect largely from the neho. Their nests hang from the boughs of the trees, and a man ascends with a lighted torch of green leaves, which creates a dense smoke, and he smokes off the swarm from the comb, which is a beautiful circular mass of honey and wax, generally about eighteen inches in diameter and six inches thick. The bee-hunter being provided with vessels formed from the rind of the gourd, attached to ropes, now eats up the comb and fills his chatties, lowering them down to his companions below. When the flowers of the neho fade, the bees leave that district.

A small bee called 'hei-ying-koen,' or 'fly bee,' is found in the valley of Munnipore. The honey is excellent. Another species, very large, forms its nest in the ground, and is dangerous to the unwary traveller. Incidents have occurred of individuals having fallen into these nests, and having been stung to death. The Munnipure, when they come upon a bee of this species, catch it, and, having attached a thread to his body, let it loose. By means of the thread its flight is observed, and it can be followed to the nest. The spot is marked, and fire having been procured, the bees, otherwise so formidable, are easily destroyed, and the comb filled with the young obtained. Another and larger bee of Munnipore forms its nest dependent from the branch of a tree, or under the shelter of a wall, the nest being of a most beautiful substance resembling marble paper.

The bee of the Indian Archipelago suspends its nest from a branch of a tree, in which position they may be seen forming masses of considerable bulk. Certain trees become favourites, and are selected by the bees year after year for many generations, although often disturbed by the taking of their nests. In Borneo these trees become private property among the eastern tribes, and are handed down from father to son. Bees are hived in Borneo, and beeswax is sold at 25, 10s., to 77, 10s. per 133-1-3 lbs.

The Chinese bees are killed off bees by a few dry stems and leaves of a species of artezium, which grows wild on the hills, and which is largely used also to drive the mosquito out of the dwellings of the people. This plant is cut early in summer, sun-dried, then twisted into bands, and it is ready for use. At the commencement of the operation, one end of the substance is ignited, and kept burning slowly as the work goes on. The bees hover about, but apparently quite incapable of doing the slightest injury. — Fortune's Residence; Mourtowock's Travels; McCulloch; Records of the Government of India, F.D., pp. 32-3; Baker's Rifle, pp. 304-5; Indian Field.

BEBEBEE or Bibi. Hind. Any lady, a lady of the Mahomedan races. Beebee Fatima, daughter of Mahomed, was wife of Ali. See Begum.

BEEBEE of Cannamore is the ruler of that neighbourhood, and exercises authority over three of the islands of the Laccadives, all of which formerly belonged to her ancestors. The Beebee is a Mopla Mahomedian, and the senior female member of the family takes the title and position. It is related that in some former time a party of Mopla merchants came upon a number of Nair women while bathing, who hastily snatched up their clothes and ran off, but the apparel of one young woman was accidentally carried away, and as she could not quit the water, a Mopla gave her a cloth to cover herself, which is equivalent to being her husband, and they were married. The girl was the only member of a rich house, and the Cherical raja bestowed on her a tract of country, with the arrangement that it should be held with the title of Beebee by females only.

BEE, CARPENTER, a name given to a hymenopterous insect, the Nylloccia tentaculata of Westwood (X. longipes, Drous), which perforates large beams of timber, as also trees, by boring holes through them. On one occasion, at Kurnool in the Ceded Districts, one of them was seen to kill a sparrow by a single thrust of its sting. Any intruder within the precincts of their nests instantly becomes an object of suspicion and attack, and as the unlucky sparrow was flying towards the corner of the hospital, the bee assailed it, struck it with its sting, and the bird fell dead. On raising the skin from the bone, a small reddened spot on the temporal part of the skull indicated the point at which the sting had entered.

BEEDEUL. Beng. Raulhim purparea.
BEE EATER.

BEE EATER, several species of birds of the genera Merops and Nyctibiomm.

BEE-EW. BURM. A very abundant timber of Tenasserim, not identical with Thee-bew-tha. Its maximum girth is 3 cubits, and length 22 feet. When seasoned it sinks in water. It is a very hard, strong wood; used in rice mills, where great strength and durability are indispensably required; recommended for handles of tools.—Dance.

BEEF.


The flesh of the bull, bullock, or cow is in use amongst Mahomedans and non-Aryans in India. The flesh of cattle that have died is largely used by the Burmese, and by all the shoemaker and Pariah races. Beef is never eaten by any of the Hindu sects; many never even pronounce the word, though in the time of the Veadas the Gao-medha or sacrifice of the cow was common. Menu authorizes the consumption of animal food at all seasons, with the slight restriction of first offering a bit of it to the gods, or menes, or guests. Hence, also, Goghana, or cow-killer, became the term in use to designate a guest; and he names amongst other animals all quadrupeds, the camel excepted, that have but one row of teeth.

Surabhi, in Hindu mythology, is a celebrated cow, obtained, with other of the fourteen products, at the churning of the ocean; and daughter of Surabhi is a common expression to designate a cow. In Valmik's preparation for the reception of Vasishta described in the Uittara-rama-charitram, Blandayans says:

'Why, know you not
The Vedas, which elucidate our law,
Direct the householder shall offer those
Who in the law are skilled, the honeyed meal,
And wish it flesh of ox, or calf, or goat?'

The Vava-Parva of the Mahabharata mentions buffalo flesh as openly sold in the market.

BEEGHOTO. BURM. Castramata muricata, a hard, close-grained, reddish wood, variegated with dark and whitish streaks. It is chiefly used in England in forming borders to work in which the larger woods are employed. It is procured from N. S. Wales, and is imported into the United States in considerable quantities, for various purposes where a hard, heavy wood is required; the Tenasserim coast can furnish almost any quantity of this timber, which is very little used there. Roxburgh says it resembles teon in appearance. The Burmese call it by the same name as the pine.—Fawckner; Mason.

BEEGAH or Bigha, a land measure in use in India, but varying in length. In Northern India it is 3025 square yards, or five-eighths of an acre. In Bengal, 1000 square yards, or little more than one-third of an acre. There is a kuch-ha and a paarkha begah, the former one-third or one-fourth of the latter. The following are some of the local begahas in every 100 acres—

Farrakhabad, 173 12'0
Asimgur, Ghaari,
Gorahpur, 192 19'7
Bihar, 154' 6'8
Allahabad, Asin-
gur, 177 5'15
Upper Doab
(Kuehha), 582 3'0

The smallest begaha, says Sir John Malcolm, may perhaps be computed at one-third, and the largest at two-thirds, of an acre. The common begaha in Central India is sixty guz square, which, taking the guz at thirty-two inches, is fifty-three yards one foot. This makes the contents 3200 English yards, very nearly two-thirds of an English acre. But the guz used in land measure is often not more than twenty-eight inches, which reduces the beegah to about half an acre.—Malcolm's Central India, ii. p. 35; Elliot, Supp. Glos. pp. 53, 54. See Khurj; Weights and Measures.

BEEGHOTO, a tract of country occupied by the Ahir and the Chunhan Rajput. It includes Rewaquee, Bauwul, Kanon, Patody, Kof Kasim, and part of the Baraith jaghir.

BEJABARA SULA, SANSK. Cashew-nut.

BEER-JHUN-JHUN. HIND. Cottonaria resu-
ta.

BEERMAAL, a tributary to the Kistna river. It rises in lat. 19° 5' N., long. 78° 33' E., in the tableland of the district of Poona, 3900 feet above the sea, and runs S.E. into the Kistna, length 510 miles. It receives the Goor, 100; Neera, 120; Sama, 170; Tandoor, 85 miles. About 29,000 square miles drained. At Coreyaum, where it is enclosed by trap banks, it runs with great violence in the rains. Before it joins the Kistna, it runs through the stratified, fossiliferous rocks of the centre of the Peninsula.

BEERMBOO. BENG. Coccinia Indica.

BEEN or Vina, a sort of sitar, but having two dried hollow pumpkins (Cucurbita melopepo, Willke) fixed to the end of it, with five or seven steel strings; described by Sir William Jones in the Asiatic Researches.

BEENZA, a form of polyandric marriage in Ceylon, in which the wife continues to reside with her brothers, and her husband takes up his lot with her.

BEER. SIND. A berry growing in Siud, which is pounded, mixed with water, and parched in pots, and used as a substitute for gram.

BEER, a fermented liquor made from the malt of barley, and flavoured with hops. At nearly all periods in the world's history, and among nearly all nations, the art of making a fermented drink from some kind of grain appears to have been known; but of all the cereals, barley is the best adapted to the making of beer. Beer used in India is mostly imported from Great Britain, in hogsheads and in bottles. Captain Ouchterlony, about 1850, established an experimental brewery in the Neillerry hills. It is still brewed there, also at Bangalore, Simla, Kussowlie, and other places, and used extensively by the local residents, who, apart from the difference of price, prefer it to English-brewed ale. The natives of India only sparingly drink the British beers, but all the hill races brew beers for themselves. In the United Kingdom and Ireland, about 50 gallons per head per annum are consumed. The Kakhyan prepare Sheroo from rice; it resembles small beer. The Lepcha, Lushai, and Nag are a similar beer. The Barman con-gee is a beer which the Khyen and Karen also use. The Naga also prepare moth from rice; and the Khanti and Singpho of the Hukong valley distil a spirit called Sahu.—Tom. Un. Rev.; Ind. Daily News. See Ale.

BEERA or Beerace. HIND. Pan-ka-beera. A small packet of betele leaf folded up contain spices, catechu, calcined shell-line, and pieces of the areca or betel-nut.—Todd's Rajasthan, i. pp. 327, 413.

BEER. BENG. Acellupia rosa.

BEERSEBHA. IS 20 miles south of Hebron. Its name means 'the well of an oath,' or the well
of seven,' because here Abraham made an alliance with Abimelech, king of Gerar, and gave him seven ewe-lambs in token of that covenant to which they had sworn (Gen. xxvi. 28). A Roman missionary was here in the time of Eusebius and Jerome. The limits of the Holy Land are often expressed in Scripture by the terms 'from Dan to Beersheba,' the former being the northern, the latter the southern, extremity of the land.

BEERTIA. Beng. Punicum Italicum. BEER-as-SOMAL, country of the Somalis to the south of Cape Guardafui.

BEESHA ELEGANTISSIMA. Hasskarl. A tall grass, found basking on the mountains of Java, up to 1000 feet.—V. Mueller.


Beesha, . . . MALAKAL | A bamboo growing in the peninsula of India, Bengal, and Chittagong.

Beesha stridula, Moon. The Ochlandra stridula, Thuc., is very common about the low country in the south of Ceylon, at Badagaran, and elsewhere, called Batta; the leaves make an excellent thatch.

Beesha Travancoria, Bedd. The Irul of the Tamil people. This magnificent species of elephant grass is abundant on the S. Travancore and Tinnevelly mountains, at 3600 to 5500 feet elevation, where it covers many miles of the range, often to the entire exclusion of all other vegetation; in open mountain tracts it generally only grows from 6 to 8 feet in height, but is close and impenetrable, elephants even not attempting to get through it; inside shobs and their outskirts it grows to 15 feet high, and is much more straggling.


BEEFAX.

Mom; Peela mom, . . . HIND. Ten Mazaou, . . . TAM. Lilin, . . . MALAY. Mynum, . . . TEL.

Beeswax is more or less yellow, and has an odour of honey; it is brought into the market, after allowing the honey to drain from the honeycomb, and then boiling the combs in water, frequently stirring to prevent burning. The wax thus obtained is melted a second or a third time, and pressed through hair bags of increasing fineness, allowing the molten substance to drop into cold water to firm it and prevent sticking. Another process, however, is to put the combs into a pot with water and nitric acid, one quart of the former to one ounce of the latter, and after boiling it allow them to cool; the pure wax floats on the surface, and two layers of dregs settle, the inferior one being almost worthless. Wax is sometimes adulterated by peaseemal. Beeswax is exported from India. In the Indian Archipelago the natives collect the wax from the nests in the forests, disregarding the honey, which is little in quantity, and worthless. The islands of Timor and Timor Laut afford beeswax in sufficient quantity to form an important article of export. It is a considerable article of exportation from the islands of the Archipelago, chiefly the wilder part of them, where the consumption is small. In the eastern parts of China, where the product of the tallow tree (Stilligia seifbiera), and beef and hog's tallow in the south, are used in the manufacture of candles, wax is only employed to incense the tallow or lard, which, from the heat of the climate and its unclerared condition, never becomes hard. About 130 tons are annually taken to Britain from Africa, America, and India, and sold at £5 to £7 the cwt. Beeswax and camphor are exported largely from Bitnulu and Serekie, at which towns these commodities are collected by the Mahomedans.—Morrison; Crangard; Low's Sarawak; Poole's Statistics; Balfour's Commercial Products.

BEEFLE, the Chagolf of the Hebrews. Beetles belong to the Coleoptera class of insects; they are very numerous in tropical India. The collector in India are species of Mylabris; their market value in Britain is low, only 5s. 8d. the pound. The largest beetles are only found within the tropics, those of the Eastern Archipelago being the largest of all. Mr. Wallace in eight years collected about a thousand species there. The Longicorns, strangely mottled, spotted and rugose, abound where timber trees have been recently felled; their antenna are sometimes excessively long and graceful. The family Buprestidae generally rest on the midrib of a leaf, and the naturalist often hesitates before picking them off, so closely do they resemble pieces of bird's dung. Many of the family Currenilioideae have the wing-cases and other external parts so excessively hard, that they cannot be pinned without first drilling a hole to receive the pin. Dung-beetle is the name given in India to the dung-feeding Lamelliborn beetles. They roll up pieces of excrementitious matter into the form of balls, in which they enclose their eggs, and the balls serve for the food of their young. The balls are sometimes one or two inches in diameter, and the beetles stand on their fore feet, head down, and pushing from behind with their hind legs, roll them along and lodge them in deep holes. One of these, the Atenehus saucer, was revered by the ancient Egyptians as one of their sacred animals; and its image, carved in stone or metal, has frequently been found rolled up in the Egyptian mummies. The Necrophori, or sexton beetles, enter the bodies of small animals to lay their eggs in them. They burrow underneath the creature and let it sink into the earth. They bury horse and cow dung similarly. The Anthribide family also are very abundant in the Eastern Archipelago. They rival the Longicorns beetles in the immense length of their elegant antennae. The Eupholi of the Papan islands and the Paelyrychni of the Philippines are veritable living jewels, golden and green, with Buprestis-like, long-horned Anthribides; numerous Crebilo, queen-shaped Brenchiidae; velvet brown or steel-blue Clerid; the yellow or whitish-coloured Elater or click beetle, and brilliant, metallic and leaf-hunting Canibidae. The Coprida and Dymastia correspond to the dung beetles; some of them are of great size, with immense horn-like protuberances on the head and thorax of the males, and combined with their polished or rugose metallic colours, render them perhaps the most conspicuous of all the beetle tribe. Musk beetles of many sorts, scarlet Telephori, countless Chrysomela, Hispa, and Cocinella, with strange Heteromea and grand Pronias and Lamiae. Indian Beetles, is an article of commerce. It consists of the beautiful wing-cases or elytra of the Buprestis, one of the Coleoptera. They are of a brilliant metallic green colour, and are imported
 Into Britain principally from Calcutta, as ornaments of khuskhus fans, baskets, etc., and on muslins to enrich the embroidery. The beetles’ wings in Ayak are called Chenk Poorie and Thungon Poorie. —Wallace, Trop. p. 94; Hooker, Hin. Journ. : Hart.

**BEET-ROOT.**

BETTER, Beta vulgaris.

Bette rabe, Bette rouge, F. Barba-bistole, J. Rothe rube, Mangold, Ger. Acelga, Sp. Malhe, Bunga-betol, Hin. D. This important root belongs to the natural order Chenopodiaceae, which also includes spinach, orach, mercury, goose-foot, etc. Beet, under its German name of Mangel-wurzel, has afforded a new source of sugar. White Sicilian beet is mainly used for salads, spinach.

Beet Sugar, from a variety of beet-root, is now almost exclusively consumed in Austria, Belgium, France, Germany, Russia, Sweden, and largely in Britain. In Middle Europe, the average yield is 14 tons of sugar beet to the acre, and 14 cwt. of raw sugar. Imperial beet yields 10 to 20 per cent. sugar, identical with that from sugar-cane. A deeply-stirred drained soil, rich in lime, brings the saccharine variety of beet to the greatest perfection. In middle Europe, in 1880, about one-sixth of all the arable land was devoted to beet. Germany is credited with being likely to produce 510,000 tons; France with 435,000 tons; Austria and Hungary, 415,000 tons; Russia and Poland, a crop of 240,000 tons; other and smaller countries, 100,000 tons; and this will bring the grand total up to 1,700,000 tons. —Grocer; von Mueller.

**BEGGARS.**

**BEGGAR.** A great man, a lord; in India, an appellation of all Mahomedans of Moghul, Turk, and Persian descent. It appears as Bey and Bai, and in the feminine as Begum. In Turkey and Turkish Arabia, Ya Bey! ‘O my lord,’ is prefixed to every sentence. The Shamar Arabs pronounce the word Beg, which the Constantinopolitans soften into Bey. In Chinese Tartary the Dagsaks receive pay and gifts and send tribute annually by Bega, who proceed to Pekin according to rolist, so that the whole shall have one tour in six years. These travel at the State’s expense, the weight of baggage carried for them being regulated by their rank, hereditary or fortuitous. The same order of attendance at Pekin and the hunting caps is observed by the Kalkus, Alashan, and tribes of the Edsinel, and by those of Koko-Nor.—Layard’s Nineveh, i. p. 106.

**BEGADA.** Tel. Nauclea purpurea, Roxb.; Anthocephalus Indiens, Rich.

**BEGAMI.** Hind. A good quality of rice.

**BE-GAR.** Hind. In India, forced labour for the repair of roads, tanks, forts, barracks, and for carrying baggage. Begari, a person so compelled to labour. The labourers are usually non-Aryans, Pariahs, and tanners. The last vestige of it, as exercised by the Government of India, was in the formation of the road leading through the Himalaya mountains to Tibet.

**BEGATI KANDA.** Tel. Amberbon Indica.

**BEG-BANAFSHA.** Hind. Root of a small plant brought from Delhi, used as a perfume in medicine, and in compounding perfumes. See Bekh.

**BEGBIE, Major-General Peter James,** an officer of the Madras Artillery. He arrived in India on 3d August 1822, and served in the first Burmese war, and in the Nanning expedition. He translated Beeker’s Art of bringing Horse Artillery into action, Da Brack’s Cavalry Outposts, Migout and Berger’s Essay on Gun Carriages, and he compiled the Services of the Madras Artillery.

**BEGGARS,** from poverty and under religious vows, are numerous throughout British India, as the Mahomedan Fakir, the Hindu Bairagi, Sanyasi, Gossi, Jogi, Satani, Jangam, Dasari, Buda-budike, Gondaliga, Domba, Panasu-makkalu or Hale-makkalu, Kalawar, Pichigunta, Mylari, Korna, Viramasti.

The Satiai Hindu sect have several subdivisions; a few of their number are engaged in tillage.

The Jangam, priests of the Lingaart, wear the lingam and a necklace of Rudrahsha beads; they do not permit any one but a wearer of the lingam to touch them; they smear their bodies with the ashes of cow-dung. They are permitted to marry.

The Dasari (dasa, servant of the deity) are Vaishnava devotees; in Mysore they are said to be a very bigoted and dissolute set of fanatics.

The Buda-budike are worshippers of Hanuman, the monkey-god; they pretend to consult birds and reptiles, and through them predict future events. They are of Mahrratta origin, as also are the Gondaliga musician worshippers of Durga, who, at marriages, sing, and play musical instruments.

The Panasu-makkalu or Hale-makkalu are a class or caste of mendicants, who only accept charity from their own caste. Their chief locality is a village in one of the Bangalore taluqs, from which once a year they go their rounds to collect money in their beat.

The Komati, or Vaisya trading community, have a Hale-makkalu called Kanchala Virar; they wear red clothes, and a breastplate with a likeness of Vira-bhadra. They receive one fanam annually from each Komati, and fees on marriages.

The Kurubar or shepherd, the Agasa or washerman, the Sir-a-charu, Ganda gollem ryots, who wear the lingam, the Ganguligar Ukhalga, the ordinary farmers in Mysore, and the leather-working Madigars, have each their own Hale-makkalu. The Komati Hale-makkalu owe their origin to a sacrifice in the month Phalguna of the year Prabhaeva 2028 after the Kaliyuga, when all the householder of Kusma Chetti, to avoid giving their daughter in marriage to king Vishnu Varaha of Rajamahendrapura, burned themselves. Malla, their servant, followed their example, and his descendants are the Hale-makkalu of the Komati.

Beggars of India mostly belong to sects of religiousmen,—Hindu, Buddhist, and Mahomedan,—who throw themselves on the charity of the world, to show their trust in God.

The Bahu-daka beg his bread from door to door. Dori wala, of the Panjab, stretches a rope in front of a range of shops, and will not quit the place till relieved.

Tasma-wala, of the Panjab, ties a leathern strap round his neck, as if to struggle himself, and lies down on his back, flapping the hands and feet as if in the agonies of death, till paid.

Dandi wala carry small bards (danda) in their hands, which, if not paid, they strike together, and abuse the shopmen with scurrilous language.

Urimar will sit down before a shop all day until paid.
BEGGUD.

Gurmar and Clutirnum are Mahomedans, who carry a mace or knife, with which they wound themselves or others when urging for alms.

The Buddhist priests of Burma move daily through the towns and villages in their neighbourhood, tinkling a bell, but otherwise not asking for food for their monasteries.

Priests of Japan beg for public objects from passers-by. A small booth is erected at the roadside, and each donor's name is written on a little wooden tally, and suspended on one of the posts placed for the purpose along the road. In the Chinese province of Shantung, men who wish to live by mendicancy, voluntarily permit their legs from the middle of the calf to be mortified off. Many die in the process, but those who survive are congratulated by their friends at having acquired a means of livelihood.

Hindu ascetic mendicants wear clothes of a dull orange colour, the 'Bhngwa' tint. Three religious garments, with a begging pot, razor, sewing needle, waistband and lathing cloth, are peculiar to the Bhikshu, or Hindu ascendent ascetic. The begging pot of a disgusting Hindu sect in the Benares district of northern India, is the calvarium, or top of the human skull. A common begging pot is the half of a double coconut. A large offshoot of a common woman is compared to the contents of a begging pot.—Fakir ki jhule men tuka kon dala?—Who placed the owner into the fakir's begging pot, who can tell?—Lockhart's Med. Mis. p. 261; Mysore Census Rep. See Alms; Ascetics; Kashgnal-I-Ali; Mendicants.

BEGGUD. GuA, Hind. Tinfoil.

BEGHRAM, in lat. 34° 53' N., and long. 69° 19' E., 25 miles from Kabul, and 2 miles west of Jalalabad, a ruined city, with walls 60 feet broad, of unburned brick. Massou supposed it to have pretensions to be the ruins of Alexandria ad Caucasum. Its ruins have yielded great quantities of coins to Massou and others. In the first year, 1866 of copper, and a few of silver, with rings, signets, and other relics; in the next year, 1900; in the next, 2554, and in the next, 13,474; and finally, in 1873, it yielded 1,000 Greek and Roman, Greco-Bactrian and Bactrian, Indo-Parthian and Indo-Scythian, Sasanian Hindu and Indo-Mahomedan, which Professor Wilson utilized in his Ariana Antiqua, in elucidating the history of Afghanistan, Central Asia, and India. According to tradition, it was a Greek city overwhelmed by some natural catastrophe. The present Hindu call the site Balram.—Macgregor, pp. 202-3; Masson's Journeys, iii. p. 150. See Nagahraha; Opian.

BEGONIA, a genus of plants belonging to the Begoniaceae. About 30 species have been found in the East Indies. B. Malabarica, lacinia, portecta, diversifolia, discolor, dipetala, picta, and pedunculosa, may be named. The great yellow-flowered begonia is abundant in the Bambang pass in the Sikhim Himalaya, and its juicy stalks make sauce; the taste is acid, and very pleasant. The remarkable variation of the large-bellied leaves renders some of them favourite foliage-plants. Among the more beautiful are B. rex, B. Grifithii, B. argentea, B. xanthina, and several garden hybrids. B. discolor, Ch'un-hai-t'ang, Chin., is an ornamental plant of China.

B. geniculata, Ramput udang udang, Malay. Its leaves are used by the Malays for cleaning and taking out rust from the blades of krissees.

BEGOON. Beng. Egg plant, Solanun melongena.

BEGTI, the Cockup. This, with the Surjeh and Tapi, are the fishes most largely used by Europeans in Calcutta.

BEGUM, Beebee, Be, Nissa, Khanum, Khatooen, and Banoo, are respected terms added to Mahomedan women's names in India. Many towns and hamlets are designated from this title.—Begum bazar, a suburb of Hyderabad, in the Deccan; Begunabad, Begangunge, Begumpett, a hamlet near Secunderabad. Mahomedan ladies of rank have ever been desirous of forming towns.

BEGUM SAMRIOO, a native of Kashmir, who succeeded to a principality by the demise of her husband, supposed to have been a European, of a name or appellation resembling Summers. She bequeathed her kingdom to the East Indian Government, and died on the 27th January 1856. See Thir.<

BEHAR, now a province of British India, was a part of the ancient kingdom of Magadha, first held by the Barhadratha of the Indu, the Chandravans, or Lunar race, and succeeded by other six dynasties, from B.C. 1400 to B.C. 56. The Magadha kingdom flourished from the 4th century B.C. to the 5th century A.D. It is supposed to have attained its greatest splendour in the time of Seleucus Nicator, who invaded it, and appointed Megasthenes as his ambassador at Palaebrotha. The Magadha rulers encouraged arts and learning, and colonized Java and Bali, in the Archipelago. Behar was the cradle of Buddhism, and sent its missionaries to Ceylon, Tibet, Tartary, and China; and it has many Buddhist remains at Gaya and other places. From the beginning of the 13th century A.D., it continued under Mahomedan rule until 1765, when the British succeeded. It comprises the districts of Bhagalpur, Champaran, Gaya, Monghyr, Purnea, Patna, Santal Parganas, Saran, Shibpur, and Tirhut; has an area of 42,417 square miles, and a population of 19,736,101 souls, of whom three-fourths are Hindus and Mahomedans. The principal aboriginal tribes are the Bhar, Churu, Dhangar, Kanjar, Khawar, Kol, Mala Naiya, Nat, Patharia, Santal, and Tharu. North Behar, the ancient Mithila, corresponds to the modern Tirhut and Purnea districts. The name is supposed to be from Vihara, a Buddhist monastery. Under the British, it is one of the four provinces under the rule of the Lieutenant-Governor of Bengal, the other three being Bengal proper, Orissa, and Chutia Nagpur.—Wilson's Glossary; Journ. B. As. Soc. 1864; Imp. Gaz.

BEHAT, near Saharanpur, in the Doab. A submerged ancient town was discovered near this by Sir H. P. Caunter.—Prin. Ind. An.

BEH-DiVNA, or Bibi-Dana. Pers. The seeds of the quince. They are demulcent and cooling, very mucilaginous, and are used in sherbets.

BEHEMOTH, an animal noticed in Job xI. 16, Psalm i. 10, Isaiah lxxiii. 22, xxxv. 11. 'Behold, now, beemoth, whom I made with thee, he feedeth on grass like the ox.' It is supposed to be the hippopotamus.

BEHENTHA. Uka? A timber tree of Ganju
BEHERA. Some of the Joddi and Johya inhabit the range called in the native annals Juddoo-ca-dang, and by Baber, the hill of Jut, skirting the Beht. Behera city is often mentioned in the Yadu Bhatti annals. It was one of their intermediate places of repose on their expulsion from India and migration to Central Asia. Its position was minutely pointed out by the emperor Baber (p. 259), who, in his attack on the hill-tribes of Jit, Gojuri, Gukker, etc., adjoining Kashmir, expelled Hati Gaker from Behreh, on the Behut river, near the cave-temples of Garkotri at Birkum. Baber (p. 254) also found the jet masters of Sialkot—Tod’s Rajasthan, ii. p. 233.

BEHICAR. Hind. Adhatoda vasica.

BEHIStUN. This name is generally written Bisutun in the maps; it is now given to a small village, 21 miles west of Kirmanshah, on the frontier of Persia. It is at the foot of rocky mountains, which are covered with bas-reliefs. The inscriptions are in the Bactro-Medo, or Persian cuneiform character of the Achaemenides. The most important is a list of the Iranian nations subject to Darius in the Nakh-i-Rustam, which the Persians attribute to the chisel of their famous sculptor Herod. Enormous marble capitols of columns are to be seen at Behistun. There are two tablets, the one containing a mutilated Greek inscription, declaring it to be the work of Gotarzes; the other, a Persian sculptured stone, adorned with nearly 1000 lines of cuneiform writing, exhibiting the religious views of Darius Hystaspes after his return from the destruction of Babylon, on the revolt of its Udapati or governor, Nebuchadnezzar, the son of Nebuc. Both Ctesias and Isodore mention a statue and pillar of Semiramis at Bapante, but the sculptures of Semiramis and an inscription in Syriac characters have wholly disappeared. Baghistan is traditionally described as the pleasure-grounds of Semiramis; but D’Anville suggested the identity of Behistun with the Baghistan of the Greeks, and there are good grounds from the ancient notices of this place, for supposing him to be correct. An oriental writer of the 15th century described the rock of Behistun from his own observation; as though it were sculptured in the form of a minaret. Certainly nothing of the kind now remains. The inscription set up here by Darius Hystaspes, commemorates his restoration of the Zoroastrian faith, after its overthrow by the Turanian Hystaspes; it is, therefore, the most complete and authentic of the Zendavesta itself, which had been neglected or proscribed. The inscriptions on the tablets of Darius Hystaspes are in the old Persian language, in the Babylonian, and also in the language of the Scythisms in the Medo-Persian Empire. The Scythian portion of those inscriptions is distinctly of the Scythian, that is, Turanian group, as spoken in the 5th century B.C., though the people by whom it was spoken are believed by Professor Oppert and Mr. Norris to have been Medians. This Scythian part of the Behistun inscriptions bears a special relationship to the Ugro-Finnish family, which Dr. Caldwell considers to resemble the Dravidian dialects, and thinks that the ancient Scythic race, by which the greater part of Central Asia was peopled, prior to the irruption of the Medo-Persians, belonged to the Ugrian stock, and not to the Turkish or Mongolian.—Sayce, vii. 79; Oppert, Records of the Past, vii. 109; Layard’s Nineveh, ii. 168; Ferrer, Journ.; Bunsen, iii. 457; Rawlinson.

BEHJUR. Beng. A mixture of barley and peas.

BEHKUL. Hind. Prinseopia utilis.

BEHMAN. Hind. Withania somnifera.

BEHMEN, also Lal Behmen, the dried roots of two varieties of a composite plant, chiefly obtained from Kabul. Used by the natives as a tonic in debility, in doses of 4 drachmas; also in impotence, and as a deobstruent. Was formerly employed in European medicine as an aromatic stimulant.

BEHOR, a village between Fort Saint David and Pundicherry, at which Major Lawrence, in August 1752, entirely routed the French army.

BEHOYA. Beng. Cyperus dichoros.

BEHRAM, a Parsee or Zoroastrian, who dwelt at Nowsaree, a town about 20 miles from Surat. He wrote the Kisi-i-Sanjan, a history of the Parsee migrations.

BEHUL. Hind. Grewia oppositifolia.

BEHURA. Hind. Terminalia bellerrica.

BEHUSSEJ. Arab. Viola odorata.

BEHUT, a name of the Jhelum river, called also Vehut and Vitashta. It is the Hydaspes of the Greeks. As it passes through Srinagar, the capital city of Kashmir, it is in December about 70 yards broad, and from 6 to 12 feet deep, and runs about half a mile an hour. In May it rises 25 or 30 feet. It is navigable all through the valley, and on reaching the Punjab takes the name of Jhelum. In the Punjab its bed is about 750 feet above the sea. It is to the east of the Indus river, to which it runs almost parallel, but it is smaller. Behut is said to mean unbegotten.—Rennell, p. 99.

BEIAT, a Persian tribe in Khurasan.

BEIGLERBEG, or, as Menisini writes it in his Institute, Beglerbeg, signifies ‘lord of lords,’ is a Turkish title given to the ruler of a province. Under him are the hakins or governor of a large city, the zabit or chief magistrate of a town, and the ked khuda, principal ‘house-holder;’ also the Kalantars or buzzirs, the person who, in a village, exercises authority over the other inhabitants.—Ousley’s Tr. i. p. 194.

BEILSCHMIEDIA FAGIFOLIA. Nees. A very large tree of the dense moist forests in the plains of South Canara, not much above the sea level. It has been found also in North Canara, and on the Silhet mountains in Northern India. The tree is said to yield a soft red timber which is used for building purposes. Two other species inhabit Northern India.—Reddome, Pl. Sylva. 155.

BEILSCHMIEDIA ROXBURGHIANA. Nees. Laurus bilocularis, Roxb., a tree of Tipperah, one of the Laurnceae.—Roxb.; Voigt.

BEIROUT was taken from the Saracens by Baldwin, the first king of Jerusalem, in A.D. 1111, but retaken 1187. Ten years afterwards, the Christians again captured it, and it was frequently ravaged during the crusades. Subsequently it fell into the hands of the Druses, from whom it was taken by the Turks, who still retain possession of it. It is the ancient Berytus. It is situated on the western extremity of a triangular point of land, projecting into the sea about four miles beyond the line of coast. It stands on a

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gentle rising ground close to the sea-shore, and is about three miles in circumference.—Robinson's Travels.

BEIS, one of the thirty-six royal races of Rajputs who give the name to Biswara.

BEIT, also written Bate and Bete, an island in the Gulf of Cambay, occupied by the Baseli race. It was taken possession of by the pirates of Juggut after they had been defeated by Kutub Shah in A.D. 1482. Beit fell, after having fought twenty naval engagements.

BEI-VURMA BEWA. CAN. Azadirachta, sp.

BEKH. Pers. A root of any plant, but particularly if used medicinally; thus—Bekh-Anjabad, Red-coloured root of a plant brought from Delhi; considered cooling.

Bekh-i-Badyan. Funiculum vulgaris.

Bekh-i-Banafsha. Viola serpens.

Bekh-Karafs. Apium involucratum; Apium graveolens.

Bekh-Karpas, root of a small plant from Dehli.

Bekh-Kasni. Cichorium intybus.

Bekh-Marjan, Red coral.

Bekh-Minaq. Glycyrrhiza glabra.

Bekh-i-Nilofar. Nabalium speciosum.

Bekh-i-Pan, Root of Chavien scribooks, Misq.

Bekh-i-Sosan, Hind. Iris florentina.

Bekh-i-Zafan, Aristolochia rotunda.

Bekh-i-Zanjabi-i-Shami. Elecampane.

BEKHOOR-MIRIAM. ARAB. Cyclemen Europaeum.

BEKHALI, also Bekhli. Hind. Prinsepa titlis.

BEKUK. Pers. Tetraceros quadricornis.

Bekuk. In the beginning of the 18th century, an impostor made his appearance at Dehli, who produced a pretended new Scripture, written in a language of his own invention, framed from those spoken in ancient Persia, and founded a sect, in which the teachers were called Bekuk, and the Disciples Ferabid.

BEL. Hind. Any climbing plant; a tendril.

Bat-bel. Cissampelos Pareira.

Bel-kabij, sugar-cane, cut up for setts.

Bel-Kambi. Aacacia amara.

Bel-ke Buechhi ki bhaij. Basella alba.

Bel-kli pat. Leaf of Egle marmelos.

BEL. Hind. A place where sugar-boiler pans were placed. Bel-Karahi, a sugar-boiling caldron.

BEL, also Belgar. Hind. The Egle marmelos, or Bengal quince. The fruit contains tannin, either pure or in combination; a large amount of mucilage; a concrete essential oil; and an aromatic as well as a bitter principle. A sedative or narcotic property would also appear to exist in one or other of these. The fruit, a little unripe, is given in diarrhea and dysentery. The decoction of the dried fruit is aromatic, slightly bitter and astringent, gummy and mucilaginous, something like a mixture of a decoction of quince and pomegranate, but bearing an aroma peculiar to the Bel. When made into jam, and eaten at meals, like marmalade, every morning, it is found very useful to women and children, whom it is injurious to accustom to continual purgation. With Hindus the leaves are sacred to Mataje (from the milk of whose breast this tree is believed to have sprung up), and they are offered to Mahadeva. The oath of Bel-bandhar, or ‘the pledge of the Bel,’ is one of the most sacred a Hindu can take. When this oath is taken, some of its leaves are filled with turmeric, and interchanged with solemn pledges by the parties.—Roeb. Gen. Med. Top. of Ajmir: Malcolm’s Central India, i. 196.

BEL. Hind. A house Beldar, a labourer.

The Belkar of Northern India are of the Kachki, Kurni, and Chamur races. In Southern India they are of the Wadara tribes. See Belkar.

BEL. Belos or Belus, a Babylonian deity. Bel of Babylon was the Assyrian Belu, and the Hebrew Baal, equal to Lord. The older Bel was called in Akkad, Mul or Mul-ge, the Lord of the Abyss, and presided over the earth and underground world. The younger Bel was called Bel-Merodach. The Babylonian trinity was Anu, Bel, and Hea.

Hirman Bel, supposed by Movers to be the serpent of Bel, is explained by Bunsen to mean the combater of Bel, or struggler with Bel, called in the Canaanish dialect Yeasar or Israel. He was the struggler with El, God, the Hercules of the Greeks.—Bunsen, iv. 284; Sayce, p. 164.

BELA. Hind. Jasmumum zambac; in Bengal, Sapium bacciferum.

BELA. Hind. Alluvial soil on the banks of a river; Pocell.

BELA, the chief town of Las, in Baluchistan, is built on a strong and rocky site on the northern bank of the Purali river. It is the Arua-Bel of the ancient Arab authors; also called Kara bela. It is now decayed, but coins, trinkets, and funeral jars are found near; and in the neighbouring hills are numerous caves and rock-cut temples, now ascribed to Farhad and fairies, but are the earthly resting abodes of former chiefs and governors; also near, are old Mahomedan tombs. One-third of the houses are occupied by Hindus.—Elliot’s India; Mason’s Journeys, ii. p. 28.

BELADUR. Arabic. Semecarpus anacardium.

BELADURI, author of an account of the early Arab invasions of Kandahar. He was so styled because addicted to the use of an intoxicating concoction made from the Beladur.

BELAGORANI or Balagami, a village in the Shimoga district of Mysore, celebrated for its ruined temples, with sculptures of high finish, and many inscriptions. It was the capital of the Kadamba dynasty as early as the 12th century.

BELALOA or Belall, a dynasty in the Peninsula of India, whose sway at one time extended over the whole of Karnata, Malabar, the Tamil country, and part of Telingana. They claimed to be Rajputs of the Yadu branch. This dynasty ruled for 256 years in Warangal, until its capture by Mahomedans, A.D. 1323, on which two of its officers established their rule at Vijianagar.

BELAM-KONDA-SUULA MANI. MALEAL.

Pardanthus Chinensis, Ker.

BELAMUDAGAM. MALEAL. Scrophula bela-mudagam, Linn.

BELAN, the ancient Amma, a large village in a valley of the Mount Amman, about three hours’ riding from Alexandria. The pass of Belan, in the mountains called Pulse Syria by the ancients, was traversed by Darius a few days before the battle of Issus. It is in the route from Antiochia and Syria.

BELANDA, a tribe in Kedah.

BELANUS. According to Colonel Tod (Tr. 258), the Syrian Bel and Belanus is the Bal-Nath (god) of the Zaura, whose grand temple of Somnath is the counterpart of the Syrian Balbec, Soma-Nath.
in sympathy with the goddess in whose widow-

being merely a figurative appellation of Bal, as the ruler of the lesser orb, Soma or the moon.

BELASCHORA. MALEAL. Lagenaria vulgaris. BELASPORE, a town and a district in the Chatishgarh division of the Central Provinces, of which it is the most northerly. The chief town is built on the south bank of the river Arpa. The population of the district is 785,000 souls, in an area of 8800 square miles.

BEL-BANDHAR. HIND. The leaves of the Bel or Ággle marmelos and turmeric placed on an idol; a form of oath, taking these leaves off, and swearing by them. See Bel.

BELBUSSAN CHARREE, of the Astraea steppe, is a species of Galádeo.

BELDAR, a delver, a digger, from bel, HIND., a hoe, and darr, Pers., holder. This race migrate from place to place as work, is heard of. They are stone-cutters, construct dry walls and wells. They have no houses, but dwell in small tents. Those from Poona wear enormous turbans, containing about 80 yards of cloth. They speak Mahtrati, also Hindi. They worship Marri Ai or the Death Mother, who is known also as Sita or small-pox, Mata, Ai, Devi, Bhawaní. They sacrifice rams. They marry when they have the means, when young, bury the dead, and offer water libations and rice on the third day. They do not eat beef, but eat mutton. A few can write. They claim to be dissimilar from the Waddarun, with whom they neither eat nor intermarry. The Waddarun have two sections, one of them earth-diggers, who eat rats. The other are stone-cutters, and cart stones from quarries.

Beldar of the Uria are tank-diggers by profession, and are all under the command of a chief called a jemadar. Under the jemadar are a number of naiks, each of whom has the command of a gang. These gangs have no settled home, but wander about the district wherever they can get work.—1775.


BELEMNITES. Lung-khu. CHIN. Fossils, very common in the limestones of Trichinopoly, and in the Himalaya, of the genera Belenmites, Belennitella, Acanthotethis, Belenmoteuthis, and Conotethis. Belenmites are official in Arabic medicine.—Hönniger, p. 242.

BELERIKA. MALEAL. White var. of Calotropis gigantea.—R. Brown.

BELGAUM. A revenue district of the Bombay Presidency, lying between lat. 15° 22' and 16° 56' N., and long. 73° 4' and 75° 30' E., with an area of 4591 square miles and a population of 928,750 souls. The country is about 3000 feet above the sea, and the rivers Kistna and Malabarha flow through it to the coast. The people are largely agricultural, of the Srawak or Jain faith, Hindus of the saiva, vaisnavas, and lingnet sects, and with 91,836 Mahomedans. The Mahr race are the village watchmen. The district was transferred from the Peshwa to the British under the treaty of Poona of June 1817.

A temple in the Paragad district is a place of pilgrimage, on a hill sacred to the goddess Yellama, visited in the full moon of November and April, commemorative in November of the death of Yellama's husband, and in April of his return to life. At one moment the pilgrims raise a deep wall, and the women break their glass bangles,
thus eclipsing Great Tom of Oxford with a weight of about 7½ tons.

Great Paul, the new bell for St. Paul’s, is by far the largest ever yet produced in England. A mass of upwards of 20 tons of metal was poured into the mould, and the bell, somewhere between 17 and 18 tons in weight, was brought to St. Paul’s in May 1862.

Among the large bells cast of late years, Canada boasts one for the Roman Catholic cathedral of Montreal. It weighs 13 or 14 tons.

Clarke, in his Travels, gives an interesting account of the bells of Moscow, and of the ‘king’ in particular. The large bell near the cathedral is only used upon important occasions, and yields some solemn tones. When it sounds, a deep hollow murmur vibrates all over Moscow, like the fullest tones of a vast organ, or the rolling of distant thunder. This bell is suspended in a tower called the belfry of St. Ivan, beneath others, which, though of less size, are enormous. It is 40 ft. 9 in. in circumference, 164 in. thick, and weighs more than 57 tons. Of the great bell of all he says, ‘It is truly a mountain of metal. They relate that it contains a very large proportion of gold and silver, for that while it was in fusion the nobles and the people cast in as votive offerings, their plate and money. The natives regard it with superstitious veneration.’ It is white and silvery in appearance. The Emperor Nicholas had the bell raised to a granite pedestal, and there it stands now, its interior, to which access is gained through the fracture in its side, being used as a chapel.

Bells are well, and numerous, cast in all parts of the S.E. of Asia. In Burma, those in the small pagodas in form have their inferior part less widened than the bells of Europe, and they are cast with a large hole in the centre of the upper part; no tongues is hung in the interior, the bell being sounded by striking its outer surface below with a deer or elk horn. The bell at the Shooay Dagon pagoda in Rangoon was cast in 1814. Its weight is 42 tons 5 cwt. 40 lbs. (94,682 lbs.); its height, 9½ cubits; its diameter, 5 cubits; its thickness, 15 inches. Whilst the materials were being melted, devout persons threw in copper, silver, and gold in great quantities, increasing the weight by one-fourth. The bell at Mengers, in Burma, is 18 ft. high, besides 7 ft. for hanging apparatus; it is 17 ft. in diameter, and 10 or 12 in. thick. Its weight is supposed to exceed 300,000 lbs. = 88 tons 7 cwt. 106 lbs. Considerable quantities of gold and silver were found in the melting mass. The largest bell in Burma is on a low circular terrace north of the temple at Mengers. Its external diameter at the lip is 16 ft. 3 in., and its interior height 11 ft. 6 in.

A large bell is in a small monastery not far from Pekin; it weighs 5½ tons, and has on it several thousand Chinese characters in bassorelievo, constituting a Buddhist classic, which the priests, when they retire into seclusion for three years, commit to memory.

It has been asserted that Pekin has or had no less than seven, weighing considerably over 50 tons each. One bell has been reported the largest suspended bell in the world, and second only among all bells to the huge creation of Moscow.—Bishop Bigandet, Legend of the Burmese Buddha.

BELLEW, Dr. ANDREW, was the first superintendent of the Madras Military Male Orphan Asylum, when it was opened in 1789. He was the founder of the Bell and Lancaster system of teaching.

BELLA-BEK of the Waddar, Felia chain.

BELLA DONNA. Tien-kin, Chin. Atropa belladonna. The deadly nightshade.

BELLA GADA. Tel. Ceropogia juncea. N. BELLARY, a town and military cantonment in the south of the Peninsula of India, equidistant from the Bay of Bengal and the Arabian Sea. The town is in lat. 15° 8' 51' N., and long. 75° 57' 15" E. It gives its name to a revenue district, which has the Mysore territory on the south and west, that of Hyderabad on the north, and Cuddapah district on the east. Since the 14th century, this district has successively been under the rule of the Vizianagar dynasty, of the Adal Shahi kings, of the Mahratta Sivaji and the Peshwas (1640), of the Moghul emperors of Dehlí, of the Mahomedan rulers of Mysore, of the Nizam of Hyderabad, and finally of the British, to whom it was ceded by the Nizam in 1803. The population in 1871 was 1,668,000 souls, 92 per cent. being Hindus of the Saiva, Vaishnava, and a few of the Linga sects. A small colony of the Beder race occupy the sanatorium hill of Ramnadurg, and the Korcha-wanlu are a predatory race in the plain. The ruins of the ancient capital of Humpi are near. The country is a plain about 900 to 1200 ft. above the sea, with solitary granite hills, projecting from the red and black soil. The climate is very arid, the rainfall about 22 inches, but it has the rivers Tumbudra, Penumar, Hagri, Vedavati, and Chitravati; several anicuts have been built across the head of the Tumbudra, and watercourses have been led along its banks, particularly at Chitwadaghi Humpi (the ancient Vizianagar), Seiragupah, and Rampir. The principal reservoir is at Bookapatnam, formed by embanking the gorges of a range of hills through which the river Chitravati flows. The tanks of Daroji, Anantapur, and Shinganamala are next in importance; but there are many ancient bunks, which were breached during the native governments, and have not been restored. About 1,037,634 acres are of the regur or black soil. Earth salt is made throughout the district; iron is largely made at Simeo. The underlying rock in the Bellary and Cuddapah districts is granite or gneiss.

BELLA SHORA. Male. Lagenaria vulgaris.

BELI AMAZAN. Dik. Semeconus annacardium.

BELLERIC MYROBALAN. See Myrobalan.

BELLEROM. Tam. A wood called in Malabar and Canara, kundle. It resembles the angly wood. The Company’s cruiser Aurora was built of this wood, procured from the forests in the north of Malabar.—Edge, M. and C.

BELLEW, HENRY WALTER, a medical officer who served in the Crimea in 1855, in the war against Russia, and afterwards entered the E. I. Company’s service in the Bengal army, and from 1856 was employed almost exclusively on the N.W. frontier of India, in Kashmir and Afghanistan. In 1857, was a member of General Lumsden’s mission to Kandahar, and wrote the journal of the mission. In 1865, published a topographical history of the Yuzafat district; in 1868, a pamphlet, ‘Our Panjab Frontier,’ advo-
cating reconstruction of the British N.E. boundary, and occupation of the frontier highlands. In 1868, published a grammar and dictionary of the Pushto.

**BELL METAL.**

Kloksips, ... Dut. Kolokinsja-mjed, Rus. Meta de Pointe, Fr. Campanii, ... Sp. Metal de clothes, ... Venalam, ... Tam. Glockengut, ... Ger. Kantan, ... Tel. An alloy, consisting of three parts of copper and one of tin, of which bells are made. — *M. Culloch.*

**BELLOWS.** Eng. Pankha, Hind. For household fires of India, the bamboo blow-pipe is employed. The blacksmiths of India use sheep-skins sewed, with a cleft, edged with wooden rods, which the bellows-blower opens, raises, and depresses. The Chinese bellows consist of forcing air-pumps, two cylindrical tubes of wood, of about eight inches diameter, about five feet long, and placed vertically in the earth, contiguous to each other, with pistons inserted in each, which are alternately depressed, in the manner of churning, by a bellows-man sitting beside them. The air is pressed out of a lateral tube in each, and communicates with the forge. Above these tubes are two apertures furnished with valves to admit fresh supplies of air. Such double-nozzled bellows are in use by the Burmese, the Malays, and the Hovas of Madagascar. Those of Burma are of two bamboos four inches in diameter and five feet long, with pistons clothed with a bunch of feathers or other soft substance. — *Peschel; White's Voyage.*

**BELL PEPPER.** Capsicum grossum.

**BELLUM.** Tel. Coarse sugar, goor, jagari.

**BELNA.** Hind. A roller press to extract juice from the sugarcane; also a machine for cleaning cotton from its seed.

**BELLO.** Tel., Uria? A tree of Ganjam and Gumstur; extreme height 30 feet, circumference 3 feet. Its wood is sometimes employed for making carts; the leaves are used for making the umbrella which is worn on the head by the ryots and coolies. — *Peschel.*

**BELOSTOMA INDICUM.** An aquatic species, attains a size of nearly three inches.

**BELTANE feast** was on May-day, but the word was also applied to fires kindled in honour of Bel on other days, as on Midsummer Eve, All-Hallow E'en, and Yule or Christmas.

**BELUGA CATODON, Pallas,** is placed by Gray, Gerard, Lesson, and Lacepède, as of the genera Physeter, Delphinus, Delphinapterus, and Catodon, one of the Delphinidae found in the North Pacific, North Atlantic, and Arctic Ocean.

**BELULI.** Can. Allium sativum, garlic.

**BELUMBHU.** Duk. Averrhoa bilimbi.

**BELUR,** an ancient city in the Hassan district of Mysore, but now only with about 3000 inhabitants. It is called in the Puranas, Velapura, and is known to the people as Dakshina Varanasi, or southern Benares. Its celebrated temple of Chenna and Kesava is adorned with carvings and sculptures from the master hand of Jakana Charya. It was erected and endowed about the middle of the 12th century, by a king of the Hoyasala-Ballala dynasty, on the occasion of his conversion from the Jaina faith to vaishnava Hinduism. — *Imp. Gaz.*

**BELUR TAGH** is one of the many names given to the Kouen Lun chain, which forms the northern boundary of western Tibet; it is not less elevated than the Himalaya, and is covered throughout a
great part of its length with perpetual snow. Dr. Thomson reached its axis in the Karakoram pass, elevated 18,300 feet. The Kouen Lun chain has been called the Belur Tag or Bulut Tag, which Captain Cunningham regards as synonymous with the Balti mountains. It is also called Mustagh, Karakoram, Hindu Kush, and Tsim lung or Onion mountains, because of a species of Allium growing there. Its continuation is the Pamir range. At the present day, the old indigenous inhabitants of that district, and generally those of Kashgar, Yarkand, Khotan, Turfan, and the adjacent highlands, are Tajak, who speak Persian, and who are all agriculturists. The Turkoman either came after them and settled at a later period, or else they are aborigines whom the Aryans found there; but its slopes are the primeval land of the Aryans. — *Ch. Bunsen,* p. 406.

**BELULA POLA-TALI. MALEAL.** Cinnamomum austatum, Beluta-champagam, Mesua ferrea.

**BELVIDERE,** a house in Bombay, called Mazagong House, once occupied by Mrs. Draper, the Eliza Draper's letters. She left her husband about a 1776.

**BELWA,** a race in Mysore who collect the juice of the palmyu, speaking Malealam.


**BEN. BURM.** Cannabis sativa.

**BEN. HIND.** Eremurus spectabilis.

**BEN. KONAR.** Moschus moschiferus, Linn. **BEN. BENG.** Ardrogopon muriactus.

**BENABA,** also Bia and Bibla. Duk. Pterocarpus marsupium.

**BENABA-JONI. BENG.** Soropolois diander.

**BENARES,** a holy city of the Hindus, is built on the left bank of the Ganges, between the Barna Naddi on the N.E., and the Asi Naddi on the S.W., and extends along the river bank for nearly 9 miles. In 1872, its population was 175,188 souls. It is in lat. 23° 18' 31" N., and long. 83° 13' 4" E. The people call it Kasi, but it is also called Varanasi or Varanasi, also Ati Mukta. It is famed for its artistic work in clays, metal, stone, wood, and alloys. Benares town gives its name to a revenue division of the N.W. Provinces of India, which has the districts of Azamgarh, Basti, Benares, Ghazipur, Gorakhpur, and Mirzapur, of 18,314 square miles, and a population in 1872 of 8,179,307 souls, of whom 90 per cent. are Ahib, Baniya, Brahman, Chamar, Kayasth, Kurmi, and Rajput. The people are largely agricultural, growing rice, wheat, barley, oats, peas, cotton, bajra, sorghum, maize, pulses, indigo. Benares town has many temples and shrines, and Hindus resort to it in pilgrimage. The river Ganges bends round the town, and the view from the river is a beautiful prospect. The Hindu temple of Vish-Eswara has been for many centuries the chief object of veneration at this town. The old temple, described by Tavernier, 1660, was partially destroyed by the Mahmoodans in the reign of Aurangzeb; the present was built up by Ahalya Bai, a Mahrratta princess, and is remarkable for the beauty of its minute architectural embellishment. The thick plates of pure gold with which its dome is covered, were a bequest of Ranjit Singh. The old temple was in the form of a St. Andrew's cross. Benares has been by turns Brahmanical, Buddhist, Saiya-Hindu, Sakta-Hindu, Vaishnava-Hindu, and Jaina; but at
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present it is a great Saiva city, and the emblems of this deity's worship are multitudinous. Purga also, and likewise Ganesh, Surya, Vishnu, Rama, and Parashara, all have shrines. But, though now pre-eminently a Hindu city, with numerous tol or monasteries, and besides the celebrated Brahmakshetra or Buddha as the place where their great teacher first expounded his doctrine, or, as they express it, where he first began to turn the wheel of the law, this was one of the four great events in the life of Buddha; and the stupa which was built upon the spot was esteemed as one of the four great monuments of Buddhism. This stupa, now called Dhanak, is situated about 3½ miles to the north of the city, amidst an extensive mass of ruins, which are surrounded on three sides by large artificial lakes. From Benares have emanated, and still emanate, almost all new opinions on questions of Hindu theology, Hindu philosophy, and Hindu jurisprudence. The verdict of the Benares authorities is final in the Hindu world. There, Saukara Acharya won a great Saivite controversial victory; there, disguised as a Hindu boy, Faizi became initiated in the Hindu Shastras; there, at the fountainhead, did Aurangzeb try to diffuse the leaven of Mahomedanism; and there the Benares college has been erected by the British, to enlighten and form the native population with new ideas in their heads, and new institutions.

The length of the city along the river front is about 4½ miles. The houses are built of stone, and some of them are three or four storeys high, and tastefully ornamented on the outside. The ghats, or lathing-places, are large buildings many storeys high, with handsome verandas and majestic portals; but their distinctive characteristic is seen in flights of wide stairs. The manufacture of gold and silver brocade in Benares is famed. The looms are very simple in their construction. The gold and silver pass through many hands before they are formed into thread. Brocades (kimkhab), gold woven scarves (dupatta), and silks are consigned from the city, together with a kind of yellow silk dhoti called 'pitambar,' and a dark-blue silk with white spots called 'bund;' also the silk sari or scarves, exclusively for women's wear, forming both a skirt and a scarf. Its lacquer ware is good. Two kinds of resin are used; one called rali, is sold at eight annas the seer, and is said to be brought from Mirzapur. The finer lacquer is made of a resin called gahia, for a seer of which one rupee and two annas are paid. There is a Maharaaja of Benares; his family was founded by Munsa Ram, zamindar of Gungapore, who died in 1740, and was succeeded by raja Bulwunt-Singh, who joined Shah Alam and Shuja-o-Dowla in their invasion of Bengal in 1763. He joined the British camp, with the emperor, after the battle of Buxar, and in the arrangements made with the emperor in 1764, his zamindari was transferred from Oudh to the British Government. The unsuccessful of Vazir Ali occurred on the 14th January 1796. In March 1862, the Maharaja received the assurance, by amnud, that in the event of failure of natural heirs, Government will permit and confirm any adoption of a successor made by himself or by any future chief of his state, that may be in accordance with Hindu law and the customs of his race. The Maharaja receives a salary of 13 guns.—Aitchison's Treatises, p. 41; Schlagioneit; Schonberg's Tr. in India and Kashmir, i. p. 99;

BENDAR.


BENAUDHA or Benawat, a tract of country in N. India, which includes the western part of Jounpur, Azimghur, and Benares, and the southern part of Math. Some authorities say it extended from Buxar to Jounpur, and from Gorakhpur to Bhujpur, and that it comprised 52 parganas, governed by a granth of 12 rupees, the Garwar of Bijapur, the Khanzada, Bachgot, and Bhumars.

BENCOOLEN was a principal settlement of the British, till surrendered to the Dutch in 1825 in part, for possessions in the Strait of Malacca.

BENDA-KAIL. TAM. Abielmoschus esculentus.

BENDAMIR, a small town of sixty houses, which takes its name from a dyke or bund, constructed in the 10th century by Amir Azam Delemi. A flat bridge of thirteen arches is thrown over the stream, the waters of which form a beautiful cascade just beneath it. As the bed of the river is very deep, seven other dykes have been constructed in its lower course, to procure water for the irrigation of the fields. It has been made famous by the bewitching strains of Moore, whose language surpasses the reality, though, in the spring-time, Bendamir is doubtless a lovely spot:—

'There's a bower of roses by Bendemear's stream,
And the nightingale sings round it all the day long:
In the time of my childhood I was a sweet dream
To sit in the roses and hear the birds' song.

That bower and its music I never forget;
But oft, when alone in the bloom of the year,
I think, Is the nightingale singing there yet?
Are the roses still bright by the calm Bendemear?

"No! the roses soon wither'd that hung over the wave;"

But some blossoms were gathered, while freshely they shine,
And a dew was distilled from their flowers, that gave
All the perfume of summer, when summer was gone. Thus memory draws from delight, ere it dies,
An essence that breathes it many a year;
Thus bright to my soul, as 'twas then to my eyes,
Is that bower on the banks of the calm Bendemear..."

—De Bode's Travels, pp. 169-70; Pottinger's Travels, p. 239; Ouseley's Travels, ii. p. 326.

BENDI. MAH. Thespesia populnea.

BENDIKAR of Konjhir, scattered throughout the southern Tributary Mauls, are colonies of an aboriginal people, often mentioned in the Hindu classics, and named Savara, Saura, or Saur, and supposed to be the Snari of Pliny, and Saborae of Polonius. The Bendikar are said to be numerous in Lehera, in Bamra, and throughout the Tributary States. A paper in the Asiatic Researches of 1842 notices the Bendikar, in the Kolehan district, a clan or tribe, not exceeding 250 or 300 in number, residing entirely in a range of hills, called the Bendikar Booroo, to the north of Konjhir and Jamdipur, the southern border of the Kolehan district. The country inhabited by this tribe is exceeding wild, being in fact one mass of almost impenetrable jungle. The Savara who occupy the country between the Kandul Mauls or hill tracts and the Godavary, retain a primitive form of speech; but the Bendikar Savar have no language of their own, and no tradition that they ever possessed one. The form of speech used is Uria; and those living in mixed villages conform to many customs of Hindu Urias of inferior castes. They worship a female divinity, whom they call Hansuri and Thakurani, to whom annually they offer goats and fowls; but every ten years each community of Bendikar offers a buffalo, a boar, a
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sheep, and twelve fowls. In marriage, the girl is brought by her friends to the bridegroom's house. The young couple make two and a half turns round a pot of water, in which are mango leaves. They are then bathed together, and their hands tied together, and the ceremony is at an end. The dwellings of the Bengakar are constructed of branches and leaves, and covered with grass. Their ordinary food consists of edible roots which they find in the jungle, with berries and wild fruits, such diet being varied and improved occasionally by the produce of the chase. Their husbandry is merely scratching up the surface of the ground. Their scanty crops are raised in little plots on the hill-sides, near watercourses. They barter their maize, grain, or rice with the lowland villagers. The Bengakar burn the dead, with the head to the north. In this they vary from the Kol, who affect the south; and the hill Bhuyia, who honour the west.—Dalton's Ethnol. p.s. 75.

BENDU, a light wood of Java, useful for canoes.

BENDU. Tel. *Jaschnomena Indica, L.*

BENEDICT GOES, in 1608, undertook a jour- ney with the special object of determining whether the Cathay of old European travellers and modern Mahomedans was or was not a distinct region from China.—Yule, Cathay, i. p. exii.

BENG. TAM. Bignonia aucoevae.

BENGAL is the country through which the rivers Brahmaputra and Ganges flow to the bay to which it gives its name, and it gives its name also to the presidency in the Government of British India, which includes Bengal or Lower Bengal, the North-West Provinces and Oudh, the Panjab, Assam, and Ajeer, each with a local government of its own, but all subject to the general control of the Governor-General of India in Council. The area that these five provinces occupy is 501,766 square miles, and in 1878 their population was 139,024,614 souls. Also, the military forces distributed through these five provinces are known as the Bengal army, and form a large portion of the army of India, under a Commander-in-Chief, who has the supreme direction also of the armies of Madras and Bombay. The Bengal or Lower Bengal region now to be noticed is administered by a Lieutenant-Governor. It lies between lat. 19° 18' and 28° 15' N., and long. 82° and 97° E., with an area of 203,437 square miles. The census for 1881 gives a population of 68,750,443, as against 62,724,840 in 1872, showing an advance of 9% per cent. Bengal, 35,954,874; Behar, 22,597,212; Orissa, 5,184,066; Chutia Nagpur, 4,714,291. In all Bengal, the Mahomedans are 19,553,851; Hindus, 38,975,418; Christians, 90,763; Buddhists and Jains, 84,974. It is bounded on the north by Assam, Bhutan, and Nepal. On the east are unexplored mountainous regions separated from it by Chins and northern Burma. It has Burma, the Bay of Bengal, and the Madras Provinces on the south, and the plateau of the Central Provinces and districts of the N.W. Provinces are on its west. In this area are included the four provinces under notice, viz. Bengal proper, Behar, Orissa, and Chutia Nagpur. Bengal is flat, and intersected by the watercourses formed by the branching of the Ganges and Brahmaputra and their tributaries. The climate is comparatively equable; the rainfall ranges from 60 to 100 inches; and Calcutta mean temperature is 78°. The district between the Ganges and the Brahmaputra, extending northwards to the foot of the Himalaya, is a slightly higher tract of country, and specially suited for the growth of fibrous plants, for which the neighbourhood of Itungpur is greatly celebrated. In the districts immediately east of the Brahmaputra, including Dacca and Sylhet, the greater portion of the surface is occupied by the rich plains of Myanmar and Sylhet, through which the river Soornia meanders. The old channel of the Brahmaputra, now nearly dry, winds along by Dacca from the eastward. This tract affords a great variety of produce, such as cotton, sugar-cane, rice, and other grains.

Behar is that portion of the Gangetic plain between the Himalaya and the plateau of Central India, which is terminated at one end by the N.W. districts of Ghazipur and Gorakhpur, and with hills running east and west, but of little height. Sirgijhur is montaneous, rising 600 to 700 feet above the level of Chutia Nagpur. Mun- pat is a table-land about 30 miles south-east from Sirgijhur town, and about 3000 or 3500 feet high. Balamow district is very montane. Hazari- bagh town, 24° N., 86° 54' E., 1750 feet. The slope of country S. towards Sumbulpoor, and even depressed towards the Mahanadi, Sumbulpoor town being only 400 feet. The Orissa table-land then rises on the southern side of Mahanadi, in some places to 1700 feet, backed by the chain of East Ghats. Amarkantak is a jungly table-land, lat. 22° 40' N., long. 81° 5' E., 3500 feet.

Bengal proper, Behar, and Orissa are in the valleys of the rivers Ganges, Brahmaputra, and Mahanadi. They are fertile, and yield every vegetable product which can feed and clothe a people, or enable them to trade with foreign nations. Amid billy spurs and undulations, coal occurs in vast areas, with iron and copper ore and slate stone. Salt is made along the coast line. The great rivers afford facilities for the carriage of their agricultural and mineral wealth, and their annual inundations in Lower Bengal spread a top-dressing of virgin soil over thousands of square miles.

Its early history is obscure. The rajas of Bengal, capital Kanauj (Gaur?), who have been identified as the first rulers, were the family of Bhupala. Abul Fazl, however, enumerates three dynasties as prior to this family. The first of the Vaidya
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rajas was Suh Kh or in a.D. 1063. Its last Hindu king was Lakshmanan. He had been placed on the throne in infancy, and during his long reign had been a just and liberal ruler. In a.D. 1203, Bengal was overthrown by Bakhtiar, a general of Mahomed Gori, and Lakshmanan escaped to Orissa. From that time till the 18th century, it was held by Mahomedans, sometimes, as from 1199 to 1330, under the Mughal emperor of Hindustan; then for two hundred years independent; and again under the Delhi empire, until treaties entered into by the British with the emperor of Delhi, in 1755, placed Bengal and Behar under the administration of the British East India Company. Orissa was occupied, and in 1851 a Lieutenant-Governor was appointed.

The Mahomedan sovereigns were:

Fakhru-d-din, A.D. 1338| Fattah, A.D. 1461
---|---
Ahs-ul-din, styled Haji Elias| Shahzadah, 1481
Shams-ul-din| Firoz, 1481
Sieundar| 1491
Ghias-ul-din| 1497
Sultan-ul-Saltan, styled Shani, 1494| Nasr, 1521
Shah-ul-din, styled Ibrahim| 1533
Raja Kans, 1536| Sher Shah, 1547
JitMal, styled Jalal-ud-din| 1592
Ahmad| Adil, 1548
Nasr-ul-din| 1553
Nasr| 1563
Barbik| 1573
Yusuf| 1445
Daul, 1457

Bengal was amongst the first of the places of India with which the English East India Company traded. In 1609, an association was formed in London to trade with the East Indies, and on 31st December 1600 they obtained an exclusive charter of privilege, constituting them a body politic and corporate, by the name of 'The Governor and Company of Merchants of London trading to the East Indies.' In 1613, they were ordered by Jahangir to settle in Surat. In 1634, Shah Jahan issued a firman for two English factories to settle in Bengal; and subsequently, in gratitude for the benefits derived by one of the daughters of the Zamorin of Calicut, the English were granted the medical skill of Mr. Boughton. Shah Jahan granted the privilege to the English of free trade in Bengal. The first factory of the company had been at Masulipatam, but in 1625 it was removed to Armecon, and subsequently (1639) Mr. Day removed it to a village in the territory of the raja of Chandragiri, and erected a factory there, which was first called Fort St. George, and is known now as Madras. The regular connection of the Company with Bengal, however, did not commence until 1642, when a factory was established at Balsore, and in 1652 permission was obtained for unlimited trade without payment of customs dues, on an annual payment of Rs. 3000. In 1661, Charles II. granted a new charter, vesting the Company with power to make peace and war, and to send to England unlicensed traders; but a fresh charter issued in 1693 limited the Company's powers to twenty-one years. In 1698, a rival company was formed, called the new or English Company; but in 1702 this amalgamated with the old or London Company, and the two parties styled themselves the United Company of Merchants trading to the East Indies. During the administration of Shaista Khan, subadar of Bengal, the English were subjected to much oppression. Shaista Khan exacted a duty of 3½ per cent. on their merchandise, and his officers arbitrarily extorted large sums from the factors, till, in 1698, it was resolved to seek redress by force of arms. The hostilities of the English exasperated the Emperor Aurangzeb, who ordered that they should be expelled from his dominions. The Company's factories were seized, and their affairs were brought to the brink of ruin, when negotiations for peace were set on foot, and a reconciliation was effected.

In 1698, the English obtained permission from Azim-us-Shan, grandson of Aurangzeb, and governor of Bengal, to purchase the towns of Cuttut patrol, Govindpur, and Calcutta.

In 1756, Suraj-ud-Dowlah became subadar of Bengal. He had previously manifested aversion to the British, and the Governor of Calcutta having refused to deliver up one of the principal officers of finance under the Nawab's late male, the Governor of Dacca, whom the Nawab had resolved to plunder, Suraj-ud-Dowlah attacked and captured Calcutta on 6th August. One hundred and sixty five of his six hundred fell into his hands, and were thrust into great pain, since called the 'Black Hole,' where all, save twenty three, perished in the night. On 2d January 1757, Calcutta was retaken by a force which had been despatched from Madras under Clive and Admiral Watson, and on the 4th of February the Nawab's army was surprised and defeated by Clive. Overtures were then made by the Nawab, and on 9th February 1757 a treaty was concluded, by which the Nawab agreed not to molest the Company in the enjoyment of their privileges; to permit all goods belonging to the Company to pass freely by land or water without paying any duties or fees; to restore the factories and plundered property; to permit the Company to fortify Calcutta, and to establish a mint. Three days afterwards, a contract with the Nawab, offensive and defensive, was signed. War having broken out between France and Great Britain, Clive attacked the settlement of Chandernagore, on which Suraj-ud-Dowlah had the French with arms and money, and was preparing to make common cause against the British. At this juncture a confederacy was formed among Suraj-ud-Dowlah's chief officers to depose him. The British joined this confederacy, and concluded a treaty with Mir Jafar Ali Khan, and at the battle of Plassey, which was fought on the 23d June 1757, the power of Suraj-ud-Dowlah was completely broken, and on the 29th June, Jafar Ali was installed by Clive as subadar of Bengal.

In 1759, the Shahzada, afterwards Shah Alam, in consequence of some dispute with his father, the emperor Alamgir II., fled from Delhi, and entered into a league with the subadars of Oudh and Allahabad for the conquest of the Lower Provinces. The prince advanced into Behar with about 40,000 men, and laid siege to Patna. Mir Jafar was greatly surprised by the prince's advance and, in his proclamation Clive marched with all the force he could assemble to the relief of Patna; but ere he reached that place, the prince's army had almost entirely dispersed. On Clive's return, the nawab Mir Jafar granted him as a jaghir, the quit-rent, about three lakhs per annum, which the Company had agreed to pay for the zamindari of Calcutta.

To meet his pecuniary engagements, Mir Jafar
had recourse to the severest exactions. He re-
signed himself to unworthy favourites; and it
became necessary to depose him in favour of his
son-in-law, Mir Kasim Ali Khan, with whom a
treaty was concluded on 27th September 1760, by
which the British obtained possession of Bardwan,
Midnapur, and Chittagong. But serious disputes
arose between Mir Kasim and the British regard-
ing the right of the servants of the Company to
trade, and to have their goods passed free of duty,
which led at last to war. In 1764, Mir Jafar Ali
agreed, in addition to the sums for which he had
contracted in the recent treaty, to pay five lakhs a
month towards the expense of the war then being
carried on against the Wazir of Oudh, so
long as it lasted. Mir Jafar died in January 1765,
and was succeeded by his son, Najam-ud-Dowlah,
with whom a new treaty was formed, by which
the Company took the military defence of the
country entirely into its own hands, and, among
other conditions, the Nawab bound himself to
appoint, by the advice of the Governor and
Council, a deputy to conduct the government,
and not to be removed without the consent of the
Council.

Najam-ud-Dowlah died on 8th May 1766, and
was succeeded by his brother, Syed-ud-Dowlah, a
youth of sixteen. Syed-ud-Dowlah was succeeded in
1770 by his brother, Mubarak-ud-Dowlah, with
whom a new engagement was made. By this
engagement the Nawab's stipend was fixed at
31,81,991 rupees. This is the last treaty which
was formed with the Nawab. The office of suba-
dar had now become merely a nominal one, all
real power having passed into the hands of the
British. In 1772, the stipend was reduced to
sixteen lakhs a year, at which rate it is paid to
this day.

Bengal was declared to be the chief presidency
on the 16th June 1775. By the treaty of 22d
February 1845 with Denmark, the British Govern-
ment obtained possession of Scarampore; and now,
excepting the small settlement of the French
nation at Chandernagore of 3 square miles, all
Bengal is under British supremacy. But in 1876
there were in Bengal 150,000 acres on the
roll, besides a vast number of petty revenue-free
estates.

Bengal proper has an area of 84,198 square
miles, with a population of 36,564,708, or 433 to
the square mile. For administrative and revenue
purposes it is arranged into 28 districts, viz.:

- Bakarganj, Bankura, Bardwan, Birbhum, Bogra,
  Cullenct, Chittagong, Chittagong Hill Tracts, and
  Hill Tipperah State, Dacca, Darjiling, Dinajpur,
  Faridpur, Hugli, with Howrah, Jalpagori, Jessore,
  Khandesh, Behar, Mymensing, Madhah, Midnapur,
  Murshidabad, Nadia, Noakhali, Pabna, Rajmahal,
  Rangpur, Sylhet, Tipperah, and the Twenty-
  Four Parganas.

The Hindus of Aryan descent are about 34 mil-
ions; the aboriginal tribes, 887,157; and semi-
Hinduized aborigines, 5,110,989 souls, are—

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baidya</td>
<td>68,933</td>
</tr>
<tr>
<td>Kasthils</td>
<td>1,400,473</td>
</tr>
<tr>
<td>Rajputs</td>
<td>117,157</td>
</tr>
<tr>
<td>Brahmans</td>
<td>1,100,105</td>
</tr>
<tr>
<td>Banjarias and Ganda</td>
<td>1,127,175</td>
</tr>
<tr>
<td>Bagri</td>
<td>680,575</td>
</tr>
<tr>
<td>Bauari</td>
<td>199,968</td>
</tr>
<tr>
<td>Charnar and Muchi</td>
<td>303,490</td>
</tr>
<tr>
<td>Rajbanshi (759,886)</td>
<td>1,629,545</td>
</tr>
<tr>
<td>with Pali of Din-</td>
<td>625,163</td>
</tr>
<tr>
<td>ajpur and Mad-</td>
<td>361,017</td>
</tr>
<tr>
<td>dabh, and Koch</td>
<td>2,900,000</td>
</tr>
<tr>
<td>Chittagong</td>
<td>250,285</td>
</tr>
<tr>
<td>Santal</td>
<td>180,963</td>
</tr>
<tr>
<td>Haluf</td>
<td>281,758</td>
</tr>
<tr>
<td>Poda</td>
<td>293,121</td>
</tr>
</tbody>
</table>

The Kaibartas and the Sad-gop are the chief
cultivators. The languages spoken are Bengali,
Urdu, and English.

Behar has an area of 42,417 square miles, with
a population of 19,736,101, or 465 to the square
mile. For administrative purposes it is arranged
into ten districts,—Bhagpur, Champaran, Gaya,
Monghir, Patna, Purvish, Santal Parganas, Saran,
Shalabahad, and Tirhut. The more important
of its castes and tribes are—

<table>
<thead>
<tr>
<th>Caste</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brahman</td>
<td>853,662</td>
</tr>
<tr>
<td>Rajput</td>
<td>1,015,676</td>
</tr>
<tr>
<td>Koeri</td>
<td>675,583</td>
</tr>
<tr>
<td>Kurni</td>
<td>650,839</td>
</tr>
<tr>
<td>Santal</td>
<td>485,948</td>
</tr>
<tr>
<td>Chamar</td>
<td>711,721</td>
</tr>
<tr>
<td>Bhuiya</td>
<td>214,742</td>
</tr>
</tbody>
</table>

Orissa has an area of 23,901 square miles, with
a population of 3,177,999, or 181 to the square
mile. Its four districts are Balasore, Cuttack,
Puri, and Tributary States, and its principal castes
and tribes—

<table>
<thead>
<tr>
<th>Caste</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brahman</td>
<td>350,799</td>
</tr>
<tr>
<td>Karan</td>
<td>123,434</td>
</tr>
<tr>
<td>Chamar</td>
<td>505,515</td>
</tr>
<tr>
<td>Aborigines</td>
<td>307,308</td>
</tr>
<tr>
<td>Hindu</td>
<td>572,956</td>
</tr>
<tr>
<td>Santal</td>
<td>232,096</td>
</tr>
</tbody>
</table>

The Chutia Nagpur area is 43,901 square miles,
and its population 3,825,671, or 87 to the square
mile. Its five districts are, Hazaribagh, Lohard-
daga, Manbhum, Singhbhum, and Tributary States.
Its population chiefly consists of—

<table>
<thead>
<tr>
<th>Caste</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>1,850,000</td>
</tr>
<tr>
<td>Mundah</td>
<td>190,095</td>
</tr>
<tr>
<td>Aborigines</td>
<td>1,285,000</td>
</tr>
<tr>
<td>Viz. Kol</td>
<td>292,080</td>
</tr>
<tr>
<td>Santal</td>
<td>220,096</td>
</tr>
</tbody>
</table>

The Mahomedans in Bengal in 1871 numbered
19,553,881; but this multitude is composed of
many elements, masses of the aboriginal races
as well as of the Hindus of Aryan descent having
been forcibly compelled to profess the Musulman
creed. Of that number, sixteen and a half millions are in
Bengal proper; two and a half millions in Behar.
In Chutia Nagpur and in Orissa they are few;
but in the Bogra district they form 80 per cent.
of the population; in Rajmahal, 77 per cent.; and
in Pabna, 69 per cent. In the districts of Chitta-
gong and Noakhali they form three-fourths of the
population. Wherever they form a principal part
of the population, they are the cultivating classes;
and all the sailors of the eastern districts are
Mahomedans. The Europeans and non-Asiatics are
17,135; and Eurasians, 20,879.

The Hindu population of Bengal are dark;
and some are very dark, and have thick lips, with
features either aboriginal or Indo-Chinese. Some
have curly hair, as if related to the black, woolly-
headed aborigines, who may have stretched across
from the Rajmahal to the Garo hills; others of the
Bengal people especially the Urya, with the
Bhuya, seem rather to have straight hair, with
high cheek-bones, and complexion not very dark,
suggesting an Indo-Chinese element stretching
from Burma across the Sunderbuns (C. p. 106).
Though good-looking, the mass of the Bengalis are
small and effeminate in appearance, remarkable
for tidiness and superstition, as well as for subtlety and art. Their villages are composed of thatched cottages, scattered through woods of bamboo or of palms; their dress is the old Hindu one, formed by one scarf round the middle, and another thrown over the shoulders. They have the practice, unknown in Hindustan, of rubbing their limbs with oil after bathing, which gives their skins a sleek and glossy appearance, and protects them from the effect of their damp climate. During many ages the Bengalis had been trampled upon by men of bolder and more hardy breeds. Courage, independence, and quickness are qualities to which his constitution and his situation are equally unfavourable. His mind is weak, even to helplessness, for purposes of manly resistance; but its suppleness and its tact move the children of sternier climates to admiration, not unmixed with contempt. Large promises, smooth excuses, elaborate tissues of circumstantial falsehoods, chicanery, petty wiles, are the weapons offensive and defensive of the lower Ganges. All its millions do not furnish one sepoy to the native army. In Bengal and Behar, the work of labourers is done by Bhu, Rajwar, Chandal, Dossad, Hari, Bhumali, and other aboriginal tribes.—C. 124.

When the Aryans advanced from the westward to the plain of Bengal, it appears to have been occupied by a race of which the present non-Tibetan tribes of Assam and the Himalayan and Vindhyan range are remnants. The Bengalis, however, have never been wholly absorbed by the intruding race, though somewhat modified. In Silhet and Assam, in particular, the Bengalis retain the stamp of the double origin, and considerable numbers of the original race are still found intermixed. The principal remnant are the Kochi; but there are also the Kachari (Bodo, Boro, or Mech), Dhimal, Rabha, Hajong, Batar or Bor Kebrat, Pollohi, Gangal, Maraha, Diamuk. They are spread eastwards along the skirts of the mountains of Bhutan and Sikkim as far as Aligunj, and the skirts and low valleys of the sub-Himalaya, beyond Sikkim, contain other tribes of the same race. Including those already enumerated, Mr. Hodgson ascertained the presence of twenty-eight tribes between Assam and Kumaun, or from the Bonas to the Kali. Of these the most numerous were the Bodo or Kachari. The Kochi and Bodo or Kachari tribes, of all the prior races, were the latest dominant ones of the Gangetic race in Bengal.

The agricultural products are rice, wheat, barley, maize, pulses of kinds, mustard, turnips, plantains, radishes, cicerbitaccous plants, Lagenaria, Luffa, Trichosanthes anguina, species of arum, sweet potatoes, capsicum, sugar-cane, ginger, turmeric, Piper betel, Areca catechu, tobacco, linseed, opium, indigo, jute, tea, silk. Rice has three harvests in one year, viz., boro or spring rice, in low marshy land, sown in October and reaped in May; aus or autumn rice, sown on high ground in April or May, and reaped in August and September; aman or winter crop, the last, is grown on low land, and is by far the largest crop. It is sown in May or June, transplanted and reaped in November, December, and January. Rice is the principal, often the sole, article of food throughout Bengal proper; pulses, vegetables, spices, oil, salt fish, and condiments being only used as a relish. The consumption varies from two-thirds to three-fourths of a seer per head per diem=1½ to 1½ lbs. In the mountainous districts the pulses and millet are the chief articles of diet.

Bengal suffered in the year 1770 from famine, more widespread and terrible than any which had ever befallen any other British possession, and which Colonel Baird Smith deemed to have been the most intense that India ever experienced. Dr. Hunter states the number of deaths on that occasion at ten millions.

Bengali is a highly cultivated language of Hindu origin, largely stocked with pure Sanskrit words. It is spoken throughout Bengal proper. Tirhuta on its N.E. border has a great affinity with Bengali. Bengali is the language of many millions of souls, and restricted solely to the geographical limits of Bengal, and from the cultivation which has been given to it, well deserves to be ranked as a separate language. It is spoken by about forty millions of people in the delta of the Ganges and to the west. Professor Müller mentions that nine-tenths of the Bengalis and of the Hindi tongues are composed of words taken from the Sanskrit. He regards it as the modern Sanskrit, standing to its parent, the old and classical Sanskrit, almost in the same relation as the modern High German to the old High German, as the modern Italian to the language of Rome. See India.


Bengal army is the political designation of that part of the military forces of the British Indian Empire, occupying Bengal, Assam, Arakan, the N.W. Provinces, with Oudh and the Punjab. It is distributed amongst races speaking the Persian, Puahlu, Panjabi, Hindustani, Hindi, and Bengali languages, besides the Ooraya language in Orissa, and the Rakhoo in Arakan. It is composed of Europeans of the United Kingdom and of the natives of N. and N.W. India; Hindus of high caste, Hindus of low caste; Mahomedans from Hindustan, from the Punjab; and Pathans or Afghans from beyond the N.W. borders; also Sikhs, Rajputs, Gurkha, and Dogra. A revolt of the Bengal native army was commenced at Berhampore by the 19th Ben. N. 1. on the 26th February 1857, and it was reorganized on the 9th September 1857, to become an army.

BENGAL, Bay of. This great bay lies between the Peninsulas of India and Malacca. It receives many great rivers,—the Ganges, Brahmaputra, Irrawaddy, Sittang, Salwin, Monlemein river, Godavery, Krishna, Kolaydin, Mahanadi, and has a coast line of about 2800 miles. Pliny does not make mention of any voyages of the Romans to the Gulf of Bengal or to the Malay Peninsula, although it is clear from Strabo, who wrote before Pliny, that the Ganges had been sailed up as high as Pali-
BENGAL-SAN.

broth. Ptolomy’s Geography, said to have been composed about 60 years after Piny, mentions the diamonds found on the banks of the Mahanadi or Sambulopore river; also speaks of Arcati, the capital of the Sore (or Sora-mandalam, from whence corruptly Coromandel), Mesolia, the district which contains Masulipatam; the river Cauvery, under the name of Chabars. Ptolomy scatters islands over the Bay of Bengal, probably meant for the Andaman and Nicobar Islands, and mentions that most of them were said to be inhabited by anthropophagi, an idea continued by modern navigators. The Bay of Bengal is liable to be swept by hurricanes, which travel quite across the bay. Every few years there occur severe cyclones and advancing storm-waves. Of the latter, that of 1832, which swept over the islands of the delta up to Singur, was attended with great loss of life; as also was a cyclone in 1859, another in 1864, with a storm-wave which submerged islands, and rushed along the coast in the vicinity of Masulipatam; and another in 1876.—Bennell’s Memoir, p. 39.

BENGAL-SAN. Hind. This is identical with the Saka solar year. See Era; Fasli.

BENGAN. Hind. Solanum melongena, the egg-plant. Valayati bengan is the tomato.

BENGIAN, a mountainous district in Mindoro, occupied by a Negrito race.

BENI. Arab. When the Bedouin Arabs speak of tribes, they say Beni, which signifies the sons of some person; thus Beni Leghat means the tribe of Leghat. The word is ibn, a son, and is written bin when preceded by a proper name, and followed by the name of the father, as Hasan bin Muhammad, Hasan son of Muhammad.

BENICASARA CERIFERA. Suci. Gourd.


Kumra, Chal kumra, Ben. 
Peh-kwa, ... Chin. 
Tung-kwa, ... Chinh.

White tallow gourd, Eng. 

Chinese pumpkin, 

The Seeds.

Peh-kwa-tzhe, ... Chin. * Magha - i - kuddu, 

Kendra, ... PERS.

This is one of the Cucurbitaceae. It has large white flowers. The rind of the fruit is used as a bottle. The fruit of one variety of it forms the sounding body of the sitar; and that of another variety is used as floats for swimming rivers. Its young fruit is eaten by the people in their curries, and is often candied. The fruit is remarkable for having its surface, when ripe, covered with a white waxy exudation, which smells like resin. Chinese gardeners make its fruit grow to a great size. In India, the tallow gourd is presented to a Hindu widowed pair. A wild variety, Teta-lando, Beng., is poisonous.—Williams; Voigt; Rosb.; Stewart. See Cucurbitacea; Gourds.

BENJAM. SUMATRA. Sesman Indicum.

BENJAMIN, Benzin. 

Luban, Hasi-luban, Arab. 
Hoku-tahul, Jawa.

Kaminan, Menian, Malay. 
Sambadi, Malay.

Nga-hiag, ... Chin. 
Nga-sih-hiang, ... Pers.

Benzeo, ... Ger. 
Belani-til, ... Hid. 
Beluzino, ... Tr.

BENJAMIN is a word of Hebrew origin, which has in the lapse of time been adopted for several substances now in use. In Upper India, it is the name given to the gum-resin of Boswellia thurifera, but in commerce it is generally applied to the resin of the Styrax benzoin, which grows in Siam and Java, in Sumatra, in the country of the Batak race, and in Borneo on the northern coast of the Bres and Java. In Sumatra, the balsam is obtained, in Sumatra, by incision in the trunk of the tree, practised after it has attained the age of five to seven years. The juice which first exudes is the purest and most fragrant; it hardens on exposure to the air, and becomes brittle and semi-transparent. The resin is white and transparent at first. About 3 lbs. can be obtained by each tree for six years. The white benjamin, termed ‘Covrie luban’ in India, is a superior kind, generally met with in the form of dry, hard, grey masses, rather shining, brittle, formed of ovoid, whitish tears, like stripped almonds. The best comes to India from Sumatra. It is much used as a perfume, and as incense in places of worship, in the composition of frankincense, and in the manufacture of the pastilles called ud-batti. Benzoeic acid is procured from this substance.—Stat. of Com.; M’Culloch’s Dictionary; Crawford, Dict.; Cat. Ezhik. of 1802; Ainslie; Marsden’s Sumatra, 155-56; O’Sh. 480. See Benzoin; Resins; Styrax benzoin.

BENJAMIN, the Jewish traveller, Rabbi Benjamin of Tudela, travelled in the East between 1150 and 1173, when already the empire of the Abbasside Khazis was rapidly declining, and the Turks were gaining the ascendency at Baghdad. He would appear not to have proceeded beyond Kish island. He describes it as the great emporium to which Indian merchants brought their commodities, and the traders of Mesopotamia, Yemen, and Persia, all sorts of silk and purple cloths, flax, cotton, hemp, wheat, barley, millet, etc., which form articles of exchange. He refers to the pearls of the Bahrain islands, and to the pepper, cinnamon, ginger, and many other spices of S. India. He places the island of Kandy at 22 days beyond Kish, and China 40 days beyond Kandy.

BENJAPATSJA. Maleal. Tiaridium Indicum.

BENKAR. Hind. Hiptage madabola.

BENKATAN, a tribe on the E. coast of Borneo.

BENNETT. In 1851, J. W. Bennett published a Selection of Rare and Curious Fishes found on the coast of Ceylon, Bennett, P. F., author of A Whaling Voyage round the Globe. Bennett, George, author of Wanderings in New South Wales, Batavia, Pepo coast, Singapore, and China; also Gatherings of a Naturalist in Australasia, London 1860.

BENOUDDHA, the country between Allahabad and Surwur, the present country of Gorakhpur.

BEN-TEAK. Lagerstromia microcarpa.

Ven-taku, ... CAN. 

Mahr. Bandara, ... Mah. 
Bellingier, ... Maleal.

This tree is common in the Wynn and on the Western Ghats; wood prized for making coffee cases, and much used by the native carpenters for house-building and masts for dow, pattama and other country vessels. It grows 90 and 100 feet long, and from 12 inches to 3 feet in diameter; it is perfectly straight, and without branches, excepting at its top; the leaves are small and very thick. This wood is not so durable as the poon; it is very much lighter in colour, and in this respect much resembles the American red oak.—Edge, M. and C.; M’Ferr.
BENT GRASS, species of Agrostis.

BENTHAM, a Bengal civil servant, who largely extended the knowledge of the botany of India. He published many memoirs on botanical subjects, also the Flora of Hong-Kong, and monographs of Serophysalurinae and Labiatae.—And.

BENTHAMIA FRAGIFERA, the Thurnell of the Panjub, is found in Nepal and in the Sutlej valley between Rampur and Sungnan, at an elevation of 6000 feet. The wood is small; fruit is large, of the shape of a strawberry, edible, and is used as a preserve. B. floribunda extends from the eastern Himalaya to the Sutlej.—H. et Thom. 109, 193; Cleghorn, Report, 64; Hogg, Veg. King. p. 367; Powell, Punjab Products.

BENTINCK, Lord William, G.C.B., an officer of the British army who was governor of Fort St. George, Madras, from the 30th August 1803 to the 13th September 1807. He was subsequently in military employ in Spain during Great Britain's war with France. On the 4th July 1828 he assumed the office of Governor-General, which he held until the 29th March 1835. He afterwards entered the Commons House of Parliament for the town of Glasgow, and died 17th June 1839. During his administration as Governor-General, he appointed Captain Sleeman for the suppression of thugs; sati, also, the self-immolation of Hindu women with the dead bodies of their husbands, was prohibited. Education was fostered, many English schools established; there was laid the foundation for the extensive employment of natives in the administration of justice; and in his time, a so, a Legislative Council was established at each presidency. The only war that occurred was against the raja of Coorg, who by his insanguine-like atrocities drew upon himself the arms of British India.

BEN TREE. In India, the Moringa pterygosperma; in Egypt, M. aperta.

Ben Nut Oil.

Moringhy yanni, Tam. 
Moringa, M. 
Moringa noona, Tetl. 

This oil is the product of the unts of the Moringa aperta. It is valuable on account of the lengthened period which it may be kept without contracting rancidity. In the West Indies the oil is used for salad oil. It is employed by watchmakers, and for retaining the aroma of delicate flowers. The oil is inodorous, and is therefore used by perfumers in the manufacture of scented oils. The seed of M. pterygosperma also yield an oil. M. pterygosperma is common in all parts of S. Asia; the flowers, leaves, and fruit are eaten by the natives; and the rased root is used by Europeans as a substitute for horse-radish, to which circumstance it owes its common name of ‘horse-radish tree.’—Mason; Faukner; Hogg.

BENTUL. MALAY. A vegetable of Bawean.

BENU MASH. Pees. Phaseolus max.

BENZA, P. M., a native of the Ionian Islands, a Madras medical officer. He wrote on the geology of the country between Madras and Neilgerry, in Bengal; also on the geology of the Neillgherry and Koonda mountains, and notes on the geology of the Northern Circars in 1835.—Buell's Catalogue.

BENZON, Liquid.


An oil, like treacle, sold in China in small bottles or in the pericarp of a fruit. It resembles balsam of Peru.—Smith. See Benjamin.

BERAL.

BEO. HIND. Granula religiosa.

BEOMAR. Bepar. HIND. Money-lending, trade. Bepari, a shopkeeper.

BEP-TIAN. BURm. In Amherst, a timber used for making handles for spears and swords; it is a superior wood, and looks like white Jarrold. A timber of same name in Tavoy is used for building; and the Bep-won, BURm., of Tavoy is a timber used for building.—Captain Dance.

BER. HIND. Amongst Rajputs, a feud.

BER. HIND. Zizyphus flexuosa, jujuba, nummularia and vulgaris.

BERA. HIND. Nima quassoides; also Glaciosoch, sp.; also Ficus Indica.

BERA. HIND. A raft or float, on which is placed a paper or tinued boat, with the face of a female and the crest and breast of a peacock at the prow. It is set afloat with lights and music on Thursday evenings, on the rivers of Bengal, by Mahomedan Punjubs of Kajah Khzir. On the last Thursday of the month Bhandon (August—September) it is deemed particularly acceptable as an offering in fulfilment of a vow made in the bygone year.—11.

BERA. HIND. A small packet of betel-nut, catechu, quicklime, anised, coriander seed, cardamuns and cloves, wrapped up in betel leaf. It is a/miscastey used on ordinary occasions, but is also presented as a ceremonial part of a visit either to Hindus or Mahomedans.

BERAD. MAH. A predatory tribe in the south Mahtrr country, inhabiting the hills and thickets, and subsisting by chase and plunder. Wilson says they are the same as the Ramusi, but this does not seem correct. They may be the Bedar.—Wilson's Glossary.

BERAM. MALAY. Elephant. Beram rambut, hair of the elephant’s tail.

BERAR, a province in the northern and central part of the Peninsula of India which belongs to the Hyderabad state, but was assigned by the Nizam to the Government of India to meet the pay of the Hyderabad Contingent, subject to the condition that the surplus revenue shall be paid to Hyderabad. The province is administered by a Commissioner, under the Resident of Hyderabad. It is in a broad valley lying between the Satpura range on the north and the Ajunta range on the south. It has several large towns, Akoh, Akote, Amravati, Ellickpur, and others; and its population in 1867 was 2,251,565 souls in an area of 17,728 square miles. The first inroad of Mahomedans into the Dekhan was led through Berar by Ala-ud-Din, A.D. 1224; and several dynasties, the Kabani, the Izam Shahi, the Nizam Shahi, the Mahatta Peshwas, the Dehli empire, and the Asf at Jahl of Hyderabad have since held it. In 1867 the principal creeds and castes were:

<table>
<thead>
<tr>
<th>Caste</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christians</td>
<td>903</td>
</tr>
<tr>
<td>Jews</td>
<td>16</td>
</tr>
<tr>
<td>Parsis</td>
<td>75</td>
</tr>
<tr>
<td>Mahomedans</td>
<td>134,301</td>
</tr>
<tr>
<td>Brahmins</td>
<td>49,843</td>
</tr>
<tr>
<td>Kshatriyas</td>
<td>5,801</td>
</tr>
<tr>
<td>Total</td>
<td>301,379</td>
</tr>
</tbody>
</table>

The 301,379 Non-Aryans are thus detailed:

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miar, viz. Somavanshi,</td>
<td>2,498</td>
</tr>
<tr>
<td>Adi, Tung, Madrasi,</td>
<td>7,294</td>
</tr>
<tr>
<td>Ladoo, Balder, Awadh,</td>
<td>2,498</td>
</tr>
<tr>
<td>Ludd, Holla, Bhunghi,</td>
<td>7,294</td>
</tr>
<tr>
<td>Paradesi, Bh, Hajam,</td>
<td>7,294</td>
</tr>
<tr>
<td>Vati, Loay, Malvi,</td>
<td>7,294</td>
</tr>
<tr>
<td>Gopal, Lawney, Mhar,</td>
<td>7,294</td>
</tr>
<tr>
<td>Labai, Dougla,</td>
<td>7,294</td>
</tr>
<tr>
<td>Total</td>
<td>29,818</td>
</tr>
</tbody>
</table>

Dhor, vv. Kakafr (Bungesi), 2,498

Chamar, viz. Varadai, Pardeshi, 7,294

Marshu, 7,294

Dabseau Padum, Hol, Hindustani, 7,294

Chamar, Mohee, 19,172
BERAR.  

Kateek, 4,069  Piratees, 8
Darwe, 213  Bahurupis, 292
Mong, viz. Mang. 20
Marathi, Vercday. 3,501
Marath, Kant, Tilung. 15
Dakkheen, Ghatcoley, Sindukar. 11
Baoonse, Teeho-ley, Gavadey. 274
Saveley, Deradey, Lakhar, Sams, 33,453
Kalaniki, 46

The Kshatriya pretend to Rajput descent. Maharratas of no particular family usually call themselves Thakur; even a Kunbi will occasionally try to elevate himself thereby; while the Purboh, Kayasth, and other castes of mixed origin and good social status are constantly invading the Kshatriya military order. The distinction is also claimed by the rajus of the Satpura hills, who assert that they are Rajputs depressed by the necessities of mountain life, whereas they are Gond or Kurku elevated by generations of highland chieftainship.

Under the heading Vaisya are placed all the commercial classes of Hindus, the north-country Marwari and Agurwalla, with those who are known by the general term Banjara, and a few castes like the Komati from the south, or the Lar, who do not seem to be well known out of Berar.

The Sudra caste in Berar, as in Mysore, all eat together, although they do not intermarry. The Kunbi and Mali eat flesh, drink liquor moderately; and their widows may always remarry if they choose, except the widows of Deshmukhs, who adopt high caste prejudices. The Keshi is a weavering caste. The Banjara were comparatively numerous in Berar; their occupation as carriers is rapidly going, and during their transitional stage they give a good deal of trouble to the police. The Bhui has recently been supposed to belong to a widely-spread primitive tribe; the Garpayari live by the profession of conjuring away hailstorms. The Vahar and Krishnapokshi are the same.

They are descendants of Brahmins by women of inferior castes, and Krishnapokshi is only an astronomical metaphor for describing a half-breed, the term meaning literally 'dark-fortnight,' and referring to the half-darkened orb of the moon. All the Sudras of this part of India are of non-Aryan origin. The Mh BAR have been taken to be the same with the Dher, a very useful and active tribe. The Mong appear to be of low rank in the social scale; they are tanners, curriers, shoe-makers. The puacity of the Khakob or Bhangi, who are so numerous in Northern India, is a serious sanitary difficulty. The Kailkari are a tribe formerly well known for their trading habits. The Ramusi, a predatory race, speak Telugu in their families, and are doubtless from Telengana. The original Purdhun among the Gond answered to the Bhat among the Hindus, but many seem to have settled in the plains as a separate class of Gond.

The Kunbi and Bhoti assimilate themselves into eleven classes:—Mali, Ful Mali, Jotar Mali, Haladi Mali, Wanjari, Gantadi, Sagar, Atole, Telale, Vindesa, Parni.

With the exception of the Haladi Mali and Parni, they have roti vya whar amongst each other, but not beti vya whar, i.e. they eat with each other, but do not intermarry. The Kunbi and Mali alone, of the Sudra peoples, are 834,588 souls.

The Dhangar sheep farmer race are of two sections, the Kota Pilla Dhangar, who keep sheep, and the Barji Hatkar, or 'shepherds with the spears.' The latter still hold much land on the borders of the Nizam's territory, and, until the British domination, were notorious for pugnacity and rebellion, and they still continue a quarrelsome and obstinate race. They are supposed to have come from Hindustan in twelve tribes, and been impelled by the Gonds towards Hingoli and Bassim, which locality got the name of Barah Hatia, or the twelve tribes. They now occupy the hills on the north bank of the Pyn Gang. To die in the chase or in war is deemed honourable, and the Hatkar who are so killed are burned. The Hatkar are fine able-bodied men, independent and arrogant; many of them never shave or cut the hair of their face.

The Bhui are in number 17,980.

The Banjara, 51,982, most of whom belong to the Banjara tribe, supposed to have been Rajputs from Central India.

The Aboriginal races in Berar, 168,059 in number, are as under:—

Gond, 68,542 Andh, 28,037
Bhil, 2,279 Nihal, 2,591
Ramusi, 7 Korku, 28,709
Koli, 21,224 Kurki, 8
Arakh, 331 Kolam, 9,969
Lejar, 1,309

Of the aborigines, the Gond, Kurku, and Bhil are the only completely preserved specimens of tribes. The two first retain their languages, while the Bhil tongue seems to have become extinct very recently in Berar, its disuse being probably expedited by their general conversion to Mahomedanism.

The Gond of Berar inhabit the Melghat and a strip of wild country along the Wardha river. They arrange themselves into thirteen sections, viz.:

Bhui.  

The men and women of the Gond never associate at work, but labour apart. A Gond desires of having a wife, and having resolved on a particular girl, takes with him a band of his comrades to the field where the women are at work, and he suddenly, alone, runs towards and attempts to capture her. His comrades will not, however, aid him to carry off the girl, unless he succeed in touching her hand before she reach the village shelter. By touching the girl's hand, the marriage contract is sealed, and cannot be broken; nevertheless the women often fight every inch of the ground, inflict the most serious hurt, and sometimes shameful defeats, continuing the contest even after the bridegroom has touched the bride's hand, and, if the village skirts be reached, the men turn out to aid the woman, and pursue the attacking party back to their own village.

The Bhil of Berar occupy the eastern slopes of the Gawilghur range to its western extremity, and stretch far westwards in Kandesh. They belong to the Turvi clan; all now are Mahomedans.

The Koli are in two distinct tribes, but they are agricultural, and there are several substantial potuils amongst them.
BER-BAIT.

The Aush are also called Pradhan, and are said to be helot Gonds; but they are cultivators, and do not eat animals that die.

The Kalam are a Gond tribe who have settled to agriculture.

The Lajar are woodcutters in the Satpura range.

The Nihal are a helot class among the Gonds.

BER-BAIT, MALAY, means to make Plantains. A pantun consists of four lines; the two first consist generally of a simile or natural image, and the two last a moral drawn from the simile. The Malays take great delight in listening to two poetical champions pantunting at each other, till one is obliged to give in from want of further matter.—Journ. in Arch. v.

BERBER, a race occupying the northern parts of Africa. In the Berber group of languages, all that is not Arabic in the kingdom of Morocco, in the French provinces of Algeria, in Tunis, Tripoli, and Fezzan, is Berber. The language also of the ancient Cyrenaica, indeed of the whole country bordering the Mediterranean between Tripoli and Egypt, is Berber. The extinct language of the Canary Isles was Berber; and, finally, the language of the Sahara is Berber. The Berber languages in their present geographical localities are essentially inland tongues.—Latham, Rep. Br. Ass. 1817.

BERBERAH, or Maratha, is described as a subdivision of Abhirra; it is the Barbarean of Arrion's Periplus.

BERBEREII, the Mosallyon of the author of the Periplus, is a seaport in Africa, directly south of Aden, in lat. 10° 25' 45" N., and long. 46° 6' E. It was the grand mart of the ancients on this coast, and is still the great outlet for the commerce of north-eastern Africa. It has a large trade in sheep, cattle, ghi, coffee, various gums and resins, and in ostrich feathers. An annual fair is held from October to April, the inhabitants meanwhile living in tents to the number of 20,000, bartering their goods with merchants of Muscat, Bahrein, Busorn, Feresbender, Mandavie, and Bombay, or carrying them over to Aden, where a ready market exists for their produce.—Horsburgh, Blackwood's Magazine.

BERBERIS, a genus of plants belonging to the Berberaceae. The genus has about 60 species in China, Japan, and in India. Amongst them are B. angulosa, aristata, Asiatica, coneimina, insignis, lycium, macrosepalum, Nepalesia, ulicina, umbellata, vulgaris, Wallichiana, xanthoxylon. Three medicinal substances are obtained from species of this genus,—an extract known as Russet, a tincture, and Berberine, which is the active principle of these. But it is a troublesome and an expensive process to extract it pure. It is very bitter, yellow, not easily soluble in water, more readily in spirits of wine. In Europe it has been used chiefly as a tonic in indigestion, in doses of one to six grains, but has been given up to ten grains. B. Asiatica and the B. aristata are generally used. It is from the roots of these species that the bark is stripped for making the tincture. B. conspicua, Hook. et Thom., B. angulosa, Wall. grows at Ramri and Pindorgarh 3000-5000. A small shrub only a foot and a half high, flowers solitary, red fruit, the leaves and stems very spiny. In the Ryott valley in Sikkim, at Lahore, Iris was found by Dr. Hooker abundant, and this small bushy Berberry with oval eatable berries. B. insignis, a plant of the Sikkim Himalaya, forms a large bush with deep green leaves seven inches long, and bunches of yellow flowers. B. Kunsarensis is found in Kunwar, and employed for making Russet.—Hooker, Journ. 12, 1854, ii. 197; Ind. Ann. Med. Sci. 1856, 379; H. f. et Th.

BERBERIS ARISTATA, D.C. Barberry.

Berberis tinctoria, Leach. Barberry angustifolia, B. chitra, Ham.

Berberis floribunda, Wall. Barberry, ceratophylla, B. petiolaris, Don., aristata, B. afflictis, Don., umbellata, Lindl.

BERBERIS LYCIUM. Royle. Barberry.


Extract—Hazzin-Hindi, Att.; Russet; Hinz. This plant is widely distributed over the mountains of India, and assumes many various forms, which has led to botanists giving it a host of specific names. It is found in the Satlej valley between Rampur and Sunagam, at an elevation of 6000 to 10,000 feet; also on the Neilgherry and Pulney hills at from 6000 to 7000 feet, and at Newera Ella in Ceylon. The berries are much esteemed in the countries where they grow for their agreeable acid flavour. A yellow dye is obtained from the root.—Cleghorn, Panjab Report; Ind. Ann. Med. Science.

BERBERIS NEPALENSIS. Spr.


This shrub is found on the Neilgherry, Pulney, and Travancore hills, at an elevation of from 5000 to 8000 feet. It is also on the Himalaya, Bhotan, Garhwal, and Khiasy mountains. The wood is small, and of little use. See Dyers.

BERBERIS SINENSIS, Smith, the Kau-kii of the Chinese. This and its sub-species furnish the drug of China called Kau-kii and Tu-kul-pi. This is a plant of northern China; berries of a dark purple.—Drury; Smith.

BERBIANG, Kyan. Brother-making. See Brother; Ber; Sahibah.

BERCHEMIA FLORIBUNDA. Wall. The Zizyphus floribunda, Wall., is a plant of the
BERDÀ.

Khassya hills, Nepal, and Kamaon. The fruit of a Panjab species is eaten by goats and men. B. aculeatus is common in the Holy Land, and called Christ's thorn, from the tradition that the platted crown of thorns was made of its twigs.—Voigt.

BERDA. MAHR. Terminalia bellerrica.

BERDURANI, a tribe of Afghans on the north-eastern part of Afghanistan, occupying the lower course of the Kâbûl river, and the parts between the Indus, the Hindu Kush, and the Salt Range, touching the Ghilzai on the west, the Sinphosh on the north, and the people of India on the east, the Indus being their boundary; but Ìshâwûr is a Berduranâi town. They were once a great tribe, but were removed from eastern Afghanistan to Herat by Nadir Shah.—Papers, East India, Cobul, and Afghanistan, p. 139.

BEREKEDE, a branch of the Asir tribe of Arabs, said to lend their wives, like the Jakuri Hazara.—Sale's Koran. See Pediandry.

BERENICE, a seaport established by the Ptolemys on the Red Sea, from whence goods brought from the east were conveyed by caravans 255 miles to Coptis on the Nile, and thence to Alexandria. The entire distance from Coptis to Berenice occupied twelve days. The ruins of Berenice were discovered by Captains Moresby and Carless at the bottom of the inlet known as the Sinus Immundus or Foul Bay.—Ind. in 15th Cent. See Saba.

BERFA. HIND. Populus balsamifera.

BERGAMOT, also Bergamotte, a name of the lime tree, Citrus limetta; also of the small pear-shaped fruit of the tree, and also of an essential oil obtained from the rind of the fruit. To prepare this oil, rasp the rind, express the rapsings between flat porcelain slabs, allow the oil to settle, and then filter. The exquisite flavour of this oil is injured by distillation. It is used chiefly as a perfume; colour yellow; sp. gr. 0·888; freezes at 32°. More than 22,000 lbs. of this essence was imported into England in 1848.—Beng. Phar. p. 378; Simmons, p. 566; Hogg, p. 140.

BERGERA KONIGII. L. Curry leaf tree.

Murraya Konigii, Spreng.

Karia-parle, . . . BENG. Kariya-palpa. . . . MALEAL.
Kariypak-kahar, HIND. Kariya-parle. . . . MALEAL.
Kariyapak-kurra, K. Kariyapak-kocr, . . . SANSK.
Gamila, Gardala, . . . KANG. Kariyapak-karam, TAM.
Baranga, . . . MALEAL. Karivepa, . . . TEL.
Kare-hpeon, . . .

A tolerably-sized tree, common throughout British India and Ceylon. It is cultivated generally in gardens for its pinnate-shaped leaves, which retain their fragrance when dry, and are used to flavour curries, mulugattawny, chutney, etc., and are also used in the curry pastes and powders prepared in India for transmission to England and other parts of the world. The mixture of the leaves not only imparts a peculiar flavour to these condiments, but adds a zest to them. It flowers in February and March; fruit of a deep purple colour; wood hard and close-grained. Medicinally, the leaves are considered stomachic and tonic; used raw in dysentery, and when roasted, are administered in cholera, in decoction to stop vomiting, also in fomenting. The bark and root are employed as stimulants.—Royle.

BERGERÀ NITIDA. Theç. The Meegong-katpineche-gass, Singhalése, is a moderately-sized tree, not very uncommon in the warmer parts of Ceylon.—Theç. i. p. 46.

BERHAMPUR, a municipal town and military station in Ganjam, in lat. 19° 18' 40" N., and long. 84° 47' 50'' E. It stands on a rocky ledge surrounded by an extensive plain, bounded on the W. and N. by a range of hills from 5 to 10 miles distant, and open to the S. and E. The district yields sugar; also silk cloth manufactured from Bengal and Chinese cocoons.

BERHAMPUR, a civil station in the Murshidabad district of Bengal, in lat. 24° 6' 50'' N., long. 88° 17' 31'' E., with a population of 27,110. It is built on the left bank of the Bhagirathi river, and is 118 miles from Calcutta. In the beginning of the nineteenth century, General Stewart resided here. He was wont to offer puja to Hindu idols, and to worm up the Ganges. Like Job Charnock, he had married a Hindu. It was here that, on the 25th February, the first overt act of the mutiny of 1857 occurred, in the 19th Regiment Bengal Native Infantry.—Tr. of a Hindu, i. pp. 68, 69; Imp. Gaz.

BEH, a caste in southern India following trade, and claiming to belong to the original Vaisya section. They also call themselves Chetti, or more correctly Sheti, from the Sanskrit Shreshthi, a merchant. The Beri belong to the left-hand sect, and are distinct from the Komati or Chetti of the right-hand division.—Wilson's Glossary.

BEH, HIND. Zizyphus flexuossa; also Z. nummularia.

BEH. HIND. Iron fettlers for prisoners or quadrupeds.

BEH. HIND. A basket used to raise water for irrigation, made of leather or bamboo. It is suspended by four ropes, and swung on a yoke; it has various names in different parts of the country.

BEH, also Bhari and Rana Bhari. HIND. Leo-

BEH, a robber tribe of Central India.

BEH-BERI, a fatal disease, often attended with swelling and burning in the feet and paralysis; first written on by Dr. J. G. Malcolmson, Madras Medical Service, 1835.—Dr. Buist's Catalogue.

BERING. HIND. Nima quassoides.

BEJOYA or Buroja. HIND. A resin from the Pinus longifolia; is rich in oil of turpentine, yielding 15 to 20 per cent., and since 1860 the natives of Najibabad and Bijnore and of the towns of Murutt and Rookee, have distilled turpentine from it. The resin brought from the hills is sold at the markets along the foot of the ghata at Rs. 3 to Rs. 4½ per maund. At Najibabad, 19 miles from the hills, the resin sells at Rs. 6 to Rs. 5½ the maund; the turpentine distilled there at 8 to 12 annas the quart bottle. When the resin is sold in loose quantities (called soondrus), it is sold on the spot for Rs. 8 the maund. This soondrus is the unrestricted resin of the trees, and is technically known as Colophane. The resin is collected by cutting triangular notches in the trees, leaving a hollowed-out space at its foot as a receiving bowl, which is filled and emptied two or three times in the year. About 1000 to 1200 maunds are brought annually to Kamaon. Each tree yields from 5 to 10 seers.

BERLI. MAHR. Caryota urens.

BERNADOTTE, king of Norway and Sweden, commenced life in the French army, and, when serving in India, he was taken prisoner by the British in a night sorti from Cuddalore in the month of June 1788.

BERNARDINO. Fray Gaspar de San Bernardino,
of the order of St. Francis, in 1611 undertook a journey by land from India to Portugal by way of Mombasa and Socotra and the Persian Gulf. His narrative bears witness of the complete revolution which had taken place in the course of the trade between India and Europe, through the Equin斧tes valley and Syria.—Birchwood.

BERNIER, FRANCIS, was born at Angers, in France, about the year 1625. In 1654 he visited Syria, and passed into Egypt, residing a year at Cairo, where he suffered from the plague. Thence sailing down the Red Sea, he passed to India, landing at Surat in the latter days of Shah Jahan. He states that by the time of his arrival at the court of Shah Jahan, the various robbers whom he had met on the road had left him little money. He remained in India ten years (1658-1670?), during eight of which he was the physician of Aurangzeb, whom he accompanied to Kashmir in December 1664. About the end of February 1659, while Bernier was on his way to Delhi, he met Dara Shikoh fleeing towards Ahmadabad, after his defeat by his brother Aurangzeb. Dara's wife had been wounded in the battle, and Bernier turned back as far as Ahmadabad to attend upon her. His history of the revolution was translated into English with his Voyage to Surat; London, 1671 and 1675.—Elph. p. 336.

BERONDA, or Barunda, belongs to a very ancient family of the Rajhansi caste of Rajpoota. Under the rule of the Bundela chiefs, the state seems to have been held under a suzum from Hardi Sah. Its area, 275 square miles; population, 24,000; revenue, Rs. 45,000.

BEROSUS, a learned Chaldean priest who lived in the time of Alexander. He visited Babylon soon after the Macedonian conquest, and he mentions a legend that the first dawn of civilisation was in southern Babylonia, and that the teachers of mankind came from the shores of the Persian Gulf. He took from the sacred books of Babylon the Chaldean account of the Deluge, which he introduced into the history that he wrote for the use of the Greeks. It says that Obartes Elbarabitu was dead, his son Xuthuros (Khasiattia) reigned eighteen eares. Warned by Chronos (Ec) of the coming Deluge, he obeyed the injunction, to build a vessel five stallin long, and five broad, in which he embarked his wife, his children, and intimate friends.

BERRAWI, a district of Kurdistan, on the Zab river. It is a long valley, and has sixteen villages of Kaldi Christians, each with priests.—Macgregor.


This is a native of Ceylon, but has been introduced into the continent of India. The wood is annually introduced from Trincemacee, by which appellation it is known in the Madras market. It is of a pale red colour, highly esteemed for its lightness and strength; is straight-grained, slightly plant, tough, and little affected by the atmosphere. It is employed in the construction of the mass; and boats of Madras, also for the spokes of the wheels, handles, frames, poles, and shafts of carriages. It is inferior to sal for spokes, and to the label for some other purposes, but it is comparatively light and easily worked. Dr. Helder mentions this tree as growing on King's Island opposite Mergui, and as a light, strong, and valuable wood. Flowers small, white, with gold-coloured anthers. The tree yields the best and most useful wood in Ceylon for naval purposes. It grows straight for twenty to forty feet high, and from twelve to thirty inches in diameter. Mr. Edye said that this may be considered superior to any wood for caspian bars, cross and trussel trees, cask staves, battons for yards, fish for mast, boat-building, etc. He added that at Madras it was highly valued for coach-work; from the toughness and fineness of its grain it answers all the purposes of ash in England. Its specific gravity is 0.80; unseasoned it weighs 55 to 60 lbs. the cubic foot, and 50 lbs. seasoned. It is largely imported into Madras from Ceylon, in logs from 18 to 25 feet long, and 24 to 5 feet in girth.—Drs. Mason, Wight, Cleghorn, and Helfirr; Mr. Edye; Mr. Rohde; Mr. Mendis; M. E. J. R.; Thwaites; Rozh.; Voigt; Beddome, Fl. Syl, part v. p. 58.

BERRYA MOLLIS. Wall. Pettoon of the Burmeese is found on elevated ground of British Burma. Wood red, much prized for axles, the poles of carts and ploughs; also used for spear handles. Tonnage 60 to 62 lbs. In a full-grown tree, on good soil, the average length of the trunk to the first branch is 50 feet, and average girth measured at 6 feet from the ground is 7 feet. It sells at 12 annas per cubic foot.—Dr. Brandis.

BERRY-RAIN. On the 8th September 1873, in a shower of rain which fell on some villages on the north of Purniah, small berries fell. They were green, mottled with white streaks, and had a slight point. The outer skin or husk was thin, and came off readily. It resembled a pea in dividing into two parts. It was so full of oil that it burned with a clear flame, though green. See Blood-rain.

BER-SAHHIBAH of Borneo. Brother-making, Sce Be Blang; Brother.

BERSU. HIND. Leptopus cordifolius.

BERRTHA, in Rajputana, a form of land-temple. The ryots or peninsula are distinguished into Kokhirya and Perja. The former are settled in large proprietors, or other lands, and are not liable to be called on by Government for any services except the repair of roads, and attendance in the army upon particular occasions. The Perja, who occupy lands actually belonging to the prince, though perhaps in the immediate possession of jagirdars, are, on the contrary, obliged to perform various services, both at the call of the jagirdar and of the prince.—Toth.

BERTHOLLETTIA LANCEOLATA. D. C. Rshami, Rshambuti, Sarmeei, | HIND. | Leaves—rasana (kura sanma).

The Indian variety of this annual plant grows abundantly in many parts of the plains up to Peshawar, in places forming thickets, up to four and five feet high. Dr. Roye pronounces the leaves to be an excellent substitute for sanma; remarkable for growing with their edges vertical, and for having both sides covered with stomata. Dr. Hornibrook says that they are seldom used by the hakims.—Newtow: Horsh. p. 243; Roye, p. 456; Ill. Him. Bot. p. 19.

BERU. DUK. Pens, writing reeds.

BERWAJA. HIND. Callichonum polygonoides. BERRY is found in the Siberian Altai range,
but many are brought from Khotan, Ichi, the Chinese provinces, and Ceylon. There is a beryl mine at the village of Padddor or Patasiy, about forty miles F.N.E. of the town of Coilmatore, where it is found imbedded in a vein of magnesian limestone, traversed by hornblende rock. Beryls are also found in the sands of the Irwadi. The beryl and emerald in component parts are the same, viz. silica, alumina, and glaucina, coloured by the oxide of chrome. The only important difference is their colours, the emerald being of its own peculiar green, which it derives from a small proportion of chrome. Beryl retains its surface polish more perfectly than almost any other material. The Romans cut it in facets and in the form of a sexangular pyramid. The constituents of the beryl and emerald are:

<table>
<thead>
<tr>
<th>Beryl</th>
<th>Emerald</th>
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<tbody>
<tr>
<td>Glucina</td>
<td>15:50</td>
</tr>
<tr>
<td>Beshi</td>
<td>60:43</td>
</tr>
<tr>
<td>Alumina</td>
<td>16:75</td>
</tr>
<tr>
<td>Oxide of chrome,</td>
<td>0:30</td>
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Beryl is also said to be found at Vaniamabadi, at the northern base of the Nelligerry mountains.

BES or Bais. Hnd. Hnd. of Hazara. Salix, sp.

BESAN. Hind. The flour of a pulse, such as that of gram, Cicor arietinum, compound into a cosmetic powder, with aromatics and the flour of several pulses; is also made of pea-meal and orange-peel, and used as a detergent for cleaning the hair.—Powell; Simmonds. See Abir.

BESCHI, a missionary of the Church of Rome, who long resided amongst the Tamil races of the Peninsula of India. He was styled by the Tamil people, Virama - muni or Virama - munivar, the heroic devotee. He composed a poem in the style followed by Kamban, and called it Tombavani, giving the biblical narrative of Christ, the Virgin, and Joseph.

BESH. Pers. More; hence Beshi, increase.

Besh Khat, of high price.

BESHULYO-KURUNEE. Beng. Cocculus cordifolius.

BESISI or Besasis, a Malay tribe in Kedah, in the Malay Peninsula.

BESSI or Sumatra, fruit of Averrhoa bilimbi.

BESSUS, the murderer of Darius. He was put to death in a cruel manner. His body was fastened to the ground, and the boughs of two trees were bent, and, after being fastened to one of his limbs, allowed to spring back to their natural position. They tore him asunder. This fact is mentioned by Plutarch. This mode of executing criminals was occasionally adopted in Persia, and till recently in Nepal.—Malcolm's Persia, i. p. 73.


BESTA or Besta. KAR., TEL. A caste of fishermen in Madras and Mysore, to which the palanquin - bearers usually belong. — Wilson's Glossary.

BET or Beut. Hnd. Rattan, Calamus rotang; any cane. Bet-i-Majnun, also Khilaf-i-Balki, also Leila-o-Majnun, Salix Babylonica. Bet ka P halo, fruit of Calamus viminalis.

BETEL LEAF.

BET or Beut. PAKI. Land along a river subject to periodic inundation.

BETA, the best plant genus. The leaves of B. cicla or white bete are used as salads, and their midrib as a substitute for asparagus. B. martima, or sea bete, requires a sandy soil; used as spinach, or a pot herb. The red bete and mangel-wurzel afford abundance of anyaceous and succarine matter. B. Bengalensis, the Paluk Sag or Palang Shak of Bengal, is cultivated in Bengal and the Northern Circars, and its leaves are used by natives in their curries; when boiled it resembles spinach in flavour. The leaves shoot out again after being cut down.—Roeb. ; Vogt; O' Sh. See Beet.

BETA VULGARIS. Linn. Beet.

BETEL. Shai, Satk, Satk. ARAB. Palak, Chakuna, PERS. There are three varieties,—virikis, green; rubra, red-rooted; and alba, white. The plant is largely cultivated in India as a vegetable. See Beet.

BETADA SWAMAMI VRIKSHA. CAN. Bastard Pomegranate.

BETEL-GANNAPPA. Tel. Nauclea cordifolia.

BETALA, in Hindu mythology, the chief of the Bhuta.

BETCH, a branch of the Kuki in Cachar.

BETE of Ternate. Caladium esculentum.

BETEEKH. ARAB. Cucumis melo.

BETEL BOXES are in use in all parts of the S.E. of Asia, of gold, silver, or other metal; and in peninsular India, about one-fifth of the people have one always in their pockets. In Burma the framework of these boxes is formed of thin strips of bamboo plaited into the shape of a box; the basket-work foundation is then coated with Theetee varnish, painted and varnished. Every Burman has one or more of these boxes, to hold his betel, cigars, money, etc.; and their women, in addition to the above purposes, use them as jewel and dressing cases. Pagan, in Burma, is celebrated for their manufacture. Inferior boxes are made all over Pagan, and in the Shan states. The higher classes of Burmese use boxes of silver, whilst the nobles of the court of Ava use gold.

BETE LEAF.

Tambul, ... ARAB. Betela, ... MAHAL.

La-yeuh, Hu-ting, CHIN. Bari-tambul, ... PERS.

Tu-pah-pah, ... Tamba1, ... SANSK.

Pan, ... GUI, HIND. Vettel, ... TAM.

Suru, Shirth, SIREH, ... JAV. Tamalapaka, ... TEL.

The Piper betel belongs to the pepper family of plants, and furnishes the celebrated leaf of the S.E. Asiaties, in which they enclose a few slices of the areca nut and a little shell-line. This they chew to sweeten the breath and keep off the pangs of hunger. It is also slightly narcotic. It is very easily reared in the Indian Archipelago, but in the Peninsula of India it requires manuring, frequent watering, and great care; and in the northern parts of Hindostan it becomes an exotic, very difficult to rear. The plant affords leaves fit for use in the second year, and continues to yield for more than thirty, the quantity diminishing as the plants grow older. In the Tenasserim Provinces, the Karesn plant the vines on their uplands, where there are tall forest trees. The branches are lopped off, leaving only the topmost boughs, and the vines readily climb up and weave their dark glossy leaves all over the summits, making a betel vine farm a most beautiful object. Karen boys and maidens engage in this leaf harvest with great
BETEL-NUT.

The betel, or areca, or Penang nut palm, is grown in many parts of the East Indies and the eastern Archipelago, from the Red Sea to the Pacific Ocean, and many of the people use the kernel of its fruit as a masticatory. It is the Areca catechu; is of elegant growth, and rises with a very erect and slender trunk to a height of forty or even sixty feet, the summit terminating in a tuft of dark green foliage; the trunk is seldom more than eighteen inches to two feet in circumference. The tree produces fruit from the age of five to twenty-fifth fifth; it begins to blossom in March and April, and the nuts are fit to gather in the months of July and August, and are fully ripe in September and October. Fourteen pounds is the average annual produce of a single tree. The single nuts are greatly in size, and their quality depends solely on the amount of astringent matter they contain, a point which is judged of by cutting them. If the white or medullary portion, which intercepts the white or astringent part, be small, has assumed a bluish tinge, and the astringent part be very red, the nut is considered of good quality; but when the medullary portion is in large quantity, the nut is considered more mature, and not possessing so much astringency, is esteemed less valuable. The ordinary nuts have a thin brown rind, and in size are intermediate between walnuts and hazel-nuts. Their general substance is of a faint oily grey colour, thickly marked with early streaks of dark brown or black. Betel-nuts are made into necklaces, rulers, tops of walking-sticks, and other small objects. The best betel-nut of the Madras Presidency grows in the Nuggur district of Mysore, and in Travancore. It occurs in the market sliced and in whole nuts, also boiled and raw, or split and dried hastily over a fire, or dried slowly in that manner. That used by families of rank in Travancore is collected while the fruit is tender; the husk or outer pod is removed; the kernel, a round, fleshy mass, is boiled in water. In the first boiling of the nut, when properly done, the water becomes red, thick, and of a consistence like starch, which is afterwards evaporated into a substance like catechu, and is indeed known by that name. The boiled nuts being then removed, are sliced and dried, the catechu-like substance is rubbed over them, and, on being dried in the sun, they assume a deep black colour. Whole, unslised nuts are similarly treated. Nuts are fit for the slicing process in the months of July and August. Ripe nuts preserved in the pod are also in use. Nuts for exportation to Trichinopoly, Madura, and Coimbatore, are prepared in thin slices, and coloured or left in their natural hue. For Tinnevelly and other districts, the nuts are simply dried. The quantity of nuts produced on the coast of Sumatra is stated at 80,000 pickuls. The quantity imported annually by the Chinese amounts to 45,000 or 48,000 pickuls, exclusive of that brought there from Cochín-China. The nut is carried by the people of the East in pouches, and presented to guests in the houses of the rich, in small boxes, wrapped in gold and silver leaf, and in this form becomes an essential part in all ceremonial visiting. Indeed, the betel of some of the inhabitants of the Eastern Archipelago refuses to accept betel-nut when offered, would give irreconcilable offence. It is believed to sweeten the breath, strengthen the stomach, and preserve the teeth; and when chewed with betel leaf, the Piper betel, Linne., gives the saliva a red colour, which it imparts to the lips and gums. But only some nations chew it with the betel leaf; others add to it lime, tobacco, catechu, gambir (an extract from the foliage of Uncaria gambir, Roxb.), and the leaves of various species of pepper. White areca nuts form an article of trade with Burma from Penang and Acheen. Ordinarily, in Malabar, they are dried or cut into two or three slices; nuts are exported in their pods to Bombay. 2000 cunohes on the average are annually exported from Travancore. The number of the trees of the betel palm in Travancore alone is calculated at 10,585,873. In China they are met with both cut and whole, and the imports are mostly the growth of Java, Singapore, Sumatra, and Penang.

BETEL-NUT CRACKER. Soroto, Hind. In very general use among the natives who are consumers of betel-nut; used in cracking the nut. This instrument appears never to have been imitated by British manufacturers. It is of steel, and ornamental.

BETHAL, also Pethal, Hind., of Chenab, Juniperus squamosa.

BETHANY, a small village, now called Al Azi- riah, about two miles from Jerusalem, on the eastern side of the Mount of Olives. On the summit of the Mount of Olives, within the area of which is a mosque, is a small circular chapel, covering the stone which bears the footprint shown as that of our Lord.—Skinner's Journey, i. p. 215.

BETHEL, of Genesis xxviii. 2, 19, a compound word, El of the Greeks (Vl. in the Hebrew and Phenician), i.e. God, the Strong, whence comes Elohim, literally the gods; and the Graeco-Phoenician Baaltry, or sacred stones, supposed to have fallen down from heaven (Diopeotes), perhaps aerolites, which were honoured and held sacred on account of a divine power supposed to be inherent in them. Jacob rose from his dream exclaiming (ver. 17), 'How holy is this place; this is none other but the house of God. And Jacob took the stone that he had made his pillow, and set it up for a pillar, and poured oil upon the top of it, and called the name of the place Beth-el.' Bethel of the Hebrews, Bagistan of the ancient Persians, and Allahabad of the Indian Mahomedans, mean all the house or place of God. Bagistan, from Bagar, God, and shiana, place.—Bunyan, iv. 242-3.

BETONICA OFFICINALIS, Smith.

Hoh-hiang... Gun... Betony, Bishops该项, Eso.

Top and leaves are warm anti-emetic, Smith.

BETOEA, also Betoya and Betoa. Benson. Chenopodium viride; White goosefoot.

BETTAMU or Bettapu, Calamus rotang. L.

BETTIAH, a town in the Champaran district.
of Bengal, situated on the Harra river, in lat. 26°
48' 5" N., and long. 84° 32' 40" E. The Maharaja of
Bettiah resides here. Mr. Hodgson notices three
tall pillars or columns in North Behar, two of the
pillars surmounted by a lion, and each having an
inscription upon the shaft. These are at Mathia
near Bettiah, Bahra and Rediah. The Bettiah
inscription is precisely the same as that of Delhi and
Allahabad. The language of inscription—Pali, and
character Old Pali. Date—315 B.C. The
Buddhist king mentioned is Piadas, or Asoka.—

BETUL or Baithul, a district lying entirely in
the hill country, comprising the westernmost section
of the great Satpura plateau. Beyond its western
border the Berar country begins. It lies between
lat. 21° 20' and 22° 35' N., and long. 77° 13' and
78° 35' E. The district must have been the centre
of the first of the four ancient Gond kingdoms of
Khela, Deogarh, Mandla, and Chanda; but except
an occasional mention in Farishta, no historical
information as to the Kherla kingdom remains.
It yields coal. Population in 1872, 284,055. The
agricultural population consists of Maharattu, Kumbi,
Pardeski, Kurni, Desi or Dolwar Kumbi, the
Bhuiyars, Mali, Khera, Gond, Kurku, Bhil, Bheria,
Gaoli, Byuya, Mhar. The Gond have about
twenty tribes and twelve sects.

BETULA, the birch genus; one of the Betu-
laceae. In Nepal are B. nitida, alvodeks, utilis, and
aeuminata, and B. cylindrostachya and B. nitida
are also plants of Kanaon. The white birch yields
a bark which the Kamtschadales chop up with
the eggs of the sturgeon, and use as food. The
sap is acrid, and an agreeable beverage, and may
be kept for years without undergoing fermenta-
tion. The bark of a species in Northern India is
used to dye chintz red? B. aeuminata, 
_Wall._ grows 60 feet high at 3000 to 10,000 feet
delevation in Kangra and Nepal, in the Himaalaya. The wood
is hard, strong, and durable.—_V. Mueller._

BETULA BHOJPURA. Wall. Paper birches.
_B. Jaqueumontii, Spach._

Barjri, Burzal, . . . _Tel._

Shag, Shakh, KANAON._

The Indian paper birch was found by Dr. Wallich
on the alps of Garhwal and Kanaon, in the Stutdeo
valley between Rampur and Sungnam, at an eleva-
tion of 10,000 to 13,000 feet; and it is a plant of Tibet,
Kaghian, Pangi, Bussahir, and Lahaul. It is nearly
allied to Betula papyracea of North America. So
long ago as the age of the Hindu dramas, about
the beginning of the Christian era, the Hindus
used the inner bark of this birch as paper. In
the drama by Kalidasa of the Hero and the
Nymph, Hind. Th. i. p. 216, Urvasi says:—

"... I grieve that he should demean me
Cold and unfeeling. I cannot now appear
Before I meet these charges; some reply
I'll make, a birch leaf, and will insert
My thoughts on it, and cast it in his way."

It grows to a higher elevation than most other
trees, generally above coniferous forests. The
tree at times reaches 6 or 10 feet in girth and
35 feet high. The wood is used for ploughs,
small bridges, etc., at altitudes and in tracts where
other trees are scarce. Mr. Watson told Dr.
Stewart that it is good for turning; and in Kanawar
poles of it are used for carrying and swinging a
heavy kind of ark in religious processions, which
implies some strength and elasticity. In Ladakh
the striking part of the stick for polo, hockey on
horseback, is made from it. The bark peels off
in large sheets, and is used also for umbrellas,
and for lining the flexible tubes of hookahs.
Every consignment of the ornamental papier
mache ware of Kashmir reaches the Pandjab packed
in wrappers of birch bark. Hindu pilgrims visiting
the shrine of Amarnath in Kashmir divest them-
selves of their ordinary clothes before entering
the shrine, covering their bodies with the bharj-
patra. The leaves or bark are used to cover
the baskets of Ganges water sold by itinerant
pilgrims. In Kangra, 'being sacred,' the bark
is used for funeral piles. In Kashmir and Kanaon
it is found very durable put under the earthen
roofs; and it is largely used for packing apples,
pomegranates, tobacco, and drugs, writing paper.
It sells for three rupees a kharwar (ass-load) in
Kashmir, according to Lowther. The price in Chumbia
was stated to be ten to sixteen seers for a
rupee. Longden mentions that the old bridge at
Koksar (now replaced by a more civilised one)
was made of birchen twigs.—_J. L. Stewart; Royle;

BETURUNGU. Beng. Peristrophia tinctoria.

BET-YA. BURM. Uricia heterophylla; also
Tadja involucrata.

BEUM. Tel. Husked rice.

BEVOIBETTA PEAK, in lat. 11° 21' N.,
long. 76° 43' E., in the Neighghir hills, is S. of the
Dodubetta peak. The top of the peak is 8488
feet above the sea.—_Batik._

BEYA. SANSK., JAV., MALAY. Cowries.

BEYAH, according to Rennell, anciently called
Beyascha, is the Hypthesis of Alexander.—
_Rennell, Memoir_, p. 102.

BEYPOOL, 5½ miles S. of Calcutt, at the N.
side of the river of same name; at its mouth is the
western terminus of the Madras S.W. Railway.
Beypore river has 8 or 10 feet on the bar at high
tide.

BEYT, or Date, an island on the S. coast of
Kattywar, in the Gulf of Cutch, about 5 miles
long. The town and fort are on its W. side. The
fort is in lat. 22° 26' 30" N., and long. 69° 5' 34" E.
It was taken possession of by the pirates of Jugut,
after they had been defeated by Kutub Shah. In
_A.D. 1482, Beyt fell, after having fought twenty
naval engagements. Beyt fort was taken from
the Waghrs and destroyed by the British on the
15th October 1859, and its fort and principal
temples blown up. It has many pagodas for the
worship of Krishna, and is largely visited by
pilgrims.

BEZOAR, Serpent stone.

BEZOAR, Serpent stone.

Faduj, . . . ARAB. Goliga Muniet, . . . _MALAY._
Haj-uh-nawar, . . . _Pers._
Garoon, . . . DUK. Banz, . . . _PORT._
Bazoard, . . . FR. Goroschana, . . . _SANSK._
Bazoorstein, . . . GER. Visagul, . . . _SINGH._
Guru-chandan, . . . GUJ. Bezar, . . . _SP._
Zaher mehra, . . . HIND. Visha Kallu, _Tel._
Bezzardu, . . . _IT._ Pani Kallu, . . . _Tel._
Batu Nakiti, . . . JAP. Telu Kallu, . . . _Tel._
Goliga, Manitka, _MALAY._ Geruda pasa rai, _Tel._

Bezoars are intestinal concretions, some of the
monkey; also of the wild boar, called pig stone;
of the Indian hog, called Malacca stone, or iapis
Malacensis, or yellow bezoar, and Ceylon bezoar,
lapis pori Ceylanici, which was larger and not so

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scarcely exceeded in smallness; and the golden bezoar, that from the goat of Persia is known as the Chinese bezoar, the ox produces the oriental bezoar, also called the green resinous bezoar; the camel bezoar; the serpent stone is said to be from the cobra; and that of the bezoar of France from the viper. There are also hairy bezoars, agachphiles, concretions obtained from the ox, and sheep, and other quadrupeds. These form in the stomachs and intestines from the accumulation of hairs swallowed by the animals in licking themselves. The hairs become felted together in balls. The word is pa-zahr, from pao, to purify, and zahr, poison. Bezoar, from the mountain goat, the boz-i-kohi, is the most esteemed in Persia. Indeed, the name was at first applied to a concretion found in the stomach of a goat in Persia. Bezoar was formerly much prized as medicine in Europe, sometimes selling for ten times its weight in gold; but since its constituent parts have been ascertained, it has ceased to be sought after. The composition differs often in the same kind of animal, as well as in dissimilar species. Oriental bezoar is formed of bile and resin; other fictitious kinds are found to be made of hair, others of wood, and some principally of magnesia and phosphate of lime. The true bezoar from Persia is counterfeited so well by pipeclay and ox-gall, that even those who have been deceived who procure the genuine from the animal. The genuine then is the only small scale when a hot needle is thrust into it; and put into hot water it remains unchanged; when rubbed on chalk, the trace should be yellow, but green on quicklime. The cow bezoar is valued in the Chinese market at from $20 to $25 a catty, and is used by the Chinese solely as a medicine. The little which is brought there is from India. In China they are called Niu-hwang; also Chau-pan, also Chah-tah. The dog bezoar is called Kaau-pau, and that of the horse Mah-meh. In the interior of the Rajang district, in Borneo, are two species of monkey, which produce the batu nakit, or bezoar stone. One is large and black, with a long tail, called nakit. The other is large and red, but has no tail, and is called bai. In one out of 10 or 20 of these two monkeys, are found the bezoar. Honigberger mentions that Padzahr siah, Pans, kani zahr mohra, Hind, is a dark green serpentine; and a specimen in the Madras Museum, brought from Dehli by Mr. Charles Gubbins, as zahr mohra, is undoubtedly this mineral. Bezoar is brought to Bombay from Gujrat and Malabar in small quantities, and is chiefly re-exported to China. Ainslie mentions that it is brought to India from Ceylon, Bussora, and the seaports in the Gulf of Persia as a medicine. Bezoar is supposed by the native practitioners to possess sovereign virtues as an external application in cases of bites of snakes, stings of scorpions, hydrophobia, etc. Bezoars do not deserve the least confidence. The fadaniya bezoar of the Panjab are intestinal calculi, consisting of phosphatic concretions of lime, etc. They occur there in the intestines of various animals. — Honigb.; O'Sh.; Crawfurd; Powell, Handbook; Morrison; Tavernier; Ouseley; Williams; A. Mqquin Tandon.

BEZOMMAR is the seat of the Patriarch, or spiritual head of all the Armenian Catholics in the East. He is assisted by several bishops, and about twenty or thirty monks.—Robinson, ii. 45.
lating, with good soil and many springs. Their country is the finest in southern Burma, and their villages amount to about 200, with from 100 to 400 houses in each. They are skilled in the arts, are vigorous, hoe their land, and use cattle with yokes or panniers. They use spirituous liquors largely. Many of the population are slaves. The Karen-ni are civil, good-tempered, and intelligent, but they evince great ferocity in their forays.

The Lwai-loyh is a Karen tribe dwelling south of the Ka-khyen, on the edge of the table-land west of lake Nyong-Ywe, two degrees north of Toungoo. They dress like, and are doubtless a branch of, the Red Karen.

Ying-ban is a tribe supposed to belong to the Red Karen, whose dress and language they use. They dwell about 100 miles north of Toungoo.— *Mason, Burma*, pp. 89-91, 641.

BHA.BAR. Hind. *Urtica heterophylla*; also *An
dropogon involucratus* and *Eriophorurn cannabisinum.*

BHA.BAR. *Hind.* In Baitool, light black soil; in Bhandawar, tract of country under the Siwalik hills, from 10 to 20 miles broad. The slope of the ground varies from 17 to 30 feet per mile, diminishing rapidly after the first few miles. The soil in many parts consists of a rich black mould, at the extreme north and south verges of the forest. There are occasional patches free from trees, but covered with high grass, and many spots afford good pasturage; the Bhabar is almost desti
tute of trees valuable for timber; and water is at such depth below the surface, that all attempts to dig wells have been fruitless. It forms the southern portion of Kamaon, and is 10 to 11 miles broad, and it runs between the moun
tains and the Terai. On the south is a line of springs which marks the northern boundary of the Terai district. Up to 1850, the Bhabar was an almost impenetrable forest, given up to wild animals; but since then a large population has entered the hills.

BHA.BOOT. *Hind.* Ashes of dried cow-dung, which Hindus smear over their foreheads and bodies. See Atit.

BHA.BRA, near Bairath, on the road between Jeypoore and Dehli. A sculptured stone was got here. It contains an edict of king Pyaadi, and specifically refers to the precepts and doctrines of Bhagavat Buddha.— *Prinsep’s Tibet*, p. 155.

BHA.BRI. *Hind.* Amaranthus anaranoida.

BHA.BRIA, a section of the Koli race, dwelling from Baroda north to Mahc Kanta.— *Wits.*

BHA.BRU. *Sansk.* A sacred name of Siva.

BHA.DA. *Hind.* A grass which grows in poor soil; it makes excellent fodder.

BHA.DARIA, a tribe of mendicants of Brah
manical descent, who profess astrology.— *C.*

BHA.DA.HUA, a branch of the Chauluk Rajputs residing in the provinces of Agra and Etawa, and in other places along the Jumna, whence the tract is termed the Bhabar. The rajahs of the district claims descent from an ancient family, the mem
bers of which enjoyed high consideration at the court of Delhi from the reign of Akbar; and his pretensions are admitted by the surrounding rajas, who yield him precedence, and accept from him the tilaka or frontal mark on their accession.— *Wilson, Glossary.*

BHA.DON, the fifth month of the Hindu luni
solary year, August and September. On the 8th of this month, amongst Rajputs, there is a grand

BHAGATIYA. *Kali,* from Bhadra, good
ness, and Kali, one of the names of Parvati; in this form she is one of the Granna-devata or village deities, and as such receives bloody offerings, and assists in the practice of sorcery and witchcraft.

BHAGATIYA. A caste in Agra, Etawa, Cawn-

BHADRAPADA, a Hindi month when the sun is in the sign Sinha, corresponding to the Tulun month of Auvani. See Varsha.

BHADRA.SENA, king of Magadha, one of the Sisunaga dynasty, B.C. 400.— *Dunson*, iii. 538, 542.

BHA.EE. Duk. Stereidae colorata.

BHA.EE.L. A Hind. *Grewia oppositifolia.* It grows in the ravines of Simla, and at higher and colder situations. The ropes made from it are strong and durable; during the depth of winter the villagers feed their cattle on the leaves, which sell from three to five annas per load of 25 to 45 seers. It supplies a crop of twigs annually.

BHAGA, a mountain river of Kangra; it unites with the Chandra to form the Chenab.

BHAGADATTA, a king of the Yavana, who submitted to king Jarasandha.

BHAGALPUR, a town in Bengal on the right bank of the Ganges, with a population of 69,678 in 1872. It gives its name to a district of 4268 square miles, and a population of 1,826,290 persons; the soil of the district has been injured by changes in the bed of the Kusi (Cosi) river. Besides the Hindus and Mahomedans, there are 385,137 Goalla, 16,468 Sautal and other aboriginal races. The Oswal clan of Rajputs have two temples and shrines. The sacred hill of Mandarги, is fabled to cover the body of the giant who was decapitated by Vishnu when he was trying to destroy Brahma, Vishnu, and Siva. It is a place of Hindu pilgrimage. It suffered from famine in 1770, 1775, 1779, 1783, and 1865-66.— *Imp. Gaz.*

BHAGANA. *Sansk.* The circumference of a circle. Independently of astronomical purposes, the Hindus frequently divide the circumference of the circle into twelve rasi or signs, subdivided sexagesimally into Bhaga, Cala, Vicala, etc., i.e. degrees, minutes, seconds, etc. Bhagaana means also a revolution.— *E. Warren, Kala Sambhita.*

BHAGAR. *Hind.* Eriophorum cannabisinum.

BHAGAT or Bhakt. *Hind.* A term amongst the vaisnava, now usually applied to a Hindu religious puritan, who is initiated by a necklace of beads round the neck, and a circle on the forehead. After initiation, the puritan abstains from Maha festivals. Bhagat or Bhakt also simply means a follower or worshipper, as Siva bhagat or Vishnu bhagat, a worshipper or follower of Siva or of Vishnu. Bhagat is also a title given to the head of the math or temple of Kanoba. He works himself into a state of hysteria on the Jan’ in Atshami, and the people, believing him to be then possessed by Krishna, worship him with incense and prostration, and present sick people to be touched and cured.— *Wilson.*

BHAGATIYA, a caste in Agra, Etawa, Cawn-

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BHAAGAVAN.

par, and as far east as Ghazipur, where they number more than 100 families; they pass their time in buffoonery, singing and dancing.—Sher-

BHAGAVAN or Bhagwan, a name of deity, denoting God. The derivation means the primary cause of creation. Bhagwan is the name by which all Hindus recognise the Supreme Being.—Taylor.

BHAGAVATA, an extinct Vaishnava sect, who wore the usual marks, the discus, club, etc., of that
divinity, and likewise reverenced the salagram and
tulasi. The Bhagavat of the present day is one who follows particularly the authority of the
text, the Bhagavat Gita, and the Ramayana. The
name is from Bhagavan or Bhagavata, divine.

BHAGAVAT-GITA. Sansk. From Bhagavan,
divine, and gita, a hymn, i.e. divine song; a
Sanskrit poem in the form of a metaphysical
dialogue between Arjuna and Krishna. It is an
episode in the Mahabharata. It contains many
fine passages, in which Krishna gives an exposi-
tion of the pantheon of the Brahmans and of the
Hindu mystic theology. The Brahmans regard it
as only inferior to the Vedas. It is the most
intelligence and most interesting of all the Sanskrit
writings. It is written in splendifer metre, and
belongs to a literary age. It is recognised by all
Hindu sects and schools. It propounds an eclectic
system. Its two leading doctrines are the adweta
philosophy of Vyasa, and the supreme transcendence
of quietism, resembling the Stoic philosophy of the
Greeks. Its author is unknown, but he was prob-
ably a Vaishnava Brahman, and its date was prob-
ably the second or third century A.D. It is later
than the six Darsanas or philosophic schools. The
poem is divided into three sections, each contain-
ing six chapters, the philosophical teaching in
each being somewhat distinct; but the main
design of the poem is to inculcate the doctrine of
Bhakti (faith), and to exalt the duties of caste
above all other obligations, including those of
friendship and kindred. The sentiments expressed
in it have exerted a powerful influence throughout
India for the past 1600 years. It was early trans-
lated by Mr. Wilkins, subsequently by Mr. J.
Cockburn Thompson; and there are translations
into German, French, etc. Warren Hastings
wrote the preface to Wilkins' translation of it.
The Bhagavat Gita, the Mahabharata, and the
Ramayana are to the Hindu all that the Bible,
the newspaper, and the library are to Europeans.
Dr. Loroizer, in an appendix to his edition of
the Bhagavat Gita, compares, in parallel passages,
portions of this book with that of the Christian
New Testament. He is of opinion that the
doctrines in this book are not only an eclectic mixture
of different Indian philosophies, but have also a
strong infusion at least of ideas and sayings taken
over from Christianity. He is satisfied that it
dates after Buddha; and there are strong reasons
to believe that its composition must be attributed
to a period terminating several centuries after
the commencement of the Christian era. Lassen
inferences its age to have been in the 3rd century after
Christ. It is in the Gospel of John, the Acts of
the Apostles, and Revelation, that the corres-
spondence is apparent, though also Paul’s Epistles
to the Thessalonians and to Philomen, and the
Epistles of Peter, are noticeable.—Ind. Ant. Octr.
1878.—Dowson; W. Taylor; Elph. pp. 93, 158.

BHAGAVAT PURANA, one of the sacred
books of the Hindus, styled Purana, of which
there are eighteen. The Vishnu Purana is that
best known. The Bhagavata Purana teaches
vaishnava doctrines. It is so named from its
being dedicated to the glorification of Bhagavan
or Vishnu. It consists of 18,000 shlokas, dis-
tributed amongst 332 chapters, divided into 12
skandhas or books; and it possesses a more direct
and powerful influence upon the opinions and
feelings of the people of India, than perhaps any
of the Puranas. Its tenth book narrates in detail
the history of Krishna, and has been translated
into all the languages of India. It is understood
by having been written by the grammarians Vopa-
dera or Bopa-deva, who lived about the 12th or
13th centuries, at the court of Hemadri, raja of
Devagiri (Deogarh or Dowltabad).—Groce, p.
50; Dowson.

BHAGAVATI, Sansk., in Hindu mythology,
the wife of Bhagavan. Bartolomeo says that
her figure was on the gold pagoda coin, and gave
her its name.

BHAGDAR. Guj. The headman of a village
commune.

BHAGHEL CUND, 'the land of the Bhaghele,'
also known as Rewa; a territory in Central India,
whose princes are of the Bhaghel or Bhaghele race.
It lies between lat. 22° 40' and 25° 10' N., and
long. 82° 35' and 84° 20' E. According to Wilkins,
are a branch of the Singhote or Rajputs of Gujerat,
who migrated eastwards. Sub-
divisions of the tribe, under different denomina-
tions, are widely spread through Bundelkhand,
Allahabad, Benaures, Gorakhpur, Cawnpur, and
Farrakhabad. They are also said to be of the
Chaulan race, descended from Konmphal (died
A.D. 1166), sovereign of Gujerat. In Gujerat
there are many petty chieftains of this tribe, as
Lunawarrah, Mandle, Mahara, Godra, Dubboge,
etc. Another account makes the Bhaghele Rajput
race descendants of Sid Rane. They also occupy
Pitapur and Tharapia in Gujerat. Tod says the
Bhaghele Rajputs are a branch of the Solangi
kings of Anhawal.—Tod's Rajasthan.

BHAGIRATHI, a branch from the Ganges,
in Bengal, which Hindus regard as the sacred
channel of that river. It leaves the Ganges in the
Murshidabad district; and at the town of
Nadiya it is joined by the Jilangi, and the Hooly
is formed. Its course is frequently changing
and sandbanks forming. The Bhagirathi river
of Garhwal rises from the Gangotri peak, and is
one of the headwaters of the Ganges, and joins
the Alaknanda at Deo Prayag, to form the Ganges.
The people identify that with the branch thrown
off by the Ganges at Chhapati, 1000 miles below.
Bhairaghati is in a deep gorge, at the confluence
of the Bhagirathi with the Jahnvi, and is visited
by Hindu pilgrims from all parts of India.—Imp.
Gaz.

Bhagirathi Peak, in lat. 30° 56’ 5” N., and
long. 78° 59’ 1” E., in Garhwal, near the origin
of the Bhagirathi river, is 21,390 feet G. T. S. in
height. Herbert and Hodgson call this peak the
‘Pyramid,’ and give lat. 30° 54’ 6” N., long. Gr.
79° 2’ 8” E., height 21,379 feet.—Chap.

BHAGMUTTY, a river of Nepal. Kaimanau,
the capital, is built at the junction of the Bhag-
muty and Basmathy.

BHAGNUR, rich alluvial lands under the
Jumna.
BHAGTEEA, a dancing boy dressed up as a dancing girl.

BHAGWANA. See Baluchistan.

BHAGWARI. Guj., also Nirwa. Lands held in commune in Gujerat, Kaira, and Ahmadabad.

BHAGWEE, a cloth dyed with red ochre, used by fakirs.

BHAI. Hind. Brother, comrade, fellow-townman, fellow-contryman, from which are many compound words: Bhai-band, relatives, connections, fellow-townsmen; Bhaiyachara or Bhai-bhant, lands held in common by relatives; a village commune owned by descendants from a common stock.

Latterly, the title of Bhai was in practice frequently given to any Sikh of eminent sanctity, whether his ancestor had been the companion of a guru or not. The Behli and Sodhi, however, confined themselves to the distinctive names of their tribes, as the Behli called themselves Baba, and the Sodhi sometimes arrogated to themselves the title of guru, as the representatives of Govind and Ram Das. Bhand, a brotherhood; a term given to the kinmen of a Jhangah chief.—Elliott, Sup. Glos. p. 61; Cunningham's Hist. of the Sikhs, p. 65.

BHAI BHAGTOO, the founder of the Khutul family; he was a useful partisan of Lord Lake, but was subsequently reduced to comparative insignificance under the operation of the British system of escheat. Dhurum Singh, the ancestor of the respectable Bhai of Bagreain, between the Sutlej and Jumna, was likewise a follower of Hur Rai.

BHAI-BIRRUNG, the seed of a plant brought to Ajmir from Haraodi, considered warm, and used in mesalin, and in prescriptions to promote digestion.—Ged. Med. Top. p. 126.

BHAI-BYA. A Burm.? In Ambber, a timber used for house posts, commonly called white Jacool.—Captain Dow's Ind. p. 52.

BHAIMI. SANSK. The 11th of the Hindu month Magha, on which day offerings are made in honour of Bhima.—W.

BHAINS. Hind. A male buffalo. Mains, the cow.

BHAINSHE. Hind. Salix tetrasperma.

BHAIYARA. SANSK. The fear-exiting, from Bhaya, fear. Bhaiyara, the wife of Bhairava.

Bhairava is a title of Siva in his destructive character, a terrific deity, only to be satisfied by blood. According to Major Tod, there are two Bhairava, the fair and the black (Gora and Kala), who in the field of battle are the standard-bearers of their mother Kali. The sable deity is the most worshipped. The dog is sacred to him, and in sculptures he is commonly represented on one. He is also called Bajranga, or of thunderbolt frame. Mr. Ward states that under the name of Bhairava Siva is that of Kashi (Benares). All persons dying at Benares are entitled to a place in Siva's heaven; but if any one violate the laws of the Sashtra during his residence, Bhairava grinds him to death. At the Lat of Bhairava at Benares, the Kan-phata jogi ascetics officiate as priests. A temple is dedicated to Bhyru and his wife Jayisari at Loni, about twelve miles from Poona, to which people bitten by snakes are brought, and Hindus believe that they invariably recover. Bhyru will not even permit the nim tree, used as a preservative against the bites of snakes, to grow near the place, as all persons so bitten are under his special care. In the temple of Kylas at Ellora is a beautiful sculpture of him, bearing in his hands the damara, the hooded snake, and apparently a richly-sculptured sceptre. —Cole, Myth. Hind. p. 73. See Bhairavi.

BHAIYARA JAP or Bhairava Jhau. At some distance to the north of the Jainas temples of Girnar, and above them, on the verge of the hill, stands a huge insulated rock, the Bhairava jap, or 'Leap of Death,' otherwise styled the Raja-mela-vana-pathiar, the 'desire-realizing rock,' whence Hindus have often been tempted to throw themselves down, in the hope of a happy future.

Laying a cocoa-nut on the dizzy verge of this rock, the victim attempted to poison himself upon it, and in another instant he was beyond humanity's reach, and his body a prey to the vultures that soar about the cliff. Such suicide has long been forbidden; but only about A.D. 1850, three Kalmi, keeping secret their intentions, ascended and made the frightful leap; some Rabari had also determined to do the same, but were restrained.

Postans says the Girnar rock bears three inscriptions. The most ancient, which occupies the eastern side, are the edicts of king Asoka. The celebrated edicts are very perfect.—Postans' Western India, ii. p. 41; Cal. Rec., 1848; J. B. As. Soc. vii. pp. 217-262. See Asoka; Girnar.

BHAIYARA, fierce attendants on the goddess Kali; also ascetic female Hindus in Bengal, who personate Sakti. They take a vow of celibacy. Many of them are influenced by a sincere and enthusiastic devotion, but their reputation is not high.

BHAIYARA CHAKRA. Sansk. Bhairava, a name of Durga, and chakra signifies a circle or wheel. See Bhairava.

BHAIYA, or Rodia, a small, dissolute, and disorderly caste, who wander about in the company of dancing women, and are notorious thieves and scoundrels. They are in many of the districts of the Bengal Provinces, and in Cawnpur.—Sherring's Hindu Tribes, p. 276.

BHAJA, four miles south of the great Karli cave in the Bhor Ghat. It is famed for its Chaitya cave excavated in the rocks. Its date is supposed to be before the Christian era.—Ferg. BHAJJI. Hind. Greens.

BHAIJUMBHAL. Beng. Mellivora Indica, Jordan.

BHAKRA. Hind. Tribulus lanuginosus, T. terrestris.

BHAL. A yellow earth used in coarse dyeing at Multan.

BHAKSHI. Hind. of Kangra. Gardenia tetrasperma.

BHAKTA MALA, a work in which is embodied the legendary history of all the most celebrated Bhaktas, or devotees of the Vaishnav order, which was originally written in a Hindi dialogue, by Nathoo Ji, about A.D. 1580, but was added to by Narayan Das, who probably wrote in the reign of Shah Jahan. This, termed the Mala, was added to in A.D. 1713 by Krishna Das, the additions being named the Tika.—Wilson.

BHAKTI, in Hinduism, signifies a union of implicit faith with incessant devotion. The doctrine of the Bhaktas was an important innovation upon the old Vedic religion. The object of the Vedas, as exhibited in the Vedanta, seems to have been the inculcation of fixed religious duties as a general acknowledgment of the supremacy of the deities, or of any deity; and, beyond that, the necessity of overcoming material im-
purities by acts of self-denial and profound meditation, and so fitting the spiritual part for its return to its original source. This system was diffused throughout the old pagan world. But this fervent adoration of one deity superseded all this necessity, and broke down practice and speculation, moral duties and political distinction. In the Bhagavat Gita, Krishna is made to declare, that, to his worshipper, such practice is infinitely more efficacious than any or all observances, than abstraction, than knowledge of the divine nature, than the subjugation of the passions, than the practice of the Yoga, than charity, than virtue, or anything that is deemed most meritorious. An important consequence results from these premises,-that as all men are alike capable of feeling the sentiments of faith and devotion, it follows that all castes become by such sentiments equally pure. Amongst the Vatsa sectarians founded by Chaitanya, all persons of all castes are admitted into the sect, and all are at liberty to sink their civil differences in the general circulation of mendicant and ascetic devotees, in which character they receive food from any hands, and of course eat and live with each other without regard to former distinctions. In like manner, as followers of one faith, all individuals are equally entitled to the prasad, or food which has been previously presented to the deity; and it is probably the distribution of this, annually, at Jagannath, that has given rise to the idea that at this place all castes of Hindus eat together. See Pran-Pralah.

BHALI, or Bhal Sultan, a tribe of proprietary Rajputs in Secunderabad, Bandalunga, Hatras, and Tuppul in Aligarh. The tract about Balabhupura and northward is called the Bhal.-Elliott; Tod.

BHALATAKI. Hind. Semecarpus anacardium. BHALALIKA, contemporary with Dhiritarashtra and the five Pandu brothers. Bhalika means the Bactrian, from Balkh, the later form of the name of that city.

BHALOO. Hind. A bear. Bhaloo Soor, Arctonyx collaris, Cup.

BHAMIADATTA, a king of Kalinga, supposed to be the Brahmadatta, who after Buddha's death received the tooth relic at Kalinga.

BHAMA, a race in the valley of Nepal, supposed to be the offshoot of the Newar. The Bhamma shave the head, like the Bhuuta.

BHA-MANDALA. Sansk. A nimbus, an aureole.

BHAMTI, also Bhamatya, in Berar, Bhamatya, a pickpocket, a thief.

BHAN. Hind. Populus Euphratica; grows in N.W. Himalaya and in Sind, used for rafters and turndery; also Rhus cotinus; its leaves are used as a tan.

BHA-BIWAY. Birm. In Tayov, a wood used for house posts, like sisoo.

BHAND. Hind. Geranium nodosum.

BHANDAK, a town 18 miles N.W. of Chandia, in the Central Provinces. The architectural remains in and around it consist of temple-caves, and in the Winjhasni and Dewala hills, the foot-print of Bhima, on the latter hill, the temple of Bhadravati.

BHANDAR, a mixture sacred to Kandoba, of powdered turmeric and another substance.

BHANDAR, a cocoa-nut tree toddy drawer.

 BHANDARA. Hind. A treasury, a store, a reservoir; a guarantee, an assurance.

BHANDARA, in lat. 21° 9' 22'' N., and long. 79° 41' 43'' E., is the chief town of a district of the same name in the Central Provinces, through which the Wainganga flows. The population of the district in 1877 was 59,624. The aboriginal races are Gond, Kurk, Kol, Dher or Mhar, Kumb, Funwar, Koli, Mali, Goal, Kalar, Bhimar. The district is infamous for divorces, in which the women take the lead. The pot or concominage is largely followed. The lizards and many animals and reptiles are worshipped. There is a mile from Bhandara, where rest the remains of an English lady. It is held in great veneration by the surrounding villages.-Cand. Proc. Gaz.

BHANDE. Hind. The desert S.W. of Rajputana. See Morewar.

BHANDBAJAN. Hind. Sagereta Brandeshiana.

BHANG. Hind. Subjah, Subji, Sidhi, Hind. Sukho, Sawia, ... SIND. Banghi, ... TAM. Tel.

The larger leaves and capsules of the dried hemp plant, Cannabis sativa. They are used by the natives of S. Asia for making an intoxicating drink bearing the same name, also for smoking; and the powdered leaves are used in infusion and in sweetmeats as an intoxicating drug. The hemp plant in tropical countries also exudes a gum, a very powerful stimulating narcotic, which it does not produce in cold countries. It is the churass of India. The dried leaves partake of this narcotic principle, and are used all over India to produce intoxicating effects. They are used for making the conserve or concoction termed Majoone. Bhang is cheaper than ganjhall, and, though less powerful, is sold at such a low price that for one piece enough can be purchased to intoxicate a 'habituated person.' Sidhi, Subji, or Bang (synonymous) are used with water as a drink. It is generally used in a liquid form, and is fiercely intoxicating. One recipe, which is thus prepared, is,—hemp leaves, washed in water, 8 draehms; black pepper, 45 grains; cloves, nutmegs, and mace, of each 114 grains. Triturate the ingredients with eight ounces of water or milk, or with the juice of watermelon seed, or cucumber seed, and strain. Spices render it more inebriating. Another recipe is,—about three tola weight (540 Troy grains) are well washed with cold water, then rubbed to powder, mixed with black pepper, cucumber, and melon seeds, sugar, half a pint of milk, and an equal quantity of water. This composition is chiefly used by the Mahomedans of the richer classes. Sidhi washed and ground, mixed with black pepper, and a quart of cold water added, is the favourite beverage of the Hindus, especially the Brahiaan, and many of the Rajputana soldiery. Under the Burmese Government at Tayov, no one was allowed to cultivate the plant without a licence from Government. Sometimes a general permission was given, and at other times a general prohibition would be issued. Throughout India bhang is one of the excisable articles, and the place is not taxed for revenue.—Williams' Middle Kingdom, p. 106; Powell's Handbooks, 296; O'Sha. p. 582. Faulkner; Herklotz; Mason.

BHANGAR BIJ. Hind. Asphodelus fistulosus.
BHAO.  HIND.  A brother, a cousin, an honorific adjunct to names, as Sadasiva Rao Bhao, who fell at Panipat, 6th January 1761. A daughter-in-law. Bhao Begum, the Begum daughter-in-law.

BHAORA, a scattered tribe in the Peninsula of India, who snare game and wild beasts. They are styled Pardhi by the Canarese, and Harn Pardhi, and Harn Shikari in the Dekhan, and the British style them the Shikari and hunter race. See Kawari. They snare wild animals, which they bring for sale into towns. They also capture the largest beasts of prey. They work in certain tracts of country, which they call their jungle, each body knowing to whose own circle.

BHAOTA.  HIND.  A banner, a flag; frequently used, as Angri Kaz bhaota kaim,—May the English flag remain secure.

BHAR.  GUI.  A measure of weight in Gujarat, about 960 lbs.

BHAR.  MALAY.  A slab of tin.

BHAR, also written Bhr, an aboriginal race in the Benares district, of whom the Raj-bhar, the Bharat, and Bharpatwa are sections, though they do not eat together nor intermarry. They are said to have ruled in the tract from Gorakhpur to Bhandelkhand and Sanger, and many old stone forts there are ascribed to them; but in that part of India they are now filling the meanest situations. On the hills to the east of Mirzapur, the principalities of Korar, Kurrrich, and Huraha are, however, each held by Bhr. Many of their old stone forts, embankments, and excavations are in Gorakhpur, Azimgur, Jopurr, Mirzapur, and Allahabad, and remnants of the people are still there. The celebrated fortress of Vijayagar is still recognised as a Bhravati fort; and a purgana in Benares is called Bhdal, properly Bhr-dal. Professor Wilson supposes it possible that the name comes from Bharata, an ancient dynastic name of India.—Wls. Glos.; Elliot, p. 83.

BHARADI, the Hindu goddess of learning, a name of Saraswati.

BHARADWAJA is mentioned in the Ramayana as a sage residing at Prayaga, the modern Allahabad. They are a tribe descended to him from the high bhrak of the Gangas. In the Maha-bharata, Bharadwaja is described as residing at Haridwar, and as the father of Drona, the military preceptor of the Pandava and Kaurava princes. He is also the parent of Arundhati, the wife of Vasisthia. Sir H. Elliot suggests that there may have been two saints of nearly the same name, Bharadwaja and Bharadwaja? In Sanskrit, the long a indicates descent, as Sagara from Sagara, Bhairagirthi from Bhagiratha. In the same way, Drona the son of Bharadwaj is called Bharadwaj in the Mahabharata. See Hindu.

BHARANGI.  HIND.  Verbena prostrata. The bark of the stem of this small plant is considered warm, and is used to promote digestion.

BHARANGI CHEITU.  TKL.  Clerodendron sp. Bharga and Bhrangi are explained to be Clerodendron siphonanthus, but evidently refer to a species of Clerodendron called Gantu bharangi, q.v.

BHARAO, HIND., from Bhrava, a field of a size to require a bhran of seed. It is a term in use in the Himalaya.

BHARATA, the founder of a dynasty in the vicinity of the Indus. He was the son of raja Dushyanta and Sakantala, and was of Aryan descent. He established a kingdom amidst an aboriginal population. The original seat of the race was at the site now occupied by the ruins of Takht-i-Baki, in the country of the Yuzufzai, to the north of Peshawur. There is, however, no reliable information extant as to the extent of the kingdom he founded, but to this day India is known to the Hindus by the name of Bharta-varsha, or the country of Bharta, also called Bharata Kshetra and Bharat K'handa. Bharata is said to have been the first to establish a mugh in India, but this process was merely a new dynasty. Under this name, Bunsen, however, supposes two historical accounts. The first Bharata, a supposed son of Bhumanya, he thinks is the name of the primitive race who settled in central Hindustan, the Madhyadesa or Aryavarta. The Bharata kingdom, he thinks, seems to have been established between B.C. 2600 and 2200, when the country was over...
whelmed by the Panchala, and it was followed by an interregnum, B.C. 589. Wheeler also says that Bharata, son of Dushyanta, was of the Aryan race, and established the Bharata kingdom in Hindustan, amidst a preceding people. Some authors in Europe have lately endeavoured to apply the term Bharata to the name of what now India, but it probably varied in extent with the usual fortunes of nations. Under its third king, Shohatra, this kingdom became aggressive, but it ended with Samvarama about B.C. 2200, by the Bharata kingdom being overwhelmed by the advance of the Panchala, and driven westward.

After the inroad of the Panchala, a period of 300 years of anarchy ensued. From about B.C. 1900, the Panchala and Kuru became supreme, then the Pandava power. But about B.C. 1100 a bloody struggle occurred between the Kaurava and Pandava, from which a third interregnum ensued, which lasted 120 years. This period of anarchy was called the Kaiy yoga, B.C. 986 (886?); a new realm was founded in Magadha, and lasted down to Asoka II., B.C. 225, under various dynasties, viz.:—

1. Barhadhratha, B.C. 986-647 IV. Sheshnaga, B.C. 446-379
2. Pratulys, B.C. 647-647 Y. Nanda, B.C. 378-313
3. Udaya-bhadra, B.C. 547-547 Y. Maurya, B.C. 324-284

The above is from Bunson's Egypt, pp. 590-592 of vol. IV.; but at another place he names the Barhadhratha dynasty 220 years of Sonapi, B.C. 886-647, twenty kings, down to Ripunjaya; Pradotya dynasty, B.C. 646-579.

A. Bhattiya dynasty, B.C. 578-447, total 132 years.
1. Bhattiya, B.C. 578-527, murdered by his son Ajita Sutra.
2. Ajita Sutra, B.C. 526-495, murdered by his son Udaya-bhadra.
5. Nagadaasaaka, B.C. 470-447, murdered by his successor the house of Sheshnaga (Sisunaga).

B. Sheshnaga Kshatriya.
1. Sheshnaga, B.C. 446-427.
3. Bhadrasena, nine brothers, B.C. 400-379; the last of the brothers, named Pinjamakha, was de-throned by Nanda.

C. Nanda and his sons.
1. Nanda, not a person of princely extraction, headed a revolt against Pinjamakha, captured Pataliputra, and became king, B.C. 378.
2. Nanda's younger brother de-throned and murdered by Chandra-gupta, B.C. 313.

D. House of Maurya.
3. Asoka (the great), B.C. 260-225.

E. Partition and downfall.

The Sheshnaga family descended from a mother of inferior rank. She had been the head of the dancers of a king of Lakhavi at Vasali, and subsequently became his wife. Sheshnaga's son is properly the first Asoka; but the Brahmins, from hatred towards the second, who was the great patron of the Buddhists, called him only Kaka-Varna, the raven-black. It was he who removed the royal residence from Rajagriva in the south to Pataliputra. He was succeeded by his eldest son, Bhadrasena.

Nanda was a man of great courage, who headed a commotion in his own village.

Chandragupta (Sandalocottus) was present with the army of Porus when the latter was murdered by Emmemes, the general of Eudemenus II., in B.C. 317. He headed the popular party, and marched towards the Ganges. His kingdom extended from the Indus on the north, to the mouth of the Ganges and Telingana, also westwards to Gujara,—the whole of Aryanvarta. He died B.C. 289.

Asoka, the great Buddhist king, was crowned at Pataliputra in the third place of his reign, B.C. 258-259, and openly seceded from the Brahmanical to the Buddhist religion. He seems to have been converted by the son of his brother, whom he had murdered. He is said to have erected 84,000 Buddhist sanctuaries, partly temples (chaitya), partly tumuli (stupa or tops), and inscribed on rocks and pillars earnest incantations of Buddhist doctrines.—Dabush, i. 547, iii. 559, 585, iv. 590-592.

Bharata, one of the four sons of Dasaratha and Kaikeyi, and elder brother of Rama. Bharata's mother secured the exile of Rama, but it was arranged that after the expiration of 14 years Rama should ascend the throne, and Bharata govern Kosala in Rama's name.—Gurrett.

Bharata, the eldest of the hundred sons of Reshabha (Booshabha), prince of Himahwa, to whom Bharata succeeded. Bharata resigned the throne to his son Samati, and retired as an ascetic into the forest. He regarded the soul as distinct from matter, and the gods and kings as in reality the same. From this, apparently, he disregarded caste distinctions.—Gurrett.

Bharati. Sansk. Speech, or its goddess; perhaps Bharadi, a name of Saraswati, the goddess of learning. The prevailing title of the later Sringagri gurus.


Bharhut, a village 120 miles to the S.W. of Allahabad, and 9 miles due south of the Sutna station of the Jubbulpur railway. It is in the state of Nagode in Central India, and is said to be the site of an old city named Bhairanpur, which embraced all the villages round. The ruins of a great Buddhist trophy of the year B.C. 250-200 were discovered here in 1873 by General Cunningham.


Bhariya. In Northern India, braziers, iron-workers, and metal founders, though connected by their avocation with the Thatheras and Kasera, are nevertheless a distinct caste, and do not intermarry with either.—Sherring's Tribes, p. 322.

Bharo, known to Europe as Broach, was the Bhrigu-Kachha of the ancient Sanskrit, the Bhar-kachha of old inscriptions, and the Bary-gaza of Tolomeus and the Periplus. See Broach.

Bharapatwa, a branch of the Bhar tribe.

Bharunja. Hind. A person who is a grain parcher.

Bharta, a husband amongst the races in Malabar who follow the law of descent from the female side.

Bharutpur, a town and fortress which gives its name to a State in Rajputana lying between lat. 26° 43' and 27° 50' N., and long. 76° 33' and 77° 45' E. Its area is 1974 square miles; and in 1874 its population was 743,710. Its princes, nobles, and most of its people are of the Jat.

Its town of Kaman is sacred to the Hindus, Krishna having resided there. Deogtan is noted
BHASKARA CHARYA.

for its elegant banian or palaces. Near Khanbar are three colossal Pandain images of Baldeo, his wife, and Yudishtira, with another supposed to be a Jaina saint, and two enormous monolith columns. At Khanwa, Baber fought a great battle with Rana Sanga of Udaipur. The Bhartpur territory has been repeatedly overrun by conquering races. The Jat principality was founded by a freebooter named Birj, who held the village of Sinsumni in the pargana of Deog, and the power of this state was extended during the decline of the Moghul empire, by his great-grandson, Suraj Mull, who was killed in 1768. Suraj Mull left five sons, three of whom administered the state of Bhartpur in succession. During the rule of the third son, Namil Singh, the fourth son, Ranjit Singh, rebelled, and called in the aid of Najaf Khan, who stripped the family of all their possessions except the fort of Bhartpur, which was held by Ranjit Singh. After much internal and external trouble, Sindia gave back to the family at first eleven, then three parganas, which now form the state of Bhartpur. In 1808, the chief, Ranjit Singh, entered into a treaty with the British; but he gave shelter to Holkar when pursued by Lord Lake after the battle of Deog, and on refusing to deliver him up, Lord Lake’s army stormed it four times unsuccessfully, on the respective occasions of the 9th and 21st January, 21st and 22nd February 1805. On these assaults the losses appear to have been 456, 573, 894, and 987; total, 2910; and 15 officers killed and 95 wounded. But the chief then agreed to expel Holkar from his territory, and a new treaty was entered into. The raja died in 1825, leaving his young son, Bulwant Singh, to the care of Sir David Ochterlony. But his cousin Doorjun Sal set aside the young sovereign, and murdered the uncle guardian.

The British Indian army, on the 10th December 1825, again assembled to besiege it. It comprised 20,205 regulars, and 1705 irregular cavalry, with 112 guns, howitzers, and mortars, and the Commander-in-Chief, Lord Combermere, commanded. The force of the enemy consisted of 20,000 Rajput, Jat, and Afghans. The fortress fell on the 15th January 1826. The British loss was 103 killed and 466 wounded. The enemy lost about 7000. Lord Combermere was made Viscount, and the prize-money amounted to 48 lakhs of rupees. 61,472 shot and shells were fired in the 26 days from 24th December 1825 to 18th January 1826. The races in northern India, owing to the failure of the attempts in 1803, had been in the belief that it was impracticable. The Maharaja has received a sumund, conferring on him the right of adoption, and to a salute of seventeen guns. The revenue is Rs 21,00,000. Bhartpur pays no tribute and no contribution to any local corps or contingent. The army consists of 3668 infantry, 2214 cavalry, and 813 artillery.—Treates, iv. 121, 132. See Jat.

BHARTRIHARI. A celebrated poet and grammarian, who is said to have been named after Vibhramaditya. He wrote three Satakas or Centuries of Verse, called Sringara-sataka, on amatory matters, Niti-sataka on polity and ethics, and Vairagya-sataka on religious austerity. The last are said to have been written when he had returned to a religious life, after a licentious youth. They were translated into French by Fauche, and the erotic verses by Regnand; and into English by Professor Tawney. Bhartrihari also wrote a grammatical work of high repute, called Vakya Padlya (Pradipa); and a poem, called Bhatti-kavya, is also attributed to him. His Vakya Pradipa, or metrical maxims on the philosophy of ayutax, are the best known. They are often cited under the name of Harikarika, and have almost equal authority with the precepts of Panini. His Satakas or Centuries of Verse are also much admired. He is said to have become disgusted with the world on account of the infidelity of his favourite wife. He abdicated the throne, and ended his days at Benares in devout contemplation. He is also said to have been put to a cruel death by his brother Vikramaditya. His aphorisms are also entitled Karika.

—Garrett; Dowson. See Bhatti.

BHARTRIHARI JAGI, an order of Hindu mendicants, who say that they were instituted by Bhartrihari, brother of Vikramaditya. They are reckoned as jogs, because Raja Bhar, it is asserted, was a disciple of a jogi. They carry a magnificent instrument in their hands, on which they play, while they sing the exploits of Raja Bhar. Their abode in Benares is principally at Roali Talao. They are many of the sect in the city. They walk about wearing the gera-vastra, or reddish cloth worn commonly by devotees. At death they are buried.—Wilson; Sherrin, p. 261.

BHARWAR, a tribe keeping goats, sheep, and camels, and living on their produce.

BHARI. HIND. Imperata Koenigii. BHRWUTTIA, a manifestation of lawlessness almost peculiar to Kattiyawar (voluntary outlawry), not yet extinguished in the province.

BHAKYA, also Bharja. HIND. A Hindu wife; a second wife after the Patni or first wife; a Nair woman.

BHASAN, a class of Sadras in the Khassia hills.

BHASHA. SANSK. A language, a dialect, from Bhash, to speak. The terms Bhasha and Prakrit mean vernacular tongues. Do-basha, lit. two languages. Do-bhasha, an interpreter, an agent.

Bhashya, from Bhasha, a tongue; a nongular treatise. One of these treatises was written by Vallabha Acharya, W.

BHASKARA. SANSK. From Bhas, light, and Kri, to do or make. A treatise on the sun, its true nature, in the Mimansa Upanga. Also a name of the sun as the light maker. Bhaskara-Saptami, a Hindu festival in honour of the sun, held on the seventh of the month Magha (Jan.—Feb.).

BHASKARA CHARYA, a celebrated astronomer, born about A.D. 1065, who resided at Beder in the 11th century. He applied his mind chiefly to numerical science. He was a Brahman, and had only one child, a daughter, named Lilavati, to whom he dedicated his work, the Bija-ganita, and singularly it came to be called by his daughter’s name. Its date is SS. 1086 = A.D. 1114. His Siddhanta Siromani (Head Jewel of Accuracy) is an astrological work, published SS. 1050 = A.D. 1128; and he died soon after 65. He had had rival in India in medieval or modern times. Part of it was translated by Colebrooke. He has been supposed to have been acquainted with the principle of the Differential Calculus; and Dr. Spottiswoode considers that the formula which he establishes, and his method of establishing it, bear a strong analogy to the
BHAMA.

Bhat take the honorary title of Rao. In Oudh, the Bhat, Birn-bhat or Bari, and the Jaga-bhat, number 61,429, and they claim a Brahmanical origin. In Rajputana, every family of any pretensions retains one or more bards; and no person can go abroad without bards to proclaim his titles, achievements, or those of his forefathers, which is done in a loud tone, and the bards vie with each other in composing extravagant epithets. No person can enter a room, rise or go out of it, without suitable proclamation from the bards present. Some are good at improvising, and on occasions deliver extempore orations in verse, and chanted in various measures, when their words have a great effect on their hearers. They occupy the exact position of the bards of Europe, meeting to peace, to war, to love, to generosity, as occasion demands.

The Birm-bhat are hired on particular occasions to recite the traditions of a family; the Jaga-bhat being the chroniclers of the family by hereditary descent, and visiting the members periodically, to take note of all occurrences regarding them. Both classes are as much dreaded for their Rapacity as respected for their reputed sanctity. In some places in Upper India, the Bhat are found forming village communities, and branching into various subdivisions; some have become converts to Mahomedanism. The Bhat of the village establishment appears to be of an inferior class.

The Bhat are more immediately connected with the Rajput clans, and the Charan with the Kat'hi. The two castes will eat of each other's food, but will not intermarry. The women of the Charan and Bhat are clad in long flowing black garments, and have a sombre if not actually horrific appearance. They do not wear many ornaments, and are not restricted from appearing in the presence of strangers; accordingly, in passing a Charan village, the traveller is sometimes surrounded by women, who invoke blessings on his head by joining the backs of their hands and cracking the knuckles of their fingers in that position over their heads. Their dress consists of a gogora or petticote, made very full; the neck covered with a choli, which descends below the hips, and covers the stomach, but is open behind, where it is fastened with two strings; a wide muslin scarf, attached to the gogora, passes round the body and the head, completely concealing the wearer from view.—D. J. vii.; Hindous, p. 76; Wilson's Gloss.; Heber, ii. p. 463; Tod's Souyl. Gloss.; Malchot's Central India.

BHATGAON.

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BHATA.

Additional allowance, or extra pay to servants, or soldiers, or officers; a ploughman's wages in kind.—W.

BHATA. HIND. Crotalaria buria.

BHA-MA. BURL. In Tavoy, a wood used for common carpentry.—Captain Dance.

BHAJARA, the founder of the Valabhi dynasty.

BHATGAON or Bhatgong, a district and town of Nepal; though the least considerable of the three chief towns in point of size, yet its buildings in general have a more striking appearance. Bhatgong lies nearly 8 road miles S. of Kathmandu. Its ancient name was Dhurmapatan, and it is called by the Newar race, Khopolâre; by them it
is also described to resemble in figure the dhunuro, or guitar of Mahadeo. It is the favourite residence of the Brahmanes of Nepal, containing many more families of that order than Kathmandu and Patan together.

BHATI-GAUR, a subdivision of the Gaur Rajputs.

BHATI, a tribe in the Lahore division of the Panjab. They were Yadubansi Rajputs, who in Akbar's time became Mahomedans.

BHATIA, between Multan and Alor, supposed by General Cunningham to be the city which Alexander built among the Sogdii. It was taken by assault in A.D. 393, or A.D. 1003, by Mahmud of Ghazni, after an obstinate defence, in which raja Bejjur, or Bijé Rai, was killed. Amongst the plunder, Mahmud obtained 280 elephants. — Cunningham, Ancient Geog. of India, p. 256.

BHATTIYA, HIND., also Bhati and Bhatta. The poorest kind of soil in Sagur and Bundelkhand; it is of a reddish colour, and is mixed with kankar and stones. Shallow in depth, and generally exhausted after the third year, after which it requires four years' fallow. Only the poorest grain and millets will grow upon it.

BHATKAL, a small seaport town of 5246 inhabitants, in North Canara, known to the Europeans of the 14th to the 16th centuries as Baticalca, Batteca, and Baticalloa. The Mahomedans here are the Naoat, a Sunni sect.

BHAT-KATAI, also Bhat-katia. SANSK. Solanum Jacquinii, Wildle; also S. Xanthocarpum and Argemone Mexicana.

BHATKOORAL. HIND. A hard, close-grained wood, of a bright green colour, and not heavy. Sought in the Santal jungles. Well adapted for timber bridges, where strength and toughness require to be combined with lightness. — Calc. Engineers' Journal.

BHATMIL. HIND. Argemone Mexicana.

BHAT-NAGAR. HIND. A tribe of Kayasths, originally from Bhatner. — Elliot.

BHATNAIR, a town and fort in the north of Bikanir, in lat. 29° 34' 55" N., and long. 74° 20' 45". See Bhatti.

BHAT-NGGI. HIND. Wikstræmia salicifolia.

BHATOTAR. HIND. Lands allotted to bards.

BHAT-SHOLLA. BENG. Æschynomene Pulidosa.

BHATTA. SANSK. A sage; a Brahman acquainted with Sanskrit literature; literary title conceded to learned Brahmins who commit one of the Vedas to memory, so as to be able to recite the whole without book. In some parts of South India, it especially designates a Brahman who professes a knowledge of the Vedas, or belongs to a family in which they have been taught. Bhatta Acharya, a teacher of Sanskrit literature, is a title which is given to Hindu scholars who not only learn one of the Vedas by heart, but study the meaning of every verse and word, so as to be able to explain it orally. They are now very few. About 1870 there were only three or four at Benares; but they are highly respected, and on certain occasions regularly worshipped as incarnations of Vrhas-pati, the Pandit of the gods. — Elliot; Wilson; Garrett.

BHATTA, Batta, or Battak, a Sumatran race addicted to eating human beings. They occupy the valley of Mandeling and to the west, and the easterly portion of them are under the dominion of the Dutch. The language they use is said to be different from the Malay, and to have several dialects; but it has an alphabet invented by themselves, and in this matter they are perhaps the only human beings who have advanced to a knowledge of letters, but continued to eat each other. The writings of Marco Polo show that so long ago as A.D. 1290, they were known to be addicted to indulgence in this propensity; and Sir Stamford Raffles, in 1820, after visiting Tampanuli Bay, was informed that for a person convicted of adultery, of midnight robbery, prisoners of war, a person intermarried with another tribe, a persontreacherously attacking a village, a house, or another person, the punishment was to be cut up and eaten alive.

The most recent traveller, Professor Bikmore, from America, who was in Sumatra in 1865, mentions that they are an inland people, the Malays from Menangkabau having spread and occupied all the coasts. He says they believe in evil spirits and omens. On the Dutch acquiring the possession of the plain of the Mandeling valley, the Batta dwelling there were compelled to abandon their cannibalism, but all beyond Dutch territory the race still pursue their old customs. He had not, however, been able to verify that part of Sir Stamford Raffles' information which includes marrying into another tribe as incurring the penalty. The raja of Sipirok assured the Dutch governor at Pedang that he had eaten human flesh at least forty times, and that he relished it above everything that he had ever tasted. — Bikmore's Travels, p. 418; March's Sumatra.

BHATI-CURTIE, a distinguished Telugu poet who resided at the court of Krishnaraya. He wrote the Narasa Bhupaliam during his patron's life, but his chief poem, the Vasu Charitram, after that patron's death. It contains florid descriptions of scenery and love affairs, and is much esteemed. — Garrett.


BHATTI. HIND. A distillery, a still, a boiler, a kiln, a forge.

BHATTI or Bhatti-Kavya, by Bhattirhari, is a poem in 22 cantos relating the adventures of Rama. It has been partly translated into German by Schütz. — Dowson. This Bhattirhari was a grammarian and poet, son of Sir Dhara Swami, not the celebrated brother of Vikramaditya. — Ward, iv. p. 587.

BHATTI, a Rajput tribe of Yadubansi descent. They are the rulers of Jeyrumer, which they founded A.D. 1156, and gave their name to the country between Hisar and the Garah, called Bhattiana. The tract from Loni to Kasna was called Bhatner after them. Some of them became converts to Mahomedanism after Timur's invasion. Shortly after that event, a colony migrated from near Bhawalpur under a leader Bersi, and captured Bhatner from a Mahomedan chief. — Elliot. The Jit and the Bhatti seem to have been so intermingled that distinction is now impossible. The Jit who resisted the advance of Mahmud of Ghazni, in a naval warfare on the Indus, are supposed by Colonel Tod to have, long prior thereto, established themselves in the Rajputana desert as well as in the Panjab, and to have had great political power, as they were reckoned one of the
BHATTI.

thirty-six royal races. In A.D. 1205, which was twelve years after the conquest of India by Shahab-ud-Din, the Jit of the northern desert attempted to wrest Hansi from the Mahomedan empire, and Kutub-ud-Din, his successor, conducted in person the war against the invading Jit. When the dethroned queen Razia sought their protection, they joined all their forces with their Sythic brethren the Gikhar, and marched with the queen at their head to meet her foes, but she fell in battle in the attempt to regain her kingdom.

Again, it is mentioned that in A.D. 1397, when Timur invaded India, Bhatar was attacked for ‘having distressed him exceedingly on his invasion of Multan,” when he ‘in person secured the country, and cut off a tribe of banditti called Jit.” The Phi of Jeysulmer retain their Hindu notions, though with some degree of laxity, from their intercourse with the Mahomedans on the northern and western frontiers; while those who long occupied the north-east tracts towards Phoolra and the Gikhar, on becoming proselytes to Islam, cease to wear the ceinture, or girdle, and lose either interest in or connection with the parent stock. The Bhattis did not acquire the same martial reputation as the Raktor, Chauhan, or Sisodio, but he was deemed to equal if not surpass the Kachwaha, or any of its kindred branches, Nirooka or Shekhavat. He is not perhaps so athletic as the Raktor, or so tall as the Kachwaha, but is generally fairer than either, and possesses the Jewish features of the Bikanir Rajputs. The Bhattis intermarries with all the families of Rajwara, though seldom with the rajas of Mewar. The late Juggut Singh of Jeypore had five wives of this stock. The dress of the Bhattis consists of a jama, or tunic of white cloth or chintz, reaching to the knee; the kambrak, or ceinture, tied so high as to present no appearance of waist; trousers very loose, and in many folds, drawn tight at the ankle; and a turban, generally of a scarlet colour, rising conically full a foot from the head. A dagger, shield, and sword complete the dress. The Bhattiani wear a fine woolen brilliant red gogra or petticoat, and scarf thirty feet in width. They also wear the churor or rings of ivory or bone, which cover their arms from the shoulder to the wrist, of value from sixteen to thirty-five rupees a set; and silver kurri (massive rings or anklets) are worn by all classes, who deny themselves the necessaries of life until they attain this ornament. The poorer Rajputni assist in the husbandry. The Bhattis are addicted to the immediate use of opium, or umpani ‘infusion,’ and the pipe. The Bhattis annals may be divided into four distinct epochs: 1st, that of Heri, the ancestor of the Yadu race. 2d, Their expulsion, or the voluntary abandonment of India by his children, with their relations of the Herica and Pandu races, for the countries west of the Indus; their settlements in Marustali; the founding of Guzni, and combats with the kings of Room and Khorasan. 3d, Their expulsion from Zubulushan, colonisation of the Panjab, and creation of the new capital of Bahmanpur. 4th, Their expulsion from the Panjab, and settlement in Mer, the rocky basin of Maroo, to the erection of Tumante in the Indian desert, in A.D. 731. The Bhattis are a branch of the Yadu or Jadoor race, whose power was paramount in India three thousand years ago; and the prince now governing this distant corner of India, claims descent from those Yadu kings who ruled from the Yamuna to the Yumud and at that remote period. Colonel Tod is of opinion that the Yadubhatti is the original Yuti colony from central Asia, and that the Jit prince of Saluhur was the predecessor of the Yadubhatti races. Tod’s Rajputana, vol. ii. pp. 212, 285. See Saharun.

BHATTIAH, a mercantile race, supposed by Colonel Tod to have been one of the equestrian order converted into the commercial. The habits of the Bhattias are like those of the Arorah, next whom he ranks as to activity and wealth. The Arorah and Bhattias have commercial houses at Shikarpur, Hyderabad, Bombay, Surat, and Jeyapore.

BHATTIANA, a tract of country in the Panjab, forming part, since 1835, of the Hissar and Sirsa districts. It takes its name from the Bhatti Rajputs. In 1795, George Thomas, who had got possession of Harrianah, obtained an influence over the Bhatti, but after the victories of Lord Lake in 1808 it passed under British rule.

BHATTYA, a Brahmanical dynasty of five kings of Magadh in ancient India, who reigned from B.C. 978 to B.C. 447, all paricides. See Bhara.

BHATU, a wandering tribe of gymnasts in the south of India. They are not numerous; they are known as Dumar in the Canarese districts, as Kollati in the Dekhan, Dunbram in Tamil, and Dumberwar in Telugu, and as jugglers and tumblers. Their young women are prostituted, or are devoted at Chinchor as Murli girls, and they reverence the idols at Tripatty and Gudadoor (Cuddalore). They keep no idols, do not respect Brahmans, and they bury the dead.

BHATUL, HIND. A hard bread from the grains of ‘arhar,’ ‘chenan,’ and ‘munf,’ used only by the very poor.—Elliot.

BHATWA. PANJ. Chenopodium vulgare and Ch. album.

BHIAU. MAHR. A brother, a cousin; a title of respect, as Hari-bhau, A daughter-in-law, also a bride; bridal fees given to a zamarra by a ryt on the marriage of the ryt’s daughter.

BHIAU BIJA. A Hindu festival about the end of October, on the second day of Kartik, in commemoration of Yama having dined with his sister. On this festival, Hindus visit their sisters’ houses, and make presents to them. Among the Brahmans, their wives and sisters worship their husbands and brothers.

BHIAUCHYA, one of the 14 Hindu patriarchs who are supposed to preside successively over the 14 Manwantara of the Culp.

BHIAU DAJI, a learned orientalist, a native of Western India, of the middle of the nineteenth century. He was born near Sawantwarre in the Konkan, and educated for the profession at the Elphinston and Grant Medical Colleges. He has written on female infanticide. He founded the Bombay Reform Association, and the Boards of Education of many and learned societies owe much to his exertions.

BHIAU-GARDI. MAHR. Any terrible defeat.

BHAIMA, one of the names of the planet Mars; in Hindoos, the analogue of Mars.

BHIAU MALLANG, lat. 10° 6’ N., long. 73° 12’ E. A hill 10 miles N.E. of Panwel, in the Konkan. Top of the hill is 2250 feet above the sea.

BHIAUNAGAR, a seaport town, capital of a
native state in Gujerat, with an area of 2784 sq.
miles, and a population, in 1875, of 408,754, con-
sisting chiefly of Vaishava and Sumat Hindus,
Jains, and Mahomedans. The ruler, styled Thakur,
is a Gohil Rajput. In the eighteenth century the
family aided in the suppression of piracy in the
Gulf of Cambay. The Thakur has powers of life
and death over his own subjects. The capital has
a good and safe harbour.—Imp. Gaz.
BHAW. See Theatre.
BHUTTOOI. Beng. Chryzeopogon aculearius.
BHAVA or Babu, a.d. 1560, author of the
Babo Prakasa, a Hindu physician who lived in
the middle of the 16th century. He compiled a
book much of the structure of which he gave
a summary of the practice of all the best writers
on medicine, and named the book after himself;
it is written in a clear style, and is still greatly
valued by the physicians of Northern India as a
practical work on Hindu medical science.
BHABHUTA, a celebrated Sanskrit scholar
and dramatist, with the literary title of Sri-
kanta, he in whose throat eloquence resides. He
was a Brahman, born in Beder or in Berar in the
8th century, but resided at or near Ujjjayani.
He was of the Kasyapa tribe or gotra. He de-
scribes nature in her magnificence. Some of his
dramas were translated into English by Professor
Wilson. He wrote the Uttara Rana Charita, a
Sanskrit drama, history of Rama to the death of
Ravana, and Maha-Vira Charita to the end of
his life. In his drama of Malati and Madhava, he
has made powerful use of the Aghori in a scene
in the temple of Chamunda, where the heroine of
the play is decoyed in order to be sacrificed to
the dread goddess Chamunda or Kali.—word,
v.; Garrett; Dowson. See Kala Priyamata.
BHAVANJII CHETTU. Tel. Psoralea cory-
folia.
BHAYA, an itinerant actor, musician,
dancer.
BHAWA. Hind. Cathartocarpus fistula.
BHAWAN. Hind. A house, a palace.
BHAWANI, written Bowany, a tributary of the
Cauvery river. It rises among the hills on the
western side of the Koonda, runs eastwards along
the foot of the Nilgherry mountains, and is joined
by the Moyar, which, together with the Pykara,
rises in the Nedawattam range, and, joining the
Bhawani at Danikan Cottah, the Bhawani enters
the Cauvery.
BHAWANI, also written Bhavani, wife of Siva,
a Hindu goddess, to whom also the names Apara-
jita, Chandi, Durga, Kali, Maheswari, Parvati,
Prakriti are given, according to her worshippers'
opinions of her character. Durga and Bhavani
are two names of Prakriti, the symbol of created
nature, and as Parvati, Kali, Durga, and Bhavani,
the wife of Siva bears a strong resemblance to the
Isis of Egypt, to the Juno of Homer, to Hecate,
to the armed Pallas, and to the Lucretian Venus.
As Kali, she is the agent for her husband’s deci-
sions. She is often depicted with the pāsa or string
in her hands, for binding and strangling incorrigible
offenders. As Durga, or active virtue, she de-
stroyed the Asura. Bhavani, in the form of Parvati,
is nature personified, in which character she is
fabled in one of the hypotheses of the Hindus,
to have been the mother of Brahma, Vishnu, and Siva,
and to have divided herself and become their sakti.
The Saiva Hindus are wor-
shippers of Siva and his wife Bhavani conjointly,
and adore the lingam and yoni in the compound
type of god and goddess. Bhavani and her
consort Siva are extensively worshipped in the
south of India, have a multitude of small temples,
but there is little or no reverence. It would seem
as if a Scythic and an Egyptian goddess, with
their respective attributes and mixtures of war,
love, philosophy, physiology, cosmogony, and final
judgment had been amalgamated. As a war
goddess, Bhavani is often invoked. Tod tells us
that, in the belief of Rajputts, the double-edged
sword presented by Gorakhnath in the forest of the
Tiger mount, could, with the proper incantation,
ever rocks. It is surmised to be the identical
blade which is yet annually worshipped by the
sovereign and chiefs on one of the nine days
sacred to the god of war,—a rite completely
Scythic. The genealogists of the family repeated
him the incantation. It is: ‘By the preceptor
Gorakhnath, and the great god Euklinga, by
Takyc the serpent, and the sage Harita, by
Bhavani, strike!’ This goddess is supposed to
have inspired Sivaji to murder Afzal Khan, the
general of the king of Bijapur. At a conference,
Sivaji struck Afzal Khan with a wagnak, and
finally despatched him with the beautiful Geneco-
blade called Bhawani, which he always wore.
That sword, down to the time of the British
supremacy, had a little temple for itself in the
palace of Sivaji’s descendants, and it was annually
worshipped by them and their household, not
as a mere act of veneration for their ancestor’s
trustysword, but merely as a sacred instrument of sacrifice, and the attendant who watched it used to say that no doubt some of the
spirit of Bhavani must still remain in it. Many
towns and rivers are named after her.—Tod’s
Rajasthan, i. 226; Cole, Myth. p. 96; Moor, Hindu
Pantheon; Sir William Jones; Paulino’s Voyage.
BHAWAR or Bhavar. Hind. Lowlands in
the Terai, at the foot of the Himalaya. In the
N.W. Himalaya, a forest tract below the Siwalik
range. This term is not used in the Panjab. Qu.
Bhabar.
BHAYEL RAJPUTS of Mewar (Bhayel, rocky
hills), are descendants of Susjun, a Puar Rajput.
B Hedan or Basatkela, a very old Gond chief-
ship, now attached to the Sambulpore district.
During the 1857 mutiny the chief joined the rebels,
and was killed in action.
BHEDIL, Beng. A dyke, an embankment.
BHIEKKAR. Hind. Adhatoda vasica.
BHEKRA. Mahr. Tetraceros quadricornis.
BHEL. Hind. Andromeda ovalifolia.
BHEL. Hind. Semecarpus anacardium.
BHEL. Hind. Semecarpus esculentum. The
capsules, when green, are boiled whole and eaten,
or sliced and put into soup or curries; the inside is filled with albumen, and,
when dressed, not unpleasant. The seed is
sometimes laid upon toast with butter, pepper,
and salt. Another species, A. moschatus, has a
smaller capsule; the seeds when rubbed between
the fingers have a strong scent of musk. The
Arabs flavour their coffee with them.
BHEING. Hind. Nelumbium speciosum.
BHERA GHAT, on the Nerbadda, near Jubbulpur
(10 miles), on the line of the railway to Bomb-
ay. Marble is plentiful, and easily accessible, and
has been used in a limited degree at Jubbulpur, sometimes to make line, and other times for metalling roads. It is made up into images by natives, but does not take a good polish. A block was sent to the late Paris Exhibition, and pronounced to be equal to Italian marble for statuary purposes. At this place the river winds between perpendicular rocks of the magnesian limestone, the Marble Rocks, which in one part approach so close as to get the name of the Monkey's Leap.

BHERANDA. Beng. Castor-oil plant.

BHERANDA. Hind. Argemone mexicana.

BHERI. Tel. Leonotis nepetfolia, R. Br.

BHERJA or Bheriga. Hind. Canis lupus, the wolf; also pronounced in the various dialects, bhera, bhara, bharya.

BHERI. MAHR. Caryota urens.

BHERA, Hind., also Bhrara. Wheat and other grain sown together.

BHET, Hind., also Bhent. Land alongside a river, subject to periodical inundation.

BHENDI, a district in the vicinity of Bombay, in which reside many christianized Koli.

BHI. Hind. Cyclonia vulgaris, quince.

BHFA, the marnot of the Bhot.

BHILDAIRA, the root of a small bush found in Ajmir, and brought from Dehli; has little taste; used in medicine. Women take it during pregnancy, believing it can cause the womb to rise out of the pelvis when tardy in so doing.—Gen. Med. Top. p. 129.

BHILAR, a tribe which, according to local tradition, appears to have been one of the aboriginal races of Rohilkhand and the Upper Doab. They were expelled from Nerowlee Bhujjee and the neighbouring districts by the Bir-Gujar Rajputs. In the Doab they are commonly called Beimhar, and in Rohilkhand, Bihlar.—Elliot, p. 68; Wilson’s Glossary.

BHKK. Hind. Alms, Bhikshu or Bhikkari, a beggar. Three religious garments, a begging pot, razor, sewing needle, waistband, and bathing cloth, are peculiar to the Bhikshu or Hindu mendicant ascetic. The Bhikshuaka in Sanskrit, in Pali, Bhikkhuno, is a mendicant who goes three objects of human existence,—pleasure, wealth, and virtue,—and remains constantly occupied with devotion; to abstain from all wrongdoing, call nothing his own, and to suppress desire, anger, pride, and covetousness. For the support of existence, and to apply for alms at Brahman, Kshatriya, and Vaisya houses, after their cooking fires have been extinguished and the people have eaten; to reside but one night in a village, and not more than four nights in a city. Bhikshuni is a woman who follows the life of a Buddhist devotee; a nun. Bhikshu-graha is a cell in which Buddhist ascetics dwell.—Garrett.

BHIL, one of the races who early occupied India. According to Malcolm, in a Sanskrit vocabulary at least 700 years old, the term Bhil occurs to denote a particular race of barbarians, subsisting chiefly on plunder, and found more particularly in the mountainous woody tract of the Nerbadda. But there is still earlier mention of them in the Mahabharata, in which the Bhil are minutely described, and a long fabulous account given of their origin. The Caba race, now almost extinct, was famed, even in the days of Krishna, as the savage inhabitants of Saurashtra. It was a forester Bhil who mortally wounded Krishna, having mistaken him for a deer. When the Bhil was expressing his contrition for the unintentional act, he was forgiven, with the remark that it was only retributive justice, as 'in a former birth,' as the godlike Rama, Krishna had slain him. Thus Rama appears as the subjugator and civiliser of these indigenous tribes, of whom the Caba are described as plundering Krishna's family after his decease. The Bhil have been called the Later immigrants into the forest tracts, like many other tribes in Central India, as the Kol, Gond, Mina, and Mahanadi, the mountains of Sarigua, and Chutia Nagpur; many of them still only little removed from savage life, and with dialects as various as their manners.

The Bhil occupy parts of the Vindhya and Satpura ranges which form the western boundaries of Malwa and Kondesh. Their favourite abodes are the woody and rugged banks of the Tapti, the Mahi, and Nerbadda; but from lat. 20° to 25° N., and long. 75° to 76° E., is partly occupied by them, as also the neighbouring hills, where they extend in one line along the mountains to the utmost limits of Dongargar. As a distinct tribe, they are found in the block of hills surrounding the fortress of Asirgarh, and on one side they are bordered by the Koli, and on another by the Godavari and Chandwana. They occupy the petty states of Dundiika, Rompur, and Gogo, between the Mahi and the Nerbadda, and Nerbadda and Tapti, and Rajipura N.E. of Surat.

The northern part of the chain of ghats, and the country at its base, is inhabited by the Bhil; that part to the south of Baugean and the country at its base, as far south as Bassein, is inhabited by the Koli. The Bhil possess the eastern part of the range, and all the branches that run out from it towards the east, as far south as Poona; they ever spread over the plains to the east, especially north of the Godavery, and the neighbourhood of the Varda. On the north, they extend beyond the Tapti and Nerbadda. Both the Bhil and the Koli are numerous in Gujerat. South of Poona the Bhil are succeeded by the Ramusi, a more civilised and subordinated tribe, with thievish habits. To the north of Poona, in Kandes, Malwa, and Mewar, are the chief Bhil localities. The Ramusi do not extend farther south than Kola, or farther east than Hyderabad city. The Bhil who find their way to the western coast, are known as the Dubla, or the Kala Puraj, or black men. They are to be seen in outlying portions of the Indore and Gwalior territories, in Dhar, Bakhtigarh, Jharna, Ali Rajpur, Jothat, Kattivara, Ratamanaul, Mathwar, Dahi, Nimikhera, Bara Barkhera, Chota Barkhera, Kali Baori, Barwari, Jamelia, Rajigar, Kothi, Garhi, and Bharadipura. Mr. Forbes, a recent writer, described the Bhil as wearing few clothes, of diminutive stature, with swift and active habits, independent in spirit; eyes which bear an expression of liveliness and cunning; bold in assault, but rapid in flying to the jungles; formidable in anarchy, but incapable of uniting amongst themselves; and as by far the most numerous of the predatory races who in former days resided in the hills between Gujerat and Rajputana, and disturbed the country. Their arms are bows and arrows; they are averse to
industry, addicted to drunkenness, and quarrel-
some when intoxicated. Until the middle of
the 19th century, the national weapon was the
Kumpta or bamboo bow, the string being a thin
slip of its elastic bark. The Bhil, from ancient
times, use the fore and middle fingers of their
right hand to the string of their bow, holding the
arrow between the two fingers. Their readiness
to become predatory has marked them as bold,
daring marauders, occasionally mercenaries, but
invariably plunderers. They were cruelly dealt
with by the Maharattas and Mahomedan govern-
ments, and were several times severely punished
by the British; but by the middle of the 19th
century they became more peaceable, and many of
them came to the plains to live as cultivators and
agricultural labourers. They came prominently
and unfavourably before their British rulers in
the early part of the 19th century. During the
campaigns for supremacy in Kandesh between the
Maharattas and the Moghuls, to which, in A.D. 1808,
a fearful famine resulted in the country north of
Ahmadnagar, the whole of the Bhil race formed
into gangs of plundering assassins, and resettling
them occupied the British Government from 1825
to 1833. The Bhil clans are now in a state of
great moral transition.

It was part of the ceremony of installation of
Rajput princes, for a drop of blood to be taken
from the toe or thumb of a Bhil or Mina to mark
the tika on the chieftain's forehead. Amongst
the Mina, the right of giving the blood is claimed
by particular families; but this rite has been largely
discontinued. The Bhil have now no separate
languages.

The Bhil child is named as soon after birth as
possible, and the name given has generally some
connection with the hour and date of its birth.
If no Brahman is available, the ceremony is per-
formed by the paternal aunt of the child, in which
case it is named after the day of the week on which
it was born. The parents give a feast, and distri-
bute presents of clothes to female relations at the
Holi next after the birth. The head of a male
child is shaved when two or three months old.
Betrothal, as a rule, takes place before the girl
arrives at a marriageable age. The father of the
boy seeks out a bride for his son, and arranges
the dapa, or price of the girl, with her parents.
This being agreed to, the girl is placed on a stool,
under which six pie are thrown. One rupee, one
piece, and a little rice are then put in her hand,
which she throws over her shoulder, and the cere-
mony is completed. Marriage generally takes place
in the presence of a girl's relative or protectress;
this is not at all unusual for virgins of a mature
age to be espoused, in which case marriage follows
as soon as practicable. A Brahman usually officiates,
but sometimes an elderly member of the bride's
family. When the guests have assembled, the
clothes of the young couple are tied together, and
they walk hand in hand round the party, an offer-
ing being made to the patron saint, Gotamji,
whose image is to be seen in a niche of the wall
of most Bhil houses. The bride is then placed on
the shoulders of either of her relations in turn, and
danced about till exhausted. Polygamy is allowed,
but a Bhil generally contents himself with two
wives. On the death of an elder brother, the
next takes his widow or widows, without the usual
marriage ceremonies. An elder brother cannot
take a younger's widow, who, if there is none
younger still to espouse her, and she has no pro-
erty of her own, must return to her parents, or
be supported by her husband's next of kin until
she can find another husband in another got or
clan. If, however, a widow has a grown-up son,
she stays with him. A woman is very particular
in her relations with the opposite sex after mar-
rriage, but not so usually before. The fine imposed
upon an adulterer is 240 rupees, and this is given
as compensation to the husband, who may discard
his wife or not as he likes. For the seduction of
a virgin the fine is 60 rupees, which is given to
her parents, and the man compelled to marry the
girl. These cases are always adjudicated by a pen-
cil and laws.

The Bhils invariably burn their dead; but in the
case of the first victim to an attack of smallpox
in the pal, the body is buried for a space of time
to propitiate Mata, and if within a certain time no
one else dies of the disease, it is disinterred and
burnt. The corpse is generally burnt if possible
near a river, and the ashes, with the exception of
a bone or two, thrown into it; two or three days
afterwards, an earthen pot containing rice is placed
on the spot; but if the cremation took place some
distance from a river, the ashes are simply heaped
up and the pot of rice placed on the top. The
bones recovered from the ashes are subsequently
thrown into either the Samkaji river in Mahakants,
the Gotamji in Bauswar, or the Mahi, where it
flows by the temple of Banshwar in Dungarpur,
all of which are considered sacred; for until a
bone or two of the deceased find their resting-place
in one of these sacred streams, the spirit is sup-
posed to remain on earth and haunt the surviving
relations. A few days after the death, one of
the deceased's relations often announces that he has
been told in a dream that the spirit rests on a cer-
ing hill, when the relatives erect a platform there,
and deposit on it a quantity of liquor and
rice. Ten or twenty days after the cremation, the
friends of the deceased assemble at the house of
the next of kin, who spends some 40 rupees' worth
of liquor on the occasion. On their arrival a
quantity of Indian corn is set to cook; and in the
meantime the company shave another and
drink the liquor provided. When the corn is
ready, the host gives each a dhak (Butea frondosa)
leaf full of it, and dismisses them.

The symbols of worship are Cairns, usually on
the hill-tops; the worship of Siva and his consort,
as symbols of terror and darkness; the construc-
tion of stone platforms, on which stand blocks of
stones smeared with red paint; the sacrifice of
victims and birds; and effigies. The burnt piles
of loose stones, on which are arranged a number
of stone or burnt-clay effigies of the horse; oil-
lamps are burnt on them in fulfillment of vows, and
pieces of cloth are generally hung over them. The
first of all goddesses in the tracts is Samundra Mata,
whose athen is near the village of Dhemla,
about eight miles north of Khairwaras. Mahadeo
and Hanuman are worshipped everywhere. Local
deities are also numerous. The effigies of the
horse are small, hollow clay images, with a hole
behind, through which the spirits of the deceased
are supposed to enter and travel up to paradise.
On arrival there, the horse is made over to pro-
pitiate the local deity, and swell his train of war-
horses. These effigies are mostly found on hill-

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Bhil.

At certain shrines, where they are made. There is a tradition among the Bhils that the gods themselves offer small sacrifices at the present day. Goats now form the sole sacrifices, and are eaten by the worshippers after Mata is supposed to be satisfied. The priests, called waiti and jogi, are Bhils. They eat and drink with the rest. They believe in ghosts and departed spirits. They wear charms and amulets on the right forearm to keep spirits at a distance. Witchcraft is firmly believed in; there are bhop or witchfinders in every large pal. Before a woman is swung as a witch, she is compelled to undergo the ordeal of plunging her hand into boiling oil, or of keeping her head under water until an arrow shot from a bow is brought back by one of the spectators. If she pass through this unharmed, she is released, otherwise she is swung. The process of swinging is conducted by first tying a bandage of red paper over the victim's eyes, and then swinging her head downwards from the bough of a tree until she confesses or dies. If she confesses, she is taken down, and either killed with arrows, or turned out of the pal. The Bhil believes to a limited extent in transmigration of souls, particularly of bad spirits, and that the spirits of the dead haunt places they lived in during lifetime. Eclipses and other celestial phenomena he believes to be the gods diverting themselves, and he adopts, without well knowing why, the Hindu rite of making hideous noises during an eclipse. A cat crossing a Bhil's path when starting on any particular business, will send him home again at once. The Hol Dasera and Dewali festivals are strictly kept; the first especially is the occasion of much drunkenness and excesses. It is kept up for ten days or more; dances take place, rude jests are made, and the women attack and stop travellers till they release themselves by paying a fine. At all festivals and before a fight, the men dance the ganna ring dance. The drummers stand in the centre, and the dancers revolve in a circle with sticks in their hands, which they strike alternately against those in front and behind. Time is kept with the drum all through, and as the performers get more excited it becomes louder, and they jump about wildly; the women's hair falls down, and every now and then one of them disengages himself and dances a pas inside the circle.

Bhil houses are comfortably and fairly built of interwoven bamboos or loose stones, and are often capacious and tiled. They are invariably constructed on a small rising ground or slope of a hill; and each homestead generally consists of several houses for cattle and grain, all within a single enclosure. The furniture comprises a charpoi, large pots for the storage of grain, and a bamboo cradle. The men wear nothing but a dirty rag round the head (the hair being plaited and fastened with a wooden comb), and a waistcloth of limited length. They are usually barefooted; are very fond of earrings; the whole lobule of the ear is often bored along the edge, and loaded with little rings; but the favourite ornament is a large ring which passes behind the ear from top to bottom. The women wear a fond of jewellery, and silver waistbelts, etc., are by no means rare. Those who can afford it possess guns and swords, but the national weapons are bows and arrows. The bow is made entirely of bamboo, except two links of gut which fasten on the string, likewise made out of split bamboo. The arrow is a real tipped with an iron spike; the quiver a piece of strong bamboo matting. The women often wear on their arms and legs the lac and glass chassis of the poorer Hindus, but their peculiar bracelets and bangles are made of brass. Four rings of this metal are generally worn on each arm and leg, and there is also a W-shaped ornament worn by married women on the ankle.

The young women wear only necklets of beads, and children are kept without dress almost to the age of puberty. All cases and quarrels amongst Bhils are settled by a panchayat, and a fine is the invariable punishment. The fine for murder is 240 rupees; and until this is paid a blood-feud is carried on between the relatives of the murderer and his victim. A man suspected of treachery is indiscriminately plundered and ejected from the pal, but he can re-establish himself by paying the fine awarded by a panchayat on his case.

Fights between one clan or village against another are generally indulged in to avenge a murder or affronts, or to assert some right. Before active measures are taken, the patriarch of the village or the pal is consulted, and if he decide for war, the Kilki is sent. The Bhils are excited during a peculiar whirring noise made by placing the hand in front of the mouth—is sounded, or the drum beaten, which gathers all the inhabitants of the pal together, male and female, in an incredibly short space of time. Drinking is then deeply indulged in, and, when worked up to a sufficient state of excitement, they sally forth with their women in front, and on arrival at their opponents' pal an encounter is soon brought about by means of a shower of stones and abusive language, in which the women take a prominent part. When opposed, the women of both parties draw on one side, and the fight commences with bows and arrows. The women on the other side give any wounded man drink or any assistance he may require, and it is a point of honour not to injure the wounded in any way while the fight is going on. After the fight, a panchayat assembles, and the feud is generally closed by the payment of a fine, in which case the offending party make friends by drinking opium out of each other's hands. The Bhils principally subsist on the produce of their cultivation and of their cattle, of which large numbers are kept. They also cut and sell grass, and manufacture baskets, screens, and winnowing-fans out of bamboo. They are still to a certain extent predatory, but a great improvement in this respect has taken place of late years. The jogi of some pals are said to occupy themselves in making a coarse description of blanket. The staple commodity is Indian corn. The ground is merely scratched below or near the hut of the labourer, and the seed thrown in broad-cast. The fields are surrounded by temporary hedges of thorn bushes to keep off animals. Irrigation from wells is not undertaken by Bhils; but for the cultivation of rice, walls of loose stones, earthed up with soil, are built across the narrow valleys in the hills, and a series of terraces thus formed. The following gods were worshiped by the Bhils of Jebrah:—

Kali, on many occasions.

Hati-pows, at the Dewali and Dasara feasts.
Waghacha-Kunwar, to protect them against wild beasts.
Halk Mata, for success in predatory journeys.
Khoriatal Mata, for protection of cattle from plundering and sickness.
Devi Kanail, for a good harvest.
Behyu Baiji, for rain.
Ghora Raja, against plunderers.
Mahadal, the Malwa Bhils, at the annual pilgrimage to the large hill of Retna Wal in Barlya.
Chameonda Mata, goddess of harvest, and the first of every grain is offered to her.
Havin Wana Mata, against murrain and lameness among cattle.
Sita Mata, and Ghona and Bhadrí Bae, goddess of smallpox.

BHILALAH.

—Sir J. Malcolm, Tr. R. As. Soc. i. p. 70; Elphinstone's India, pp. 366-7; Malcolm's Central India, i. p. 518; Coleman; Elliot; Wilson's Glossary; Tod's Travels, pp. 34-39; Tod's Rajasthan, i. p. 724, ii. p. 217; Treaties, iv. 454; Latham; Wheeler's India, p. 85; Friend of India; Forbes' Rasamala; Captain C. E. Yate in Rajputana Gazetter.

BHILALAH, a tribe of Central India, claim a descent, by their father, from the Rajputs, their mother being of the Bhil tribe.—Malcolm, i. 550.

BHILSA, a town in India, in lat. 77° 50' E., and long. 23° 39' N. It is famous for Buddhist topes. There are five or six groups of topes, containing sixty distinct and separate examples. The Sanchi group has several topes. The largest of them is a stupa, raised to mark a sacred spot, and is not a dagoba or shrine containing a relic. At Sonari, 6 miles distant, is a group of eight topes; at Sotibhar, 3 miles further on, is a tope 101 feet in diameter, and a smaller one from which relics of Sariputra and Mogglana have been obtained. A numerous group is at Bhojpur, 7 miles from Sanchi, and 5 miles west of Bhojpur. At Andher, a little village 104 miles S. of Bihula, and 5 miles W. of Bhojpur, is another. Their age is supposed to be between 250 B.C. and A.D. 100. The principal of the remains is known as the great tope at Sanchi. The smaller ones are known from General Cunningham's descriptions in his Bihula Topes.—Cunningham; Ferguson.

BHILU. BURN. Amongst the Burmese Buddhists, a spirit, a ghost.

BHILWAN, also Bihila, a district in Central India, taking its name from the Bhil race.

BHIM or Bheem, a prince of Mewar who was celebrated for activity, and could, while his steed was urged to its speed, disengage and suspend himself by the arms from the bough of a tree. To one of these experiments, however, he owed his death, as he dislocated his spine in a feat of strength.—Tod's Rajasthan, i. p. 392.

BHIMA, the second of the five Pandava brothers. He was of great bodily strength, ferocious courage, wrathful and abusive, and a gross feeder. He fought in the Mahabharata war against the Kurus, and killed several of his opponents. On the eighteenth and last day of the fighting, he struck down Durvodhana by a foul blow, for which his incensed brother Yudhistira struck him, and angered Arjuna and Bala Rama.—Taylor; Garrett; Dowson.

BHIMAIH, a river of the Mahratta country, which joins the Kistna. It is often confined to a narrow bed, as at Korygun. Bhima Teral is the valley of the Bhima river, famed for its breed of hardy ponies or small horses. The breed is known in Northern India as the Bhimratthali. Mawa, the horse which bore Holkar in many a desperate strife, was of this breed. The head is a model, exhibiting the highest quality of blood,—ears small and pointed, eyes full and protruding, and a mouth that could drink out of a teacup. This is the type of the Bhima Teral breed.

BHIMAL. HIND. Species of Grewia.

BHIMA-RATRI, the 7th night of the 7th month of the 77th year of a man's age, lunar reckoning, after which a Hindu is exempted from all institutional observances, it being considered the end of his natural life. He would then be in his 75th solar year.

BHIMB, HIND. Coecinea Indica.

BHIM, GORA, in the Saharanpur district of the N.W. Provinces, lat. 29° 56' N., long. 78° 14' E., has a kund or sacred pool, a place of Hindu pilgrimage, on a perpendicular rock 350 feet high.

BHIM-RAJ, HIND, Edelius paradisensis, is the mocking-bird of Europeans.

BHIM-SENI'S GADA, an ancient stone pillar at Allahabad, which has four inscriptions engraved on its surface. See Lat.

BHIM TAL. See Lake.

BHIN AUNLAH. Duk. Phyllanthus miruri.

BHINDA PURUB, a sacrificial ceremony, till recently practised in Dholbhum.

BHIRA, a town on the left bank of the Jehulum; Old Bbir, on the opposite bank, is a mound of ruins, also called Johnath Nagar, which General Cunningham supposes to be the ancient capital of Sophites or Sopoths, the contemporaries of Alexander, who are said to have been formed of Craters and Heplestion, holding both banks to await the arrival of the fleet of boats. It is three days' boating distance from Mong, the ancient Nikesa, where Alexander defeated Porus. Bhira, also, until it was supplanted by Pand Dadan Khan, had always been the principal city in this part of the country. At Bhira, the Chinese pilgrim Fa Hian crossed the Jehulum in A.D. 400; and against Bhira, eleven centuries later, Baer conducted his first Indian expedition.—Cunningham, India, 155.

BHIRBUTI. HIND. A beautiful scarlet-coloured insect resembling a piece of scarlet velvet. They are collected during the rains. They yield an oil, and have a use similar to the Cantharis as a blister and irritant.—Powell. See Insects.

BHIRM-SUGAN, leaves of a small plant brought to Ajmir from Dehli, employed in making scents. Bhirmi-Visaya, leaves of a climber from Mount Abu, very stimulating, and in Ayurvedic use in the 'sect,' a disease stimulating catalepsy.—Gen. Med. Top. p. 129.

BHIS, HIND., also Basend, Bhisend. The edible root of the lotus, or the fibres of the stem.—W.

BHISHIMA, whose early name was Santanavu, was son of Santanu, raja of Hastinapuri. When old, raja Santanu wished to marry a young and beautiful girl, but her parents objecting, on the ground that even if there were children, Santanavu would succeed to the kingdom, Santanavu made a vow to them, saying, 'If you will give your daughter in marriage to my father, I will never accept the kingdom, or marry a wife, or become the father of children by any woman; so that if your daughter bear a son to the raja, that son shall succeed him in the kingdom.' This stern vow procured him the designation of Bhishma, or 'the dreadful.' He educated Dhritarashta,
BHISTEE.

Pandu, and Vidura, and afterwards made Draup the preceptor of the Pandava and Kaurava; and at a meeting of council he proposed that the kingdom should be divided between the two parties. In the battle that ensued, he led the Kaurava race, and on the tenth day he was mortally wounded by Arjuna. The Bhisham-ashrami festival, on the 8th day of the moon, is in honour of the childless Bhishma. Two kinds of water are made to his spirit, also offerings of sesame seeds and boiled rice, saying, 'I present this water to the childless hero Bhishma, of the race of Vyaghrapada, the chief of the house of Sankriti. May Bhishma, the son of Santanu, the speaker of truth and subjugator of his passions, obtain by this water the oblations due by sons and grandsons.'—Garrett; Dowson.

BHISTEE, ANGLO-HIND, properly Bahishi, a water-carrier who conveys water in a skin slung from his shoulders, resting over his loins. The water-skin is called a Mashak. The Pakhali, another water-carrier, carries water in skins, pakhal, slung across a bullock.

BHISTU DHARI, a sect of the Daddu Panthi who follow the avocations of ordinary life. They burn their dead at dawn.

BHITAR, HIND. The ground on which a house stands; the Kampong of the Malay, or compound of the British. In Urdu it is theangan.

BHOG, HIND, also Bhoga, Bhogam, and Bogam. Enjoyment, fruition, use; anything that may be used, Savodha or Nirvolsa, i.e. with or without obstruction. Bhogi Pandikai, the Festival of enjoyment, the Tamil New Year, when good wishes and new year's compliments and gifts are interchanged, and Indra worshipped. Bhogam, Tel., also Bhogam Vudu, a common woman.

BHOGA, food offered to an idol. Bhogamudnap, that part of the temple of Jagannath where the food to be offered to the idol is cooked. Bhoga-murtti, an idol carried about in processions in lieu of the principal idol, which is never taken from the shrine.

BHOGRA. HIND. Cleome pentaphylla. MAHR., the Cascaria elliptica.

BHOI or Bhooee, in Telingana and in the southern parts of India, a race who are palanquin-bearers, also fishermen. See Bhu.

BHOI-WANLU, also called Ur-Bhoi-wanlu, mercenary soldiers in Southern India, who serve native chiefs. They are never found in the ranks of the British army. There are a few of them in every large town in the south.

BHOJ, the last of the great Pramara race of Hindustan who ruled over Ujjain and Dhar. He was a great patron of learning. His name is famous in the literature of India. Bentley fixed his era between A.D. 982 and 1082; but Wilford supposes him to have died between A.D. 977 and 982. The name of Bhoj, the Pramara, is very celebrated in the annals of India, but there appear to have been more than one of this name or title. The Dhar ruler has been supposed to be the same as Vikrama, or to have been a contemporary. The nine learned men, the nine gems, are said to have flourished during his reign, or that of Vikrama, which was the golden age of Hindu literature; but all connected with Bhoj is uncertain, even his position as a patron to literature.

BHOJA, a Yadava prince who reigned at Mrittikavatti, on the Parnasa river, in Malwa. —Garrett; Dowson.

BHUPATRA. HIND. Bhetula bhojpatra.

BHOPUR, a ruined town where remains of Buddhist stupas stand, on the southern end of a low range of hills, 6 miles S.S.E. of Hilsa, and 7 miles E.S.E. of Sanchi. —Cunningham. See Hilsa.

BHOKUR, HIND. Cordia latifolia, Roxb.

BHOLA NATH, or the 'Simple God,' is one of the epithets of Siva, whose want of reflection is said to be so great, that he would give away his own divinity if asked; from himla, to forget.

BHOLERI, DUKH. Mimnsopa elench.

BHONSLA, the family surname of the Mahratta rulers of Poona, Sattara.

BHONSLA, the family surname of the Mahratta rulers of Sivaji, was also that of the ruling dynasty of Berar.

Parsoji, the founder of the Bhonsla dynasty of Berar, was a private horseman from the neighbourhood of Sattara. Though bearing the same surname as the family of Sivaji, there is no proof that he was of the same race. He attained distinction, and was one of the first to join raja Saho; when he returned from Dehli, he was further advanced by that prince, and was invested with the right of collecting all the Mahratta dues in Berar and the forest country farther to the east. His cousin Raghoji, who was a favourite of raja Saho, and married to his sister-in-law, was raised to his station on his death, in preference to Parsoji's son, who ought to have succeeded him. In 1734 Raghoji Bhonsla was nominated Sena Sahib Suba, or General of the Mahratta Confederacy. In 1745 the head of the family became the undisputed ruler of Gondwana. Raghoji II., who succeeded his father in 1788, had previously shot his own brother Sabaji. Raghoji II., after a reign of 30 or 40 years, died on the 23rd March 1816, leaving but one son, Parsoji, who was imbecile in mind and body. At some opposition, Mahbub, known as Apa Sahib, son of Venkaji, was declared regent, and sedulously courted the British alliance. In January 1817 he proceeded to Chanda, and during his absence from Nagpur, Parsoji died, murdered, as it was subsequently learnt, by Apa Sahib's secret orders. The latter, as nearest heir, now became raja of Nagpur. Avowedly a warm friend of the British, he privately intrigued against them in all directions, until November following, when he threw off the mask and declared hostilities. The battles of Sitabadi and Nagpur followed, in which he was signaliy defeated, and was forced personally to surrender, and to agree to terms which rendered him wholly dependent on the British. In January 1818 he was permitted to resume the government, but immediately recommenced his intrigues.
BHOOA.

Apa Sahib’s repeated treachery having proved him unworthy of trust, the British Government decreed his deposition, and placed Bhagjai, a grandson of Raghoji II., on the head of Nagpur state. On the 12th May 1818, Apa Sahib fled from the place allotted to him, to the Sikh territories, and he ultimately died, in 1840, almost forgotten, at Jodhpur. The family became extinct during the administration of Lord Dalhousie, on the demise of Goozur, grandson of Raghoji, who in 1818 had been seated on the throne when Mudhaji (Apa Sahib) was deposed. After the defection of Apa Sahib in 1817, the administration was, at first, conducted by British officers; but in 1826, on the raja coming of age, the territories were handed over to him, the British Government retaining in their own hands certain districts for the payment of the military force of Berar. In 1829 these also were given up, a treaty having been made with the Governor-General, whereby, in lieu of the native contingent, a sum of 3,000 laks of rupees was to be paid to the British Government;—Elphinstone, p. 642. See Maharatta Governments; Sivaji.

BHOOA. Hind. See Insects.

BHOOI-DAGDHA. Hind. A place of cremation.

BHOOA. A hereditary guardian of the Mahadeo temple. The chief of Alomg, in the Hoshangabad district, is one of the Bhoopa. Bhopi, also Bhoppa, the priest of a village temple, generally a Sudra.

BHPAL, a feudatory state in Malwa, in Central India, in alliance with the British Government. It is bounded on the N. by Gwalior, N.E. and S.E. by the Saugar and Nerbadda territories, S.W. by the possessions of Holkar and Sindia, and N.W. by those of Sindia. It lies between lat. 22° 32' and 23° 46' N., and long. 75° 25' and 78° 20' E.; is 157 miles long from E. to W., and 76 broad from N. to S., with an area of about 8200 square miles, and a population of 769,200 in 1875. Its army is 694 horse, 2200 foot, and 57 guns. The family of the chief descends, belonging to the house of Abdul Azaiz Khan, of the Dynasty of the Orakzi; Dr. Hunter says the Mirazai Khel. It was formed into a principality by Dost Muhammad, in the service of Aurungzeb, on whose demise, Dost Muhammad established his independent authority, and died in 1723, aged 66. Several changes in the succession occurred; and during the Mahratta rule the country was harrassed by that race, and overrun by Pindari. When Colonel Goddard, in 1778, marched through the territory, en route to Bombay, its ruler treated Goddard with great kindness, and this has never been forgotten by the British. And again, in 1809, the Nawab urged Colonel Close to grant British protection. Since 1817 the alliance has been intimate. About 1818 the Nawab was accidentally shot, and his widow, Kudisia Begum, retained the control until 1897, when her son-in-law, Jahangir Mahomed, husband of her daughter, Sikander Begum, was appointed. On her death in 1849, Sikander Begum reigned till her death in 1860. Her daughter, Jahan Sahib, ruled till her death. Sultan Jahan Begum married in 1874. These ladies abandoned the Goha customs of their religion, transacted ably all business in public; and during the revolt in 1857 Secunder Begum adhered firmly to the British, for which she was rewarded by the grant of the pargana of Bairaseh, and created a knight of the Star of India. She died in 1868, and was succeeded by her daughter, Shah Jahan Begum. Her consort was Nawab, Wala Jah, Amir-ul-Mulk, Syed Muhammad Sidiq Khan Khan, Sahib Bahadur.——Aitchison’s Treaties, iv. p. 309.

BHOPAL AGENCY is a British political department in relation with Kilchipur, Bhopal, Rajgurh, Nursingur, Kurwai, Mukundurg, Mahomedurg, Basoda, Pathari, Larawut, Gwalior districts; Soronje. The three petty chiefships, Kurwai, Mahomedurg, and Basowda, are immediately dependent on the British Government itself. The relatives of other chiefs, with their immediate suzerain, have been mediated and guaranteed by the British Government.—Treaties.

BHOPAWAR, a British political agency which superintends four petty feudatory states, viz. that of Jobut, whose chief is a Malik Rajput, with a population of about 7000, chiefly Bilis; Mutwaras, also with a Bilil population; Khatuwarr and Ruttonmul; Mota Barhakera; Kali Bouri. The guaranteed states are Allisajpur of Dar, Plaobe, Ninkhera, or Tirlo Chupra, Soreypur, Masta Barhakera, and Kali Bowri.——Aitchison, iv. 405.

BHORA. Bene. Mangrove; Rhizophora mangii; R. mucronata.

BHOR GHA'T, in lat. 18° 44' N., long. 73° 22' E., in the Dohkan, the principal pass on the route from Bombay to Poona. It has been formed into part of the Great Peninsular Railway line. The top of the ghat is 1798 feet above the sea. See Railway.

BHOSE. ANGOLO-BENG. An honorific suffix to several Kayasth families in Bengal; properly Basu.

BHT. This word, according to Latham, under the appellations of Balt in Bultistan, But in Butan, Bet in Tibet, or in such words as the Bhuteya or Bhotiya, in etymology, comprises the Little Tibetans, the natives of Bhot-pa or Ladakh, the Tibetans of Tibet proper, and the closely allied tribes of Butan. Balti or Baityl is called Palolo or Balor by the Dards, and Nang Kod by the Tibetans. It is preserved, he says, in the Tibetan in Bylto, and in the Russian by Vatko, and Skrato by Iskardro, from the name of its fort and capital. Balti proper is a small table-land, and, with that of Deotsin, is about 60 miles long and 36 broad; the mean height of its villages above the sea is about 7000 feet. The Balti, the people of Little Tibet, the Bylto of Ptolemy, though Tibetan in language and appearance, are all Mahomedans, and differ from the more eastern Tibetans of Le (who call themselves Bhotia, or inhabitants of Bhot), by being taller and less stoutly made. Their language differs considerably from that of Le, but only as one dialect differs from another. The Bhot of Ladakh is strong, hardy, short, and square, with a decidedly Mongol physiognomy, by which is meant a flat face, broad cheek, depressed nose, very large ears, oblique and narrow eye, curtained at the corners, black hair and low stature, their average height being 5 feet 6-1 inches. The skulls are less Mongolian, having a capacity of 73 cubic inches, &c. The Tibetans retain a face similar to a European. The grand Lama is a Bhot. As a general rule, the Himalaya mountains divide Hindustan from Bhotland, but there are Bhot in several parts south of the crest of those mountains in Garhwal and Kamaon. The people of Le, the eastern Tibetans, call themselves Bhotias, or inhabitants of Bhot. They are not so tall, and are stouter made than the Tibetans of Balti or Little Tibet. Bhotiya dialects vary in Man, Niti,
BHOUYLA.

Milam, Darma, and Byans; but they are all closely allied to the Tibetan now spoken in Hunede.—Thomson's Tr. 247; Latham's Ethnol.; A. Cunning.

BHOUYLA is a light Bajra boat, varying in dimensions between the Dhungi or passenger boat and a medium-sized Bajra. It is in general use on the Ganges, alike for a suburban trip or for a long up-country journey. See Boat.

BHOVANNAGAR, in long. 72° 21' E., and lat. 21° 47' N., a seaport in Kattyawar, 9 miles N.W. of Gogo. Its principal taluqads are the Nawab of Junagurh, the Jam of Navannagar, the Rawal of Bhownaggar, the Rana of Porebandar, the Raj of Dronagada, and the Thakur of Murvi. Junagurh, the most important, is held by a descendant of Sher Khan Babi, a soldier of fortune, who seized it in the general anarchy which preceded the subversion of the Moghuls. 20 miles to the west are the ruins of Balahpura, a submerged town covered with 18 feet of alluvium. Half the towns and villages around are built from the bricks and carved stones of this ancient city. — Dr. Nicholson in Bombay Times, February 1852.

BHARAMARA MARI. Tel. Clerodendron serratum. The Telugu word signifies bee-killer.

BHARAMUK. Beng. Helianthus annuus.

BHARATAR. Sansk. Brother; he who carries or assists.

BHATHI-DWITYA. Sansk. A Hindu festival on the second of the month Kartik, on which Hindu sisters entertain brothers, in memory of Yamuna entertaining her brother Yama. It is the 'brother' festival of the Hindus, and is held on the second day of the new moon following the Kali Pooja or Diwali. A brother goes to his sister's house, and receives from her unhussed rice, doora grass, and sandal, with good wishes, which the brother reciprocates. — Wilson.

BHIGU, a Hindu sage, mentioned in the several Puranas. He is said to have lived on Mount Mandara, and is described as wearing a shrot of cloth only around his loins, with a pilgrim's staff and beggar's dish in his hand. Bhrigu, Vasishta, and Atri are three of the great saints or sages called Prajapati or Brahmadika, that is, mind-born sons of Brahma, variously described as 7, 9, 10, and even 21 in number. — Williams' Story of Nata, p. 214; Ward, iv. p. 23. See Brahmadika.

BHIGU, a name of the planet Venus.

BHIGU-BANSI, a tribe of Rajputs claiming descent from Parasu Rama, the stem of the Barhoulia clan.

BHINGAR. Beng. Verbesina prostrata.

BHINGOJI, the skeleton attendant on Siva.

BHUL, in Hindu astronomy, seems to imply the middle place. Bhul-chakra when applied to the celestial sphere, means the equinoctial line. Bhul-chakra is the radius of the equator. Bhul-paridhi, the same as Bhun-chakra.

BHUL. Beng. Contraction of Bhoom, the earth.

Bhu, also Bhumi, also Bhum. Earth, land, soil, ground, hereditary landed property. Bhudanam, a gift of land. Bhul-pati, a landholder, a prince. Bhumia, a proprietor.

Bhu, Bhuvra, Swar, earth and sky and heaven.

Bhu-ad, scarlet garland flowers, Hedychium angustifolium; also Abelmachus esculentus.

Bhu-Devi, also Bhuma Devi, also Prithivi, in Hindu mythology, names of the earth, and famed to have been married to Prithu, the first king who taught the mode of cultivating the ground; hence the earth is called Prithivi. Bhu-Devi is the terrestrial name of Parvati, as goddess of the earth. As the names of Diana were varied to suit her various forms, so being Luna in heaven, Proserpine or Hecate in hell, so her archetype, the Hindu Parvati, is the heavenly Bhavani, on earth Bhu Devi, and Patala-Devi as consort of the regent of the infernal regions. Bhu-Devi, as spouse of the earth goddess, is a name of Siva.

Bhui Mung, Arachis hypogaea, ground nut.

Bhum-Champa, Kampaedia ponnula.

Bhun-Dagulla, its earth burning. Gifts of Indus at marriages and funerals, from the ceremony of burning earth prior to their presentation.

Bhun-Dalima, Carca harricacea.

Bhun-Dumur, Ficus repens.

Bhun-Jamba, Premna herbaec.

Bhun-Kami, Ipomoea Gaugentica.

Bhun-Kunnra, Batatas paniculata, also Triaches anthes cordata.

Bhun-Koit, Feronia elephantum.

Bhun-Koli, a tribe of the Koli race of the west of India. They and other non-Aryans devote their women to the gods, and style them Murli, Jogni, and Basavi; the deities to whom those near the Bhima are devoted are Yellamah and Mata.

Bhul-Mung, ground nut, earth nut.

Bhun-Oka, creeping vervain, Zapania monilifora.

Bhun-Patl, creepng Dentella, Delautella repens.

Bhun-Phul, also Bhumphor, Phelliura cataltropidea.

Bhun-Sing, Arachis hypogaea, ground nut.

Bhun-Souri, Crotalaria prostrata.

Bhun-Kumbum, batatas.

Bhun-Kupin, Feronia elephantum.

Bhun-Loka, earth. See Loka.

Bhunhekara Gadda, also Nela gumandu. Batatas paniculata, Ch.

BHUDUCK, or Badhak, a predatory race of the Nepa Terai.

BHUGRI. Hind. An inferior kind of date boiled in oil and water and dried; used in Multan as the Demaj; also the Ber fruit dried.

BHUL, Bhuiya, or Bhuya, a very numerous tribe dwelling all along the borders of Bengal, Oriissa, and part of Behar. Colonel Dalton thinks they were once the dominant race in Assam; they seem, he says, to have been the prior occupants of Bengal, and to have no connection with the Bhumi or Boyar. They appear to be the original occupants of much of the lower country to the south of the Chutta Nagpur plateau, great part of Singhbhum, and Bowani, and the borders of Oriissa. They have been partly driven from a portion of their country, and partly, or entirely, or dominated over by Kol, themselves probably impelled south and east by pressure from the north and west. But they are still very numerous in all the districts and petty states thereabouts, and are found more or less all the way across the lower hill country to the borders of Behar, close up to Gya, where they are succeeded by the Kahar as palaequin-bearers. The Bhuya are the palaequin-bearers of Chutta Nagpur. Major Tickell describes them as originally rich in cattle; and Mr. Campbell deems it possible that the Hindu race have changed them to Goahl, who are the most numerous Hindu race in Bengal and Oriissa. They are a dark-complexioned race, with rather high cheek-bones, but not otherwise peculiar, and approximate in appearance to the Urya. Those in the hills towards the Behar border have
BHUMA.

BHUMIA.

a darker complexion. They have no language of their own, but speak Urya on the Urya borders, Bengali on the borders of Bengal, and Hindi further north.—Campbell; Dalton.

BHUMIER, a very primitive small tribe of a few hundred families met with in Palaman and Jaspur, but who must not be confounded either with the Bhuia or the Boyar. They are very dark, heads altogether round as bullets, projecting jaws and lips, scarcely any prominence of nose, pigs' eyes, large bodies, and small limbs; no muscular development, short of stature, not one of them more than five feet, very filthy in their persons, with diseased skins and sore eyes.—Dalton, 133.

BHUMIN-HAR, also Bhoom-har, a Hindu agricultural tribe, numerous in the districts of Gorakhpur, Azimgarh, and Benares. The rajas of Benares is of this race. They claim Brahmanical descent, and style themselves Thakur, with names of subdivisions common to them and Sarwaria Brahmanas, as Sandal, Gautam, Dikshit, Upadhyaya, and Deyody; and several other families distinguished are intended to be signified by religious titles connecting them with the same stock, as the Sankarwar, who take the title of Misr, the Donwar, that of Tewari, etc. No Brahmanic honours are, however, paid by any caste to the Babban or Bhun-har. They have some curious rules, within which they and Rajputs may take food from one another, and in Chutia Nagpur they claim to be Rajputs. The names of their clans are almost without exception exempted from the Rajputs. Their customs present a striking similarity to those of the Kshatriya class, and in fact, except their own assertion, there seems to be not one single reason for believing the curious statement made by Mr. Campbell in his Ethnology of India, that there is 'no doubt that this class' is formed by an intermixture of Brahmanas with some inferior caste.—Campbell; Wilson; Sherrington.

BHUI YANSA, a zamindari race, called Khudra rajput, which has its headquarters at Bhuiya, Mau, and has its origin from the Bhuiya of Gobra, who was a deposee of the Rajputana princes, from 1580 to 1804, when Mukund Deo was deposed.

BHUIYA, a race in Keonjirur and Bonai, divided into four clans,—(1) the Mall or Desh Bhuiya, who call themselves, and are called, the Desh-lok, or the people of the country, (2) the Dandesna, (3) the Khatti, and (4) the Raj-Kuli Bhuiya. They are anxious to oblige, and have customs of primitive simplicity. There are 60 chiefs in the Pawri Desh or Bhuiya highlands, and a knotted string passed from village to village will rope the whole of them.—Dalton's Ethnology.

BHUIJ, in lat. 23° 15' N., long. 89° 45' E., capital of the province of Cutch. The Dak bungalow is 281 feet above the sea, and the hill fort is 678 feet by trigonometeric measurement. Bhuj is on a plain at the foot of the hill, on which there is a snake temple. It was taken by Sir W. Keir's army on the 23d March 1819. Its three principal temples are the Olang Math, Kshayan Eswar, Swamandap. A large number of articles in gold and silver are annually made. The silver and gold used are very nearly pure. The charge is at the rate of 8 annas per tola weight. A stone procured from the Hubba hills is polished at Bhuj, and is used as a substitute for marble in the decoration of temples.

BHUKAPATRI. Tel. Betula bhupatari.

BHUKHA MATA. In a temple at Udaipur is a picture so called, personifying Famine. Her necklace, like that of her lord Siva or Mahadeo, is of skulls. Two persons are represented lying near who have died of famine, and a beast of prey is approaching to devour them. The words mean hungry mother, gaunt famine.—Tod.

BHUKRI. Hind. Tribulus anatus, T. lanuginosus.

BHUKSA, a forest tribe under the hills from Purunpur Subna on the Sagda to Chandpur on the Ganges. They claim to be Puar Rajputs expelled from Dhar, and had taken refuge, first in Oudh, and finally in the hills bordering on Kamaon. They are divided into 15 clans,—12 superior, 3 inferior.—Wilson's Glossary.

BHULAM. Tel. Aloe littorallis.

BHULEA and Sansu are silk cloths much used by the women of Nepal.

BHULL. Like all large rivers which flow for a very lengthened course through an alluvial soil, the Indus throws up patches of alluvial deposit at its mouth. In Sind these are called Bhull, and they are of great value in the cultivation of the red rice of the country. They are swampy, and often on both sides of the principal mouths of the Indus, in the Gora bares and Shabhunder parganas, but produce a considerable portion of the rice consumed in Sind.—Simonds, p. 293.

BHULLEH, a clan of Agniclea Rajputs.

BHUM. SANSK., HIND. The land, earth; Bom, PERS. Bhumia, a landlord. Bhumiawat, a general plundering. Bhum-bhai, a landowner in a village.

Bhum Bakeswar, a group of hot sulphur springs on the banks of the Bakeswar streamlet, in the Birhbum district of Bengal, lat. 23° 53' 30" N., long. 87° 24' 35" E.; Fahr. 128° to 162°. About 120 cubic feet per minute are ejected from the hottest well. Bhunma, the tutelary divinity of a village, or its boundaries.

Bhumhari, freehold land tenures in Chutia Nagpur.

Bhumia, a man of the soil.

Bhumi, in Hindu astronomy, the terrestrial globe, supposed to be in the centre of the universe.

Bhumi savana, proper, natural to the earth.

Bhumi savana dina, a natural day.

Bhumi-Daha, being reduced to earth, being burned as a Hindu.

Bhumi Jombuka, Gunda barings.

Bhumi-Nim, Bonnaya serrata.

Bhumi Kumara, Trichosanthes cordata.

Bhumi Tylum, naphtha, petroleum, earth oil.

Bhumowra, Cornus capitate.

Bhum-Phor, earth-splitter; Philippea calotropis, Tulipa stellata.

Bhumidevi, the goddess of the earth, and Vishnu's secondary wife.

Bhumiyaa, in Muttra district, an altar or shrine of the village deity; it is an oblong low structure of masonry.

BHUMIA. HIND. From Bhum, land. A landed proprietor in Rajputana; the aaldal proprietor of Mewar, offshoots of the eldest princes. The term Bapota implies the inheritance or patrimony; its holder, if a military vassal, is called Bhumia, meaning one actually identified with the soil (Bhun). The Bhumia of Rajasthan is the Mog- medan wuttam-dar, or meers-dar, and the Canti-atchi of the Tamils. The Bhumia is vested with the rights of the crown, in its share of the bhog or rent. But when their own land is in the pre-destination called gulthas, or reversions from lapes to the commune, he is seised in all the rights of
the former proprietor; or by internal arrangements, they can convey such right by cession of the commune. The Bhum is exempt from the jureeb or measuring rod; it is never assessed; and his only sign of allegiance is a quit-rent, in most cases triennial, and the tax of khur-lakur, a war imposition, since commuted for money. These alodial tenants are the yeomen of Rajasthan, and, as in the districts of Komutler and Mandelgur, constitute the landwehr, or local militia. The Rajput vaunts his aristocratic distinction derived from the land, and opposes the title of Bhumia Raj, or government of the soil, to the Banya Raj, or commercial government, which he affiliates as an epithet of contempt to Jeypor, where 'wealth accumulates and men decay.' Bhum rakhwali, or land [in return for] 'preservation,' is one kind of Bhum; the crown itself holds Bhum rakhiwali on its own fiscal demesnes, consisting of small portions in each village. In S. 1782, the turbulent Bhumia on the western frontiers were checked by the Rajput chiefs on their borders, and the Sinc Chur Nos, the Bals, the Bora, the Balehna, and the Champa, were compelled to serve. The ancient clans, prior to Sanga Rana, had ceased, on the rising greatness of the subsequent new division of clans, to hold the higher grades of rank, and had, in fact, merged into the general military landed proprietors of the country under the term Bhumia. These Bhumia, the scions of the earliest princes, are to be met with in various parts of Mewar; those of high antiquity were defended from oppression by the rocks and wilds in which they obtained a footing, as in Komutler, the wilds of Chappun, or plains of Mandelgur, long under the kings, and where their agricultural pursuits maintained them. Their clannish appellations, Kombawut, Loonawut, and Ramawut, distinctly show from what stem and when they branched off; and as they ceased to be of sufficient importance to visit the court on the new and continually extending ramifications, they took to the plough. But while they disclaimed not to derive a subsistence from labouring as husbandmen, they never abandoned their arms; and the Bhumia, amid the crags of the alpine Aravalli, where they cultivate his cattle or cultivates his fields, preserves the erect mien and proud spirit of his ancestors, with more tractability, and less arrogance and folly, than his more courtly but now widely separated brethren. They form a considerable body in many districts, armed with matchlock, sword, and shield. In Mandelgur, where their own interests and the prince's unite, four thousand Bhumia could be collected. They held and maintained without support the important fortress of that district, for their prince, during half a century of turmoil.—Tod's Rajasthan, i. 169, 498.

BHUMIJ, literally earth-born, prior inhabitants of Orissa, with whom the Uraon or Ho or Kol mixed when driven eastward. Bhumij are the majority of the population in all the estates of the Manbhum district to the south of the Khasi river. As they approach the confines of Chutia Nagpur, they appear to be called indifferently Mundah or Bhumij, and these intermarry. More to the east, the Bhumij has greatly assimilated to the Bengali; many have acquired estates and influence as Sirdar Ghatwali, the hereditary guardians of the passes. They tenaciously cling to their national songs and dances. Bhumij are to be found in Mahbun and Keonjir, and it is this branch of the Mundah race which has spread farthest in an eastern direction. The Bhumij of the lower part of Singhbhum and Manbhum are tolerably civilised. All the wild tribes of Central India, and the primitive races of the east, have been either subdued or attracted to settle in some tributary town, which is brought back into the house soon after the funeral, apparently that the soul may thereforwards be worshipped as a household spirit. Traces of this superstition may be found all over the world. It is practised by Hindus, Herodotes and Homer show its antiquity. Captain Burton mentions it in Africa. The Bhumij, dwelling between the Kassai and Subarnarekha rivers, are the original inhabitants of Dhalbhum, Barahum, Patum, Ramguti, and still form the bulk of the inhabitants. Many are Sirdar Ghatwali, and well off, and those dwelling amongst the Bengali still retain their dancing customs.—Cent. Ind. Proc. Com. Rep. 1749, 1750, p. 5. 9; Dalton, pp. 147, 156; Campbell, p. 35.

BHUMIAT. H. H. the Maharajah of. BHUNDARA, a district in the Nagpur division of the Central Provinces, situated on the Wain-ganga, east of Nagpur. It has an area of 1748 square miles, and a population of 626,000. Some noble specimens of the Kuttung bamboo are to be found in the Lanjee jungles north of Bhundara, on the Deo and Son rivers, also in Serneha, and (though smaller) in the cantonment of Jubbulpur.

BHUNGHE. Beng. Corchorus olitorius. BHUNHYA or Bhuniya, a tribe in varied stages of civilisation, and of varied religious development. Buchanan Hamilton found them in Bhagulpur, Bihar, and Dinajpur, and he considered them to be the remains of the armies of Jarsandha. Some of the tribe live strictly as Hindus; while others eat beef, pork, camels, horses, ass, rats, cats, fowls, lizards, and worship the Vina or spirits of their dead. Mr. (Sir George) Campbell considered them to be part of the Basi tribe of the northern province. The Basi, according to Mr. Dalton, regards them as part of the Brahmi tribe who at one time ruled in the valley of Assam. In northern and eastern Bengal, and in Chutia Nagpur, they are so humble as not even to cultivate their own fields. Yet the landowners surrounding Parnasat hill, though claiming to be Kshatriya, are undoubtedly Bhuniya, being almost black, with coarse negro-like features. The Bhuniya are numerous in Singhbhum. Tradition says they were once dominant in the western and southern parts of that country, but were subjugated by the 'Ho' (Kol). Colonel Dalton says they are the monkey-like tribes who aided Rama Hanuman, the general of the ape army, was 'Pawan-Kn-pat, the son of the wind;' and the Bhuniya to the south of Singhbhum call themselves Pawanbans, the children of the wind. They are a dark-brown, well-proportioned race, with black, straight hair, plentiful on the head, but scant on the face; of middle height, light-framed like the Hindu, but with figures well knit, and capable of enduring great fatigue. The nose is but slightly elevated, still neither so depressed nor so broad at the root as the generality of Turanian noses. They sometimes call themselves Khandaits, and
BHUNJA.

BHURDUNDI. Tel. Tiardium indicum.

BHUSA. HInd. Bran of wheat, chaff, or cut straw, or leaves, etc., for feeding cattle.

BHUSANDI, in Hindu mythology, a famous crow.

BHUSKI. HInd. A carbonate of soda.

BHUT. HInd. Soy bean? Soja hispida?

BHUT, a spirit, generally an evil spirit, and usually represented by a stone in a forest; commonly coupled with the Preta. In the south of the Peninsula of India, the people recognise the amiable Kaminmar, or virgin spirits; the various amans, with Bhagavati, Chakkmal, and Dwara, Pali, are village gods; and Samaladevi is the cholera goddess. Necromancers employ Karupp, Maden Patchee, and Irulappen, and Kollevai Pali is the will-o'-the-wisp. The Khatari Buddh, Pessasan, Mohini, Jadamuni, and Etchipai are other good and evil spirits. See Bhut-Bali.

BHUT, also Bhuta. HInd. Zea mayis, Indian corn.

BHUTALABAHI. Tel. Bhutakamianus. Sansk. Croton oblongifolium, Roxb. iii. 638. The Telung name signifies demon-driver or devil-goad, and it is used medicinally for making a cooling drink.

BHUTAN, on the N.E. of British India, is situated between lat. 26° 30' and 28° N., and long. 85° 45' to 92° 25' E., and occupies from the southern declivities of the great central ridge of the Himalaya mountains, to the level ground in front of that portion of their inferior chain which constitutes the natural northern boundary of the Assam valley eastwards from Sikkim to where the Brahmputra passes through the mountains. Bhutan is bounded on the north by Tibet, on the west by Sikkim, on the south by the British territory, and on the east by several independent mountain tribes. It consists of a number of rough transverse chains of hills at right angles to the parent range, which forms the backbone of Asia. Between the ridges are precipitous valleys, at the bottom of each of which a mountain stream runs down. The first intercourse of the British with Bhutan was missioned without the expedition of 1772 for the relief of the raja of Koch-Bahar. The Buteah being driven out of Koch-Bahar, and pursued into the hills, threw themselves on the protection of Tibet. The Tesoa Lama, then regent of Tibet, and guardian of the Grand Lama of Lassa, addressed the Government of India on their behalf. The application was favourably received, and a treaty of peace was concluded on 25th April 1774. From that year, with the exception of two unsuccessful commercial missions in 1774 and 1783, there was little intercourse with Bhutan, until the British occupation of Assam, which connected the British and Bhutan frontiers. From that time there had been a continued series of aggressions by the Buteah on British territory, followed by reprisals on the part of the British Government, and the occupation of the Doars or passes which lie at the foot of the Buteah hills. During the 19th and 19th centuries, missions were sent to Bhutan under the Bogle, Captains Turner and Pemberton, and Mr. (Sir) Astley Eden; but the ruling race and the...
people are faithful and immolatory, and the intercourse ended by the British annexing the marches or Doars on the 11th November 1865.

The upper classes, and particularly the highest officers, are described as shameless beggars, bullies and scoundrels, while the lower classes are characterized as tolerably honest and truthful. They wear a coarse cloth, make piles from the bark of the Diah tree, distill a spirit from wheat, rice, and millet, and indulge freely. Chastity is little regarded, and very little practised. The custom of a community of wives between brothers, five or six cohabiting with one woman, obtains here as well as among other countries in the hills. The women are indolent and immodest, but polyandry prevails far more extensively in the northern and central portions of Bhutan than in the southern. Mr. Eden says the intercourse between the sexes is, in reality, promiscuous. On the death of any head of a family, however numerous his children, and whether male or female, the whole of the property becomes escheated to the Deb or Dharma. The spiritual ruler, or Dharma raja, is supposed to be an incarnation of Buddha. The Deb raja is chosen from amongst the chief officers of the country, and is supposed to vacate the government after three years; in practice, however, he holds office as long as he has power to do so. Below the Deb and Dharma rajas are the spiritual council, composed of twelve Buddhist monks, and the secular council, consisting of six Zimp. Subordinate to the Deb are the Para Pilo or Penlo, who have the management of the country west of the Tchinchoo river, and the Tongu Pilo of the country to the east towards Assam. Each of those Pilo has under him six Souhals, or Commissioners of Division.

The Ghylong or Lama priests are estimated at 1500 to 2000, and there are many nuns.

The Lhopa race are quarrelsome and cruel, but not brave. They have invariably black hair, which is cut close to the head. The eye is small, black, with long pointed corners. Their eyelashes are so thin as to be scarcely perceptible, and the eyebrow is but slightly shaded. Below the eyes is the broadest part of the face, which is rather flat, and narrows from the cheekbones to the chin,—a character of countenance far more strongly marked in the Chinese. Their skins are remarkably smooth, and most of them arrive at a very advanced age before they can boast even the earliest rudiments of a beard; they cultivate whiskers, but the best they produce are of a scanty and straggling growth. Many of these mountaineers reach the 6 foot high.

The Changlo are a branch of the Lhopa of Bhutan. The Changlo dialect has a considerable amount of glossarial peculiarity with Tibetan, but in other respects it is entirely Tibetan, softened and slightly changed in phonology. The Changlo dialect is spoken among that portion of the northern frontier of the valley which extends from the Binji Doar to the confines of the Kuriapera Doar, or about 90° to 92° east of long. Neither its northern limit nor the languages speaking it have been ascertained. The inhabitants of this region occupy the lower elevation of the southern Himalayas range, and are, generally speaking, agricultural. Their physical appearance exhibits a few shades of distinction noticeable between them and the tribes of the Sub-Himalayas.

**BHYNSOR.**

They are smaller, less muscular, and the hue of their skin possesses a deep isabelline tint. From the latter circumstance, probably, they derive their appellation, the term Changlo meaning black.—Bogle, Turner, and Pemberton's Embassies; Atkinson's Treatises, i. pp. 105, 142, vii. p. 360; Proskip's Tibet, p. 17; Fraser's Himal. Miss. p. 335; Gerard's Kumaure; Hook. Him. Miss.; Jour. Ind. Arch., 1853.

**BHYUT-ANJAY.** also Bhowra. HIND. A large black bee, failed to be enumerated of the lotus.

**BHYUT-SHUDHI.** SANSK. Bhuta signifies the four elements, and Shuddhi, purification. A Hindu purificatory rite.

**BHYUT-BALL.** offerings to malignant spirits, ghosts, or goblins. Offerings to demons or spirits at funerals. Offerings to all creatures. On the 1st of the dark half of Aswin, Hindus make offerings to malignant spirits. Bhuta-devata is an evil being worshipped as a divinity. Bhut-khet is a field or land granted to the Pahan for the cost of sacrifices offered to propitiate the evil spirits. Bhut Baman, literally, idol-Bhutam; a name of Baman.

Bhun Jajj, literally, devil's soda.

**BHYUT-RHORUBI.** Beng. Preana barbata.

**BHYUTRAJ.** Beng. Adder's tongue, Lygodium flexuosa.

**BHYUTTA or Bhoota.** HIND. An ear of Indian corn. Zea mays.—V.

**BHYUTTER or Buther, and Iyen are two titles of Tamil Brahmins in Travancore.**

**BHYUT-THA.** a large tree of Akyah, plentiful in Ramree and Sowandy districts.—Col. Cat. Ex.

**BHYUTTHIAH, a Rajput race, formerly martial, now traders, and like the Arorah, and both these have commercial agencies all over India.** See Batta; Bhattiah.

**BHYUTTOTE, Thug designation of the strangler.**

**BHYUT-TULASI, Ocimum basilicum; O. pilosum.**

**BHYUT-TULSI.** Beng. Salvia plectra.

B'UVAA-LOKA. SANSK. The higher regions, from Bhuvra, the sky, and Loka, a world. The atmosphere or firmament. Mahar-loka, the region above the pole-star, tenanted by saints. Bhuvana Cosa and Bhuvana Sagara, Hindu books on geography. See Loka.

**BHYUANESWARA, the ancient Eskamara of Orissa, a great seat of the Saiva sect, and largely visited by pilgrims. For six centuries it was the capital of the Kesari or Lion dynasty of Orissa kings, from about A.D. 500 to 1104. 7000 shrines once clustered round the sacred lake, and 500 or 600 still remain, some of them of exquisite design and ungrudging artistic toil.—Downson: Imp. Gaz.**

**BHYACHARA.** HIND. The land tenure by village communities. Bhyad brotherhood is the term employed to designate the minute subdivision of fiefs which obtains in all Rajput states.

**BHYKING-TSENG.** BURM. In Amherst, a close-grained, compact, grey wood, fit for general purposes.—Captain Dance.

**BHYNEE.** CAN. Caryota urens; its sap is abundant, and is converted into toddy and arrack.

**BHYNSOR.** is the tract named Puehali, or the flat, between the river Chambal and the pass, and contains about twenty-four villages, in the lordship of Bhyensor. According to the local tradition of some of the wild tribes, its more ancient name was Bhadravati, the seat of the Hun race; and the
traces of the old city, in extensive mounds and ruins, are still beheld around the more modern Bhyrnasor. Tradition adds that the Chirmitti, the modern Chambal, had not then ploughed itself a channel.—Tod's Rajasthan, ii. p. 713.

BIA. HIND. Pterocarpus marsupium.
BIADHIA. HIND. Green turban.
BIANA, a chieftain of Biana, Dahima, was one of the most powerful vassals of the Chauhan emperor, Pithal rajah. The brothers of this house held the highest offices under the emperor, and the period during which the elder Kaimas was minister, was the brightest in the Chauhan dynasty.—Tod.

BIAH. PUNJ. M Mebra, near Abbottabad Hazara; it is Persian longifolia, and P. excelsa.
BLAY. HIND. Interest of money.
BIBA BIBA. CAN. Holigarna longifolia.
BIBACHA. HIND. Brassica Grifithii.
BIBASIS, a name of the Beas.

BIBI. HIND. Lady. Bibi Sahib, Ang.-Hind., properly Bibi-sabibah, an Englishwoman, the mistress of a house. Bibi, Begum, Dorsani, Thakurani, are courtesy titles of Indian ladies.

BIBLA, of the Brahmi race, the Bibia bag of Northern India, is the smaller leopard. F. pardus.

BIBLA-HUNI. MAHI. Pterocarpus marsupium.

BIBLE, from the Greek Biblos and Latin Biblum, a book. Christians divide their sacred book into two portions, the Old and New Testaments. The former contains the writings of Moses and other prophets, and is the canonical book of the Semitic religion of the Jews or Hebrews; the latter contains the doctrines of Jesus Christ, and but few books are admitted in the religion of Christians. The two books of the Old and New Testament are revered but not read by the Mahomedans of the S. and S.E. of Asia; and the possessors of the Taurait, Anjil, Zahur, and the Koran, viz., the books of Moses, the Evangelists, the Psalms, and the Koran, are all styled Ahl-i-Kitab, or People of the Book, i.e. people possessing a revealed religion. The Old Testament is supposed to have been mostly written in Hebrew, from which it was translated into Greek. The New Testament of the Bible was written, it is supposed, originally in Greek, but the book has now been translated into all the European, and most of the Semitic, Aryan, Mongol, and Polynesian tongues, and largely distributed. The Old Testament, too, has been, in parts, turned into the vernacular tongues of the East Indies, and the whole of the two books have appeared in Arabic. It is related that Philadelphia sent Aristocles, a man whose wisdom had gained him friendship, and Andreae, captain of the guard, both of them Greek Jews, with costly gifts, to Eleazer the high priest of Jerusalem, and asked him to employ learned and fit men to make a Greek translation of the Bible for the library at Alexandria. Eleazer named seventy elders to undertake the task, and they held their first sitting at the king’s dinner-table; and Menedemus, the Socratic philosopher, the pupil of Plato, who had been sent to Philadelphia as ambassador from Eubea, was also present. The translators then divided the work among themselves; and when each had finished his task, it was laid before a meeting of the seventy, and then published by authority. Thus was said to have been made the Greek translation of the Old Testament, which, from the number of the translators, is called the Septuagint; but a doubt is thrown upon the whole story by the fables which have been mingled with it to give authority to the translation. During 1870 to 1881 a committee in England revised the New Testament. In the 2d century there is said to have been an Indian translation of the New Testament St. Chrysostom (Evant. Joan. Homil. I. cap. 1) says the Syrians too, and Egyptians, and Indians, and Persians, and Ethiopians, and innumerable other nations, translating into their own tongues the doctrines derived from this man, barbarians though they were, learned to philosophize.

Nur-ud-Din, in 1740, ordered Mirza Mehdi to translate the four Gospels, but it was done in a very faulty manner. A Georgian translation was printed at Moscow in 1743. The Armenians have it in their tongue; the Nestorians and Jacobite Christians use the Syriac Bible, and it is in the vernacular of all the nations of Europe.

The first versions printed in India of any of the Christian Gospels in the Persian and Hindustani languages, were in 1805 at the College of Fort-William. The Persian was superintended by Lieut.-Colonel Coblooke, and that in Hindustani by William Hunter. Thomas Jarrett translated the Gospels into Western Malay; Púrtham, into the Úriya; Vydyn Náth, into Mahtrádi, under the superintendence of Dr. William Carey. The Old and New Testaments, in whole or in part, have now been translated into 72 of the languages of the East Indies.

Assamese. Bata.
Buddha. Gondi.
Buddhá. Gujerati.
Bughli. Kannántile.
Bhugeli. Malay.
Bikáneri. Malagasy.
Bruj. Maghribí.
Bgháli. Malonlam.
Bilam. Mahráti.
Baram. Marwári.
Bíjau. Mong or Pegr. uan.
Bugi. Mundari.
Burmeese. Kushti.
Burmese. Níri.
Bhagú. Dakháni.
Begum. Khiláni.
Bhaj. Dogri.
Bhute. Formousan.
Bhutá. Kossáli.
Bhutá. Garhwáli.
Bhút. Kumaoni.
Punjábi. Panjábi.

In Malay it was published in the Arabic character, in 5 vols. 8vo, in 1758, under the direction of Jacob Mossel, Governor-General of the Dutch possessions in the East Indies.

The immense numbers of Malayan Bibles and other religious books that have been circulated throughout the East Indies, have produced a uniformity of idiom which greatly facilitates communication not only between Europeans and natives, but between the natives of the different islands themselves. Indeed, the Malay language here assumes a degree of importance which is unknown to the other European establishments in the Archipelago. It becomes in a great degree the language of general society, as Dutch is rarely spoken except by individuals born in Europe, who are few in number. A constant correspondence is also kept up in Malay between the Government and Orang Kaya of the interior. Under these favourable circumstances, the Malayan dialect of the Moluccas affords a facility in expressing ideas which is unknown to the westward, where the language is only spoken generally by uneducated people, a circumstance which may eventually lead to the
Ambonaya dialect becoming the general medium of communication throughout the Archipelago. A similar result followed on the translation of the Koran. It gave the purest Arabic a hold.

Since 1811, Bible Societies for the distribution of this sacred book have been formed in most of the Protestant countries of Europe.—Indian Antiq., 1873; Cust, Modern Languages, p. 196; Sharpes History of Egypt, i. pp. 308, 309.

**BIBLIOTHECA SANSKRITAE.** A catalogue by Professor Gildemeister, published in 1847, of authors, Indian and European, who have edited or translated Sanskrit works, or treated of Sanskrit literature.—Cal. Rev.

**BIBOS CAVIFRONs,** the Gyal; Gaviaea gaurus, BIBWA, MAHR. Semeacranus arcaeumidum.

**BICHE DA MAR.** Holothuria, sp.

Hoy-shan, CHIN. Holothuriun, LAT. Swallow of traders, ENG. Sula, MALAY. Sea-slug, Sea-cucumber, Tripang, Beche de mer, POUR, FL. Balate.

Species of Holothuria are found in most of the shallow waters of the Malay and Philippine Archipelago near Ceylon, Mauritius, Zanzibar, Polynesia, in the upper part of the Gulf of Siam, and are so abundant on the northern coast of Australia, that the people of Celebes, receiving advances from the resident Chinese, have been long in the habit of making annual voyages thither in quest of it. Its only market is that of China, to which many hundred tons are yearly sent, for the consumption of the curious epicures of that country. The fishery of the trepang is to China what that of the sardine, tunny, and anchovy is to Europe. It is for the most part caught by hand, for it has little power of locomotion, but in deep water, sometimes by diving. The great sources of wealth of the Aru Islands are the pearl and trepang banks, on the eastern side of the group. These extend the entire length of the islands, and are often several miles in width, being intersected by deep channels, some of which will admit vessels of burden. The greater portion is caught in shallow water, where it can be picked up off the bank without diving. It is produced in the greatest abundance on small coral islands, especially those to the south-west of the island. Trepang on that coast is of several varieties. It is sometimes two feet long; but its common length is from four to ten inches, and its diameter two or three. Its tentaculars are short, and when the animal is captured, are folded up under its body. The trepang is first thrown into a kettle filled with boiling sea-water, after a few minutes it is removed and gutted. It is then thrown into a second kettle, where a small quantity of water and the parching rind of a mimosa produce dense vapours. This is done to smoke the trepang for better preservation. Finally, it is dried in the sun, or in case of bad weather under a shed. For a long time the Chinese were the sole carriers of the article, but foreigners now engage in the trade. A great deal of this article is imported into Macao, in junks and Portuguese vessels. In the market it appears hard and rigid, and has a dirty brown colour; when brought to the table, it resembles pork rind in colour and consistency. The Chinese use it by itself, or as an ingredient in other dishes, and consume large quantities, under the belief that it is an aphrodisiac. The varieties into which they divide it are above thirty, varying in price from $80 down to $1 per pikeil, but unless one is well acquainted with the article, it is impossible to distinguish them. In the Chinese tariffs, all the sorts are arranged under the two heads of black and white.—Jour. Ind. Arch. iv. p. 480; Hor, Mr. Morrison's Compendious History; Crawford's Dictionary; Faulkn. See Holothuria; Trepang.

**BICHHATI,** also Bich-taruka, BENG. Silver weed, Argyreia speciosa. Bich'hu'ti, Tragia involucrata, Linn.

**BICHU.** HIND. Martynia diandra.

**BICHUAA, BICHHATA.** HIND. The Himalayan nettle. Urtica heterophylla. Urticainterrupta. The name is from Bichu, a scorpion.

**BICHUA.** HIND. A dagger with a waved blade.

**BIDABAD,** all of it was formerly a place of refuge. See Basat.

**BIDAL.** BENG. Baulinia variegata.

**BIDARA, KARN.** also Bidi Kaivarou, a troop of grain-carriers.

**BIDARIKAND.** HIND. Root of Pepera tuberosa, in Aujur, considered of a warm nature, and used among a great number of ingredients of many prescriptions.—Gen. Med. Top. p. 126.

**BIDASPES, Bedaspes, or Hydaspes of the Greeks, the modern Ichut; the ancient Vitaste.**

**BIDDARD.** SANSK. Gnelina Asiatica.

**BIDDAT.** ARAB. In Mohamedan law, points of religion neither directly enjoined nor yet forbidden by Mahomed.

**BIDDHUKURNU.** BENG. Clypea herannahplia.

**BIDEN, CHRISTOPHER,** author of Naval Discipline, or a View of the Necessity for a Law establishing an efficient Naval Discipline in the Merchant Service. He was for many years master attendant at Madras.

**BIDENS.** Smith. The Kwei-chon-ts'au of the Chinese. A composite plant, one of the Shan-yoh or mountain drugs of the Chinese. It has algogogue properties.—Smith.

**BIDGIRAMMI.** MAL. Linseed.

**BIDHATA PURUSH,** the Hindu god of fate.

**BIDHAY.** BENG. The signal for taking leave, often accompanied by a gift.

**BIDPAl or Pilpai is the name given to the author of the oldest known collection of tales, but no edition of them is in existence. Tradition says that they were written in Sanskrit by a Brahman of this name, for the benefit of Dasishim, his king, and to them almost all the fabulous relations of other countries have been clearly traced by Mr. Colebrooke, the Baron de Sacy, and Professor H. H. Wilson. The Bidpai collection is traditionally said to have been since reproduced in the Pancha-tutra, or five chapters, also known in India as the Panchopakhyanam, or *Five Collections* of 80 stories, which are supposed to have been in prose, written by Vishnu Sarma for the education of a king's sons. Pancha-tutra means literally Pentateuch, or the Pentameron, or Quinque Partitum. Its five chapters relate to the disensions, and the acquisition, of friends; inveterate enmity; loss of advantage and inconsiderateness. The book has many aphorisms to guide a person in life. Another collection, called the Hitopadesa, i.e. Sutary Advice, was originally written in the Sanskrit language in prose and verse. It is a collection or selection of tales drawn from the fables of Bidpai.**
the source also of the Panchatantra, and has been translated into most of the languages of British India, also into English by Dr. Charles Wilkins, Sir William Jones, and Francis Johnston. It is full of maxims and worldly advice; it is as interesting as the Proverbs or Ecclesiastes, and is probably as old as those two works. It opens with a reference to Ganesha, the Hindu god of wisdom, and the story relates to king Sudarsana of Pataliputra and his intractable sons. Both these books have been published in Britain and Germany, and there are English, German, French, and other translations of them. They were translated into English in the time of Nushirwan, in the 6th century; from that into Arabic, by Abdullah-Ibn-al-Makaffa, about the middle of the 8th century, and his book is known as the Kalin-wa-Damna.

This was in the reign of the Khalif Al-Mansur in the 8th century. The Kalin-wa-Damna had 18 chapters, and must have been from another or from a larger collection. Then, about the close of the 9th century, into Persian, by Rudaki, who received 80,000 dirhems for his labours. About the middle of the 12th century (A.D. 1150), in the time of Bahram Shah, a Persian prose translation was made, and a subsequent second translation was made, by Kashi-fi, and named the Anvar-i-Sohelli. A Greek version was made by Simeon Seth, at the command of Alexis Commenes, and they appeared since in Hebrew and Aramaic, Italian, Spanish, and German. The first English edition was in the 16th century; then in French in 1644 and 1709; and they are the foundation of Esop's fables. In these tales and fables the Hindus appear to have been the instructors of all the rest of mankind. The complicated scheme of story-telling, tale within tale, like the Arabian Nights, seems also to be of Hindu invention, as are the, subjects of many well-known romances, both oriental and European.—*Elph.* pp. 156, 157; *Chips,* iii. 145, also iv.

BIDUANDA KAILANG, a race who, with the Orang Sectar, dwelt in Singapore till removed from it by the British, when they occupied the island in 1818. They speak Malay with a guttural accent. They are now dwelling in the Malay Peninsula.

BIDURU NANA BIIYAM, Tel., *Euphorbia thymifolia.* _L._ has the signification of 'green or raw rice of Biduru.' The term pachchi arisi, *Tam._ 'raw rice,' is applied to several of the smaller species of *Euphorbia.*

BIGANDEL, Roman Catholic Bishop of Ramath, who resided for many years in Burma and the Malay Peninsula. He published in 1858 a legendary history of Gauda, and subsequently a revised edition of it, which Lieutenant Gauvin translated into French.

BIGHA, Bhiga, or Beega, a land measure varying in extent in different parts of India. The standard bigha of the Revenue Surveys of the North-West Provinces is equal to 3026 square yards, or 5-6ths of an acre. In Bengal, the bigha contained only 1600 square yards, or little less than one-third of an acre. In Benares, it was, at the time of the settlement, determined at 3136 square yards. In other parganas it was 2025 to 3600, or to 3926 square yards. A kacha (immature, crude, small) bigha is in some places a third, in others only a fourth, of a full or standard bigha. Akbar's bigha of 5900 square gun=2600 square yards=0-558, or somewhat more than half an acre on the above estimation.

In the N.W. Provinces of India it is nearly five-eighths of an acre. In the Lower Provinces it is 120 feet square, or 4800 superficial feet, nearly one-third of an English acre. Tod says that in Rajputana 120 are = 40 acres. Sir H. Elliot specifies the following as some of the variations found in the Upper Provinces for 100 acres, viz.:—

<table>
<thead>
<tr>
<th>Bigha</th>
<th>Bha.</th>
<th>Kitta.</th>
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<tr>
<td>123</td>
<td>12</td>
<td>0</td>
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<td>192</td>
<td>10</td>
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<td>177</td>
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<td>154</td>
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<td>137</td>
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<td>332</td>
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In Cuttack, the bigha is now considered to be an English acre. The Mahrantha bigha is called twenty pund, or 400 square kathi or rods, each five cubits and five hand-breaths; as the rod varies so does the bigha; under the Adal Shahi dynasty it was equal to 4683 square yards, or only 457 yards square, less than an English acre. The Gujarath bigha contains only 2841 square yards.—*Wilson's Glossary,* p. 85; *Elliot, Supplement,* Tod's *Rajasthan,* i. p. 555; *Carney.*

BIGN. _Hind._ Celta Caucaica.

BIGNONIA. This genus of plants is one of the Bignonaceae, and 18 species occur in Chana, the Moluccas, Assam, Morung, Peninsula of India, and Malaca. Amongst them are B. adenophylla of Burma, B. undulata of Hindustan and Gujerat, B. multijuga of Sylhet and Ponom. The leaves of B. chia yield a rod colouring matter. Several species in Burma and Tenezannah are not yet specifically identified. They are called by the Burmese, Lain-bha, Kyoun-douk, Than-day, Thug-gai-ii, and Thau-thet-ngai. Bignonia coronaria, a large tree with white flowers; very plentiful in the Tharwadda and Pegu districts; affords from the inner bark material for rope.

Bignonia chelonioides, *Linn.*

*Stereospermum chelonioides,* _D. C._

Padal, Sammi, _Hind._ Pathiri maram, _Tam._ Keersul, Tututaka, MAHI Tagada, Kaligour, _Tel._ Padri maram, _Malak._ Kahikutru, Kaligouru, _Tam._ Pu-padiri maram, _Tel._ Pumulpdri, _Mal._ URLA.

This is found in various parts of the Madras Presidency, both above and below the ghats in Canara and Sandu, though not common there; abundant in the Dekhan, on the right bank of the Godavary, and in Ganjam and Gumaur; also in the Bombay ghats, at Khandalla and Parr; also in the Punjab, the Siwilak tract, Sylhet, and Assam. In the mountainous parts of the coast of Coromandel it grows to be a large tree; flowers during the hot and rainy seasons, and the seed ripens in December and January. The wood is high-coloured, hard, and durable, and much used amongst the inhabitants of the hills, where it is plentiful. It attains an extreme height of 20 feet, with a circumference of 1 foot, and the height from the ground to the intersection of the first branch is 8 feet. The tree is held sacred by the Hindus, in consequence of which it is difficult to obtain the timber; but it is a good fancy wood, and suitable for buildings. The bark and fruit are used medicinally, and the pleasant-tasted fragrant flowers are used to make a cooling drink in fevers.

Bignonia indica, _Linn._

*Spathodea indica._ *Calosanthus indica,* _Blume._ *Bignonia pentandra,* _Lour._
BIGNONIA.

Mulin, Sori, ... HIND. Tat Morang, ... HIND. Tat Palang, ... Teto, ... MAH. L. 

This is common near water streams on the Bombay side, chiefly below the ghats. On the Coromandel coast it grows tall, chiefly up among the mountains; flowering-time, the beginning of the wet season; seed ripens in January and February. The wood is soft and spongy as to be unfit for use. It grows in Behar and in the Siwalik hills, and immense pods 18 in. long and 4 in. thick hang from its branches in its leafless state. In the Tenasserim Province it is often seen near the dwellings of the natives; it grows luxuriantly in the cold regions of the Himalaya. The bark and capsules are astringent, and used in tanning and dyeing. The leaves, called Sionak in the Panjab, are used in medicine.

Bignonia quadrilocularis, Roxb.

Spathodea Roxburghii, Spr. | Wurr, ... MAH.

This large tree is found in the higher hilly places of the Konkan, the higher valleys of the ghat, Ceylon mountains, Malabar hill, Bombay, Elephant; and it is very common in Padahapore jungles, in the Southern Mahatra country. It flowers during the beginning of the hot season, and its flower is very beautiful. The wood is strong, tough, durable, and is much used for beaux, as planking for carts, and for many purposes, by the natives.

Bignonia stipulata, Roxb.

Spathodea stipulata, Wall.

Pha bhan, ... AYAB. Ma shoy, of Moulem. Ka-mhong, ...

The stipuled trumpet-flower tree has a long twisted pod. It is common throughout Tenasserim and at Moulem. The flowers are often seen in bazars, where they are sold for food. In Akhyab the natives make a spurious liquor from the bark. Dr. McLeodlan describes it as affording a strong, very dense, and most valuable wood for purposes requiring strength, elasticity, and density.

Bignonia suaveolens, Roxb.

Sterculia suaveolens, W. | Tecoma suaveolens, G. Don.

Pam, Parool, ... BENG. Bhita padari? ... SANSK. Padul, Padali, ...

Sami, Sammu, ... HIND. Dvtali, Kahorgu, Parul, ... MAH. Kuberekash, Padari, Tel.

This middle-sized tree grows in the Dandole forest above the ghats, in Canara and Sundar. It occurs, though not very common, in Ganjam and Gumsur, where it attains an extreme height of 20 feet, with a circumference of 1½ feet, and the height from the ground to the nearest branch is 12 feet. It is a native of the southern parts of the Coromandel coast, and also occurs in the Dekhan, Sukarnagur, Gorakhpur, the Khar jungle, Dehra Doon, and Kangra. It has large, dark, dull crimson flowers. Its wood is very similar to that of B. chelonoides, but of a redder hue, elastic, and long-grained, and is used for buggy shafts, plough yokes, etc. The bark is employed medicinally.—Roxb.; Vaigt; Gibson; Beddome.

Bignonia suberosa, R. Indiam cork tree.

Millingtonia hortensis, Linn. fl.

Neemi Chambeli, HIND. Aka Nin, ... HIND.

This is a very handsome tree, common in the gardens of S. India, in Tanjore, Madras, Sengaon, and between Ava and Taong Dong. In January the tree is covered with beautiful and fragrant pure white blossoms. It grows with great rapidity, sending out numerous suckers, from which it may be easily raised. It is a good avenue tree. The rough bark peels off in small pieces about once a year, and is deeply cracked and spongy, like an inferior sort of cork. The wood is hard, close-grained, and of a pale yellow colour, not easily worked, flexible, but not fibrous.

A cubic foot unseasoned weighs 50 to 52 lbs., and 42 lbs. when seasoned, and its specific gravity is 672. It is well adapted for furniture and ornamental work.—Roxb.; Riddell; Beddome; Cliqthen.

Bignonia undulata, Roxb.

Tecoma undulata, G. Don.

Bomla Reora, ... HIND. Khaw, ... SIND. Rakt Reora, ... MAH.

A tree with drooping branches like the weeping willow, leaves covered with micaceous scales; flowers in lateral racemes, very large, orange-coloured, and scentless. It is found in the N. parts of Baglan and in Kandesh; is more common in Sind, in some of the valleys of the Gabar hills, and at Shah Bihali; it occurs in Gujarat, is very common in Marwar and other parts of Rajpore; and in the month of March, when covered with its blossoms, it is splendid. The wood is fine-grained and valuable, having a scent like the walnut leaf. It is reckoned very strong and durable, but from its size is applicable only to small purposes.—Dr. Roxb., Irvine, Gibson.

Bignonia xyloarpa, Roxb.

Tecoma xyloarpa, G. Don.

Ghau seng, ... CAN. Vadenkurni maram, TAM. Khurseng, ... MAH.

This large tree grows in all the Madras forests. It is easily distinguished by its peculiar rough pods, two feet or more in length. The wood is never large, is of a brownish yellow colour; very hard, and good if ripe; rather close-grained; takes a good polish, and is used in turnery and in cabinet-making. It also affords an oil, obtained by a simple process of reverse distillation, and said to be of great efficacy in cutaneous affections.—Dr. Roxb., Wight, M'Clelland, Hooker, Mason, Stewart, Cloy, Riddell, Gibson; Capt's. Beddome, Macdonald.

BIGOTI. GUJ. In Barooch, village lands, undivided.

BIH, HIND. Seeds of Cydonia vulgaris; quince seed, from Bibi, the quince. There is a 'tural' or bitter, and 'shirin' or sweet, quince; also a sweetmeat made with quince seeds.

BIHISHTI, HIND., or Saka, ARAB., a water-carrier who conveys it in a skin over his back. The word seems to be derived from Bibisht, the paradise or heaven of the Mahomedans.

BIH RECHNI, HIND. Euphorbia dracunculoides.

BIHU, a somewhat sensual dance by the Mri girls. It resembles the Naga movement. Once a year, the unmarried people in the village live together in a large building, and at the close the couples who suit each other pair off and marry.

BIHULL, the inner bark of Grewia oppositifolia, employed in the Himalaya for making ropes. BID, also Binn, HIND. Seed, any seed, hence Bijwark, seed-corn. Bij hand is the Sida cordifolia and Rumex acutus; Kamul bii, Nymphaeas a/b; Sukka-ki-bii, Cannabis sivata; BiJ-ga, Loicera quinquelandiculens. Bij-ga, a weed.

BIJA GANITA and the Lilawate are the best Hindu books on algebra and arithmetic, by Bhaskara Acharya.
BIJAI. HIND. A bull liberate by the Hindus as part of a religious ceremonial. See Brikhotasr.

BIJALa, surnamed Silpargi, king of Kalyan in the early part of the 11th century. He was a Jaina, and was assassinated by three of the Vri Saiva sect, at the instigation of his minister Basava.

BIJAPUR, formerly the capital of the Adal Shahi dynasty, which ruled there from A.D. 1501 to A.D. 1660. Yusuf Khan, a son of Murad II. of Anatolia, was purchased, in 1499, at Ahmadabad, for the Bijapur Body Guard. But in 1501 he assumed independence, under the title of Adal Shah. The territories over which this dynasty ruled varied considerably in extent, as the Nizam Shahi of Ahmadnagar, the Bohmni kings of Beder, the Maharrattas, and Dehi family pressed on them. The successive sovereigns were—

Yusuf Khan, styled Yusuf Adal Shah, A.D. 1501
Ismail Adal Shah I., 1502-1527
Mallo Adal Shah I., 1527-1534
Ibrahim Adal Shah I., 1534-1557
Ali Adal Shah I., 1557-1579
Ibrahim Adal Shah II. (in his reign Chand Sultan was regent.), 1579-1626
Muhammad Adal Shah, 1626-1660
Ali Adal Shah II., 1660-1672
Sikandar Adal Shah,

The tombs of this family at Gogi and Bijapur are domes on basement. Bijapur was taken by Aurangzeb A.D. 1686, and is now in ruins, only occupied by 12,938 inhabitants. Its splendid mosques, mausoleums, and palaces, although falling into decay, are amongst the grandest architectural works in India. The more conspicuous structures are the tomb of Ibrahim, the Mehtar Mahal, the Jama Masjid, the tomb of Muhammad Adal Shah. A great brass gun is still on the ramparts of this city, said to have been cast on the 19th December 1585 at Ahmadnagar, by a European, whom tradition styles Russi Khan. It weighs 41 tons. Bijapur fell to Aurangzeb after a siege. Although they had an inner fort much stronger than the outer works, the garrison were so much in want of provisions, that they were compelled to surrender at the 15th October 1686. Shirzi Khan concluded the terms through Ghazi-ud-Din, to whom the emperor, agreeably to custom, when he received such proposals through any of his officers, was pleased to assign the nominal honour of the conquest. Bijapur thenceforth ceased to be a capital, and was soon after deserted. The ruins occupy a space of about thirty miles in circumference, and are exceedingly grand. The great Mahomedan historian Ferishta is supposed to have died here, during a pestilence that swept away a multitude of the people, but this is uncertain. A Buddhist or Jaina temple, under ground, the several beautiful mosques and mausoleums, and the huge gun on the ramparts, into which a full-grown man can creep, all merit attention. —B. N. ’N. Raj.

BIJAR. Harra. Stiff clay soil, lying low, chiefly sown with rice only; occasionally with grain also. Bija Sal, also Bija Sar, HIND., Pterocarpus marsupium.

BIJARA SALA. SANSK. Marking nut.

BIJAYANAGAR, also written Vijayanagar, said to be properly Vidia-nagar, or the town of learning, was founded, according to one account, by two fugitives from Telingana; according to Prinsen, in 1338, by Bilal Deo of Karnata, who resisted Mahomed Toghalak, and founded Vijayanagar. In 1347, Krishna Rai ruled there; in 1425, Deva Rai; in 1478, Siva Rai. The sovereigns claimed to be of the Yadu race. Towards the 16th century it was the capital of a great Hindu power, which ruled over the Hindu chiefs to the south and south-east of the territories of the Adal Shahi, Nizam Shahi, and Kutub Shahi, kings of their Dekhan; and what is now called the Ceded Districts of British India formed the chief part of their dominion. Their capital was successively at Bijanagar on the Tumbdra, at Pennamonda, and Chandrajrig. The rajas long maintained their place among the powers of the Dekhan, but in A.D. 1565 four Mahomedan rulers formed a league against Ram Raj, and a great battle took place (A.D. 26th January 1565, A.H. 20 Jamad us Sani 972) near Talli-cotta, on the Kista, at which the venerable raja, then 70 years of age, was taken prisoner, and put to death in cold blood. His army numbered 70,000 horse, 90,000 foot, 2000 elephants, and 1000 heavy cannon. Writing towards the middle of the 19th century, Elphinston says his head was kept till lately at Bijapur as a trophy. This battle destroyed the supremacy of Vijayanagar, but added little to the territories of the victors, their mutual jealousies preventing them extending their frontiers, and the country fell into the hands of petty chiefs or insurgent officers of the old government, since known to the British as zamindars or poligars. The brother of the raja removed his residence further east, and finally settled at Chandrajrig, 70 miles N.W. of Madras, at which place his descendant first granted a settlement to the English in A.D. 1640. The ruins of Bijanagar are now known as those of Humpi, and those at Chandrajrig are extensive and remarkable. —Elphinston, p. 416.

BIJION. BHM. In Ahmednagar, a timber used for house posts, rafters. It is a heavy, compact, grey, close-grained wood. —Captain Dance.

BIJNOUR or Bijnour, a town which gives its name to a district in the N.W. Provinces of India. The town is in lat. 29° 22' 36" N., and long. 78° 10' 32" E., with a population of 12,865 souls. The district has an area of 1902 square miles, and a population of 737,153 souls. Of these, 243,455 were Mahomedans.

BIJOLI. The rao of Bijoli is one of the sixteen superior nobles of the rana of Mewar's court. He is a Pramara of the ancient stock of Dhar. There is an ancient inscription at Bijoli. See Lat.

BIJUCO, a fibre exhibited from Manila in the Exhibition of 1851. Its source was not known.

BIJUK. BENG. Citrus medica, citron.

BIKANIR. long. 73° 22' E., lat. 27° 56' N., is the chief town of a sovereignty, chiefly in the great Indian desert, which has an area of 17,676 square miles. The population was estimated by Lordelo in the begining of the 19th century at about 339,000, and the revenue at about six lakhs of rupees. In 1874, Major Powell estimated the population at 800,000. The ruling family are of the Rajbari tribe of Rajputs, who have held sway there since 1439. Bikanir maintains a force of 2100 cavalry, and about 1000 infantry and 50 guns. Bikanir was originally inhabited by various small tribes of Jats and others, the squatters among whom led to the conquest of the country in 1458 by Bika Singh, a son of raja Jodh Singh of Jodhpur. After consolidating his power, he conquered Bagore from the Bhatee of Jeyswinh, and founded the city
of Bikanir; he died in A.D. 1505. Rai Singh, the fourth in descent from Bika Singh, succeeded to power in 1573, and in his time the connection of Bikanir with the Dehli emperors began. Rai Singh became a leader of horse in Akbar's service, and received a grant of 52 parganas, including Hansi and Hisar. The earliest treaty with the British Government was in 1801. Sirdar Singh succeeded to power in 1852. He did good service during the mutinies, both by sheltering European fugitives, and by co-operating against the rebels in the districts of Hansi and Hisar. He received a salute of 17 guns and the right of adoption. The Oswal and the Mahesi Rajputs form the chief part of the population; the Sewak are ser- vants of the temples. On the side of the tank where the dead are burned are the cenotaphs of twelve chiefs. The wells at the city are 300 feet deep. The territory was once populous and wealthy; but the plundering Beedawat bands, with the Sahrai, the Khasa, and Rajur robbers in the more western desert, so destroyed the kingdom, that while formerly there were 2700 towns and villages in Colonel Tod's time, not one-half of these remained. Three-fourths of the population are the aboriginal Jit, the rest are their conquerors. —the descendants of Bika, including Sazare (Saraswati) Brahmins, Charsans, Bards, and a few of the servile classes. A list is given of 37 fiefs, the chieftains, retainers of Bikanir, holding 43,572 foot and 5402 horse. —Tod's Rajasthan, I. p. 240, ii. p. 98; Princep's Antiquities, p. 259; Atcheson's Treatises, iv. p. 147; Elphinston's Caudul, p. 10.

BIKAS. HIND. A grass of N. India, growing in low ground, with stem and leaves larger than the Dub grass.

BIKH, Bikhma, Bikya, Bish, Visha, Visha, and Ati visha, HIND., are names of a powerful vegetable poison. Dr. Wallich refers the plant to the Aconitum ferox; it seems, however, to be the root of several aconites, for Dr. Hooker, in one part of his journal, mentions that he met with A. palma- tum, which yields one of the celebrated Bzik poisons. All the Sikkim kinds are called gning by the Lepcha and Bhota, who do not distinguish them. The A. napellus, says, is abundant in the north-west Himalaya, and is perhaps as virulent a Bzik as any species. At another place he mentions that magnificent genus grows in the Lachogon valley, also Sencsce, Corydalis, and the Aconitum luridum, a new species, whose root is said to be as virulent as A. ferox and A. napellus. The result, however, of Drs. Thomson and Hooker's examination of the Himalayan aconites (of which there are seven species), is that the one generally known as A. ferox, and which supplies a great deal of the celebrated poison, is the common A. napellus of Europe. Bikhamaura is also a name for A. ferox.—Wall.; Hooker's Jour. i. p. 168, and ii. p. 108; Engl. Cyc. p. 455. See Aconitum.

BIKK. Tel. Gardenia latifolia.

BIKRAMPUR, an ancient town in the Dacca district of Bengal, equal to Nadya as a seat of learning; for several hundred years, from the time of Vikramaditya until taken near by the Maho- medans, it was a seat of government under the Hindu rulers of Bengal. There is a mound near; and near the site of the palace is a deep excavation called Agnikunda, in which it is said the last native prince with all his family burned themselves on the approach of the Mahomedans.—Imp. Gaz.

BIKJAN and Bhungaria are branches of the Gaur taga.

BILLA, a Negro race occupying the southern part of the Malay Peninsula, along with the Sinang, in the provinces of Quelah, Perak, Pahang, and Trangani.

BILADURI, or Al Biladuri, author of the books Tatab ul Baladin, or the Conquest of Sind, Syria, Mesopotamia, Egypt, Persia, Spain; and the Kitab-ul-Baldan, a cosmographic work. His name was Ahmad bin Yahya bin Jahir, surmised also Abu Jafar and Abu Hassan. He lived at Bagulad, and died A.D. 892-3, A.H. 279. He was called Biladuri, from being addicted to the use of an intoxicating electuary made with the Malacc bean of the Anacardium occidentale.

BILLA KAND. HIND. Pueraria tuberosa.

BILLASPUR of the Central Provinces forms the northern section of that tract of country which is usually known as the Chhattisgarh plateau. It is situated between lat. 21° 45' and 23° 10' N., and long. 81° 30' and 81° 15' E. It was long held by the Hai-hya Bansi Rajput, but was overrun by the Maharrtas early in the eighteenth century. The district contained a population of 715,998 in 1872, amongst whom the chief divisions are:

Chamar, 164,383 Other Hindus, 133,833.
Panks, 72,972 Mahomedans, 9,641.
Ahir or Raut, 66,574 PRIOR RACES, 173,194.
Kurmi, 39,849 Kauwar, 30,306.
Mal, 27,125 Dhuama, 2,514.
Brahman, 17,167 Binjwar, 7,009.
Bairagi, 11,062 Dhanwar, 3,988.
Rajput, 10,762 Other non-Hindus, 9,338.

BILLATEE or Bilati. BENG. An alteration of the Persian word Bahayat, meaning foreign, exotic.

Bilati Ananas, Fournerry cantaIa.

Arun, Spondias dulcis.

Aloo, potato, Solanum tuberosum.

Amlee, Garciinia pictoria.

Pita-silli, common parsley.

Bagoon, tomato or love-apple.

Mehndee, myrite, Myrtus communis.

BILLAURY. HIND. Polygornum bistorta.

BILBA, a nomade tribe in Labijan in Persian Azarbijan, who roam about the frontiers of Persia and Turkey. They are the most predatory, turbulent, and treacherous of all the border tribes of Kurdistan, and have been ruthlessly hunted down by other tribes. They number about 5000 families, in three divisions,—Piran, Mengur, and Marnish.

BILDI. HIND. Pharbitis nil.

BILIGHI RANGAN, a range of hills in the east of the Yeladur Jaghir in Mysore. The only inhabitants are the wild Soligar.

BILIMBI. MALAY. Averrhoa bilimbi, and A. carambola.

BILIN. HIND. Feronia elephantum.

BILITHSI. HIND. Ribes nubicola, R. glaci- als, and R. glossularia; currant and gooseberry.


BILLA GANNERU. Tel. Vinea rosea.

BILLA ILEI. CAN. Gerbillus Indicus.

BILLAIN-LENA. HIND. A depractory custom in India amongst Mahomedan women. A woman
sweps her open hands along the outline of the body of another person from the head downwards, then presses the backs of her fingers against her own temples. The ceremony is intended to represent that the performer takes on herself all the evils that may befall the other.

BILLA JUVVI, Erra Juvvi, and Nandircka. Tel. Ficus nitida, Thoub. Dr. Wight considers this to be the same as F. Benjamina, L.

BILLAPA. Tel. Trichostylis globulousa. Nees.

BILLA SOORGUM, a town in the Ceded Districts of India, where there are caves containing osseous breccia and deposits, described by Liotet. Newbold.

BILLAWAR. CAN. A wood of Mysore. It has great toughness or elasticity, makes handsome furniture resembling walnut, and is much used for the framework of carriages, for feloes and spokes of wheels.

BILLAWAR, a race in Canara engaged in collecting palm toddy.

BILLICUL, a small natural lake near Segoor on the Neelghiries, 5700 feet above the sea.

BILLI. LOTAN. SANS. Valeria speciosa, also a species of Melissa or Biophetta ruderalis. The words mean cat-rolling, from the circumstance that cats roll amongst these plants.

BILLU KARRA, also Billuuda chettu. Tel. Satin wood, Chloroxylon Swietenia, D.C. Karrar in Telugu means wood, Chettu, a tree.

BILL-LUTA. BEN. Pogostemon pleuranthoides. Bil-nalita, Corchorus fasciculatus.

BILODAR or Bidojoa. HIND. Falcóneria insignis.

BILT-PAT. BEN. Lochnichia corchorifolia.

BIL-RAI. BEN. Simpsia patens.

BILU, Burmese Buddhist myths, the equivalents of the Hindu Raksha. They are generally, however, described as engaged in some humorous mischief.—Yule’s Embassy, p. 27.

BILL. MAHE. Waste land, or uncultivated land, viz. the Gaotian or village site; Gaorm, free grazing ground; Turmndu, the cattle standing-place; Hulabum, grass land.

BILLA, SANS. Eagle marmole. It is sacred to Mahadeva; he alone wears a chaplet of its flowers, and they are not offered in sacrifice to any other deity. If a pious swain, Hindu should see any of its flowers fallen on the ground, he would remove them reverently to a temple.

BILLVA-TITHA. CAN. Feronia elephantum.

BIMA, one of three races speaking distinct languages current in the island of Sumulawa. Their alphabet, once distinct, has been displaced by that of the Celebes. See India.

BIMAK KABULL. HIND. Myrsine Africana.

BIMB or Vimba. SANS. Bryonia grandidis.

BIMB of Abyssinia. Bruce thought that this might be the insect which is alluded to in Scripture as the plague of flies. See Tsal-tsai; Tse-Tse.

BIMBA, a race who occupy the rugged mountains of, and along with, the Kukha. They were under Sirkh rule, but are at present Mahomedans.

BIMBASARA, king of Magadha, B.C. 578, reigned 52 years. He was first of the house of Bhattaya, and was murdered by his successor,—this dynasty, from B.C. 578 to B.C. 447, in succession being paricides. See Bhattaya; Vindusara.

BIMLIPATAM, a seaport town, in long. 83°

29'E., and lat. 17°38' N. It has an open roadstead with a small river. It is 15 miles N. of Vizagapatam, on the eastern side of the Peninsula of India. The Dutch had a factory there, which was plundered by the Mahattivas in 1754.

BIMRA of Chenah, Vivex negundo.

BIN. BURM. A tree; Cannabis sativa.

BINA or Vira. HIND. A lyre; also Andropogon muricatrum. In Bengal, Aviceania tomentosa; in Borneo, Antiaris toxicaria.

BINAWLA. Seed of the cotton plant. Bindaar, HIND., cotton-gatherer.

BINWARIA. HIND. A plant of N. India, given as fodder to horned cattle.

BIN BHANTA, SANS. Solanum melongena.

BIN-BHINSA. HIND. The jungle sheep or four-horned antelope, Tetracerus quadricornis.

BINDA. Tel. Abelmoschus esculentus.

BINDA, Chasing or Chain, fisheremen, boatmen, and general labourers.

BINDAHARA, at a native Maloy court, the treasurer.

BINDAK, also Findak. HIND. Corylus avellana, hazel.

BINDAL. HIND. Monomorica esculenta.

BINDI MATHU, a great temple at Benares, described by Tavernier 1680, but destroyed by the emperor Aurangzeb. It was in the form of a St. Andrew’s cross.

BINDIYACHAL hills, in Bundelkhand, commencing near Sonndah, long. 26° 14’ E., lat. 78°50’ N.; proceeds S.W. to Narwar, 25° 39’ 37° 52’; S.E. to 24° 12; N.E. to Ajeghar, 24° 53’, 80° 20’, and Kullinagar in the same vicinity; and E. to Bargarh, 25° 10’, 81° 36’. None are more than 2000 feet; the average between the Tura and Kuttra passes, about 520 feet. The Tons falls over the brow by a cascade of 200 feet; Bilohi, 398 feet, and Bonti, 400 feet.

BINDLIGAR. HIND. Maker of tinsel ornaments.

BINDRABAN or Vrindawana, signifying a grove of Tulai trees, is a holy Hindu town situated on the right bank of the river Jumna. The circumstance which imparts most to its sacred character, is its having been the site of the early revels of Krishna, the Apollo of the Hindus, Muttra having been his birthplace. Many a Hindu Anacreon courts the muses with lays dedicated to this youth, prominent in Hindu mythology, and minstrels and maidens join in soft strains to his praise. Bindruban is now noted for the manufacture of pretty toys, made of a composition that may be mistaken for mineral. Indeed, the vendors pass them off as such, and, to enhance their value, declare that they are brought from Jeypore, where articles of this description, and marble toys especially, receive a fine finish. The Valabhabharya sect of the vaisnavha Hindu have many hundreds of their temples at Mathura and Bindruban. At Benares and Bindruban, the annual dances, constituting the Ras Yatra, in commemoration of Krishna and the sixteen Gopi, are performed with much display.—Tour of India by Frech, 214. See Ras Yatra; Radha Sampradaya.

BINDU, a perfect jogi, and teacher of yoga practices.

BINDUNI, a small tribe amongst the Bakhtiari, who are believed by the latter to be prior settlers.

BINDU-SAROVARA, a lake from which the
Ganges issues, also called Lake Mansaravara. It is fabled to be formed by drops of water falling from Mahadeva's hair.

BINFATTA, in Coorg, a race of Malabar who personate lions at festivals.

RINGHAR BII. Hind. Asphodelus fistulosus.

RINGU. Panj. Celcis Canceae.

BINJAL. Malay. Mangifera cassia, Jack.

BINJY DOAI, a tract of country in the N.E. frontier of India, towards Buntan, in long. 91° E. The language spoken thence to the Kuriapera Dar, in long. 92° E., is a dialect of the Buteali or Tibet. It is occupied by the Changio race, a word which means black. See Buntan.

BIN-JOGI, a pipe used by snake-charmers.

BINJWAR, a tribe who speak a dialect of Hindi, and generally observe Hindu customs, but the names of their forefathers appear to be their chief worship; they live in a very wild state, subsisting principally by hunting. The Byga of the Mundla district are nearly connected with them.—Dalton, Ethnol. 148.

BIN-KUK. Arab. Armeniaca vulgaris, Lam.

BINLANG is the name given by the Singhalese to a species of Ipecacuanha. There are two kinds, one called Elle Binnuge; the other, which is red, is called Rat Binnuge. The red is reported to be the better. Both are species of Periploca, both creep or twine round the bushes which grow on the sandy downs.—Thunberg's Trs. iv. p. 186.

BINN. Hind. Myrsina Africana.

BIN. Bint. A daughter, a girl. In Egypt, every woman expects to be addressed as 'O lady,' 'O female pilgrim,' 'O bride,' or 'Ya bint' (O daughter). In Arabia you may say, 'Ya mara' (O woman); but if you attempt it near the Nile, the answer of the offended one will be, 'May Allah cut out thy heart!' or, 'The woman, please Allah, in thine eye!' And if you want a violent quarrel, 'Ya aeguz!' (O old man), pronounced drawlingly,—'Ya ago-o-ooz,'—is sure to satisfy you. In India, 'Ho-ma' (O mother) is a usual and acceptable exclamation of a father, or the Ma-Saha or lady mother, are terms which the highest in the land would accept. On the plains of the Torrent, it was always customary, when speaking to a peasant girl, to call her 'Bella fe' (Beautiful woman), whilst the worst of insults was 'Vecchiarella.' So the Spanish calello, under the most trying circumstances, calls his mule 'Vieja, ravieja' (Old woman, very old woman).—Butt's Mecc. i. p. 121.

BINTANG, a wood of the Malay Peninsula, in great abundance around Singapore. It is used in ship-building, serving for planks, masts, spars, etc., and is exported in large quantities to the Mauritius, California, etc. For masts and yards, the wood preferred is the red Bintangor of Sumatra. It is a species of Uvaria or Calophyllum, which, in all the maritime ports of India, has obtained the name of poona or puhn, from the Malay word signifying tree in general; as puhn upas, the poison tree, puhn kayu, a timber tree, etc., the source of the commercial term for the poona or peon spars.—Ezk. of 1851.

BINTENNE, a town in Ceylon where hot springs occur. See Hot Springs.

BINTUUL, a river of Borneo, on the banks of which the Kyans dwell. See Kyans.

BINTUNGAN wood of Java is employed in the same manner as Wadang, but grows to a larger size; the colour of the wood and bark is red.

BINUA. The Jakun, Orang Bukit, Ilayet Utan, Sakai, Bintangor, or Orang, people of the country. Malaya term them Orang Utan, men of the forest; Orang Darat, wild men of the interior; and Orang-ulu, people of the upper part of the river, etc.—epithets which they consider offensive. The Binua people occupy the rivers Johore (the Lingiu and the Sayong), BintPontian, Batu, Pahator, Kio, Formosa (the Simbang, Kiri, Pan, and Simorang, with their numerous auxiliaries), and Indus, the whole race, by the watered by them, and by means of these rivers a constant communication is maintained between the families of the Binua on the two sides of the Peninsula. The boundary between Pahang and Johore intersects the country of the Binua, the whole of the Anak Indus, and the lower part of the Simorang being in Pahang, and all the other rivers, including the Made, on which they are found, appertaining to Johore. The authority of the Bindahara and the Tamunggong is little more than nominal. The Binua are divided into tribes, each under an elder, termed the Batin. The Jakun are extremely proud, and will not submit, for any length of time, to servile offices or to much control. The Binua or Sakai language of Perä appears to resemble, in its phonetic character, the rude dialects of the Burman group. This character is intermediate between that of the Simang on the one side, and that of the rumatam, Javan, and Bornean, on the other. The Johor Binua is more guttural, aspirate, and harsh, remarkably broad and slow.

In the Binua, the cheek-bones are broad in all directions, and prominent, giving to the face, below the base of the forehead, a marked lateral development beyond it, or to the forehead, an appearance of being compressed. The lower jaw is massive, spreads out and does not rise rapidly, thus producing an obtuse chin, and the anterior maxillary projection considerable.

The lofty Gunong Bernun, nearly 100 miles to the north of the Lumut group, with the mountains which adjoin it, may be considered the central highlands of many tribes. In the ravines and valleys of Gunong Bernun, two of the largest rivers of the Peninsula, the Pahang, and the Muar, with their numerous upper tributaries, have their source. The Simunjung, which unites with the Lingi, also rises there.

The upper part of these rivers, and many of their feeders, are occupied by five tribes, differing somewhat in civilisation and language. The Udaie (who appear to be the same people who are known to the Binua of Johore under the name of Orang Pago) are found on some of the tributaries of the Muar, as the Segamat, Pahang, and Kapit in the vicinity of Gunong Ledang. This tribe has less approximated to Malayian habits than the
BIOPHYTUM SENSITIVUM.  
BIRD FEATHERS.

others. The Jakun partially frequent the same territory, the lower part of Palungun, Gappam, etc., and extend northwards and north-westwards within the British boundaries.

Many of the Mintim around Gunong Bermen wear the bark of the tirap, the men using the chawat, and the women a piece of rude cloth, formed by simply beating the bark, which they wrap round their persons, and which, like the same plant of the Jhoro women, reaches only from the waist to the knees. The Udal women wear the chawat like the men. The Bermen tribes believe in Pirman as a being who made the world. He dwells above the sky. Each tree has a jin, and the Jin Bhumni haunts the rivers and mountains, causes sickness and death. There is no religious worship, but recourse is had in sickness to a Poyang, who combines the functions of priest, physician, and sorcerer. The Poyang and Pawang of the Bermen tribes, the Poyang of the Binua, the Bat, the Dyak, and Dato, and the Si Basso of the Bat, are all the shaman, priest, wazir, physician, in different shapes.—Journal Indian Archipelago, 1847; Newbold, British Settlements, ii. p. 392.

BIOPHYTUM SENSITIVUM. D. C. Syn. Oxalis sensitiva. A plant of the Moluccas and of both the Peninsulas of India.—Rosb. ; Voigt.

BIR or Vir, a man, the Latin vir. Birbani is the term amongst the Jet for a man's own wife; a femme couverte. Birbhum, said to mean the land of heroes.

BIR, a town on the left bank of the Euphrates, in the pashalik of Orfa, with 1700 houses. Caravans and travellers from Aleppo to Orfa, Darkorr, Baghdad, and Persia, cross the river here.

BIR or Ber. Arah. A cistern to hold rain-water. Jacob's well, Bir Yakub, or Bir-us-Samar-Rah, is 9 feet broad, and more than 70 feet deep. In 1855 it still had a stone over its mouth, as in John iv.

BIR, a village in the Kangra district of the Panjab, with valuable magnetic iron ore, from which iron is manufactured.

BIRA or Beri. 2. Hind. Small pieces of areca nut, spice, catechu, and sometimes a little quick-lime, rolled up in a leaf of the piper betel. It is used as a masticatory, an aromatic, astrigent, and alkaline condiment. It is presented to visitors on their leaving.—W.

BIRA. M. Elaeocarpus Roxburghii, W. and A. BIRA. HIND. Ziya-phus nummularia.

BIRA KAYA. TEI. Luffa feotida, IV.

BIRAMANDI. HIND. Micronchonchus divaricata.

BIRBA. HIND. Terminalia bellerrica.

BIRBAL. Raja Birbal, a general of the emperor Akbar, who placed confidence in him. He failed in an expedition against the Yuzzafan Afghan, and was killed in the destruction of the army in January 1586. His companionable qualities endeared him to the emperor, but he was a man of solid merit, and of very lively conversation, and many of his witty sayings are still current in India. A small but richly-ornamented house is pointed out to have been the residence of Birbal in Futtelpur Sierai.—Tv. Hind. ii. p. 9; Elphinstone, p. 455.

BIRBAT. SANSK. Coral.

BIRBAT. SANSK. Areca nut, with spices.

BIRBHAN, the founder of the Sadh or Sadhu, a Hindu unitarian sect, who are chiefly in the upper part of the doab from Farrukhabad to beyond Dehli. In 1868 there were 9923 in Oudh. According to Mr. Trant, the sect originated about A.D. 1658, with a person named Birbhan, an inhabitant of Brijhasir, near Narmal, in the province of Dehli. He is said to have been taught by Udaya Das, or Uda-Ka-Das (the servant of the one God), who was also known as the Malik-ka-Hukum, the commander of the Creator, meaning the personified word of God. Birbhan has also been said to be a disciple of Jogia.

The essence of the Sadh doctrines is embodied in the Adi-Upani-sad, a tract with twelve commandments,—(1) to acknowledge one God; (2) to be modest and humble; (3) not to lie; (4) nor malign; (5) nor steal; (6) nor kill; (7) nor beg; (8) nor covet; (9) to avoid narcotics; (10) be monogamic; (11) wear white clothes; and (12) make no marks on their bodies. Their doctrines are evidently derived from the unitarianism of Kabir, Nanak, and similar writers, with a slight graft from the principles of the Hebrew code. They have no temples. Birbhan preached a really pure and excellent ethical code, making truth, temperance, and mercy the cardinal virtues, but retaining many of the doctrines of Hinduism, such as that of Muki, which is the tenet concerning the ultimate object of all devotion to be liberation from life on earth.—H. Wilson, p. 353; Oudh Centenary, p. 455.

BIRBHUM, a district in the Bengal Presidency, between lat. 23° 33' and 24° 9' N., and long. 87° 71' and 88° 4' 15" E., with an area of 1344 square miles, and in 1872 a population of 696,915. Its name is said to mean the land of heroes, but the Santal Parganas are on the north, and in their tongue Vir means jungle. The aboriginal races, Bagdi, Chamar, Muchi, Dom, Bauri, number 197,423. Its former chief town is Nagar or Rajnagar, now in decay. Near Deoghar or Bijnath is a small town in the zillah of Birbhum, famous for its temples, visited every year by thousands of pilgrims from the North-West Provinces of India. It is situated in the great table-land which extends from near Bardwan to Dunwa Ghat in Behar. Granite, syenite, and gneiss, traversed by greenstone veins, are the prevailing rocks; copper, lead, and iron ores. The vein of copper at the surface runs east and west; is partly in the form of green carbonates. Veins of lead ore, in the state of galena or sulphuret, traverse the principal vein at right angles. The nearest coal is forty miles off.

BIRCH TREE. Betula, sp. Tag-pa, . . . . Bhot. Jhurija, . . GR., SANSK. Birch trees are found in the N.W. Himalaya, and in Japan. The birch, tagpa, of the Chenab river is usually a crooked and stunted tree, but sometimes exceeds one foot in diameter. The annual bridges over the mountain torrents are made of birch twigs. The thin white bark of the Betula bhojputra occurs in sheets or pieces, which can be peeled off. It is used to make umbrellas, and for writing on in lieu of paper. A species of Birch from China, the Hwa-muh (bark, Hwa-muh-pi), is used in the saddler, shoemaker, cutler, and candle-maker's trades. See Betula.

BIRD CHERRY. Cerasus, species.

BIRD-EYE PEPPER. Capsicum baccatum.

BIRD FEATHERS, from the cranes and king-
fishers, form a considerable article of trade in South-ern Asia. The feathers of a large grey kingfisher are exported from Malaya to Singapore, to be used by the Malays, Javanese, and Chinese. They sell at 200 per cent. profit.

BIRD FISH, Hemiramphus argentuces.

BIRD ISLAND, called by the Malays Pulo Manok, lies midway between Ceram and the Ser-watty group, in the Eastern Archipelago. It is a high solitary mountain with a truncated cone, inhabited by myriads of birds, and natives resort to the island to collect the eggs. Sulphur also occurs on the island.—Horsburgh. See Kelling.

BIRD, JAMES, of the Bombay Medical Service, in which he rose to be a Member of the Medical Board. He wrote an Analysis of the Murat-i-Ahmad, a history of Gujerat, in Lond. As. Trans. 1853, i. p. 117; Biographical Sketch of Capt. M'Murdo, ibid. 123; Memoir on the Country from Poona to Kitoor, ibid. ii. p. 65; Account of the Rined City of Bilijapur, Bom. As. Trans. i. p. 367; Translation of Cufic Inscriptions from Southern Arabia, ibid. 239; Translation of Inscriptions at Burra and Bajah, ibid. 458; Introductory Notice to the History of Sind, ibid. 462; Biographical Notice of Arabic and Persian Library at Cutch Bhoj, ibid. 470; On Bactrian, Hindu, and Roman Coins in the Bombay Collection, ibid. 293; Account of Temple of Sonnath, from the Persian, ibid. ii. p. 13; On the Christian Faith in Arabia, and Hindyantic Inscriptions from Aden and Saba, ibid. 30; Hindi Gold Coins, and Zodiac Coins of Jahangir, ibid. 55; On the Ethiopic Family of Languages in Eastern Africa, ibid. 294; Memoir of General Kennedy, ibid. 417; Historical Geography of Hindustan, and on the Origin of the Social State among the Hindus, Bl. As. Trans. 1840, ix. p. 818; Account of the City of Balkh and its Neighbourhood, extracted from Persian Authorities, Bom. Geo. Trans. ii. p. 60; Illustrations of the Arab and Persian Geographers, or the Geography of the Middle Ages, ibid. 58; Historical Researches on the Origin and Principles of the Buddha and Jain Religions, with Accounts of the Caves of Western India, Bombay 1847, folio.—Dr. Brist's Catalogue.

BIRD-LIME.

Kilut; gasap, MALAY, Pissini, TAM. Pits-chi-Kiel, TEL.

The substances known in Europe under this name are the viscid juices of several trees. One is prepared in Europe from the middle bark of the holly, by boiling it seven or eight hours in water, then laid in heaps on the moist ground to ferment, with stones over it, to press it down till it passes into a mucilaginous state, then pounded, washed and kneaded till free from extraneous matter, and kept for four days in pots to ferment and purify itself, when it is fit for use. In Southern India it is obtained from the Palay, the Isonanda acuminata. The best is prepared from the outer covering of the fruit and tender twigs and bark of the jack tree, but several of the Aracapulc yield it.

—Rhode; Tom.

BIRD NESTS.

Abahil-ka-ghos-ha, BURM. Jala, CHIN. Bajah. HIND. Nibidi-Tunclino, IND. Susah, JAV. Sarang-buring, MAL. Nidos de la China, SP.

The edible birds' nests of Southern and Eastern Asia are perhaps obtained from more than one species of swallow, but one of them seems to be the Collocalia nigida, C. rievisirostris, M'Clendon, of Java, and other islands of the Eastern Archipelago, the Assam hills, the Sikkim Himalaya, Neighberries, Melilla, Ceylon, the Western coast of India, at Pigeon Island S. of Honore, the Vin-goria rocks, and at Sacrifice Rock, 20 miles S. of Tellicherry. Dr. Jordan says that the best nests are from the Collocalia lioch (C. rievisirostris), which builds in the Nicobar Islands, and along the east coast of the Bay of Bengal from Arakan southwards to Java; but several other species of Collocalia occur in the islands of the Eastern Archipelago, as far as New Guinea, one in the Mauritius, and one in the islands of the Pacific. The nests are collected all over the Malay and Philippine Archipelagos, on the Malabar coast and the Tenasserim provinces, wherever there are caves to afford the birds shelter and protection. The caves are most frequent in the limestone formation, but Java and Borneo seem to be the birds' chief resort. The celebrated caves of Karang-bolong (hollow-rocks) are situated in the province of Bagien in Java, and on the south of the southern end at the sea level, and at the foot of limestone rocks several hundred feet in height. One place has 200 feet of perpendicular descent before coming to the first ledge. The mouths of the caves are about 18 feet broad and 30 high, while, within, they expand to breadth of from 60 to 114 feet, and to heights of from 420 to 480, the sea penetrating them to the extent of one-fourth of their length, and in rough weather rendering them inaccessible. The descent of the collectors to the caves is effected by narrow ratten ladders, usually about 74 feet in length, attached at top to a stout tree. Within the caves are bamboo scaffoldings erected in order to reach the nests, which are detached from the sides by the hand, and from the roof by hooks attached to long poles. There are three periods for making the collection, April, August, and December. The nest-gatherers are bred to their dangerous calling, and before the commencement of the first gathering, plants are set up in neat nests, and there is feasting on the flesh of buffaloes and goats, to invoke the aid of the 'lady queen of the south' (Nai ratu kidul), an imaginary being, without whose tutelary aid the work of robbing the nests would not, as they think, prosper. After the crop has been taken, the caves are closed against human ingress. The whole annual gathering, which is effected at little cost, amounts to from 50 to 60 pikuls yearly, or, on an average, to 7370 lbs., worth at Batavia about £18,000. On the N.W. side of Borneo, and not far from the banks of the river Barun, birds' nests caves are found 140 miles from the sea, by the course of the river. They consist of three chambers, one of which is reckoned to be no less than 200 fathoms in length. These are the property of the powerful Kayan tribe, and, like those of Karang-bolong, are carefully guarded.

The nests used by the Chinese are brought principally from Java and Sumatra. Nests are composed of a mucilaginous substance, and it has been supposed by some that the Gelandium corneum enters into their composition, but it is more probable that they are formed by mucus.
eliminated from the stomach of the swallow. Externally they resemble ill-concocted fibrous isinglass, and are of a white colour, inclining to red; their thickness is little more than that of a silver spoon, and their weight from a quarter to half an ounce. When dry, they are brittle and wrinkled, little larger than a goose egg. Those that are dry, white and clean, are the most valuable. They are packed in bundles, with split rattans run through them to preserve their shape. If procured before the eggs are laid, the nests are of the best kind; if they contain eggs only, they are still valuable; but if the young are in the nests or have left them, they are nearly worthless, being dark-coloured, streaked with blood, and intermixed with feathers and quills. The best are found in deep, damp caves, which, if not injured, will continue to produce indefinitely. Some of the most profitable caves are 50 miles in the interior. Everywhere the method of procuring these nests somewhat resembles that of catching birds in the Orkney Isles. After they are obtained, they are separated from feathers and dirt, are carefully dried and packed, and are then ready for the consumer. The Chinese are the only purchasers, and carry them in junk to the Chinese market, where they command extravagant prices; the best, or white kind, often being worth 1800 dols. per pikul of 133½ lbs. avoird., which is nearly twice their weight in silver. The middling kind is worth from 1200 to 1800 dollars, and the worst, or those procured after fledging, 150 or 200 dollars per pikul; according to these three qualities, the duty is levied. 84 millions of nests are annually imported into Canton. Latterly nests of first quality fetched £3 to £4 the pound; those of the second quality, 9s. 4d.; and the third sort, only 3s. 1d. The most part of the best kind is sent to Pekin for the use of the court. The Japanese do not use them. The Chinese consider the birds' nests as a great stimulant and tonic, but other geltinous food would be equally serviceable. To render it fit for the table, every feather, stick, or impurity of any kind is carefully removed; and then, after undergoing many washings and preparations, it is stewed into a soft, mucilaginous jelly. The sale of birds' nests is a monopoly with all the governments in whose dominions they are found. Crawfurd estimated that about 243,000 pounds, at value of 1,263,570 dols. are annually sent away from the Archipelago, mostly to China. Java alone sent about 27,000 pounds, mostly of the first quality, estimated at 60,000 dollars.

New birds' nests of the esculent swallow are to be got from a rocky island about 20 miles south of Tellicherry, named Sacrifice Rock. The only preparation the birds' nests undergo is that of simple drying, without direct exposure to the sun, after which they are packed in small boxes. The edible-nest swallows are numerous in the limestone caves on the inlets and islands on the Tavoy coast; and the government revenue from the bird nest farm in 1847 was nearly Rs. 11,000; but in 1849 it fell to less than Rs. 700. At Mergui they are not so numerous. The Japanese powder the agar-agar seaweed, boil it to a jelly, and make artificial nests, called Dschin-schan, which they export to China.—Crawfurd's Dis. pp. 54, 55; Morrison; Jordon.

Birds of PARADISE. Ceratopis parvula, the Lesser Paradise Bird, in New Guinea, Mysool, and Jobs. P. rubra, the Red Paradise Bird, in Waigiu. Cinnamonus regius, the King Paradise Bird, in New Guinea, Aru Islands, Mysool, Salwatti.
Diphyllodes speciosus, the Magnificent, in New Guinea,  
Myol, and Salwatti.

D. Wilsoni, the Red Magnificent, in Waigton,  
Longhorus atra, the Superb, in New Guinea,  
Paroix sextennis, Golden Paradise Bird, New Guinea,  
Semiophora Walkell, Standard Wing, Batehan, Giliboo.  
Schistidna alba, the Two-wired Paradise Bird, in  
New Guinea and Salwatti.  
Ptilorias magnifica, the Scale-breasted Paradise Bird,  
New Guinea.  
Pt. Alberta, Prince Albert’s Paradise Bird, in North  
Australia.  
Pt. Paradisea, the Rifle Bird, in East Australia.  
Pt. Victoriae, the Victoria Rifle Bird, in N.E. Australia,  
Astrapia nigra, the Paradise Pie, in New Guinea.  
Serious aureus, the Paradise Oriole, in New Guinea  
and Salwatti.

Epimachus magnus (Uppa magna, Cin., U. superba, Lab.). Body generally black or brownish-black; tail graduated, three as long as the body (Lesson says three feet in length, French); feathers of the sides elongated, raised, curled, glittering on their edges with steel-blue, azure, and emerald green, like precious stones; the head and the belly lustrous, also with steel-blue, etc. In truth, language fails to convey just any idea of the magnificence of the species. It inhabits the coasts of New Guinea.—Indian Field;  
J. Russel Wallace; Bikmore; J. I. Arch. iv. 182;  
Crawf; Forrest, Voyage, 142; Valentyn, Ind. Arch.  
iii. 366.

BIRD PEPPER. Capsicum frutescen.

BIRD, ROBERT MERTENS, a Bengal civil  
servant; during the years 1834—1844, along with  
others, he completed the rent settlement for twenty  
to thirty years of the lands of the N.W. Provinces  
of India. It comprehended a survey of 72,000  
square miles in extent, containing a population of  
25,000,000, and cost $500,000.

BIRDS, Aves.

Murgh; Tail;  
Arab. Chiriah; Churi; HIND. H'net;  
Burm. Burung; Manuk, MALAY. Oiseau;  
F. Paks; Paksi;  
Oms.; Oridus (pl.), GE. Pariuda;  
Pers. Vegel;  
GER. Patsi; Kurvi; TAM. Tspipor; Ait;  
HEB. PTTa; Patti;  
TEL.

The birds of Eastern and Southern Asia have  
been described by many naturalists. In 1831  
a catalogue of 156 species, collected by Major  
Franklin on the banks of the Ganges and the  
Vindhan range of mountains, was published in the  
Proceedings of the Zoological Society of  
London.

In 1832 a catalogue of 226 species, collected  
by Colonel Sykes in the Bombay Presidency, was  
also published in the Proceedings of that society.  
This was undoubtedly the most valuable enumera-  
tion of the birds of India published, and con-  
tained descriptions, with many highly interesting  
observations, on the habits, food, and structure  
of many of the species.

In 1859 Dr. Jerdon published a catalogue of  
390 birds of the Peninsula of India, with brief  
notes on their habits and geographical distribu-  
tion. Subsequent to this, he issued a series of  
supplements, followed by a paper from the pen of  
Lord Arthur Hay, Marquess of Tweeddale, who,  
till his death in 1878, continued to enrich the  
literature of this branch of science. In 1881, his  
nephew, Captain Ramsay, edited a complete  
reprint of all the Marquess of Tweeddale’s ornitho-  
logical works. Mr. B. Hodgson of Nepal  
furnished a large amount of valuable information  
on the ornithology of the Himalaya; General  
Hardwicke’s labours were of great value, his  
collection being described in 1852 by J. E. Gray.  
Captain Tickell, Bengal army, also contributed  
largely to the stock of knowledge regarding the  
ornithology of Central India; and the other  
names which may be added to this list of naturalists  
are Captain J. D. Herbert, who collected in  
the Himalaya; Dr. N. Wallich, who collected in  
Nepal; Dr. M'Clelland, who added birds from  
Assam and Burma; Dr. W. Griffith, whose  
collections of birds were made in Afghanistan; Dr.  
Hugh Falconer, in N. India; and Captain (now  
General) Richard Strachey, in Kamaon and  
Ladakh. Dr. Stoliczka collected in Tibet and the  
Himalayas at elevations from 2000 to 16,000 feet,  
and notices of the birds appeared in the Ibis,  
1866- 7-8. The birds of the Tenasserim Provinces  
have been largely described by the Rev. Dr.  
Mason, and those of Ceylon by Dr. E. Kelaart,  
Edgar L. Layard, and Captain Legge. These  
were accompanied by a continued series of valuable  
articles from Mr. E. Blyth, who was constant in  
his pursuit of science. Dr. Horsfield and Mr.  
Moore’s catalogue of birds in the India House  
Museum, appeared in 1856 and 1858; and Jer-  
non’s Birds of India, printed in 1862 and 1864,  
and the reprint of 1877, have done much to  
complete our knowledge of this class of the animal  
kingdom. The comprehensive work of Allan  
Hume, C.B. and Major C. H. T. Marshall, on  
148 of the Game Birds of India, and Allan Hume’s  
list of above a thousand of the birds of India,  
have added many forms to those which previous  
writers had described. Eastwards from the Malay  
Peninsula into the Eastern Archipelago, the  
labours of Dr. T. Horsfield in Sumatra, Sir T.  
Stamford Raffles in Java, Mr. G. Finlayson, Dr.  
Helfers, Dr. Theodore Cantor, Professor Bikmore,  
and Mr. Alfred Russel Wallace, have given to  
Europe a very full knowledge of the birds of that  
extensive region.

The birds of the East Indies are scarcely less  
beautiful than numerous. Perhaps the choicest  
of them are the Himalayan pheasants, distin-  
guished for their very graceful and rich plumage,  
and the beautiful paradise birds of the Eastern  
Archipelago. The Himalayan bustard is remark-  
able for its size and rich variegated colour. The  
cardinal of the Zion at their pairing season have saca-  
cali or dancing parties amongst the larger forest trees  
with immense heads, spreading branches, and large  
but scattered leaves, giving a clear space for the  
birds to play and exhibit their plumage. One of  
the birds is nearly as large as a crow, and is of rich  
coffee-brown colour. The head and neck is of  
a pure straw yellow above, and rich metallic green  
beneath; and long plumy tufts of golden orange  
feathers spring from the sides beneath each wing,  
and when the bird is in repose, are partly  
concealed by them. At the time of its excitement,  
however, the wings are bent over its back, the  
head is bent down and stretched out, and the  
long plumages are raised up and expanded till they  
form two magnificent gold fans, striped with deep  
red at the base. When seen in this attitude, it  
really deserves its name. A dozen or twenty  
full-plumaged male birds assemble together, raise  
up their wings in a vertical position, and elevate  
their exquisite plumes, keeping them in a con-  
tinual vibration. Between whiles they fly across  
from branch to branch in great excitement, so  
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that the whole tree is filled with waving plumes in every variety of attitude and motion.

The colouring of birds is often initiative, in the tropics. Among forests which never lose their foliage, are groups whose chief colour is green, and the parrots are a most striking example. The stork-chats, the larks, the quails, the goat-suckers, and the grouse which abound in the North African and Asiatic deserts, are all tinted and mottled so as to resemble with wonderful accuracy the average colour and aspect of the soil in the district they inhabit. Birds of this family, during the breeding season, the Juvus Turnix have generally large and bright-coloured pugnacious females; and Jerdon, in his Birds of India, mentions the native report that during the breeding season the females desert their eggs and associate in flocks, while the males are employed in hatching the eggs.

Most birds moult or change their plumage once a year only, after the season of pairing or incubation; but certain families or tribes of birds have two molts, one of them immediately before pairing, and the plumage then becomes showy and gay, with tufts or plumes. Some birds in spring actually change their colour, or portions of their feathers are changed, as in the ear-tufts of the lesser florikin, the Sympocetes auritus. The male of birds is the more highly coloured, except in birds of prey, the painted snake (Klyynchea), and some species of Ortygis, the little b Zust drafts. A few of the gallinaceous birds are polygonal, and their males are very pugnacious. Nests greatly vary. Those of the weaver-bird, tailor-bird, honeysucker, and oriole are made with much art. The edible nest of the colosacia swallow is formed in caverns, of inspissated saliva; swallows, swifts, bee-eaters, and weaver-birds build in companies; certain ducks breed on cliffs or trees, and they must carry their young to the water, though this has not been observed. The Megapodiidae, gallinaceous birds (says Mr. Wallace, i. 156) found in Australia, its surrounding islands, and as far west as the Philippines and the N.W. of Borneo, have large feet and long curved claws, and most of them rake together rubbish, dead leaves, sticks, and stones, earth and rotten wood, until they form a mound often 6 feet high and 12 feet across, in the middle of which they bury their eggs, and leave them to be hatched by the sun or by fermentation. The eggs are as large as those of a swan, and of a bright red colour, and are considered a great delicacy. The natives are able to say whether eggs be in the mound, and they rob them eagerly. It is said that a number of these birds unite to make a mound and lay their eggs in it, and 40 or 50 eggs are found in one heap. The mounds are found in dense thickets. The species of the Megapodidae in Lombok is as large as a hen, and entirely of a dark hue, with brown tints. It eats fallen fruits, earth-worms, snails, and centipedes, but the flesh is white and well flavoured when properly cooked.

In Bengal, the newly-arrived European will particularly be struck with the number of birds of large size which he sees everywhere, even in the most densely-populated neighbourhoods: Flocks of vultures, huge adjutants in their season, swarms of kites in their season too, for they disappear during the rains, all three are seen soaring and circling high in air as commonly as at rest; Brahmany kites, various other birds of prey, among which four kinds of fishing eagle, including the British osprey, are not uncommon; waterfowl in profusion in all suitable localities; herons especially, of various kinds, very abundant; several sorts of kingfisher, mostly of bright hues; the common Indian roller, also a bird of great beauty, and the little bright green bee-eater (Merops viridis) conspicuous everywhere; the common crow of India, of unwonted familiarity, impudence, and matchless audacity; the different species, remarkable for their tameness; the drongo or king crow, a species of satyr-like birds, with their discordant chattering; two sorts of melodiously chirruping bulbuls; the bright yellow mango bird or black-headed oriole; the pretty pied dchyali, the only tolerably common sylvan songster worthy of notice; the brilliant, tiny honeysuckers, also with musical voices; the lively and loud golden-backed woodpecker, and two monotonously-toned species of barbet; the pleasingly-coloured rufous tree-magpie (Dendrocitta rufa); the noisy kool, remarkable for the dissimilarity of the sexes, and for parasitically laying in the nest of the crow; the crested cuckoo (Oxypholus) during the rainy season (parasitical upon the satbhl), with other eucine birds, especially the cocul or crow-phantom, another noisy and conspicuous bird wherever there is a little jungle; and last, but not least, characteristic in many regions, the harmonious cooing of several kinds of dove, soothing to the ear, pleasant to the eye; and the loud screaming of flocks of swift-flying green parrakeets, with sundry other types all strange to the new-comer; as the bright little jona, the tiny tailor-bird, and the baya or weaver-birds, with their curious penile nests, and the diminutive thick-billed munia. Of the swallows, occasionally and somewhat locally, a few of the Hirundo rustica may be seen, chiefly over water; and along the river banks the small Indian bank martin (H. Sinensis) will be seen abundantly. But the swallows are replaced by two non-migratory swifts, the common house swift (Cypelus aulnus) and the little palm swift (C. Batassiasis). The roller and the king crow habitually perch on the telegraph wire to watch for their insect prey, the former displaying his gaily-painted wings to advantage as he whisks and flutters about, regardless of the fiercest sun. The small white vulture, bird, Neophron percnopterus, the mahanah or Pharoh's chicken, is abundant, and a single pair has been known to stray to Britain. Of the smaller British land birds, the wryneck is not uncommon; and the European cuckoo will now and then turn up, more frequently in the barred plumage of immaturity; the hoopoe, too, is common, but rare. Among the hawks, the kestdel will occasionally be observed in extraordinary abundance; and harriers (Circus) are often seen beating over the open ground. But the small waders are particularly common in all suitable places, including most of those found in Britain in greater or less abundance; wonderful is the number of fishers, and vast indeed must be the consumption of their finny prey. Sundry fishing eagles, and a great bare-legged fishing owl, with various kingfishers in abundance, numerous kinds of heron in surprising numbers, pelicans, darters (plotos), pigmy cormorants, and grebes or dabchicks, besides gulls, terns.
and rarely skimmers (rynchophs), gulls, three species, the common British Xema ridibunda, and a nearly allied species, with the fine kroko-ceplalus lejthysaeus, are seen chiefly towards the mouths of the Gangetic rivers. Over the salt water lake near Calcutta has been seen the great white egret, so prized in Europe. The gull-billed tern is there one of the common birds; and the whiskered tern (Hydrochelidon Indica), and the peregrine falcon, may not infrequently be seen, well meriting the name of duck-hawk bestowed on it in North America; also great flocks of longshanks (Himantopus), wading and seeking their subsistence in the expanse of shallow water along the reed-fringed nullahs or watercourses; various rallids are swarming around.

In winter, many Indian birds assemble in large flocks. Amongst these are crows, starlings, finches, larks, parrots, a few thrushes, pigeons, rock pigeons, cranes, ducks, flamingoes, and pelicans.

The migratory birds of India are mostly residents of the colder northern countries; they come to India in September and October, and leave it again in March, April, and May. Among the grallatrices or waders, some cranes and storks, four-fifths of the ducks, and the great majority of the scolopacidae, breed in the north, and come to India in the cold season. The peregrine falcon, the true hobby, the kestrel, the British sparrow-hawk, all the Indian harriers, and the short-eared owl, are true migratory birds. Amongst the passerines, the wagtails, some of the pipits, and larks, stone-chats, several warblers and thrushes, buntings, and the shrike, hoopoe, and two starlings, are the chief groups amongst which migratory birds occur.

In Lower Bengal, kites quit Calcutta and neighbourhood during the rains, and return in the cold weather; it is supposed that they go to the north-east. The kestrel, baza, and Indian hobby are most frequent in Bengal during the rains; and in the rains the adjutant visits Calcutta, and leaves in the cold weather. The European quail is the only real migratory bird of the gallinacea; but some other quails, buntings, and rock partridges (Pteroclidiae), wander about to different localities; and the Syrphidae auritus. Buphos caronarius, some rails, terns, and gulls, also wander. These birds travel with wonderful instinct direct to their homes, returning year after year to the same spot, often to the same nest.

The great migration of birds to and from Southern India, Asia, says Mr. Hodgson, 'seems to take place across the mountains of Nepal. The wading and natatorial birds generally make a mere stage of the valley on their way to and from the vast plains of India and Tibet, the valley being too small, dry, open, and populous for their habits, especially that of the larger ones. Some, however, stay for a longer or shorter time in their vernal and autumnal migrations; and some, again, remain throughout that large portion of the year in which the climate is congenial to their habits. Of all of them, the seasons of arrival, both from the north and from the south, are marked with precision.

The grallatrices and natatorial birds begin to arrive in Nepal from the north towards the close of August, and continue arriving till the middle of September. The first to appear are the common snipe and jack snipe and rynchophs; next the scolopacidae waders (except the woodcock), next the great birds of the heron and stork and crane families, then the natatores, and lastly the woodcocks, which do not reach Nepal till November. The time of the reappearance of these birds from the south is the beginning of March, and they go on arriving till the middle of May. None of the natatores stay in Nepal beyond a week or two in autumn (when the rice fields tempt them), or beyond a few days in spring, except the teal, the widgeon, and the coot, which remain for the whole season upon some few tanks, whose sanctity precludes all molestation of them. There are cornmigrants throughout the season upon the larger rivers within the mountains, but none ever halt in the valley beyond a day or two; for so long, however, both they and pelicans may be seen occasionally on the banks just mentioned. The kars and sterna are birds which usually affect the high seas, but Mr. Hodgson had killed both the red-legged gull and a genuine pelagic tern in the valley of Nepal. But so had be fishing excursions in truth, he adds, who shall limit the wanderings of these small birds which in the ethereal expanse? Mr. Blyth tells us that many of the feathered inhabitants of the British Islands are found in Southern Asia. The community of species is most remarkable among the diurnal birds of prey, and, as might be expected, among the wading and swimming tribes. The pretty little water-wagtail, usually the first and most welcome harbinger of the coming cold weather, comes and remains whilst the cold season lasts. This bird, and the harsh chattering of a very common kind of shrike (Lanius cristatus) in Indian gardens, are the earliest intimations of the coming change of season. A snipe (Gallinago sterna), and the water-wagtail in their season, and the common sparrow at all seasons, are probably all that the European, versed in the study of ornithology, will be able to recall to mind as yielding associations of home, unless perchance he may also recollect the common kingfisher of India, which differs from the British bird only in its more diminutive size. In the sub-Himalayas, the forms of Europe and of W. and N. Asia prevail more and more towards the N.W.: Malayan forms eastward, and Chinese types, and particular sub-Himalayan genera and species, the range of which extends eastward to China. Again, on the highlands of the Peninsula of India, and still again in those of Ceylon, distinct species of the northern types occur, but no different genera. Thus the jungle-fowl of N. India is replaced by a different species (Gallus Sonneratii) in the Peninsula, and by a third (G. Stanleyi) in Ceylon, and not a few similar instances might be adduced. The grey wagtail of Britain (Calabates sulphurans) is identically the same in India and Java, and a specimen has been seen in a collection from Australia. This delicate little bird, so clean and bright in its appearance, is of very general diffusion over Southern Asia during the cold season, being indeed much commoner than in Britain. The most abundant lark on the plains of Upper India and table-land of the Peninsula is the charandol (Galerida cristata), which is also a European species, though of rare occurrence in Britain; and the song, also its mode of delivery of it in the air, are not very unlike that of the
sky-lark, although it does not soar to so lofty an altitude.

In Bombay, on the approach of the monsoon, nearly all the kites, hawks, vultures, and other carrion birds disappear from the sea-coast, while the crows begin to build their nests and hatch their young just at the season that seems most unsuitable for incubation, for the eggs are often shaken out, or the nests themselves are destroyed. The carnivorous birds, as the rains approach, withdraw themselves from a climate unsuitable to the habits of their young, betaking themselves to the comparatively dry air of the Dekhan, where they nestle and bring forth in comfort, and find food and shelter for their little ones.

In Bengal, the kites and Brahmany kite breed chiefly in January and February, and disappear during the rains. The adult adjutants make their appearance as soon as the rains set in, and, becoming in fine plumage towards the close of the rains, depart at that time to breed in the eastern portion of the Sunderbuns upon lofty trees, and along the eastern coast of the Bay of Bengal upon trees and rocks. Vultures are permanently resident; and the crows propagate chiefly in March and April, their nests being not infrequently destroyed by the fury of the nor'-westers.

Not a few migratory species are common to the polar circle and to Lower Bengal, and even further towards the equator, according to season: but the individual birds may not migrate so far north and south. The Gallope Kamschatkensis, a delicate little bird much like a nightingale, but with a brilliant ruby throat, which is to be seen in the vicinity of Calcutta during the cold season, returns early in April, with the snowfleck, in the lower Kolyma district, in northern Siberia, as we are told by Von Wrangel,—that is to say, before the last of them have left Bengal. Another and non-migratory species of the same genus (C. pectoralis), peculiar, so far as known, to the Himalaya, is enumerated in Mr. Hodgson's List of the Birds of Nepal. The hoopoe (Upupa epops), common in Southern Asia during the cold season, and on the table-lands at all seasons, is to all appearance a bird of fluttering and feeble flight, but has repeatedly been observed, during the seasons of migration, at altitudes considerably above the limits of vegetation. 'On the western side of the Lank pass, about 16,500 feet, I saw a hoopoe,' writes Major Cunningham; and at Momy (14,000) to 15,000 feet elevation), under the lofty little pass in northern Sikkim, Dr. Joseph D. Hooker observed, in the month of September, 'birds flock to the grass about Momay; larks, finches, warblers, abundance of sparrows (feeding on the yak droppings), with occasionally the hoopoe; waders, cormorants, and wild ducks, were sometimes seen in the streams, but most of these were migrating south.' 'An enormous quantity of waterfowl,' remarks Dr. Hooker, 'breed in Thibet, including many Indian species that migrate no further north. The natives collect their eggs for the markets of Lintzi, Gianchhi, and Lhasa, along the banks of the Yarun river, Ramchoo, and Yarbru and Dacchen lakes.' Amongst other birds, the Sarus, or great crane of India (Grus antiquus) (see Turner's Tibet, p. 212), repairs to these enormous elevations to breed. The Sarus also breeds south of the Himalaya; and specimens too young to fly are occasionally brought for sale even to Calcutta. Turner also says the Lake Ramchoo is frequented by great abundance of waterfowl, wild geese, ducks, teal, and storks, which, on the approach of winter, take their flight to milder regions. Prodigious numbers of the Sarus, the largest species of the crane kind, are seen there at certain seasons of the year, and any quantity of eggs may then be collected, found deposited near the banks. The European crane (Grus cinerea), also a common Indian bird, says Major Lloyd, as observed by himself in Scandinavia, usually breeds in extended morasses, far away from the haunts of man. It makes its nest, consisting of stalks of plants and the like, on a cushion of grass and dry elephant grass among willows and other bushes. The female lays two eggs. Major Cunningham, also, in his Ladhak, etc., remarks 'that he shot the wild goose on the Thoghi, Chamno, and Chromirri lake at 15,000 feet; and he and Col. Bates shot three teals on the Suraj Dal, a small lake at the head of the Bhagha river, at an elevation of upwards of 16,000 feet.'

Many highly approximate races (considered, therefore, as species) maintain their distinctness, even in the same region and vicinity, as Falco peregrinus and F. peregrinator, Hypothorctis subbuteo and H. severus, Circus cyaneus and C. Swainsonii in India. Coracias Indica of all India meets, in the Panjab, etc., the European C. garrula; but in Assam, Sylhet, Tipperah, and, more rarely, Lower Bengal, it coexists with the C. affinis, specimens of which from the Burmese countries are ever true to their proper places. C. indicus and C. Indicus are from Upper and South India, but there are several curious and colorable graduation or transition, from one type of colouring to the other, in examples from the territories where the two races meet; so also with the Cricopus phoenicopterus of Upper India and the Cr. chlorogaster of S. India and Ceylon, which blend in Lower Bengal; and Gallophasis albo-cristatus of the W. Himalaya and G. melanotus of Sikkim, which produce an intermediate race in Nepal; and G. Civieri of Assam and Sylhet, and G. lineatus of Burma, which interbreed in Arakan, etc., so that every possible transition from one to the other can be traced. If inhabiting widely-separated regions, the (assumed) distinctness of such races would be at once granted, as with Phasianus colchicus and the Chinese Ph. torquatus, which readily intermix and blend, wherever the latter has been introduced in Europe. Such races as the crossbills, the Bauri and Sashin falcons of Asia, those British Phylloscopus trochilus and Ph. rufus, and the different European sparrows, maintain themselves persistently distinct; and this while the common sparrow of India would probably blend with the British sparrow (though considered distinct by some), if an opportunity should occur of its doing so.

The following British birds are given in the Calcutta Review (March 1857) as common to Great Britain and Southern Asia:

- Gyps fulvus (Vultur fulvus), griffin vulture.
- Neophron percnopterus, Pharaoh's chickens.
- Gypaetus, the lammergeyer.
- Aquila chrysaetos, golden eagle.
- A. moli, imperial eagle. Temm.
- Aquila, spotted eagle.
- Eulophotes fasciatus.
- Hieractus pennatus.
- Pandion haliaetus, osprey.
Falcro luscinia (Falcro gryluleus), kyr falcon.
F. macrorh. Schdl. (F. lanarius, Tenu.).
F. lanarius, Schlegel.
F. peregrinus, Peregrine falcon.
Hydropothirchus subnuptius, the hobby.
Erythropsus vespertinus, red-footed falcon.
E. amplervis (Falcro tahitiis, Vouiial). Timunneus alaudarius, the kestrel.
Astar palmarumius, goshawk.
Acipiter nius, sparrow-hawk.
Buteo vulgaris, common buzzard.
Pernis apivora, honey buzzard.
Cirrus arugosius, marsh harrier.
O. cyanus, hen harrier.
O. cineracea (O. Montagii).
Circaetus Gallicus.
Bubo maximus, eagle owl.
Scops Aldrovandi, Scops-eared owl.
Asio otus (Otus vulgaris), long-eared owl.
A. brachyotus (Otus brachyotus), short-eared owl.
Surninimus aluco (S. striulidum), tawny owl.
Aeneus palustris (Nocuta pascernina), little owl.
Turdus viscivorus, missel thrush.
Oocrocina Whitei (Turdus Whitei).
Turdus pilaris, fieldfare.
T. iliacus, redwing.
T. merula, blackbird.
T. (or merula) simillima.
Gyanecola Wolfi (Phoenicula suecici), blue-throated warbler.
Ruticollis houeii (Phoenicula ruticollis), redstart.
Pratincola rubricula (Saxicola rubricula), stone-chat.
P. rubrica (Saxicola rubrica), whin-chat.
Saxicola canathre, wheatear.
Locustella rayi (Saliarella locustella), grasshopper warbler.
Acrocephalus arundinaceus (Saliaria turdoides), thrush-like warbler.
Sylvia atricapilla (Currucu atricapilla), blackcap warbler.
S. rubecula (Currucu cinerea), common white-throat.
S. curruca (Currucu sylvicula), lesser white-throat.
S. orphea (Crrucu orphea), Orpheus warbler.
Phylloscopus trochilis, willow warbler.
Regulus cristatus, golden-crowned regulus.
Reguloides prorregulus (Regulus modestus), Parus major, great tit.
P. corvulus, blue tit.
P. ater, cole tit.
Orites caudatus (Parus caudatus), long-tailed tit.
Calocastes sulphureus (Motacilla boxarta), grey wagtail.
Pipastes trivialis (Anthus arbores), tree pipit.
Anthus pratensis, meadow pipit.
A. obtusum (A. petrosus), rock pipit.
Corydalla Richardii, Richard’s pipit.
Corydalla campestris.
Galerida cristata (Alauda cristata), crested lark.
Calendrella brachydactyla (Alauda brachydactyla), Cettiaidae desertorum.
Ammomanes Lustica.
Emberiza miliaria, common bunting.
E. citrinella, yellow bunting.
E. cia.
E. fusca of N. Asia.
E. melanocephala of S. Europe.
Fringilla montifringilla, mountain finch.
Passer montanus, tree sparrow.
P. domesticus, house sparrow.
P. vulgaris (vel Hispaniolensis).
Corvus corax vulgaris, hawfinch, qu. C. Japonicus, Schlegel?
Chrysospirita spinus (Cardueli spinus).
Linota cannabina, common linnet.
L. canescens, mealy redpoll.
L. montium, mountain linnet.
Carpodacus erythrinus.
Loxia curvirostra, common crossbill.
L. bifasciata, European white-winged crossbill.
Sturnus vulgaris, common starling.
Pastor rossius, rose-coloured pastor.
Fregilus graculas, chough.
Corvus corax, raven.
C. corone, carrion crow.
C. cornix, hooded crow.
BIRDS.
C. frugilegus, rook.
C. monedula, jackdaw.
Pica cauta., magpie.
Yunx torquilla, wryneck.
Upupa epops, hoopoe.
Sitta Syrus, rock nuthatch.
Trinchromus nurus, wall creeper.
Curruca communis, common cuckoo.
Coracias garrulus, roller.
Mergus apicaster, bee eater.
Hirundo rustica, swallow.
H. urtica, martin.
H. pyrrhopus, sand martin.
H. ruficollis.
Cypsiolus apus, common swift.
C. melba (C. hypoleucus), Alpine swift.
Aegithalos caudicunculatus, large spiny-tailed swift.
Caprimulgus Europaeus, night jar.
Columba livia, rock dove.
Starna cinerea (St eridinae cinerea), common partridge.
Coturnix vulgaris, common quail.
Tetrao urogallus (Otos tetax), little bustard.
Otus montifringilla, Montifringilla’s bustard.
Eidecnum crupians, great plover.
Charadrius hiaticula, ringed plover.
Ch. Cantiana, Kentish plover.
Ch. hydropicus (Ch. minor), little ringed plover.
Ch. pyrrholophus.
Calidris arenaria, sanderling.
Spatula lobata (Sp. lirata), grey plover.
Vanellus cinereus, lapwing.
Steropus interpres, turnstone.
Hainmatopus ostralegus, oyster-catcher.
Grus cincerea, common crane.
Ardea cinerea, common heron.
Ardea purpurea, common heron.
Hirundus alba (Ardea alba), great white heron.
H. garzetta (Ardoa garzetta), little egret.
H. ibis (Ardea ibis), black-headed heron.
Ardeola munita (Botanrus munitus), little bittern.
Botaurus stellaris, common bittern.
Nycticorax Gardeni, night heron.
Ciconia alba, white stork.
C. nigra, black stork.
Platalea leucorodia, white spoonbill.
Falcinellus igneus (Falcinellus igneus), glossy ibis.
Numenius arquata, common curlew.
N. phaephus, whimbrel.
Totonus fusca, spotted redshank.
T. vulgaris, common redshank.
Actitis oocropris (Totonus oocropris), green sandpiper.
A. glareola (Totonus glareola), wood sandpiper.
A. hypoleucus (Totonus hypoleucus), common sandpiper.
Totonus glottis, greenshank.
Recursirostra avosetta, avocet.
Himantopus budus (H. melanoterus), black-winged stilt.
Lagopus caesccephala (L. melanura), black-tailed godwit.
L. rufa, bar-tailed godwit.
Philomachus pugnas (Machetes pugnas), ruff.
Scolopax rusticola, woodcock.
Gallinago aboutalis (Scolopax gallasus), common snipe.
G. gallinula (Scolopax gallasus), jack snipe.
Tringa subarquata, curlew sandpiper.
T. eurystomus, knot.
T. erythropus, broad-billed sandpiper.
T. minutus, little stint.
T. Temminkii, Temmink’s stint.
T. Alpina (Tringa variabilis), dunlin.
Phalaropus fulicarius, grey phalarope.
Phalaropus hyperboreus (Phalaropus hyperboreus), red-necked phalarope.
Crex pratensis, lapland.
Porzana parasus (Crex porzana), spotted crake.
R. pusilla, (Crex pusilla), little crake.
P. Baillonii (Crex Baillonii).
Gallinula chloropus, moor-hen.
Fulica atra, common coot.
Anser cristatus (Anser ferus), grey-geese.
A. brachyrhynchus, pink-footed goose.
BIRDS.

Bernilda rufo collaris (Anser rufo collaris), red-breasted goose.

Cygnus muscius (Cygnus ferrugineus), Hooper swan.

Casmerodius rutila (Tadorna rutila), redsheldrake.

Tadorna vulpansier, common sheldrake.

Spatula clypeata (Anas clypeata), shoveller.

Anas steroa, gadwall.

A. netus, pintail duck.

A. boschas, wild duck.

A. querquedula, gargany.

A. creeca, teal.

A. penelope.

Fuliga ferruginea, pockhar.

F. gy广西, ferruginous duck.

F. marila, scap duck.

F. cristata, tufted duck.

Clangula galmung (Fulica galmung), golden eye.

Mergus albellus (Mergus abellus), sournew.

Mergus merganser, goosander.

Podiceps cristatus, great-crested grebe.

P. phalacrocorax, common cormorant.

Syrichidon Capis (Sterna Capis), Caspian tern.

Sterna paradisae (Sterna Dougallii), roseate tern.

S. hirundo, common tern.

Hydrochelidon Indica (Sterna leucoparica), whiskered tern.

Gelochelidon anglica (Sterna anglica), gull-billed tern.

Sterna minuta (Sterna minuta), lesser tern.

Aneus stolidus (Sterna stolidus), noddy tern.

Onychorhynchus fuliginosus (Sterna fuliginosa), sooty tern.

Xema ridibunda (Larus ridibundus), black-headed gull.

Larus fuscescens, lesser black-backed gull.

Procellaria hositata, capped petrel.

Puffinus obscurus, dusky petrel.

Those birds which are common to India and the polar circle, appertain for the most part to the wading and webfooted orders; and a few of them are of very general distribution over the world, as especially the common turnstone (Strepsis interpres), which seems to be found on every sea-coast. The Lobipes hyperboreus is a little arctic bird, of rare occurrence even in the north of Scotland, Orkney, and Shetland, but a specimen was procured near Madras; and the nearly related Phalaropus fulicarius was obtained in the Calcutta provision bazaar so late in the year as May 11, 1846.

Mr. Blyth remarks that various instances occur of closely-affined Indian and European birds, which every ornithologist would at once pronounce to be distinct, e.g. Oriolus galbula and O. kundoo; Troglydtes Europeus and T. sub-Himalayanus; Certhia familiaris and C. Himalayana, etc. And not infrequently the exact Europe species inhabits India, in addition to another, which would otherwise be regarded as its counterpart or representative, or, according to the views of some naturalists, a mere local or climatal variety of the same species. Falco peregrinus is common in India, together with F. peregrinator, which would otherwise be regarded as its Indian counterpart; Hypothriochis subbuteo found together with H. severus; Hirundo Sinensis (the ordinary Indian sand martin), together with H. riparia; Caculus canorus (the European cuckoo), as also several affined species, and so on. In some cases, a European species may have two or more representatives in India, or vice versa. Thus Nyctornia carvconectes of the pine forests of Europe and Siberia is replaced by N. hemisipla in those of the Himalaya generally, and by H. multicolata about Kashmir; Parus major by P. monticola and P. cinerus, if not also P. nuchalis (in addition to cinereus), in S. India; Picus major by P. Himalayanus; Accipiter alpinus by A. nipalensis. While, on the other hand, Lanius lektor in India is represented both by L. exilicorculor and L. meridionalis in Europe; Sitta cinammonensis by S. Europaea and S. cincasa, etc. Some ornithologists regard the Passer domesticus, P. italiæ (vel Cisalpinus), and P. saltcarius (vel Hispaniolensis), of Europe, as being local varieties merely of the same, yet they hold true to distinctive differences of colouring wheresoever found; and examples of the last-named race from Afghanistan and N.W. of India differ in no appreciable respect from Algerian specimens with which they have been compared; moreover, this race is of far more gregarious habits even than Passer domesticus,—a fact noticed of it alike in N. Africa and in Kohat. The Tibetan raven is considered as a peculiar species by Mr. Hodgson, an opinion to which the Prince of Cuduo seems to incline. It may be presumed to inhabit the lofty mountains of Bhutan to the north; but the smaller crow of Southern Asia is the C. splendidus, while the common black crow of all India, C. culminatus, would seem to stand here alike for the raven, the carrion crow, and the rook. The true rook (Corvus frugilegus), however, is known to inhabit or visit the Peshawar valley, Afghanistan, and Kashmir. The rock of China and Japan is considered a distinct species, C. pistorinarum of Gould, and the jackdaw (C. monedula) is in those countries; while the true northern raven, Corvus corax, is met with not only there, but also over a great portion of the Panjabs as the raven, but the northern raven would make a meal of one and not feel much the worse for it.

Dr. Francis Buchanan Hamilton, remarking upon a falconry observed by him in the Shahabad district, mentions that he saw, in several days' hawking, a large bird of prey, named jumach, attack a very strong falcon as it was hovering over a bush into which it had driven a partridge. The moment the falcon spied the jumach it gave a scream, and flew off with the utmost velocity, while the jumach equally pursued. They were instantly followed by the whole party, foot, horse, and elephants, perhaps 200 persons, shouting and firing with all their might; and the falcon was saved, but not without severe wounds, the jumach having struck her to the ground, but a horseman came up in time to prevent her from being devoured.' The wokhab, Aquila fulvescens, is a small eagle, very abundant in the plains of Upper India, the Dehkan, etc. The Honourable (now Sir) Walter Elliot remarks that 'the wokhab is very troublesome in hawking after the sun becomes hot, mistakes the jesses for some kind of prey, and pouncing on the falcon to seize it. He had once or twice nearly lost shahins (Falco peregrinator) in consequence, they flying to great distances for fear of the wokhab, i.e. the jumach. The principal species employed in Indian falconry are identical with those of Europe, namely the bari of India, which is the Peregrine falcon of the west, and the baz of India, which is the goshawk or gentil falcon of Britain. In a curious Persian treatise on the subject, by the head falconer of the Mogul emperor
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Akbar, the various species used are enumerated, and may be recognised with precision; among them is the shahar, which is clearly the gyr falcon of the north, represented as extremely rare and valuable, taken perhaps once or twice only in a century, and then generally in the Punjab. The shahin (Falco peregrinator) does not inhabit Europe. With five or six exceptions only, the whole of the European diurnal birds of prey are met with in India, many of them being much commoner in India; and they are associated with numerous other species unknown in Europe. The sport of falconry is widely diffused over Asia, even to the Malayas. The bastard "quarry" hawked by Dr. Layard's Bedouin companions on the great plain of Mesopotamia, is the houbara (Houbara Macqueenii) of Sinai and Afghanistan, being a different species from that of Spain and North Africa (H. undulata); the former has unexpectedly been found, of late years, in England and Belgium, if not also in Denmark.

The great spiny-tailed swift of the Himalaya (Acanthylis nudipes of Hodgson) was obtained, a few seasons back, in England. Mr. Gould identifies this British-killed bird with his Ac. caudacta of Australia, but it appears identical with the Himalayan species; upon comparing Himalayan specimens with Mr. Gould's plate, no difference can be detected. The great alpine swift (Cypselus melba) is common to the Himalaya, the Neighgherries, and high mountains of Ceylon, but the great Acanthylis of the Himalaya has never been observed in S. India, and is replaced in the Neighgherries, Ceylon, and also across the Bay of Bengal in Penang, etc., by Ac. gigantea.

Gold and silver pheasants are inhabitants of China; but the golden pheasant, according to M. Temminck, inhabit not only China and Japan, but the northern parts of Greece, as also Georgia and the Caucasus; and it has been met with even in the province of Orenbourg. M. Degland informs us that M. Gamba, French consul at Tiflis, met with this gorgeous bird in numerous flocks on the spurs of the Caucasus, which extend towards the Caspian Sea, and that now it has gone wild and multiplied in some of the forests of Germany.

In Southern Asia, the birds familiarly known as bulbul must not be confounded with the Persian bulbul, which is a species of true nightingale (Luscinia), a genus very closely related to some of the small thrushes of America. There is no true nightingale wild in India; but the shama, Cerocichra taxicinca) macourus, un doubtedly the finest song-bird of this part of the world, is not infrequently designated the Indian nightingale. It is common to India and the Malay countries; and there is a second species (C. Luzoniensis) in the Philippines, and a third (C. erythroterus) in Africa. Oroces cinclorhyclus is also termed shama in the Madras Presidency. The esteemed Indian songster is the mere tricolor of longue queue of Levallant (Oiseaux d'Afrique, pl. 114). The bhimraj (Eolodus paradisiaca) is popularly denominated the mocking-bird by Europeans.

The song of birds is chiefly observed amongst the meruleis, saxicolinae, sylviae, larks, and some finches. In India there are few songsters in the groves, but some of the larks are kept in cages. Amongst Mahomendans in British India, the lark is usually their cage-bird, but partridges and quails are also domesticated. Quails, bulbuls, and cocks are trained to fight, falcons and hawks to hunt on the wing.

The Chinese are passionately fond of singing birds; the wealthy will pay exceedingly high prices for those whose notes are fine, and are as great connoisseurs in the notes of the lark, as Europeans are in those of the bullfinch. A bird is as generally the companion of a Mandarin, as a dog is of an Englishman. These birds have a silk cord attached to their legs, which is entwined around the fingers of the owner. In China it is the Acrideroes cristatus, the Shantung lark. It has great facility in learning sounds, and will bark, mew, crow, cough, and sneeze, sometimes talk; and a single bird will fetch £6. The aeridothres will imitate the human voice accurately. In China, a starling is often domesticated; it is lively, good-natured, and easily tamed. They also tame the fork-tailed parus (Leothrix luteus of Scopoli). It is in form and habit like the robin of Britain; is pretty olive green, black forked tail, with wing primaries bright yellow and red. It turns summersaults on its perch. They have a short, loud song. Canaries are sold in many shops of Japan. The grackle, Entabhus religiosa, called the myna, is largely domesticated. The partridge, the bulbul shrike, are also largely domesticated. The hoopoe is to be seen occasionally. In China the cormorant and the pelican are trained to fish.

Many races have had nightingale birds. The Zend has the coroha; the Persians, the roe and ai-mugh; the Arabs, the Arabs, the Turks, the kerek; the phonix of the Egyptians and Greeks; the ygyrasal of the Edda; the griffin birds of the age of chivalry; the kirni of the Japanese; and the garuda of the modern Hindus. A Hindu legend relates that two lovers were transformed into Brahmany ducks, the Casarea rutula, Pallus, and camed to live at night apart on opposite banks of a river, and all night long each in its turn asks its mate if it shall come across; but the question is always met with a negative. "Chakwi, shall I come?"—"No, Chakwa." "Chakwa, shall I come?"—"No, Chakwi."

Sailors have familiar names for sea birds; amongst others, the Booby, the Nelly, the Noddy, the Reef Bird, the Frigate Bird, the Tropic Bird, the Cape Pigeon, the Mother Cary's Chicken, the Mutton Bird (Estrelata Lessonii), the Whala Bird (Põro� desolatœ). Cape Hen is the petrel, also called Black Night-Hawk; and the Mackerel Bird, King and Queen of "kiker" of sailors, is the tern, Sterna virgata.

Of lant birds with peculiar names may be mentioned the Mocking-bird, the Laughing Jackass, the Slat-bower bird (Pilionornychos holsiticus); in India, the Coppersmith, the satbhai.

ORDER, RAPTORS, Birds of Prey.


Vultur monachus, Linn., great brown vulture.
V. calvus, Scop., Hunter, black vulture.
Gyps fulvus, Gould., large tawny vulture.
G. indicus, Scop., long-billed brown vulture.
G. Bengalensis, Gould., common brown vulture.

Sub-Fam. Neophroninæ, Scavengers.

Neophron percnopterus, Linn.
BIRDS.

**Sub-Fam. Gypaetinae, Bon.**

*Gypaetus barbatus*, Linn. White-eyed marsh dwarf falcon.

*Balaenoptera*. Bone falcon. True Falcons.

*Falco* peregrinus, Gmel., peregrine falcon.

*F. peregrinator*, Storer, the shahin.

*F. tinnunculus*, Schuh., the saker or cherrug.

*F. jugger*, Grey, the leggar.

*F. batis*, Gurney, red-headed lanner.

*Hypothorchiu subbuteo*, L., the hobby.

*H. severus*, Hoffr., Indian hobby.

*H. coslon*, Gm., the merlin.

*H. chionoecera*, Davd., the Turunti merlin.

*Timunculus alaudarius*, Bres., kestrel.

*Erythropus canchurch*, Linn., lesser kestrel.

*E. macrurus*, Linn., red-legged falcon.

*Hierax* encolomus, Hodg., plumey falcon.

*H. melanocephalus*, Bl., Assam.

*H. coerulescens*, Java, Malayana.

*H. sericeus*, China.

**Sub-Fam. Accipitrinae, Hawks.**

*Sub-genus*, Lophopha. Lophophasia trivirgata, Hume, crested goshawk.

*Micronisus badius*, Gm., shikra.

*Accipiter nisus*, Linn., sparrow-hawk.

*Virgatus* temm., beaza sparrow-hawk.

**Sub-Fam. Aquilinae, Eagles.**

*a*. True Eagles.

*Aquilla chrysaetos*, Linn., golden eagle.

*F. pesta*, C tymptilus, imperial eagle.

*F. novaia, Gm., sparrow eagle.

*a*. falvescens, Gurney, tawny eagle, the wokhla.

*a*. hastata, Linn., Less., long-legged eagle.

*a*. pennata, Gm., dwarf eagle.

*Neops* Malakensis, Temm., black eagle.

**Eagle**, Hawkeagles.

*Eulomatocetus eobellii, Hume*, crested eagle.

*Limnaetus nivens*, Temm., changeable hawk eagle.

*F. cristatellus*, Temm., crested hawk eagle.

*a*. nipalensis, Hodg., spotted hawk eagle.

*F. kienieri*, De Sy., rufous-bellied hawk eagle.

*Cracetus Galliaceus*, Gmel., serpent eagle.

*Spinilnus chelae*, Davd., crested serpent eagle.

*s*. bache, Davd., Java.

*s*. spilogaster, Bl., Ceylon.

*H. holosilpis*, Philippine.

*E*. Fishing Eagles.

*Pandion haliaetus*, Linn., osprey.

*Polioptila ichthyopterus*, Horst., white-tailed sea eagle.

*Haliaetus liviventer*, Vieill., ring-tailed sea eagle.

*A*. leucaogaster, Gm., grey-backed sea eagle.

**Sub-Fam. Buteoninae, Buzzards.**

*Buteo vulgaris*, Recht., the buzzard.

*B. desertorum*, Hume.

*B. caniceps*, Hodg., long-legged buzzard.

*B. aquilinus*, Hodg., upland buzzard.

*B. plumipes*, Hodg., harrier buzzard.

*B. pygmonas*, Blu., Tannenboom.

*Polioptila teesa, Freudl., white-eyed buzzard.

*Arcihuteau hemiptilous, Bligh*, brown eagle buzzard.

**Harriers.**

*Circa gyanus*, Linn., hawk harrier.

*C. Swainsonii*, A. Smith., pale harrier.

*C. cinereus*, Montague, Montague's harrier.

*C. melanoleucus*, Gm., pied harrier.

*C. aeruginus*, Linn., marsh harrier.

**Sub-Fam. Milvine, Kites.**

*Haliastur Indus*, Bodd., palm-court-backed, Brahmany kite.

*Mivis gouldii*, Sykes, Parish kite.

*M. ater* of Europe.

*M. melanoctis* of China.

*Pernis cristatus*, Gmel., crested honey buzzard.

*Baza lobochata, Cre*, crested black kite.

*Elanus melanopterus*, Davd., black-winged kite.

**Fam. Strigidae, Owls.**

Sub-Fam. Striginae, Sreech Owls. Strix javanicus, De Wurdeur, sreech owl.

SUB. cantilura, Tickell, grass owl.

*Indica*, Hume.

*Phodilus bidiaus*, Horst., bay sreech owl.

**Sub-Fam. Striginae, Hooting Owls.**

*Sub-genus*, Bulae. Strigina Indranae, Sykes, wood owl.

*Simsonia*, Hodg., Nepal wood owl.

*S. Sinense, Lath., mottled wood owl.

*S. nivilium*, Hodg., Himalayan wood owl.

*Bulae ocellata*, Hume.

**Sub-Fam. Asioinae, Eared Owls.**

*Otus vulgaris*, Fena., long-eared owl.

*O. brachyrhynchos*, Short-eared owl.

**Sub-Fam. Buboninae, Horned, Eagle, and Sreech Owls.**

*Urus Bengalensis*, Franklin., rock horned owl.

*U. coromanda*, Lath., dusky horned owl.

*Hodgilis*, Hodg., forest eagle owl.

*Keuppia*, Ceylonensis, Gm., brown fish owl.

*F. flavipes*, Hodg., tawny fish owl.

*Euphilotes pennatus*, Hodg., Indian Sreech owl.

*E. lettia*, Hume.

*E. lempiti, Horst., large Indian Sreech owl.

*E. bakkamsena*, Hume.

*E. griseus*, Hume.

*Screech rufescens*, Horst., Malayana.

**Sub-Fam. Surnininae, Karp.**

*Athena brama*, Temm., spotted owl.

*A. radiata*, Tickell, jungle owl.

*A. Malabarica*, Bligh, Malabar owl.

*A. cuculoides*, Vigna., large-bared owl.

*A. Persicus*, Hume.

*Glaucidium Brodiei*, Burton, pigmy owl.

*Ninox splendidula*, Recht., brown hawk owl.

**ORDER. INSESSORES, Vigors, Perching Birds.**

**TRIBE. FISIESTRIDE.**


*Hirundo rustica*, Linn., common swallow.

*H. tyttleri*, Hume.

*H. dominica*, Jervon, Neighgerry house swallow.

*H. rufula*, Gmel., Java.

*H. alifera*, Stephens, wire-tailed swallow.

*H. daurica*, Linn., red-rumped swallow.

*H. fluvicola*, Jervon, Indian cliff swallow.

*b*. Sand Martins.

*Ctxyle riparia*, Linn., European sand martin.

*Sub-sec. Hodgs., Hodgs., dusky martin.

*C. Sinesis*, Gray, Indian bank martin.

*c*. Craig Martin.

*C. concolor*, Sykes, dusky creag martin.

*Cupestris*, Sops., mountain creag martin.

*Sub-Fam. Cynips, Swifts.*

*Acauthus sylviatus*, Tickell, white-rumped spine tail.

*a*. gigantea, Temm., brown-necked spine tail.

*a*. caudatura, Lath., white-necked spine tail.

*Gyps melba*, Linn., Alpine swift.

*Apus, Linn., European swift.

*Affinis*, Gray, Indian swift.

*Leuconyx*, Bligh, white-clawed swift.

*Chastantasia*, Gray, palm-clawed swift.

*Colocella nigida*, Latham, edible nest swiftlet.

*l. linchi* (C. fusiphaga), Nicobars to Java.

*Dendrochelidon coronata*, Tickell, crested swift.

*D. blecho*, Malehiana.

*D. sumatra*, Sumatra.

*D. mystaceus*, N. Guinea; and

*Wallacii*, Celebes.


*Batrachostomus moniliger*, Bligh, frog-mouth.

*Otohippro Loddugioni, Gray, frog-mouth.*

*Sub-Fam. Caprimulginae, Night Jars.*

*Caprimulgus Indicus*, Lath., jungle night jar.

*C. Kelaartii*, Bligh, Neighgerry jungle night jar.

*C. albonotatus*, Tickell, Bengal jungle night jar.

*C. macronotus*, Horst., Malay jungle night jar.

*C. stripenis*, Jervon, Ghat jungle night jar.

*C. Asiaticus*, Latham, Indian jungle night jar.

*C. Mahatranensis*, Sykes, Sykes' jungle night jar.

*C. monticolus*, Franklin, Franklin's jungle night jar.

*C. stictosus*, Swinhoe, of China.
HIBERS.

**Fam. Trogonidae, Trogons.**

_Harpactes fasciatus, Gym., Malabar trogon._
_H. Hodgsoni, Gould, red-headed trogon._

**Fam. Meropidae, Bee-eaters.**

_Merops viridis, Linn., Indian bee-eater._
_M. philippensis, Linn., blue-tailed bee-eater._
_M. quinctcolor, Viell., chestnut-headed bee-eater._
_M. apiaster, Linn., European bee-eater._
_M. egyptius, Forsk._
_M. badius of Malacca._
_Nyctornis Athertoni, Jard., blue-necked bee-eater._
_N. amictus of Malaya._

**Fam. Coraciidae, Rollers.**

_Coracias Indica, Linn., Indian roller._
_C. affinis, M'Clell., Business roller._
_C. arrulus, Linn., European roller._
_Eurylaius orientalis, Linn., broad-billed roller._
_E. gularis, V., N. Guinea._

**Fam. Halcyoniidae, Kingfishers.**

_Sub-Fam. Halcyoninae._

_a. Enymerosa._

_Halcyon leucocephalus, Gym., brown-headed kingfisher._
_H. amauropterus, Pearon, brown-winged kingfisher._
_b. Caneropha._

_H. fusco, Bodd., white-breasted kingfisher._
_H. atricapillus, Gym., black-capped kingfisher._
_c. Calinex._

_H. Coromandelianus, Sc., ruddy kingfisher._
_H. myersis, Hum._
_Todiramphus collaris, Sc., white-collared kingfisher._
_Ceyx tristis, Pallas, three-toed kingfisher._
_C. rubidior, Strickland, Malaya._
_C. luzoniensis, the most beautiful kingfisher._

_Sub-Fam. Alcedininae._

_Aledeo Bengalensis, Gym., Indian kingfisher._
_A. euryzona, Temm., great Indian kingfisher._
_A. Menzington, Tenasserim to Java._
_A. Beryllina, Java._
_A. Moluccensis, Moluccas._
_Ceryle rudis, Linnaeus, pie kingfisher._
_C. guttata, Vijora, mottled kingfisher._
_C. lugubris, Sek., of Japan._

**Fam. Eurylaimidae, Sw., Broadbills.**

_Psarisomus Dalhousie, Jameson, yellow-throated broadbill._
_Eurilaimus Javanicus, Malaya._
_E. ochromelas, Malaya._
_Corydon Sumatraeus, Burma._
_Cymbirhynchus macrorhynchus, Burma._
_C. affinis, Arakan._
_Peltops Blainvillii, N. Guinea._
_Calyptomena viridula, Malacca, Archipelago._

**Fam. Bucerotidae, Hornbills.**

_Homnrias bisчисis, Linnaeus, great hornbill._
_Hydrcissa coronata, Bodd., Malabar hornbill._
_H. albirostris, Shaw, Bengal hornbill._
_H. affinis, Hutton, Dehra Doon hornbill._
_H. convexa, Temm., of Malaya._
_H. macrocerus, Malaya._
_M. nigrostris, Malaya, Java._
_M. nigrostris, Malaya, Java._
-Menicerou bischis, Sc., common hornbill._
_Tockus singhalensis, Shaw, jungle grey hornbill._
_Aceros Nipalensis, Hodgson, rufous-necked hornbill._
_Rhinoplax scutatus, Malaya Peninsula._
_Lhytiacerus ruficolli, Tem., Burma, Malacca._
_L. subrubicolli, Blyth, Burma, Malacca._
_R. plicatus, Lath., Burma, Malacca._
_Berenicornus Tickelli, Blyth._

**THIE, SCANSORES, Climbers.**

_Pam. Psittacidae, Parrots. Sub-Fam. Psilorninae, Parrakeets._
_Psillornia Alexandri, Linnaeus, Alexandra parakeet._
_P. torquatus, Bodd., rose-winged parakeet._
_P. rosae, Bodd., rose-headed parakeet._
_P. schisticeps, Hodgson, slate-headed parakeet._
_P. columboideus, Vijora, blue-winged parakeet._
_P. javanicus, Oseeck, red-breasted parakeet._
_P. chilhraphon, Leviathan, Ceylon parakeet._
_P. caniceps, Blyth, Nickars, Penang._
_P. erythropygus, Blyth, Andamans._
_P. longicauda, Sumatra, Malay Peninsula._

**Sub-Fam. Loricinae, Lories.**

_Loriculus vernalis, Sperling, Indian loriette._
_L. caligatus, Malay Peninsula._
_L. asiaticus, Ceylon._
_Psittinus Madacasseris, Malay Peninsula._

_The little lories inhabit the Moluccas and N. Guinea._

_The cockatoos consist of—_

(1) _White cockatoos, with large crest, from Moluccas._
(2) _Black cockatoos of Australia, forming the created genera Microglossum and Calyptorhynchus._

_The Nesterines have a greatly prolonged upper mandible._
The Pitticacines are found in both continents, and in the E. Archipelago. The macaws have one large-sized group, viz. true Macaws, the other Conurs, smaller._

**Fam. Picidae, Woodpeckers. Sub-Fam. Picinae.**

_Picus Himalayanus, J. and S., Himal. pied woodpecker._
_P. majorculus, Hodgson, Darjiling black woodpecker._
_P. caphtharius, Hodgson, lesser black woodpecker._
_P. nasicus, Viell., Indian spotted woodpecker._
_P. Seindianus, Goudil, Sind pied woodpecker._
_P. brevifrons, Viell., brown-fronted woodpecker._
_P. Mahrattensis, Latham, yellow-fronted woodpecker._
_P. Blanfordi, Blyth, Burma woodpecker._
_P. atratus, Blyth, Burma._
_P. Andamanensis, Blyth._
_P. analis, Temminck, Java._
_P. cabanisi, Malth., China._
_P. pectoralis, Blyth._

_Hypopias hyperythrus, Vijora, rufous-bellied woodpecker._
_Yungipicus rubricatus, Blyth, Darjiling pigmy woodpecker._
_Y. pygmaeus, Vijora, Himalayan pigmy woodpecker._
_Y. Hardwickii, Jerd., southern pigmy woodpecker._
_Y. Moluccensis, Java, Moluccas._
_Y. canaipillus, Bl., Burma._
_Y. gymnocephalum, Bl., Ceylon._
_Y. scintilla, Nett., Himalayas._
_Y. maculatus, Philippinos._
_Y. zizuki, Japan._

**Sub-Fam. Campephilinae.**

_Hemicircus enneus, Less, heart-spotted woodpecker._
_H. concretus, Malay Peninsula._
_Chrysochoplaeus sulphureus, Hodgson, golden-backed woodpecker._
_C. Goensis, Gym., black-backed woodpecker._
_Mulleripicus pulvulentus, Temminck, large white woodpecker._
_M. Hodgsoni, Jerd., great black woodpecker._
_M. Javanensis, Horst, Malacca._
_M. Hodgki, Bl., Andamans._

**Sub-Fam. Gecinninae.**

_Gecinus squamatus, Viel., scaly-bellied green woodpecker._
_G. striolatus, Blyth, small green woodpecker._
_G. occipitalis, Viel., black-naped woodpecker._
_G. viridus, Blyth, Burma._
_G. aboreka, C., Japan._
_G. guerinii, Malt., China._
_G. affinis, Royce, Sumatra._
_G. dimidiatus, Tem., Java._
_Chrysophlegma flavinucha, Gould, large yellow-naped woodpecker._
_C. chloropogus, Viel., lesser yellow-naped do._
_C. chloropogus Viel., southern yellow-naped do._
_C. mentalis, Bl., Burma, Malaya._
_C. miniata, Forster, Malaya._
_C. puniceus, Horst, S. Burma, Malaya._
_Venilia pyrrhotis, Hodgson, red-eared bay woodpecker._
_V. rubinosa, Etem, Malacca._
_Megaloptes pecoraeta, Malaya._
_M. triste, Bl., Burma, Malaya._
_M. jugularis, Bl., Pincas._
_M. Wallis._
_Gecinus grantia, M'Clell., pale-headed woodpecker._
_Micropterum phaeneceps, Bl., Bengal rufous woodpecker._
_M. gularis, M., Madras rufous woodpecker._
_M. badius, Malacca._
_Brachypterus aurantius, Linnaeus, gold-backed do._
_B. chrysomita, Less, golden-backed woodpecker._
_B. dilutus, Blyth, pale-backed woodpecker._
BIRDS.

A. Trifasciatus, Hodg., common 3-toed woodpecker.
B. viridirostris, Hodg., green-billed woodpecker.
C. cucullata, Hodg., rufous woodpecker.
D. formosus, Hodg., fire-tailed honey-sucker.
E. nigricollis, Hodg., maroon-fronted honey-sucker.
F. Horsfieldii, Bl., green-backed honey-sucker.
G. satara, Hodg., black-breasted honey-sucker.

Sub-Fam. Picumninae, Piculet.

A. Picumnus abnormis, T., Malayana.
B. Yungnie, Wynekecs. fuscata, Hodg., yellow-backed honey-sucker.
C. Picumnus inornata, T., Malayana.
D. Picumnus pulchella, Hodg., common honey-sucker.
E. Picumnus polytes, T., Malayana.
F. picumnus nigricans, T., Malayana.
G. Picumnus opaca, T., Malayana.

Sub-Fam. Indicatorinae, Honey Guides.

A. Indicator indicus, Hodg., chestnut-crested honey guide.
B. Indicator Christini, Hodg., guide.

Sub-Fam. Mmeliophaginae, Bird-waxeaters and Waxbirds.

A. Mmeliophaga alba, Hodg., white waxbird.
B. Mmeliophaga cristata, Hodg., Superior Waxbird.
C. Mmeliophaga dumetella, Hodg., yellow-billed waxbird.

Sub-Fam. Pycininae, Heaven-suckers.

A. Pycinus pycinus, Hodg., Heaven-sucker.
B. Pycinus leucophaeus, Hodg., Heaven-sucker.
C. Pycinus leucopsis, Hodg., Heaven-sucker.

Sub-Fam. Picidae, Woodpeckers.

A. Picus pinetorum, Hodg., Siberian Woodpecker.
B. Picus viridis, Hodg., Eurasian Green Woodpecker.
C. Picus palustris, Hodg., Common Green Woodpecker.
D. Picus canus, Hodg., Oriental Woodpecker.
E. Picus erythronotus, Hodg., India Forest Green Woodpecker.
F. Picus erythronotus, Hodg., India Forest Green Woodpecker.
G. Picus erythronotus, Hodg., India Forest Green Woodpecker.

Sub-Fam. Picinae, Flower-peckers.

A. Picus erythronotus, Hodg., India Forest Green Woodpecker.
B. Picus erythronotus, Hodg., India Forest Green Woodpecker.
C. Picus erythronotus, Hodg., India Forest Green Woodpecker.

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A. Picus viridis, Hodg., Eurasian Green Woodpecker.
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Hemicelidon fuliginosus, Hodg.
Alsonax latirostris, Raffles.
A. terricola, Hodg.
A. ferrugineus, "
Ochroena nigronuda, Jer.
Eumyias ludovici, Vig.
E. albigastra, Jerdan.
E. indigo, Forssk., Java.
Cyornis unicolor, Blytt.
C. rubeculoides, Vigor.
C. hanyumias, Horf.
C. Tierckii, Blytt.
C. ruficauda, Swain.
C. magnirostris, Blytt.
P. pallipes, Jerdan.
P. elegans, Toon, Sumatra.
P. hycinthina, Temm.
J. Jerdoni, Hume.

Fam. Merulidse, Thraulus.
Tesi casaneo coronata, Burton.
T. cyaniventer, Hodg.
Psophya squamata, Gould.
P. pusilla, Toon.
P. caudata, Blytt.
P. longicaudata, Moor.
Trogloctyes Nipalensis, Hodg.
T. punctatus, Blytt.
Rimator malacocephalus, Bl.

Whistling Thraulus.
Myiophonus Horsfieili, Vigor.
M. Temminckii, Vigor.
M. cuanseus, Java.
Hydrornis Nipalensis, Hod.
Fitta Bengalensis, Gmel.

Sub-Fam. Merulae, Truc Thraulus.
Petroecetes cyphus, Eule.
O. ecocalychnius, Vigor.
O. ernesti, Philippius.
Gecochia cyanotus, J. & S.
G. citrina, Latham.
G. unicolor, Tickll.
Turuldus Wardii, Jerdan.
T. caridis, Temm.
Merula nigripennis, Lfr.
M. simillima, Jerdan.
M. boulengeri, Temm.
M. albocinereus, Rout.
M. caestanea, Gould.
M. Kinnisi, Kelarta.
M. leucogaster, Blytt.

Sub-Fam. Sylviae, Tilmania.
Paradoxornis flavirostris, Gould.
P. puncatus, Horf.
P. rupestris, Blytt.
Heterornotha unicolor, Hodg.
Chloeisius rupestris, Bl.
Suthura Nipalensis, Hod.
P. sallus, A. H. G.
P. solitios, Blytt.
P. fulvifrons, Hodgson.
Conostoma emodiun, Hodgson.

Alicipe Nipalensis, Hod.
A. cadis, Jard.
A. atriceps, Jerdon.
Stachyris nigrocephala, Hst.
S. pyrrhopus, "
S. rupestris, Blytt.
S. cinnamomea, Blytt.
Mixornis rubicapillus, Tem.
Timalia pilosa, Hst.
T. erythropus, and T. maculata, and T. nigri.
Dumetia hyperpyra, Franklin.
D. albugarialis, Blytt.
Pellorneum rupestris, Storr.
Pomatorhinus ruflfleci, Hodg.
P. ferrugineus, Blytt.
P. schisticeps, Hodgson.
P. leucogaster, Gould.
P. Horsfieldi, Sykes.
P. erythrogynus, Gould.
P. hylomelas, Blytt.
P. M'Clellandii, Jordan.

Fam. Brachypterygidae, Short-legged Thraulus.

Hypsipetes psaroides, Vig.
H. Neildgerrensis, Jerd.
H. Gances, Sykes.
H. M'Clellandii, Horsf.
H. Malacensis, from Malac.
H. Philippensis, from Philippines.
H. Tickelli, Blytt, from Ceylon.
Hemixos flavallus, Hodgson.
Aleurus striatus, Blytt.
Criniger icterius, Streit.
C. flavus, Gould.
C. ochocephalus, Gould.
Irenoborus violaceus, Blyt.
I. pictus, Horsfieldi, Blytt.
I. palaicola, Blytt.
I. flavicollis, Bon., Amboyna.

Sub-Fam. Phylloscopidae, Green Bulbul.
Phyllornis Jerdoni, Blytt, Horsf.
P. Malacensis, Latham.
P. auriceps, Temm.
P. Hardwickei, J. & S.
P. Cochin-Sinensis.
P. Iercocephalus.

Sub-Fam. Irenina, Blue Birds.
Irena pumilio, Linnaeus.
I. aegyptica, Gmel.
I. Malayensis, More.

Sub-Fam. Oriolinae, Orioles.
Oriolus Kundoii, Sykes.
O. Indicus, Blyth.
O. melanocephalus, Liun.
BIRDS. Sub-Fam. Saxicoline, Stonechats.

Coprosylius saxatilis, Linn.
C. Ocygronium, Slater.
C. Mindanaensis.
C. amoenus, Horsf.
C. luzonensis, Kidditt.
C. delavayi, Blyth.
C. chamo, Teiun., Borneo.
C. suavis.
Kittacincla macoura, Gun., the shama.
K. albiventer, Blyth.
K. Stricklandi, Motth.
Myioilema leucoma, Hodgs.
Grandula cecicola,
Thamnornia fulica, Linn.
T. Cambayensis, Lath.
Pratinae capita, Linn.

Sub-Fam. Ruticane, Redstarts.

Ruticilla pensioteri, Linn.
R. philencuoric, Moore.
R. rustinvenris, Vieillot.
R. Hodgsoni, Moore.
R. erythrocastra, Gal- denst.
R. aurea, Pallas.
R. schisticeps, Hodgen.
R. nigrognularis,
R. frontalis, Vigors.
R. ceruleocephala, Vigors.
R. fuliginosa.

Sub-Fam. Calamoperini, Grass Warblers.

Aerocephalus brunneucessus, Jerdon.
A. dumetorum, Blyth.
A. agricola, Jerdon.
A. murdax, Linn.
Arundinax olivaceus, Bigg.
Dumetella affinis, King.
Locustella certhiola, Pall.
L. rubescens, Blyth.
L. nevi, H. S.

Sub-Fam. Drymoine, Wren Warblers.

Orthotomus longicauda.
O. phyllopterus, Seivin.
O. ornatus, Jerdon.
O. edela, Teiun.
O. ruficeps, Lesson.
O. atrorubens, Teiun.
O. flaviviridis, Moore.
O. cinereus, Moore.
Prinia flaviventer, Decle.
P. Adamsi, Jerdon.
P. socialis, Sykes.
P. Stewarti, Blyth.
P. gralla, Franklin.
P. cinereocapilla, Hodgs.
P. Hodgsoni, Blyth.

Sub-Fam. Phylloicospina, Tree Warblers.

Neorhina floriviva, Hodgs.
Phyllopterus rubricrus, Sykes.
Phyllopterus triaxis, Blyth.
P. fuscatus.
P. magonirostris.
P. trochilus, Linn.
P. lugubris, Blyth.
P. nitidus, Lath.
P. viridissimus, Blyth.
P. affinis, Tickle.
P. indicus, Jerdon.
Rogoliceps occipitalis, Jerd.
R. trochileos, Syders.
R. pruinosus, Pallas.
R. chloronoton, Hodgs.

Sub-Fam. Sylviae, Grey Warblers.
Sylvia obrea, Teiun.
S. affinis, Blyth.

Sub-Fam. Motacillinae, Wagtails and Pipits.

a. Hill Wagtails.
Enicurus macularis, Vig.
E. immaculatus, Hodgs.
E. schistaceus.

b. Water Wagtails.
Motacilla Maderaspatana, Br.
M. Dukhunensis, Sykes.
M. Luzonensis, Scopoli.
c. Field Wagtails.
Budyes viridis, Gmelin.
d. Garden Wagtails.
Nemoricola indica, Gmelin.
t. Tree Pipits.
Pipites agilis, Sykes.
P. arborae, Bucck.

b. Titlarks.
Corydulae Richardi, Vieill.
C. fusca, Vieill.
c. Stone or Lark Pipits.
Agrodroma camerpestris,
A. cinnamomea, Rupp.
a. True Pipits.
Anthus cervinus, Pallas.

b. Hill Tit.
Pteruthius erythropus, Vig.
R. rufiventris, Blyth.
Allothrus oronoborus, Tem.
A. flaviceps, Temn.
Cula Napalensis, Hodgs.
Leioptila annectans, Blyth.
c. Flower-pecker.
Proparus caryophylus, Hodgs.
V. pinicatus, X.
Lusus flavicolis, Vig.
I. occipitalis, Blyth.
I. striatus,
Yuhina gularis, Hodgs.
y. occipitalis, Blyth.

Sub-Fam. Parulina, Tits.

Eugithalinae erythrocephalus, Vigors.
E. iouschiots, Hodgs.
E. nigrimentum, Hodgs.
Lophophanes dichrus, Hod.
I. melanopogon, Vigors.
I. rubidiventris, Blyth.
I. rufonuchalis,'
I. Beavani.
Parus cinnamomus, Hodgs.

Sub-Fam. Accentorinae, Accentors.

Acrocephalus maculatus, Hodgs.
A. nipalensis, Hodgs.
A. aliacus, Brandt.

TRIBE, CONUBRES.


Corvus corax, Linn.
C. Tibetanus, Hodgs.
C. corone, Linn.
C. caurinus, Pallas.
C. cinclus, Sykes.
C. rothschildi, Adensa.
C. tenuirostris, Linn.
C. splendens, Vieill.

Sub-Fam. Garrulininae, Jays.

Garrulus bispinicularis, Vig.
G. lanceolatus, Vigors.
Urocissa sinensis, Linn.

Sub-Fam. Dendroicinnae, Magpies.

Dendroicita rufa, Scop.
D. pallida, Blyth.
D. Sinenesis, Latham.
Fregilus Himlayanus, Blyth.
F. ptilurus, Blyth.
BIRDS.

Sub-Fam. Sturninae, Starlings.

Sturnus vulgaris, Linn.
A. fuscus, Wagner.
A. cristatus, China.
A. Javanicus, Java.
Temenus maculipunctor, Linn.
T. Malabaricus, Ga.
T. Ilythlil, Jerdon.
Paeon roseus, Linn.

A. Ginignianus, Linn.

Sub-Fam. Lamprotornithinae, Hill Mynas.

Sarcoglossa apolota, Viguier.
Euloba religiosa, Linn.
E. intermedia, A. Hay.
E. philogenys, Bligh.
Graculus venerata, Temminck.
Amphileptes coronatus, Bligh.

Fam. Fringillinae, Sub-Fam. Plocine, Weaver Birds.

Phoenicurus Daya, Bligh.
P. manyar, Horwood.

Sub-Fam. Estrildinae, Munia.

Mania Malaena, Linn.
M. rubronigra, Hodg.
M. undulata, Latham.
M. pectoralis, Jerdon.
M. striata, Linn.

Sub-Fam. Passerinae, Sparrows.

Passer indicus, J. and S. Patridge.
P. salxicola, Vieill.
P. cinnamomeus, Gould.
P. pyrrhonotus, Bligh.
P. montanus, Linn.

Sub-Fam. Emberizinae, Buntings.

Emberiza pithyornis, Pallis.
E. cinia, Linn.
E. Streakhiyi, Moor.
E. forellana, Linn.
E. Huttoni, Bligh.

b. Yellow Corn Buntings.

Eusisza manolenocephala, Gmel.
E. anreola, Pallis and many others.

c. Crested Buntings.

Melophus melanotus, Gmel.

Sub-Fam. Fringillinae.

a. Grosbeaks.

Hesperiphaus stercoreus, Vogel.
H. affinis, Bligh.

b. Bullfinches.

Pyrrhula erythrocephala, Bligh.
P. erythraea, Bligh.
P. Nipalensis, Hodg.

b. Crossbills.

Lucia Himalayana, Hodg.
Hematoxia ojabilii, Hodg.
Chaunooscoetus papa, Bon.
d. Rose Finches.

Carpodacus rubicilla, Koup.
P. pulcherrimus, Hodg.

C. erythrinus, Hodg.
P. frontalis, Bligh.
Propseras rodopeus, Vigl.
P. thura, Bon.
P. rhochonous, Brandt.
P. rhodochromis, Vigl.

Sub-Fam. Alaudinae, Larks.

a. Bush Larks.

Mirafra Assimiae, M'Cdell.
M. alfinis, Jerdon.
M. cryptherops, Jerdon.
M. cantillans,

b. True Larks and Sky Larks.

Annomomines phaeocinera, Frank.
A. pinicola, Bligh.
A. ruficauda, Semper.
Pyrhrhula grisea, Scop.
Calandrella brachyactyla, Temminck.
Alaudula raiatil, B. H.
Oeceria penicillata, Gould.

c. Desert Larks.

Certhilauda desertorum.

ORDER, GEMILOIDE, Pigeons.

Fam. Columbidae, Sub-Fam. Columbinae, Wood Pigeons.

Palumbus casiotis, Bonap.

Sub-Fam. Columbinae, Rock Pigeons.

Palumbus Eversmanni, C. rupesiris, Pallis.
Columba intermedius, Strick.

Sub-Fam. Macropyginae, Cuckoo Doves.

Macropygia tasali, Hodg.
M. rupestris, Temminck.
M. rupestris, Temminck.

Sub-Fam. Turturinae, Turtle Doves.

a. Auridi.

Turtur rupicola, Pallis.

b. Maculicolles.

T. Cambystalis, Gmel.
c. Tigrini.

T. Suratensis, Gmel.
d. Streptopeliae, Ring Doves.

T. risoria, Linn.

T. humilis, Temminck.

Fam. Gouridae, Sub-Fam. Phapinae, Ground Doves.

Chalophas indicus, Linn.
C. Stephani of N. Guinea.
C. Javanicus, Gmel.

Sub-Fam. Tegellinnae, Mound Birds, Brush Turkey.

T. Cuvieri, N. Guinea.

Sub-Fam. Pterocilidae, Sand Grouse or Rock Pigeon.

Pterocles arenarius, Pallis.
P. exustus, Temminck.
P. Senegalus, Linn.

Fam. Phasianidae, Sub-Fam. Pavoine, Pea-fowl.

Pavo cristatus, Linn.
P. muticus, Temminck.
P. Polypterus Tibetana, Temminck.
P. lineatum, Hardw.

ORDER, RASORES, Game Birds.

Fam. Megapodidae, Sub-Fam. Megapodinae, Mound Birds.

Megapodus nicobaricus, Linn.

Sub-Fam. Talegallinae, Mound Birds, Brush Turkey.

Talegalla Lathami.

Sub-Fam. Pterocilidae, Sand Grouse or Rock Pigeon.

Pterocles arenarius, Pallis.
P. exustus, Temminck.
P. Senegalus, Linn.

Sub-Fam. Phasianidae, Sub-Fam. Pavoine, Pea-fowl.

Pavo cristatus, Linn.
P. muticus, Temminck.
P. Polypterus Tibetana, Temminck.
P. lineatum, Hardw.
BIRDS.

Sub-Fam. Phasianinæ, Pleaeans.

Lophophorus Impeyanus, Linn.

C. T. H. Hodggs.

C. melanocephala, Gray.

C. Temminkii.

Itaginis eurus, Grd.

P. versicolor, Vieill.

P. Scenemüngii, Temm.

P. Amherstii.

P. lineatus, Lath.

Sub-Fam. Gallinæ, Jungle Fowls, Firebacks, Black Pheasants.

Gallus ferrugineus, Gym.

G. Sonnerati, Temm.

G. castaneus, Temm.

G. fuscus, Temm.

Fam. Tetraonidæ, Grouse and Partridges.

Fam. Tetraonilus, Grouse and Partridges.

Fam. Tetragallus Himalayensis, Gray, snow cock.

T. alpinus, Temm.

T. M. Linn., Vigors.

T. asiaticus, Linn.

T. erythrocephalus, Sykes.

Fam. Coturnicinæ, Quails.

Fam. Coturnix communis, Dona.

C. Coromandelica, Gym.

C. australis, Gould.

Fam. Phasianæ, Pheasants.

C. unipennis, Blyth.

C. unicolor, Grd.

C. australis, Gould.

C. walls, Blyth.

C. temminckii, Gould.

C. temminckii.

Sub-Fam. Phasianinæ, Pleaeans.

Lophophorus Impeyanus, Linn.

C. T. H. Hodggs.

C. melanocephala, Gray.

C. Temminkii.

Itaginis eurus, Grd.

P. versicolor, Vieill.

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Sub-Fam. Gallinæ, Jungle Fowls, Firebacks, Black Pheasants.

Gallus ferrugineus, Gym.

G. Sonnerati, Temm.

G. castaneus, Temm.

G. fuscus, Temm.

Fam. Tetraonidæ, Grouse and Partridges.

Fam. Tetraonilus, Grouse and Partridges.

Fam. Tetragallus Himalayensis, Gray, snow cock.

T. alpinus, Temm.

T. M. Linn., Vigors.

T. asiaticus, Linn.

T. erythrocephalus, Sykes.

Fam. Coturnicinæ, Quails.

Fam. Coturnix communis, Dona.

C. Coromandelica, Gym.

C. australis, Gould.

Fam. Phasianæ, Pheasants.

C. unipennis, Blyth.

C. unicolor, Grd.

C. australis, Gould.

C. walls, Blyth.

C. temminckii, Gould.

C. temminckii.

Sub-Fam. Phasianinæ, Pleaeans.

Lophophorus Impeyanus, Linn.

C. T. H. Hodggs.

C. melanocephala, Gray.

C. Temminkii.

Itaginis eurus, Grd.

P. versicolor, Vieill.

P. Scenemüngii, Temm.

P. Amherstii.

P. lineatus, Lath.

Sub-Fam. Gallinæ, Jungle Fowls, Firebacks, Black Pheasants.

Gallus ferrugineus, Gym.

G. Sonnerati, Temm.

G. castaneus, Temm.

G. fuscus, Temm.

Fam. Tetraonidæ, Grouse and Partridges.

Fam. Tetraonilus, Grouse and Partridges.

Fam. Tetragallus Himalayensis, Gray, snow cock.

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C. unipennis, Blyth.

C. unicolor, Grd.

C. australis, Gould.

C. walls, Blyth.

C. temminckii, Gould.

C. temminckii.
BIRDS.

**Fam. Ardeidae.** Herons.

Ardetis Goliath, Temm. | Butorides Javanica, Horuf.
A. sumatrana, Blyth. | Ardeola flavicollis, Lath.
A. cinerea, Linn. | A. cinnamomea, Gymn.
A. purpurea, Linn. | A. sinensis, Linn.
Herodias alba, Temm. | A. minutia, Linn.
H. egrettoidea, Temm. | Botaurus stellaris, Linn.
H. garzetta, Temm. | B. limnophila, Temm.
Demi-egretta alba, Blyth. | R. heliophila, Linn.
Budus coromandus, Bodd. | Nycticorax ganski, Temm.
Ardeola leucopodia, Temm. | N. griseus, Linn.
Fam. Tantulidea. Sub-Fam. Tantulidea.
Tantulatus leucocephalus, Gm. | T. lacteus, Temm.
Sub-Fam. Palaeeleoninae, Spoonbill.
Palaeeleon corrordina, Linn. | P. minor, T. and Sch.
P. major, T. and Sch.
Sub-Fam. Anastomatinae.
Anastomus oscitans, Bodd., Shell Bys.
Sub-Fam. Biaimeninae, Bises.
Threskiornis melanoplancopus, Linn. | Geronticus papillosus, Temm.
Ibis nippion, Temm. | Falsineillus igneus, Gymn.

ORDER, NATATORES, SWIMMERS.

**Fam. Phoenicopteridae.** Flamingos.

Phoenicopterus roseus, Linn. | P. falcipennis, Gmel.
Phoenicopterus ruber, Linn. | P. crepitans, Gmel.
P. Javanicus, Horuf.
Sub-Fam. Pelecaninae.
Pelecanus onocrotalus, L. | Pelecanus philippensis, Gmeln.
P. mitratus, Lieb., Linn. | P. pelagicus, Gmel.
P. Javanicus, Horuf.
Sub-Fam. Stercorariinae.
P. Gmelinii, Linn.
G. melanogaster, Brand.
G. Sinensis, Shuc.
G. Javanicus, Horuf.

Sub-Fam. Ptilopaginae.
Ptilopus melanogaster, Gmeln., Indian Snake-bird.

TRIBE, URNINATORES, DIVERS.

**Fam. Alcidae.** Auks, Puffins, Guillemots.

Fam. Spheniscidae, Penguins.

 Aptenodytes Patagonius, Patagonian penguin. Eudyptes demersus, the gowef. Catharracte chrysooane, jackass penguin.


BIRDWOOD, SIR GEORGE.

**Fam. Larinae, Gulls.**

Larus marinus? | Xena brunnipephala, Jruf.
Krokocephalus ichthyoe- | X. ridibunda, Linn.
[lus, Pallas. | Larus fuscus, **

Sub-Fam. Sterninae, terns.

Sylochelidum capuus, Lath. | T. Bengaleensis, Linn.
Gloschelidum Anglicus, | Gloschelidum melanonotus, Temm.
Montague.
Hydrochelidum Indicus, Ste. | O. anasthatus, Scop.
Secona auranta, Gray, | Animus stolidus, Linn.
Sterna mirurdo, Linn. | S. tenueirostris, Temm.
Sterna minuta, Linn. | Rhyhochs albicollis, Scop.
Thalasseus cristatus, Step.

TRIBE, PIOCTORES.

**Fam. Phalacrocoracidae.**

Phaeton rubricauda, Bodd. | P. candelus, Briss.
Sub-Fam. Sulidae.
Sula fiber, Linn. | S. piscator, Linn.
**Fam. Attaghettiidae, Frigate Birds.**
Attagen aquilus, Linn.
**Fam. Pelicanidae, Pelicans.
Pelecanus onocrotalus, L. | P. philippensis, Gmel.
P. mitratus, Lieb., Linn.
J. P. Javanicus, Horuf.
**Fam. Carouidr, Cormorants.
Graculas carbo, Linn. | G. melanogastri, Brand.
G. Sinensis, Shuc.
G. Javanicus, Horuf.

Sub-Fam. Ptilopaginae.
Ptilopus melanogaster, Gmel., Indian Snake-bird.

TRIBE, URNINATORES, DIVERS.

**Fam. Alcidae, Auks, Puffins, Guillemots.

Fam. Spheniscidae, Penguins.

Aptenodytes Patagonichon, Patagonian penguin. Eudyptes demersus, the gowef. Catharracte chrysooane, jackass penguin.

SIRR'S CHINA AND THE CHINESE; BIDMORE'S TRAVELS, ARCHIPELAGO; E. BLYTH, GALLINACEOUS BIRDS OF INDIA; E. BLYTH, MONOGRAPH ON THE INDIAN SPECIES OF PHYLLOSCOPIUS, 1855; CALCUTTA REVIEW, MARCH 1857; E. BLYTH, CATALOGUE BENGAL AS. SOC. MUS. 1849; JORFIELD AND MOORE'S CATAL. OF BIRDS; A. HUME, LIST OF THE BIRDS OF INDIA; A. HUME AND MAJOR C. H. T. MARSHALL, GAME BIRDS OF INDIA; JORDON'S CATALOGUE OF BIRDS, 1839; JORDON'S BIRDS OF INDIA, 1862-34; E. KELAERT'S CEYLON BIRDS, PRODOMUS FAUNA CEYLANICA, CAL. 1852; EDGAR L. LAYARD, NOTES ON THE ORNITHOLOGY OF CEYLON, MAG. NAT. HIST. XII. P. 97; CAT. OF CEYLON BIRDS, BY E. KELAERT AND E. L. LAYARD IN J. CEYLON AS. SOC. JAN. 1853; SYKES' CAT. OF DHUKUN BIRDS, 1832; SIR J. E. TENNANT, CEYLON; S. B. TICKELL IN PROCEEDINGS BENG. AS. SOC.; A. RUSSEL WALLACE, MALAY ARCHIPELAGO.

BIRDWOOD, SIR GEORGE CHRISTOPHER.


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cultural Society of Western India. In 1867 he was sent as Special Commissioner for the Government to the Universal Exhibition held in Paris. Addresses were presented to him on his finally leaving India in 1869, by the Asiatic Society, the Agri-Horticultural Society, the University of Bombay, of which he was then Registrar, and the students of Grant Medical College. On the proclamation of the Queen as Empress of India, January 1, 1877, he was appointed to the Companionship of the Star of India. He has devoted himself to writing on Indian subjects and on Indian art. In 1870 he contributed a paper to the Linnean Society on the Genus Boswellia. It is the record of the discovery of the frankincense trees of the Somali country, made by him in conjunction with Colonel Playfair, then Resident at Aden. In 1878 he wrote the Handbook to the Indians, published in the Paris Exhibition of 1878; and his Handbook on the Indo-Mahotan Arts of India has attracted abiding attention to the traditional handicrafts of India, and created a widespread demand for them all over Europe and in America. He is the author of the Vegetable Products of Bombay, a very valuable book on the economic products, which have gone through two editions.

BIRGO. HIND. Nima quaissioides.

BIJU GAR. one of the thirty-six royal races amongst the Rajputs, descendants of Rama through Lava, his second son. Their opponents, the Cuchwaha, also descend from Rama. The family state that they came from Rajo, the capital of Deoti, in the Mahcneri country. They settled in Dor country, then slaughtered the Mewati and Bhuehar, and are now dwelling from Rohilkhand to Muttra (Mathura), also in Shamsabad, Farrakhabad, Eyla of Mynpuri, and Gorakhpur; and a clan, now Mu. Menees, court sat at in Muzaffarnagar. All the doab clans long since became Pasis, some in the time of Ala-ud-Din, Khilji, but retain the Hindu title of Thakur, with many Hindu customs, as Thakur Akbar Ali Khan. — W.; Elliott.

BIRGUS LATRO, the Tatos of Philippines, the coconut crab, hermit crab, or robber crab of the Keeling islands, is a link between the short and long tailed crabs, and bears great resemblance to the paguri. In the Keeling islands they live on the coconuts that fall from the trees. The story of their climbing these palms and detaching the heavy nuts is merely a story. Its front pair of legs are terminated by very strong and heavy pinchers, the last pair by others narrow and weak. To extract the nourishment, it tears off the husk fibre by fibre, from that end in which the three eyes are situated, and then hammers upon one of them with its heavy claws, until an opening is effected. It then, by its posterior pinchers, extracts the white albuminous substance. It inhabits deep burrows, where it accumulates sufficient quantities of picked fibre of coconut husks, on which it rests as on a bed. Its habits are diurnal; but every night it is said to pay a visit to the sea, perhaps to moisten its branchee. It is very good to eat; and the great mass of fat accumulated under the tail of the larger ones, sometimes yields, when melted, as much as a quart of limpid oil. They are esteemed great delicacies, and are fattened for the table. The Birgos latro, by means of blood-vessels in its walls, breathes air directly. — Bikmore, p. 149; Darwin, p. 552.

BIRHASPATI or Birhispati, the planet Jupiter. BIRRERIA, one of the Chamar tribes. — Elliott.

BIRHOR, a forest race dwelling in the south of Chutia Nagpur and in the Hazaribag district. They live in the jungles on the sides of hills, in small water-tight huts constructed only of branches of trees and leaves. The men snare hares and monkeys, and collect the bark of the Bauhinia scandens for cordage, and the women bring the forest products to the weekly markets. The race claim relation with the Kharris, as offspring of the sun. Their number is estimated at not more than 700 for the whole Hazaribag district. They are quite migratory, wandering about from jungle to jungle, as the sources of their subsistence become exhausted. Amongst themselves they speak the Koi language, but can also converse freely in such Hindi as is spoken in this province.

The Birhor in Chutia Nagpur proper and Jashpur live in an equally wild state, but communicate with each other in a dialect of Hindi. They are a small, dirty, miserable-looking race, who have the credit of devouring their aged parents; and when taxed with it by Colonel Dalton, they admitted that their fathers were in the habit of disposing of the dead by feasting on the bodies; but they declared they never shortened life to provide such feasts, and shrank with horror at the idea of any bodies but those of their own blood-relations being served up to them. The raja of Jashpur said he had heard that when a Birhor thought his end was approaching, he himself invited his kindred to come and eat him. The Birhor brought to Colonel Dalton did not acknowledge this.—Dalton, Ethnol. of Bengal, 220.

BIRI, HIND. Erna Javanica.

BIRJA. HIND. Turpentine of Pinus longifolia; Galbhum. See Biroza.

BIRJEE PASS, one of the passes from Kunwar to the Outer Himalaya.

BIRJIA. HIND. One of the Ahir tribes.

BIRK, also Virk, a distinguished Jat tribe.

BIRKAIA. TEL. Cucumis acutangula.

BIRKAT-EL-HAJI, the Pilgrim's Pool, four leagues eastward from Cairo. It is a considerable lake, which receives its water from the Nile.

BIRM. DUK., Trichosanthes incisa. Cratavea nurvala; also C. tapia and Taxus bacatta.

BIRMM-BHAT, a branch of the Bhat tribe, whose office is the recitation of ancestral exploits at family festivals. They are hired for the occasion. They reside permanently in villages and towns, and do not lead a migratory life like some of the other Bhats.

BIRKOTA. HIND. Zizyphus nummularia.

BIROZA, HIND., also Ganda biroza and Sat biroza. Pinus longifolia.

BIRRA, HIND., also Bejar in E. Oudh. Gram and barley sown together as a mixed crop.

BIRRI. HIND. Picea Webbiana, P. Findrow, the silver fir; also Cleenatis Nebalensis.

BIRS NIMRUD, ruins six miles from Hillah, in the province of Baghdad, the site of the ancient Borsippa. According to Bunsen, the bilingual inscription found on the original spot by Rawlinson, on the walls of the temple, among the ruins of Birs Nimrud, teaches us that this building, which forms the nucleus of that mound, was the sanctuary of Maradach, erected by Nabopolassar.
and Nabukodonosor. The term is Turkish, and
means the tower or Akron of Nimrud. The Jews
style it Nebuchadnezzar's prison. It was con-
sidered by Niebuhr, Rich, and others, to be the
ruins of the temple of Belus. The Qamis gives
Birs as the name of a town or district between
Hillah and Kufah, which is still known, and is
conjoined with Babel in the Chalbic Sidra Ittaba
of the Sabceans, under the name of Barsaf; whence
the Borosippo of Strabo, and other ancient
authors, directly proceeded. — *Meynun's Travels,*
250, 252; *Husen,* iv. 414; *Rich's Babylon,* 34.

**BIRSON.** Anan. Gossypium Indicum.

**BIRT.** also Brita and Burt. Hind. A grant of
land under stipulations. It also means proprietary
right, endowment, maintenance, custom, or
privilege derived from the performance of offices,
religious or secular. It conveys an unreserved
proprietary right of inheritance, share, transfer,
and alienation in perpetuity. The Brita is the
owner of the soil. — *Elliot.*

**BIRTH,** second birth or 'twice born' are terms
frequently met with in writings on the Hindu
people, and indicate that the person to whom it is
applied has received the zonar or sacrificial
cord. In this respect it resembles the confirma-
tion of the Episcopal Church of England. The
term is also often used by Sudra Hindus to
imply conversion of heart. Hindus and Mahome-
dans have many child-birth ceremonies. The
Mahomedans of N.W. India, on the birth of a
child, show it a sword or knife, to ward off evil
from it. There, also, on the birth of a child among
the Sudra Hindus, a Brahman is at once sent for,
who announces the nakshatra or planet under
which it has been born. A Brahman or wife of a
Chamar, is also summoned, for the purpose of taking
charge of both mother and infant. She remains
for six days, and then leaves, after receiving
clothes and other perquisites. Her place is
supplied by a Nain, or barber's wife, who con-
tinues her service for a month or upwards. On
the sixth day the mother is allowed to bathe,
according to the time fixed by the Brahman, and
her friends visit her, bringing with them spices,
clarified butter, and articles of clothing for the
child. She also bathes on the twelfth day, and
is considered to be ceremonially clean. Her
friends now approach her person, which they are
permitted to touch, offering their congratulations.
During the whole of the first twelve days the
women of the neighbourhood gather themselves
daily at the house, and sing songs, called Sohar,
in honour of the occasion. If the infant is born
in the Mil-nakshatra, the woman remains impure
for twenty-seven days, as amongst the Brahmanas.
On the occasion of a birth, in a Chinese house,
large bunches of evergreens are suspended above
the house door. In Japan, annually, in front of
every house where a child has been born, a huge
paper fish, from 3 to 25 feet long, is hoisted on
a bamboo pole. Theatrical representations last
throughout the day.

**BIRTHWORT,** Aristolochia bracteata, Retz; A.
longa.

**BIRUNI,** the takhalus or non-de-plume of Abu
Khalu, author of the Tarikh-i-Hind, or history of
India, A.D. 1331. See Al Biruni.

**BIRUN-JASIF.** Pesh.? Artemisia vulgaris.

**BIRZUD.** Pers. Galbanum.

**BIS.** Hind. Myricaria Germanica, also Salix
alba, and S. tetrapetra. Kaia biaa, Hippoboe-
rhomboides.

**BIS.** Hind. Twenty. See Bisa.

**BISADE or Bassea,** in mediæval Greek called
Vesade, are alluded to in the tract of Palladins
de Moribus Brachmanorunum, written about A.D.
100. The same name is applied by Ptolemy to a
similar race inhabiting Northern India.

**BISAHAR MOUNTAINS,** an offshoot of the
Western Himalaya, extends for almost 60 miles
from the lofty cluster of Jumnotri peaks to the
Sutlej, below Shatul. The Bisahar peaks range
in heights from 16,092 to 20,916 feet, the highest
being the peaks of Jumnotri. Its passes are from
14,891 to 16,035 feet in height. The great mass
of this range is granite. The people speak a
Hindi dialect. See Ladakh; Thoji-chamno.

**BISATI.** Hind. A podlar, from Bisat, stock;
one who hawks his goods from place to place,
and keeps no shop for the exhibition of his wares.
He is commonly found seated on the ground, with
his goods spread out for sale on a mat before him.

**BISAYA,** a group of islands in the Eastern
Archipelago. Am.herokuapp is frequently gathered
in considerable lumps in the vicinity of Samar
and the other islands of the Bisaya group, as well
as mother-of-pearl, tortoiseshell, and red and black
coral; of the latter kind shafts occur as thick as
the finger and 6 or 8 feet long. — *Walton's State*,
p. 49, 39.

**BISCHOFFIA JAVANICA.** Bl. Red cedar.
B. trifoliata, Hook. *Styliodites trifoliatus,* B.
Andracea trifoliatus, B. *Microcerus Esperianus,* W.

This very large and valuable timber tree has a
wide range; in the Peninsula of India it ascends
the mountains to 5000 feet elevation, and it is
found in Northern India, Borneo, the Archipelago,
S. China, and the Philippines, but appears to be
absent from Ceylon; it is the only known species of
the genus. It flowers in February, and ripens its
seed in May and June. It has an immense
trunk; the timber is reddish, very hard and
durable, and much in use in some parts with
planters and others for building, planking, etc.,
but it is very little known or utilized. — *Beddome,*
*Pl. Sylle.*

**BISCUIT.**

Biscotto, Anglo-Hind. *Biscotto, galetta.* \( \text{Fr.} \)
Skibatbeak, DAY. *Biscotto.* \( \text{Port.} \)
Scheepsschuit, DUT. *Bort Saecher.* \( \text{Rus.} \)
Biscuit, \( \text{Fr.} \)
Bizeocho, galetta, \( \text{Ger.} \)

Biscuit, from the two Latin words, bis cocta,
twice baked, is an unfermented bread, which, if
properly prepared, can be kept a great length of
time, and hence its use as a common form of bread
sea. — *Told.* Faulk. See Bread.

**BISSEN.** Hind. A powerful tribe of Rajputs
in Cawnpur and the eastern parts of the N.W.
Provinces. Their chief is the raja of Silempur
Mahijahali.— *Elliot*; Wilson.

**BISEWARA,** a Hindu deity. Near this idol is
the temple of Anna Purna, the Indian Cybele, or
the Anna Perruna of the Romans. To heighten
the devotional feelings, her image is placed in a
dark recess, and is veiled from the public gaze.
It is of marble, and has its face covered by masks,
of which there are two, one of gold, the other of
silver.

**BISFAJ.** Hind. Species of Polypodium and
Adiantum.
BISH.

BISH. HIND. Any vegetable poison; Aconitum ferox, and other species.—Wall.

BISH-BANS. Beesha Rheedii, Kwanth.; Bamboo baccifera. See Bamboo.

BISHEN GANGA. On its bank is built Bada-rinath, in lat. 30° 46′ N., long. 79° 32′ E.

BISHKHAPRA. HIND. Primula speciosa; also Triantehma decandbr and Tr. pentandra; the latter is used in N. India medicinally. It spreads over the ground, and forms a circle nearly a yard in diameter.

BISH-KOPRA. HIND. Iguana. (Qu. Bish Kobra, or poison cobra.) A lizard found in Gujerat. It has been described as venomous. Ghoom, the Hindu patriot calls them; Tuckhub and Tuckoo in Bengal, the word Tuckoo being in consonance with the call or song of the reptile. In Baratich in Oudh it is called Bis-kopra. It is described as flat, about 1½ inches in breadth, and ½ inches in length, with a head very like a snake's in point of shape. It possesses fangs; and a small dark-greenish bag under the tongue, and in close proximity to the teeth, indicates the poison bag. It is a venomous-looking creature, and possesses to a remarkable degree the pugnacity of the venomous snake when assailed. All this seems a popular delusion, a venomous lizard being an anomaly unknown in creation.—Z.

BISH-KUCHOO. Beng. Arum fornicium, poisonous Calla.

BISHMAN. Beng. Colocasia esculenta.

BISHNAVI, a Hindu sect in Rohilkhand and the Doab. The author of the volume Tanbih-ul-Jahlin remarks that most of the teachers of the reforming Hindu sects, the Kabir panthi, Parma, Daud panthi, Sadh, Sat nami, Kalal panthi, and Bishnawi, have been Mahomedans. The Bishnawi are, however, said to have been founded by Bishno, a Tuga Brahman, a pupil of a Mahomedan faikar. Professor Wilson says the sect is of growing importance in some parts of the N.W. Provinces, combining Hindu and Mahomedan practices and belief, generally terming themselves shaikhs, but adding this title to a Hindu name. The Bishnawi is the most common sect in the desert and in Sind. In the desert, where 'they are a law unto themselves,' they wear the junooz or zonar; they cultivate, tend cattle, and barter their superfluous gli for other necessaries.—Elliot; Rajasthan, i. 319.

BISHOP, the episcopos of the Greeks, is a title given by Christians to the overseers of their churches. Bishop of Babylon is the title of the Romish prelate for the pushalk of Baghdad. The Protestant bishops of distinction in India, since the early part of the 19th century, have been Heber, Corrie, Middleton, Milman, Caldwell. Bishop's College, Calcutta, on the bank of the Hoogly, was established for the education of clergy for the Episcopal Protestant Church. Bigandet was an eminent Catholic bishop.

BISHOPS'-WEED SEED.

Anethum sowa, Roxb. | Sison Ammi, Linna.

Aymadum, | CAN. | Ajowon, | HIND. | Ajooan, | DUKH. | Oumun, | TAM.

These carminative seeds yield by distillation a very useful oil, which is given medicinally as a stomachic. The distilled water is used as a carminative in every nursery of Madras, under the name of omun water.—Ainslie, p. 269.

BISH TARAK. Beng. Argryia speciosa; also Lettsonia nervosa.

BISH-ul-YUKURUNI. ARAB. Menispernum covedolium.

BISH-UMBA. Beng. Cucunis colocythis.

BISHWA TULSI. Beng. Oeimium sanctum.

BISH-U. A fiscal division of a district paying revenue under the Hindu government of Orissa.

BISH. HIND. A measure of weight, commonly a vis; in Garhwal and Kamaon, a dry measure; in Rampur, a land measure.

BISH. HIND. Unclean.

BISINDI. CHEKAR. Gardenia retropesma.

BISIR. HIND. Pyrus Kamaonensis.

BISLOOMBAH, HIND., also Bisloombhee. Colocynthis; Cucunis pseudo-colocythis.

BISMISSAH means literally, in the name of God; and Mahomedans never commence, or leave off, eating without saying it. It is often used by them, also, in commencing a book, or on rising up or sitting down; and by the pious on every occasion, however unimportant. It answers to the Christian grace before meat. It is also used as a sacrificial prayer; directing the victim's face towards the Kaba, the person cuts its throat, ejaculating, 'Bismillah! Allah Akbar!' The camel is sacrificed by thrusting a pointed instrument into the interval between the sternum and the neck. This anomaly may be accounted for by the thickness and hardness of the muscles of the throat. Burckhardt makes the Mahomedan say, when slaughtering or sacrificing, 'In the name of the most merciful God!' But Mr. Lane justly observes that the attribute of mercy is omitted on these occasions.

Bismillah-ur-Rahman-ur-Rahim, in the name of the merciful and element God, is a frequent prayer of Mahomedans. Zamakshari, in his Commentary on the Koran, observes, Rahman denotes a more extensive idea than Rahim; for this reason people say, in speaking of God, 'The merciful (Ar Rahman) in this world and the next,' and 'the element or compassionate (Ar Rahim) in this world.' The correct pronunciation to a European are, Bismillah irrahman irrahcem. The words are first taught to Mahomedan children at the age of four years four months and four days, with certain ceremonies. It is their christening or initiation into the church.—Herk.; Burton's Pilgrimage, iii. p. 303.

BISMUTH. Mr. Piddington found bismuth in one of the ores sent him from the antimony mines near Mountein; it is found in connection with silver in Burma, and has been obtained in small quantities in Kashmir, from the Jammu territory.

—Mason; Pocrell, Handbook.

BISON. Gavseus gaurus.

Ban-gau, Vana-go, BENG. Jangli Khulga, | HIND. Kar-kouah, | CAN. Ban-parah, | MUNDAH. Gav-seus, | MAH. Gourai Gai, Gaur, | HIND. Katu Yoni, | TAM.

Gavceus gaurus, is the bison of sportmen in India. It inhabits all the large forests. In its range in the Western Ghats, or Syhad mountains, some of the bulls attain a height of 19 hands at the shoulder. It is not, however, a true bison. It is the Bos gaur of Traill, the B. asseal of Horsfield. Bibos cavirones, Hodgson, and Bibos assel, Hors, are, however, separated by some authors, and the term bison is very indiscriminately given to bovine animals to whom it does not pertain. The genus bison proper comprehends two living species, one of them European, now become very scarce, and
BIS PANTHI

verging towards extinction; the other American and, notwithstanding the advances of man, still multitudinous.—*Engl. Cyc.* p. 482; *Cat. Museum, India* II. See Botany.

BIS PANTHI, a Jaina sect.

BISRAMPUR, in the centre of the Sarguja State, in Chutin Nagpur, is the name given to a coalfield occupying an area of 400 square miles.—*Imp. Gaz.

BISRU. HIND. Cedrela toona; C. serrata.

BISSAHRI-PALA. HIND. Diospyros lotus.

The fruit is sweet and pleasant.

BISSEM KATAK, a Kandal Mutta in the Vizagpatan district, where the Meriah sacrifices were largely made.

BISSOI, Bishayi, or Bissay, in Orissa, a chief of a district; an officer of the Kandali race.

BISTANG or Bartang, of Kangra, an astringent used in diarrhoea and dysentery.

BISWA, Bisuan. HIND. In the Central Doab, the twentieth part of a bigha. Each estate or village is considered an integer of one bigha, which is subdivided into numerous biswa or biswans, to show the right of any particular villager. The As of the Romans was similarly used, thus, 'heres ex semuncia,' heir to 1-24th; 'heres ex decemta,' heir to 3ths; 'heres ex ase,' sole proprietor.—*Elliot.*


BITHU. HIND. Chenopodium, *sp.*; also *Amaranthus anardana.*

BITHUA. HIND. Heliotropium Europaeum.

BITHUR, a town with 8322 inhabitants, in lat. 26° 37' N., long. 80° 19' E., in the Cawnpur district of the N.W. Provinces, and 12 miles from Cawnpur. It was the residence of Dandhu Punt, styled Nana-Iato, also Nana Sahib, who instigated the Cawnpur massacre during the mutiny of 1857-59.

BITI. TAM. Species of Dalbergia.

BITIKH. ARAB. Musk melon.

BIT-LABAN. HIND. Black salt.

Sanchul, ... GUJ. | Sochul, ... HIND. Kala-namak, ... HIND. | Bit Noben, ...

A medicinal salt, prepared by melting together, for about 6 or 7 hours, in an earthen pot, an impure muriate of soda, called samur, and embibe myrobalans, in the proportion of fifty-six ounces of the muriate to twenty ounces of the dried myrobalans. It is met with in most Indian bazaars, and is used by native practitioners as a tonic in dyspepsia and gout, as a stimulant in chronic leucotism, etc.—*Faukner; Aulick.*

BIT-MIAKI. CAN. Bustard; Otis tarda.


BITTER HERBS, of Exodus xii. 8, Numbers x. 11. Of these the Jews mention five kinds,—buzareath, or lettuce; Usin endive or succory; *luna, probably tansey; Charab bivum or camile; and Meror, or sow thistle, or wild lettuce. They were ordered to eat the passover with bitter seris.

BITTERN, of Isaiah xiv. 23, xxxiv. 11, and Zephaniah xi. 14, has been interpreted to be a bitter, an owl, and an otter. The Arabic version makes it al-Hombara, the bastard.

BITTERS. In all parts of the world bitter sub-

stances are regarded as febrifuges. The beautiful Menyanthes trifoliate and the Tormentil are as popular in northern regions, as the Chirettas and its various substitutes in tropical countries of the east. They are mild tonics, improve digestion, and are admirable adjuvants of the true antipodece. The chief of the musclagious bitters is the Golnucha, the Bioblab, and Cetaria. Aromatic bitters were formerly in high repute as febrifuges. Bitters containing alkaloids or tannin comprise all the most important antipodece, and the most valuable of them all is quinine. No Indian tree comes so near the cinchona in its botanical affinities as the Hymenodictyon excessum.—*Ind. Ann. Med. Sci.* 1856.

BITTER WOOD, Picroma excessa, *Lil.* in the West Indies, and Quassia amara, *L.* in Surinam; the former of these being one of the sorts employed to make the bitter cups, which communicate a taste to water left in them. Quassia chips are used medicinally as a tonic, etc.

The bitter wood tree used for boats in the neighbourhood of Amherst, Mr. O'Byle states, is exempt from the attack of the teredo. Its leaves and fruit indicate it to be a species of Ternstedtia, and of the section Pentapetala. The good timber and bitter bark assimilate it to Roxburgh's *P. arjuna,* but the foliation is different.

BITTURNEE, a river near Akoo pudds in Balasore. It is the Hindy Styx.

BITUMEN, Asphalt, petroleum. Kier, qier, ... ARAB. | Asphaltum, ... LAT. Shih-tsiih, ... CHIN. | Bitumen Judaicum, ... MALAY. Shih-lau-yu, ... Malak. Judenlym, ... DUT. | Nift-rumi, ... PERS. | Bitume de Tonkin. | Bitum de Tonquin. Judenpech, ... GER. | Asaf, ... RUS. | Umqur, ... HEB. | Asaflo, ... SP.

Bitumen is a name applied to several combustible mineral substances of different consistence and character, such as mineral pitch, earth, oil, petroleum, naphtha, maltha, and wax, the properties of which, with regard to fluidity and colour, greatly vary. At Hilt, the Is of Herodotus, near Babylon, it is very abundant; and ancient geographers suppose that the Babylonians obtained here the bitumen used as cement for fastening their bricks. Arrian says that the temple of Belus was of bitumen cemented with asphaltus. It is a product of the districts in the N.W. of Persia, where, at the town of Ai, the momai is produced. Several places in China, Burma, and Yunnan produce petroleum,—in China in the provinces of Yen-nung-fu, and Canton, and in the S.E. corner of Sech-uen. Hit is mentioned by Herodotus as the great place for bitumen, and in Lower Mesopotamia boats are still smeared with it.—*M'Culloch; Skinner,* ii. 113; *Mipnum,* p. 166; *Faukner, Eng. Cyc.*

BITU-MIKA. TEL. | Bustard; Otis tarda.

BIUL. HIND. Grewia oppositifolia.

BIUM. TEL. | Orzya sativa, rice.

BIUNS. HIND. Populus nigra.

BIUR. HIND. Articenias elegans.


Laktam, ... BENG. | HIND. | Kisse, ... MAHAR.

Thi-dew, Thidew- | Kusanphakilang, ... MALAV.
Pain, ... BURM. | Karungu munga, MALEAL.
Kuppa Manhala, | CAN. | Kaha-gaha, ... SINGH.
Kisti, ... DEK. | Karungu manjal, ... TAM.
Armatto, Amatto, | ENG. | Manginati maram, ... SONGH.
Rogou, ... PAS. | Sappekamaram, ... SONGH.
Capurji, ... HIND. | Jafa chetti, ... TEL.

BIXA ORELLANA.
There are two varieties of this small tree, α. Carthboca, with rose-coloured flowers, cultivated in the West Indies, and β. India, with white flowers, cultivated in India. In the native of India the flowers are white, and the immature capsule green; while in the plant from West Indian seed the flowers are rose-coloured, and the immature seed-vessel red; and the eastern plants do not furnish so much or of so good a colour. The plant is cultivated in Singapore, in Mysore, largely all over Pegu, and is a favourite dye with the Burmese; it is grown in Dacca, the Malac Peninsula, the Eastern Archipelago, the Hawaiian islands, Tongatapu, Rio Janeiro, Peru, and Zanzibar; the shrub rises to the height of seven or eight feet, producing oblong heavy pods, somewhat resembling those of a chestnut. Within this there are generally thirty or forty irregularly-formed seeds, which are enveloped in a pulp of a bright red colour, and a fragrant smell; the pulp forms the arnotto of commerce. The dye is usually prepared by macerating the pods in boiling water. When they begin to ferment, the seeds are strongly stirred and bruised with wooden pestles, and the seeds are set down in red slops. This process is repeated several times, till the seeds are left white. The residuum is dried in the sun, and made up, while soft, into balls or cakes of 2 or 3 lbs. weight. The dry hard paste is the best of all ingredients for imparting a golden tint to cheese and butter. The Spanish Americans mix it with their chocolate, to which it gives a beautiful rich hue. It imparts a pale rose colour to silk and cotton. The imports into Great Britain of arnotto for home consumption are from 200,000 to 300,000 pounds per annum, price 1s. the pound.—Simmonds’ Commercial Products, p. 448; Mrs. Roxburgh, Voigt, McLeddian. See Dyes.

BIYAWAK. Bewak, also Manawak, Malayian iguana.

BIYOM, Lepteromyx magnificus, Hodgson, Blyth.

BIYOM CHIMBO, Sciuropus caniceps.

BIYU-KANTYEM, Biot. Talpa mierura.

Biyu-Khawar, Tel., Melliwora indica, Jerdon.

BIZUDA-KHWAN. Hind. Astragalus multiceps.

BIOO. Beng. Dillenia pentagyna.

BJORNSTJERNA, Count, Swedish ambassador to England; author of the ‘British Empire in the East.’

BLACK.

Aswad, ARAB. Niger, LAT.
Meh thee?, BURM. Itam, MALAY.
Net thee? Nek Nek, Siah, PER.
Noir, FR. Kara-karpa, TAM.
Soor, NEP. Kara-kalla, Tel.
Kala, HIND.

The commercial substances commonly so named are ivory black, lamp-black, and smoke-black. The last is prepared by the combustion of different resinous bodies, especially of pitch, burned in large vats under a dome or chimney, within which cloths are suspended, to which the soot becomes attached. It is employed in the manufacture of printers’ ink, and of blacking for shoes, etc. Amongst Mahomedan women, the lamp-black, Kajil, is largely used for painting the eyelashes. Indian ink or China ink is made from lamp-black. Many animals, minerals, and vegetables of this colour have the term prefixed, as—

Black bird, Merula, sp.
Black bear cat, Arctiae binotaurum, Jerd.
Black buck, or Indian antelope (Antilope cervicapra).
Black cat, Felis aurata, Temmin.
Black cheeta, or black panther, Felis pardus, Liion.
Black dammer tree, Canarium strictum, Roxb.
Black fish, the smaller whales of the genus Phoecena.
Black hellicere, Hellicerus aiger.
Black Miss, See Hira Kasis.
Black partridge, Francolinus vulgaris.
Black sesamum, Sesuam orientale.
Black swan of Australasia, Cygnus stratus.
Black-naped hare, Lepus nygittos, F. Cuv.
Black popper-vine, Piper nigrum.
Black wolf of Tibet, Canis chaco, Gray.

BLACKER, Lieut.-Col. V.A., Quartermaster-General of the Madras Army, author of Memoir of the Operations of the British Army in India during the Maharrat War in 1817–19.

BLACK HOLE of Calcutta was a room at the southern end of the barrack of the old fort. By order of nawab Suraj-ud-Dowla, in June 1756, 146 British were thrust into that room, 18 feet high, 18 wide, and 14 deep, and before morning 123 of them had perished. The Black Hole was at the corner of tank square, close to the place where, in 1834, was Lyell, Mackintosh, & Co.’s office.

BLACKING, shoe-blacking.

Noir (de cordonnier), Fr. Nero da unger-le-scopare, Ger.
This is used in blacking leather articles. The principal ingredients are oil, ivory, gall, copperas, black.—Tomlinson.

BLACK LEAD, graphite; plumbago.
Pottl or Pottlott, DUT. Pombagino, Corezzo, Fr.
Plomb-dc-minne, Karri Jam, TAM.
Pote-lot, Fr. Nalla Sisam, Tel.
Reislei, Ger.

This mineral is of a dark steel-grey colour, and a metallic lustre; it is soft, has a greasy feel, and leaves a dark-coloured line when drawn along paper. It is a carburet of iron; and when pure, sells at 30 shillings the pound. It is used in the manufacture of pencils, for making crucibles, in compositions for protecting iron from rusting, and for diminishing friction in machinery. Good plumbago is procured near Bawrdlawle, in Cumberland; it has also been largely worked in America; Ceylon largely produces it, also Travancore and Vizianagram. It occurs in veins, and in kidney-shaped lumps, in gneiss, mica slate, and their subordinate rocks, but that at Bawrdlawle occurs in transition slate.

Black Lead pencils. Pencils.
Pothootpen, DUT. Karra-naschii, Rus.
Crayons-noirs, Fr. Karri Ian penel, TAM.
Byestifte, GER. Nalla Sis a penel, Tel.
Surm-ka kalm, HIND.

These are formed of black lead, laid in cedar and other woods. They are mostly imported into India from Britain.—Poult.; Tom. Stat. of Com- mence; 29 June 1819.

BLACK MOUNTAIN. See Mahaban; Panjab.

BLACK PAGODA, a pagoda 16 miles N. from Puri, near the village of Kanarik. It was built or restored, A.D. 1241, by Narisingh Dev Langora, raja of Orissa. It was a temple of the sun, or Surya. It is partly ruinous, the inferior tower, called Jug Molum, being the more perfect.
BLACK PEPPER, Piper nigrum.

Filis nasaw, ARAB. Lada; Lada-ram, MALAY.
Micea, BULL. Saltim. PAKETRANG.
Houtte, DUT. Filis-Siah. PERS.
Peper, FRIAR. Pimenta. PORT.
Poirre, FR. Maricha. SAN. JAY. MAL.
Schwarzenn pfeffer, GER. Gammirr. SINGH.
Kals-mirch, HIND. Pimenta. SINGH.
Kol-mirch, KARRI. Molлаг, KERI.
Pepereno, IT. Nalla Miriului. TEL.

This small, pungent, aromatic fruit is the product of the Piper nigrum, grown in Malabar, Malacca, Siam, and on the islands of the Archipelago. See Pepper; Piper.

BLACK RACE, the Kar-a-chi.

BLACK SEA, on the N.W. side of Asia, forms in part the boundary between Asia and Europe.

BLACKSMITH. The Lohar, or blacksmith of India, is one of the five artisans who wear the zonar, or pottu, or sacred string, the other four being the goldsmith, stone-cutter, carpenter, and coppersmith. The blacksmiths of India who make iron, obtain a great heat by throwing a quantity of (bhusa) rice-chaff on the top of their fire. The chaff being composed of silica and vegetable matter, the latter burns, and so forms potash, which alkaline combines with the silica and forms a glass or vitreous cake. The coal-worker throws dried cake of water on the fire to make the mass cake.

BLACK SOIL, or black cotton soil, or cotton soil of Southern India, is met with in great tracts of country. It is remarkable for permanence of fertility, yielding crops without manure for a thousand years. It is supposed by some to be decomposed trap, but others regard it as a true alluvium, deposited from still water. It is called regur in Hindi. During the dry season, it rends into great gaping cracks, but it is highly absorbent of moisture, and very retentive; and during the rainy season it presents a uniform glazed surface of black tenacious clay. It can absorb more than one-third of its entire weight of water, and it has in a very remarkable degree the power of absorbing moisture from the air. Thoroughly dried cotton soil in one night absorbed 7-99 per cent. of water. It is the soil in which cottons, sorghum, wheat, and maize are largely grown. In many parts it is 15 and 20 feet deep, and is to be seen everywhere in the Peninsula of India in patches of greater or less extent, but it covers the whole surface of the greatest outburst of volcanic rocks in the world, in the western part of the Dekhan, Central Provinces, and Berar.

BLACK STONE, the Hajar-ul-sawad of the Mahomedians, now built into the wall of the Kaba at Mecca, is said to have fallen from paradise with Adam. It is kissed by each pilgrim.

BLACKWELLIA CEYLANICA. Gardner. B. tectandra, W. I. | Leeyang-gass, SINGH. |
This tree grows in the moister parts of Ceylon up to 3000 feet. It attains a height of 30 to 40 feet.—Thor. Zeyl. i. p. 79.

BLACKWELLIA TOMENTOSA. Vent. The Myout kyan of the Burmese, a tree of British Burma; wood tough, of a light yellow colour, used for the teeth of harrows. A conic foot weighs 56 lbs. The average length of the trunk to the first branch is 70 feet, and average girth at 6 feet from the ground is 6 feet. B. spiralis, festiva, proppucha, Cochin-Chinensis, paniculata, Nepalensis, and padillorn also occur in India.—Volgt; Dr. Brandis.

BLACKWOOD, Rosewood.

Bitt, CAN. | Era potta, TAM.
Siam, GEI. | Bitti-marana, TAM.
Sib, Sit Sal., HIND. | Iruguva chetta, TAM.

This is a commercial term for several dark-coloured timbers, and every locality has a wood which is known by this name. The timber known in Britain as East Indian blackwood is from the Dalbergia latifolia of the Malabar coast, where it grows to an immense size. The wood of the trunk and large branches is extensively used for making furniture; it is heavy, sinking in water, close-grained, of a greenish-black colour, with lighter coloured veins running in various directions, and takes a fine polish. Bombay acacia-wood, however, is probably the timbers both of Dalbergia latifolia and D. sissoo, brought from Cochinn and other places lower down on the Malabar coast. It sells for about the same price as teak. It is a brittle, open-grained wood, not at all a favourite with cabinet-makers of England, where the highest prices ever realized for it in the state of log were about £10 per ton. The principal furniture-dealers in Bombay are Parsees, mostly from Gujerat. The pattern meant to be carved is first carefully drawn on paper; then on the wood. The tools used are the native adze, chisel, and drill; the centre-bit and other tools of English pattern, from which so much assistance might be obtained and noted. The general design of the various pieces of furniture is mostly excellent, the patterns elegant and tasteful; the finish for the most part is poor, the joinery always execrable. Concealed joints never seem to be thought of; pins which might be kept out of view are made as conspicuous as possible; and great clumsy screw-nails, which might, without trouble, be hid, are fully exposed to view. Considerable quantities of blackwood furniture are sent to Britain annually by residents in Bombay for their own after use, or for the service of friends. It is packed up without being jointed or polished, and is put together by English workmen, who, it is believed, think but lightly of its merits. The principal furniture shops in Bombay keep from five to ten workmen each, and probably turn out Rs. 25,000 to Rs. 30,000 worth of furniture amongst them annually.

BLACKWOOD’S HARBOUR is a sheet of water between Armagon shoal N. of Madras, and the mainland.

BLADDER WORM, Measle. See Cysticerus. BLAIR, Lieutenant Archibald Blair, R.N., in 1777 and 1795 made a circuit of the entire Andaman Archipelago, and embodied the result of his researches in general charts, plans, and a report containing useful information for mariners. He surveyed also the Kattyawar coast, Salsette, and other patches here and there.—Marine Survey.

BLANAH. MALAY. In Burma, a well-known palatable fish.

BLANKET.

Bett decke, Windel, GER. | Coperta di lana, IT. | Kamal or Kamil, HIND. | Manta, SR.
A soft, loosely-woven woollen stuff, used as a bed covering by night and cloak by day. Most of the blankets or Kamli manufactured in India, are of a coarse description, and only used by the poorer natives. Blankets are manufactured in Mysore from half-bred merino wool, half-bred but wool: warp wool Mutilum wool, common
country wool and Mundium wool. Those of Kachnar sell well. The white blankets made at Rampur in the Western Himalaya, and known as the Rampur chad, are sold in London at £3 and upwards. They have a sale in Great Britain. The Kamli or cumblies made in the Ceded Districts are of a superior texture. A woollen manufactory is working at Bangalore.

BLATTA ORIENTALIS, the cockroach; a very troublesome insect in houses and in ships; lodging in cupboards, presses, and amongst books, and soiling by their exuvia whatever they approach.

BLATTI. MALEAL. Somneriata acida.

BLEACHING.

Nikharna, . . . Hind. Salary panukiramu, TAM. Kumbi karna, . . . , Nana padam, . . . Tel.

In India, the substances present in goods which oppose the bleaching process are first removed by scouring in an alkaline lye; afterwards natives usually dungen the cloths which are to be bleached, and then steam them over the mouth of an earthen pot set in a clay fireplace. But little science enters into the process, and generally good results cannot be expected from the water in which they are scouring being overcharged with lime. Bleached cloth, particularly of tents, is far less durable than that which has merely had the dressing and finish thoroughly removed by washing. This is easily explained, as cotton goods have a certain resinous substance in them that obstructs the absorption of moisture. Besides the removal of this, cloth sustains much damage from the abuse of the caustic lye bath. Cloths should be scourd more than once at intervals during the process of bleaching, because many of the substances cannot be removed but after exposure to the light and air.

Wool, also, is protected by a peculiar varnish, exceeding three per cent. of its weight, which must be removed by scouring. Warm water must be employed. Wool is further bleached by sulphurizing, which is done by pouring in a large number into the water and by the sulphuric bath. In either case it acquires a brittleness which must be removed by washing in soap and water.

Several seats of the cotton manufacture, such as Dacca and Baroach, are famous for their bleaching. This has been ascribed to the excellence of the water in the neighbourhood of these places. At Dacca fine muslins are merely steeped in water; other cloths are first washed. But all, of whatever texture they may be, are next immersed for some hours in an alkaline lye, composed of soap and of sajji matte, that is, impure carbonate of soda. They are then spread over the grass, and occasionally sprinkled with water, and when half dried are removed to the boiling-house in order to be steamed. This is effected by twisting the cloths into the form of loose bundles, and placing them upon a broad clay platform, which is on a level with, and surrounds, the neck of a boiler sunk into the ground. The cloths are successively laid in circular layers, one above the other, around a bamboo tube, which is kept upright by means of transverse supports projecting from it, the whole forming a conical pile that rises to a height of five or six feet above the boiler. The fire is kindled in the excavation below, and as the ebullition of the water proceeds, the steam diffuses itself through the mass of the cloths above, swelling by its high temperature the threads of the latter. The operation of steaming is commenced in the evening, and continued all night till the following morning. The cloths are then removed from the boiler, steeped in alkaline lye, and spread on the grass as on the preceding day, and again steamed at night. These alternate processes of bucking and crowthing, as they are technically called, during the day, and of steaming at night, are repeated for ten or twelve days, until the cloths are perfectly bleached. After the last steaming, they are steeped in clear filtered water acidulated with lime-juice, in the proportion generally of one large lime to each piece of cloth. Lime-juice has long been used in bleaching in all parts of India; and Tavernier describes Brouch as famous as a bleaching station on account of its extensive meadows, and the large quantity of lemons reared there. Mixed fabrics of cotton and Muga silk are steamed in water mixed with lime-juice and coarse sugar, which latter article is said to have the effect of brightening the natural colour of the silk.—Royle, Arts, etc. of India, 3rd edition, p. 793.

BLEEKER, Dr. P. A. Dutch naturalist, who from 1845 to 1860, in numerous contributions on the fishes of the Eastern Archipelago, added greatly to the stock of knowledge of the fauna of the region from Penang to Japan. He gave a catalogue of 780 species of fish found at Ambonaya.

BLENDJU, in Java, a substance prepared as a paste, frieet with oil, and eaten with coffee.

BLENNIDJ5, of the Blennies, the Blenby family of fishes, comprising many East Indian genera. Blennies, with protruding eyes, are to be seen hopping about the muddy banks of rivers, and perching on stray logs like frogs.—Adams, p. 67. See Fish.

BLEERONG or Bulerang, May. Sulphur.

BLETTIA HYACINTHIANA. R. Br. One of the Orchideae, a plant of China and Japan, with bright purple flowers.—Veitch, 625.

BLIGHT. Sclerotium, Br., or Cupania sapida, Caul. The Akse Boble, or the Sapindaceae, has been introduced from Guinea into India. It rises 30 to 40 feet. The fruit has the size and shape of a pear, and is of a red colour. It is much esteemed in Guinea and the West Indies. The genus was named after Captain William Bligh, R.N., master of the 'Bounty,' whose crew mutinied, and he and the officers took to the boats.

BLIGHT. The grains or ears of nearly all the cereal grains are subject to several well-marked diseases, resulting from attacks of parasitic fungi, animalcule, and insects, causing great losses to the agriculturist. The liability of the seeds of grasses to parasitic infection is explained by the large amount of nitrogenized matter contained in them, and to their softness of texture. The diseases generally alter the perisperm, sometimes destroying it altogether; and three minute cryptogamic plants are the most frequent, viz.:

Curvula Uredip, carries attacks wheat, usually sparses the pericary, but changes the perisperm into a black fetid powder. The component globules are devoid of pellicles. The disease is highly contagious.

Carbon or smut, Uredo segetum, occurs under the epidermis, is composed of spherical globules, attacks all the cereal grains indiscriminately, and resembles black dust.

Ergot or spur, Sclerotium clavus, is elongated.
BLIMBI. MALAY. Averrhoa bilimbi. The fruit of the plant known as the tree cucumber; has various terminations, Blimming basin, Blimming bulu, Blimming teres, perhaps varieties. Blood manis, Averrhoas carambula, Lion. Blimming saga, Cicca disticha.

BLISTERING BEETLES of India, Pan-man, CHIN., consist of several species of Mylabris. About 180 lbs. forwarded by Dr. Birdwood to test the market value in England, were sold there at 3s. 8d. per lb. Several kinds of beetles, when applied to the skin, cause great irritation, inflammation, and blistering. These consequences are occasioned by an acid principle called Cantharadin contained in these insects. The ancients chiefly employed two species of Mylabris, one of which, the Mylabris cichorei (vern. Telini, HIND.), has been used for ages, and is so at present by the European and Native physicians of India and China. The Cantharis vesicatoria, or Spanish blistering fly, is the species official in the British Pharmacopoeia. Its colour is bright shining green or bluish, length about 4ths of an inch, breadth 4th to 3d of an inch. It occurs in the south of Europe generally, especially in Italy and Spain, and is found occasionally in England. The blistering flies of India are chiefly the Mylabris or Meloe cichorei, the Cantharis gigan, and the Cantharis violceas. The Mylabris cichorei is common in the neighbourhood of Dacca, in the Hyderaband country, in Kurnool, and numerous other localities. The insect is about an inch long and 3d broad; the elytra or wing covers are marked with six cross stripes of deep blue and russet brown. The Buprestis of ancient writers is met with in the bazars under the name of the golden fly (sonamukhi). The Cantharis violceas is often mixed with species of Meloe, and is found in the bazars. The Telini fly, if procured before the mice have commenced its destruction, yields on an average one-third more of cantharadin than the Spanish fly of the European shops. The blue fly is of uncertain strength; the Buprestis, in all the specimens obtained, was quite inert. A species, called Meloe triantheme, from its being usually found on the Trianthema decandra (Biscopra, HIND.), was described by Dr. Fleming. A tincture, acceous plaster, and ointment of the Meloe chichori are given in the Bengal Pharmacopoeia. Some prejudice exists against the article, on account of its alleged excessive severity of action, owing to the presence of a greater quantity of cantharaid than that contained in the common fly. Diluting the tincture, and adding to the proportion of lard and wax in the plaster and ointment, perfectly assimilate the action of the indigenous and the imported insects. At the Madras Exhibition of 1866, specimens of Mylabris postulata and M. punctum were exhibited by Mr. C. Collas of Pondicherry. Both insects are found in large quantities at certain seasons all over Southern India.—O'N'Sh.; Dr. Hunter in Tr. As. Soc. v. p. 216; Madras Exhibition. See Cantharides; Insects.

BLOOD.

Blood for blood, the vedette of the Italian is the law of most rude populations, but most of the settled races occupying the south and east of Asia are dwelling under civil laws administered by officers of justice. The Vedas, which all Hindoos acknowledge, enjoin the offering of bloody sacrifices to the gods, and amongst many Saiva sectarians this rite is continued. The non-Hindu aboriginal races also offer bloody sacrifices to demons, and to the Gnamma devata, or village tutelary deities. The investing tika mark of chieftship, placed on the forehead of their Rajput ruler by the Bihl, is blood drawn from the arm of a Bihl. The Karen of Burma and the Kyan of Borneo, in swearing brotherhood, drink water in which the blood of the parties has been mixed. The old Mongolians mingled gold and blood in their cup of peace. The custom of the old Hungarians in their Allmos (alliance), was to open reciprocally a vein in the outer arm of the drinker and pour the blood out of one cup. The Turks practiced the same observance in their alliances with the Hungarian Christians, as is noticed by Petechiv's History.

Blood-coloured water is noticed in Exodus vii. 19.; and Homer alludes to blood rain. In the Red Sea, periodically, a blood-red colour is observable in the water; and a similar occurrence was noticed at Pincenium, B.C. 323.; in Italy, A.D. 787.; in the Volinian lake, B.C. 208.; mentioned by Livy; in a Venetian lake, B.C. 586.; in Lake Wan, A.D. 1110. Pliny mentions a lake near Babylon which had a red colour during eleven days of summer, possibly from a red conferva.

Blood-money, Duja, ARAB., is payable in Lahej by a criminal to the relatives of the murdered person; for wilful murder, 100 female camels, or 1000 Venetian sequins; manslaughter, 700 dollars; death by misadventure, the culprit is not imprisoned, but is allowed to appeal to the civil courts, and escaping from a cruel death, which the nearest relative inflicts; should the nearest of kin be a child, the punishment is postponed until he reach manhood.

Blood - showers is a term given to substances of a red colour which occasionally appear; also what have been called showers of pearls, of manna, of spiders, of toads, of fish. In India, in 1825, a shower of red fluid at Jeyesulmire is mentioned in the Asiatic Journal. In 1828, very heavy rain fell at Angur in Kandesh, accompanied by hail, single pieces of which weighed as much as half a seer. This was followed by drops of red rain, descending from the sky. In 1855, a shower of red rain, or of flesh, as the natives called it, fell near Shikarpur in Sind. Another shower fell in the Jellaisore district over an expanse of above fifty bighas. The carmine colour of snow has been ascertained to be due to a kind of algae, called Protococcus nivalis or Protococcus hematococcus. Until lately, much perplexity was occasioned by the same form of organism sometimes appearing red, sometimes green. It is still, indeed, matter of question whether the protococcus or the hematococcus are most nearly allied to the vegetable.
or to the animal kingdom. It is a simple cell, which lives for itself and by itself; and is dependent upon nothing but a due supply of matter and the appropriate stimuli for their continuation and growth, and for the due performance of all its functions, until its term of life is expired. Klaproth in 1815 ascertained that the red appearance in the sea was produced by an albuminous vegetable matter.—*Jum. Ed. Journ.* ii. 830-31; *Captain Prideaux, the Arab Tribes; Forbes; Vambery, Bohkara, p. 151; Moor, Buat, Cat.*

**BLOODSTONE.**


This quartzite mineral is of a deep lead-green colour, and has red spots scattered through it, caused by iron. Masses of it are obtained in the trap formation of the Dakhan, but it is chiefly brought to Bomhoy from different parts of Gujerat, etc., and is re-exported largely to Europe. It is used for seals, rings, and brooches.—*Madras Museum.*

**BLOOD- SUCKER,** a name applied to the Ciatoles viridis, Gray, G. opiomachus, and C. veri- coker, and also to Sitana Ponticheriana Cuv. They are all unsightly reptiles, with large heads and powerful jaws, so that even the bravest crow attacks them cautiously. There are 11 species of Ciatoles and two of Sitana in India. Mahomedans dislike the blood-sucker, as the creature often raises and lowers its head in the manner of these religionists when at prayer. See Ciatoles; Reptiles; Sitana.

**BLOOD-WOOD** of Port Jackson is a species of Eucalyptus, sp. The blood-wood tree of Norfolk Island, Baloghia lucida, *Lindlitcher,* grows to 40 feet in height. It yields a blood-red sap, which has been utilized as a paint. It is obtained by an incision 8 to 10 feet long, tapering to a point; a gilt to a pint from each tree.—*Von Mueller; G. Bennett,* p. 346.

**BLOW-PIPE** is in constant use in India, in the arts, amongst goldsmiths, tinmiths, bangle-makers, and others; the cook-room of every house also has one of bamboo. The Malay races also use the blow-pipe, sumpitan, for projecting pens, small pellets, and wooden and iron arrows. The accuracy of fire with these is great; little birds can easily be destroyed, but even large birds like the crow can be brought down by the earthen pellet from a blow-pipe. It is used as a weapon by the Malays of Borneo, by the Lao-Ti on the Meckong river, by the Orang-kubit and the Sennang on the Peninsula of Malacca. The paradise birds are killed and stunned by wooden arrows from the blow-pipe. The Indians on the Amazon use it, and, it is said, can throw the arrow to 250 feet.—*Pecheh.*

**BLUBBER.**


Blubber is the thick fat or adipose of the whale or the porpoise. In Europe, it is boiled down into train-oil. It is eaten by the Eskimo and the sea-coast races of the Japanese islands, and of the Kurriles.

**BLUE DYE,** Marsdenia tinctoria.

Blue dyeing rosey, Nerium tinctorium.

Blue fish, Coryphaena socialis.

Blue gum tree, Eucalyptus, sp.

Blue noddy or reef bird, Sterna cerula, Bennett.

Blue petrel, sperm bird, Prion pachyptila.

Blue blow. It is worn by the Jews of Egypt, Syria, Palestine, and Central Asia.

**BLUE MOUNTAIN,** a peak in the Yoma range, at the N.W. of the Akyab district in British Burma. It is in lat. 22° 27' N., and long. 93° 10' E., and rises to 710 feet.

**BLUESTONE.** Sulphate of copper. Cupri sulphas.


This salt is not known to occur in nature, but it is largely made in several parts of India, by boiling sheet copper or copper filings in sulphuric acid, and evaporating the remainder, on which the crystals form. It is also obtained from copper ore by pulverising the ore, which is then thrown into earthen vessels filled with water, and, after filtration, the crystals form. The colour is a beautiful blue, and it is largely used in surgery and in the baths of Mc Culloch.

**BLUMEA BALSAMIFERA.** *De Cand.*


It grows in the Konkans, Assam, Malay Peninsula, Moluccas, and Java. It is used as medicine and as a seasoning for food, and has a stimulo-diaphoretic action.—*Roxb.*

**BLUMEA GRANDIS.** *De Cand.*

Conyza grandiss, Wall. | Pung-ma-theing, . . . . BURM.

Abundant throughout the Tenasserim Provinces, growing six or eight feet high, with leaves like mullen, which, when bruised, emit a strong colour of camphor. The Tavoyiers informed Dr. Mason that they made an impure camphor from the weed by a very simple process; and Mr. O’Hiley of Amherst made more than 100 pounds, which he sent to Calcutta, and it was reported 'in its refined form to be much superior to all its properties with Chinese camphor.' The plant is so abundant, that these provinces might supply half the world with camphor. Wherever trees are cut down this weed springs up, and often to the exclusion of almost everything else, so that an old clearing looks like a field under cultivation. B. lacera, D. C., of all the East Indies, is used in dyspepsia.—*Roxb.; Mason. See Camphor.*

**BLUME, CAR. L.,** an eminent Dutch botanist. He was educated as a medical man. In Java, in 1823-24, he conducted a botanical exploration, and in 1825 he commenced the Bijdragen tot de flora van Nederlandsch, Indie, and, on his return to Holland, the flora Javae was begun in 1828, and the Rumphia in 1835, each of which consists of several folio volumes, illustrated with a profusion of admirably-coloured plates. These are amongst the most splendid and learned botanical works of the age. The *Museum Botanicum Lugduno-Batavum,* a periodical with outline plates, commenced in 1852, contains careful descriptions of genera and species of Java, Borneo, Moluccas, and Japan plants.—*H. et T.*

**BLUNJIPAT.** BENG. | Cochorus oligotinus. | BLYTH, EDWARD, for many years Curator of the Museum of the Bengal Asiatic Society, the

BO or Bodhi, also Bodhi-druma, a tree sacred to a Buddha or Tirthankara. See Bo Tree.

BOA or Boc, sometimes called Poam by the people of Malabar, has wood much like the timber called in Ceylon Palari or Palsi and Irambu, or, as known by the English term, ironwood. It is a strong, heavy wood, and is considered durable. It grows from 20 to 30 feet high, and from 12 to 30 inches in diameter.—Edge, M. and C.

BOA. Linn. A genus of innocuous serpents, of the family Pythonide, order Ophidia, sub-order Innocues. The genus, as defined by Linnaeus, belongs to the New World; but in India the term Boa and Boa-constrictor is applied to species of Python in the tropical parts of South-Eastern Asia, some of which are of considerable size, and able to kill large four-footed animals. A female python 20 feet long, captured in Ceylon when in a torpid state, was taken to the London Zoological Gardens, and before the end of six years it had grown to 29 feet in length, and was as thick round as a man’s thigh. It was very vicious at all times, but at length destroyed itself by swallowing a blanket. The pythons on the western coast of India and in Ceylon are amongst the largest met with. The organisation of the boa and pythons is directed to the slaughter of their prey by compression, and to this end are given to them enormous dimensions and power of muscle. When a boa dashes at the prey, it generally preserves its hold of the tree by a coil or two towards the tail; it seizes with widespread jaws, and throws with rapidity the folds of its body round and round its victim. Tightening, and crushing rib and limb when the body is pressed, the folds remain so until life is pressed out. The serpent then pauses for a few moments. Soon, however, it begins to touch the carcass gently with its muzzle; the jaws again and again dilate, until the skin is strained so tight that every scale is isolated. Then grasp following upon grasp gradually and irresistibly engulfs the body, which, in its passage through the folds, has been compressed and attenuated into the most convenient possible form for this final opera-

tion. Death inflicted by such overwhelming action is almost instantaneous, in small animals especially.

BOAR or Bod, a tributary state in Oriassa, with an area, including the Kandhl-Mals, of 2064 square miles, and a population in 1872 of 108,868. The aboriginal tribes are the Pan, Kanth, Dimal, Golah, Sud, and Kent. Bod, the chief town, is in lat. 29° 50’ 20” N., and long. 84° 21’ 41” E. The reigning family is Kshatriya Hindu.

BOALEE. Beng. The jawbone of this fish is used in carding cotton for the Dacca muslins, as a substitute for the hecket and hand cards.—Royle.

BOAR.

Khanar, 

AKAR. Doorkar, 

MAHR. 

Varaha, 

BENG. Baby-alas, 

MALAY. 

Verrat, 

FUL. Babi-utan, 

Eber, 

GER. Varaha, 

SANSK. 

Hazir, Chaizir, 

BRAH. Walura, 

SINGH. 

Jangli Sur, Sur, 

HIND. Vermon, 

AD. Var. 

The boar is the male of the hog or swine. Of these, in Asia, are seven wild species, viz. Sus scrofa, Linn. var. S. indicus, Bengaleensis, Andamanis, Malayanesis, Zeylanesis, Babyrussa, and Pappensis. When the wild boar of India, the Sus Indicus, has the run of cultivated lands, it eats daintily; but when stinted for food it will revel on a dead camel, and when pressed by want it prowl around the villages in search of refuse. The wild boar of India is shot and hunted with dogs by natives, but British sportsmen hunt it with the horse and spear; and of all the wild creatures in India, the boar exacts from its pursuers the greatest care.

The Sus Indicus of Pallas, Sus scrofa of other naturalists, the common wild boar, is supposed to be the parent of one of the two groups into which domestic pigs are arranged. The Sus scrofa group or breed is known as the Chinese breed, and extends into Europe, North Africa, and Hindustan; but in the latter country the boar of the N.W. Provinces is not higher than 36 inches, though that of Bengal attains 44 inches. The parents of the other group are unknown.

Sus scrofa is not known in a wild state, but its domesticated forms come near to S. vitatus of Java. The Roman or Neapolitan pig, the domesticated breeds of China, Cochín-China, Siam, the Andalusians, Hungarian, the swine of S.E. Europe and Turkey, and the Swiss, are all of the Sus scrofa group, which, a Chinese author says, can be traced back for 4000 years. The Japan masked pig is the Sus pliciceps of Gray, and has a deeply plicated or furrowed skin.

Porcula sylvaria, the pigny hog of the sal forest of North India, is called by the natives Sano Banel, also Chota Sur.

With the great Chalukya dynasty of the Peninsula of India and Gujerat, their boar standard was two of the sacred icons of the Hindu gold piece with the emblem of a boar. One of the great protecting incarnations of the Hindu god Vishnu was in the figure of a Varaha or boar.

In the mythology of the ancients, the wild boar was sacred to Typhon. In India, the Rajputs, on the first day of spring, worship Vasanthi, or spring, Basanth, personified; prince and vassal then chase, slay, and eat the wild boar. Personal danger is disregarded on this occasion, as want of success is deemed an omen that Oomra, the great mother, may refuse petitions during the year.
The boar hunt in spring-time is a Scythian custom. Amongst the Scandinavian Asis, the grand festival to Friya was in spring; then boars were offered to her by the Scandinavians, and boars made of paste were eaten by the people. Baking in the shape of a boar were widely spread, as shown by the baking of 'cochelins' for New Year's Day in France. The Egyptian custom of baking swine-shaped pieces of dough is mentioned by Herodotus.

The Rajput festival is called Ahairea, and has a religious origin. The boar is the enemy of Gouri of the Rajputs. It was so held of Isis by the Egyptians, of Ceres by the Greeks, and of Friya by the Northman, whose favourite food was the hog; and of such importance was it deemed by the Franks, that the second chapter of the Salic law is entirely penal with regard to the stealers of swine. The heroes of the Edda, even in Valhalla, feed on the fat of the wild boar Scrimmer, while 'the illustrious father of armies fattens his wolves Geri and Freki, and takes no other nourishment himself than the uninterrupted quaffing of wine;' quite the picture of Har, the Rajput god of war, and of his sons the Bhyru, Gora, and Kala, metaphorically called the 'sons of slaughter.' The cup of the Scandinavian god of war, like that of the Rajputs, is the human skull (supra.)—

_Tods Rajasthun_., i. p. 566; Darrein.

BOARD. Under the East India Company, the military and civil administration of British India was conducted by officials assembled in Boards. In the year 1784 the Government of India was placed under a Board of Control, composed of the king of Great Britain's ministers, who in that capacity bore the title of Commissioners for the Affairs of India. This system continued until the year 1858, when British India was taken under the direct control of the Crown. In that interval, however, the Home Government of India consisted of a board of 18 members, called the Directors of the East India Company and the President of the Board of Control. The Directors had mostly all the patronage as to appointments, except the higher offices and commands which were made in communication with the British Ministry, who likewise originated all questions of peace and war, possessed the power of reversing the Acts of the East India Company and of the Government of India, and also of sending out instructions on special matters to the Governor-General without consulting the Directors. The Presidencies were under a Council of four, and the subordinate administrations were under the Justice Court of Sadr and Faujdiri Adawat, the Revenue, Military and Marine Boards. Since India came under direct British control, the Court of Directors has been replaced by a Council, and the Military, Medical, and Marine Boards abolished.

BOARDA - GOOMOODOO. Tel. Boninccusa cerifem.

BOASOO. MALEAL. Minutos kauki, L.

BOATS and SHIPS of BABYLONIA. 

BOATS and SHIPS of BABYLONIA.

The difference as to size between the boat and the ship, so marked in Europe, is less observable amongst the communities of Eastern and Southern Asia; and the Kishi of the people of India, the Prahu and the Kora-kora of the Malay, the various kinds of Manche of Panamb, Mangalore, and Panyani, and the Patamar, range from a few tons to a few hundred tons. In India the Nao and the Kishi, in Burma the Thu or The and Serpa, are boats that might be described separately. In Britain, even, a boat may be a large or small vessel, used for traffic and passage, rowing or sailing on seas or rivers, and receiving names according to the construction, form, or purpose to which it is applied, as the wherry, punt, gig, pinnace, yawl, skiff, lugger, ferry boat, steamboat, packet boat, jolly boat, long boat, lifeboat, and canal boat; and in size they may range up to 15 tons burden. The sea-going vessels are known as sloop, smack, cutter, clipper, schooner, brig, brigantine, barque, and ship, and range from 15 to 3000 tons. The boats in use along the coasts of the Peninsula of India well illustrate the readiness with which seafaring people adopt their materials to the requirements of their respective localities, and the rapid sailing boats of Bombay and the vicinity of Cannanore, and the Catamaran and Masula boat of the Coromandel coast are illustrations of this adaptation.

_Ganja_ is a boat used for travellers on the Nile. _Mepe_, of Zanizbar, called Muntafiyah by the Arabs, is a sailing ship with a beam one-third of its length. Its planks are pegged together, not nailed, and it carries from 12 to 20 tons.

_Badan_, a sailing ship of Sur, Sohan, and Muscat, has a standing plank covering; makes 11 knots an hour.

_Kelek_ is a leathern raft in use on the Euphrates and Tigris, and was known to the ancients as the 'Navigia Corinicea.'

_Kafa_, the circular bowl-shaped basket-boat (from the Arabic word, which means basket), is also used in China by the Chinese traders. Its fabric is of close willow-work, well coated, and made water-proof with the bituminous product of the country. It holds about three or four persons, with room enough, though not in the most agreeable positions. It is moved across by paddles. Herodotus notices the different kinds of boats plying on the rivers of Babylon, mentioning them as composed of willows and the skins of animals; and adds, that on their arrival at the great city, the owners sold all the material of the boats excepting the skins, and those they packed on the backs of asses, and carried whence they came. A raft is made of full-grown sheep and goats' skins, which are taken off with as few incisions as possible, and then blown up like a bladder and dried. A square framework, formed of poplar beams, branches of trees and reeds, is constructed of the size of the intended raft; the inflated skins are secured to it by osier or other twigs, the whole being firmly bound together. The raft is then moved to the water and launched. Care is taken to place the skins with their mouths upward, that, in case any should burst or require refilling, they can be easily opened by the raftmen. Upon the framework of wood are piled bales of goods and property, belonging to merchants and travellers. When any person of rank or wealth descends the river in this fashion, small huts are constructed on the raft, by covering a common wooden taktit or bedstead of the country with a hood, formed of reeds and lined with felt. In these huts the travellers live and sleep during the journey. The poorer passengers bury themselves,
to seek shade or warmth, amongst the bales of goods and other merchandise, and sit patiently, almost in one position, until they reach their destination. They carry with them a small earthen mangal or chafing dish, containing a charcoal fire, which serves to light their pipes and to cook their coffee and food. The only real danger to be apprehended on the river is from the Arabs, who, when the country is in a disturbed state, invariably attack and pillage the rafts. The raftmen guide their rude vessels by long oars (straight poles), at the end of which a few split canes are fastened by a piece of twine.

A curiously-formed vessel, of a crescent shape, carrying one mast and a large lateen sail, trades between Baghdad and Basra; under a fair wind, it can reach the latter place in six or seven days. The Kashmir boats are the Bayola, a large vessel; the Parinda, a light, fast-sailing boat; the Bhatta, a large-sized barge for loading grain; the Dunga, for ordinary merchandise; the Shikari, and the small Banduri Shikari.

On the Indus, five kinds of boats are used between Attock and the sea. On the Kabul river and on the Upper Indus it is still the custom to stuff skins with reeds or straw, as floats. General Ferrier descended the Kabul river from Jalalabad to Attock on a raft so constructed. The best known are the Zoruk of the Upper Indus, the Dunda or Dundi, which plies from Mithancote to the sea, and the Dugga, which, from its strong build, is specially suited to the navigation of the rapids between Attock and Kalabagh. The better kinds of wood used in their construction (sisse and large babul) are procured with difficulty; and various timbers are generally seen in one boat, such as sissu, babul, deodar, chir, bann, and karil. Malabar teak is much prized in the Lower Indus, and fetches a large price. The ordinary ferry boats are constructed by the sides and bottom being prepared separately, and brought together to be secured by knees or crooked pieces nailed to the bottom and sides. The bottom is made of sissu, the knees of mulberry or olive, and the side planks of deodar. The wedges and treenails are usually made of tut and kahu. Ropes for rafts and boats are prepared either from hemp (Cannabis Indica), sirki (Saccarum spontaneum), Typha altifolia, dib, or other reeds, common on the river bank. Munj (Saccarum munja) is also largely employed by the native boatmen. The great boat-building localities of the Panjab are Pind Dadum Khan, Wazirabad, Jhelum, Attock, Nowshera, Hashtnagar, Mokhud, and Kalabagh.

The Panjnad boats, ships, oars, etc., are made of Acaea speciosa, Capparis asphylia, Cedrus deodora, Dalbergia sissu, Fraxinus floribunda, Olea Europaea, Pins longifolia, Populus euphratica, and Salvadora persica.

The boat in common use for transport in Sind and the lower part of the river is the Dunda or Dundi; it is flat-bottomed, with a slight convex inclination, for the additional facility of getting off sandbanks. The Dundi consists of three distinct parts, the two sides and bottom, the latter being adjusted to the others by warping the end up to the slope required, and then strengthened with joints or ribs (as they are termed); the boat thus admits of being dismembered and transported, a fact corroborative of the accuracy of Alexander's historians.

On the Sutlej, in the Indus and lower stream, the Zoruk is frequently seen. It differs from the Dundi in having no elevation at the stern, is square built, fore and aft, is of 40 to 50 tons burden, and carries no sail. The Zoruk is the common cargo boat at the Upper, as the Dundi belongs to the Lower Indus; it sails pretty fast, and sinks with prodigious facility.

The Dundi is well adapted for the transport of goods, but from insufficient construction many are annually lost. From the scarcity of large trees and the high price of teak planks, the carpenters are obliged to use the small wood, and most of them are formed of innumerable pieces fastened by bamboo pegs, nailing being employed only to secure the knees and ribs. It has one mast, square-rigged, and can only sail before the wind. Those that the Khori and Pharan branches of the Indus are from 20 to 30 candelas burden.

The Dunda and state, being made up of three parts, are distinguished as Dunda and Dundi, and are both of the same kind, differing only in size, the Dunda being larger. The Dundi is the larger, and is generally used for cargo purposes, while the Dunda is more common for passenger traffic. The Dundi is a flat-bottomed boat, with a slight convex inclination, and is generally used for cargo purposes. It is square-built, fore and aft, and is frequently used for transporting goods on the Indus river. The Dundi is constructed by splitting the sides and bottom separately, and then fastening them together with knees or crooked pieces nailed to the bottom and sides. The bottom is made of sissu, the knees of mulberry or olive, and the side planks of deodar. The wedges and treenails are usually made of tut and kahu. Ropes for rafts and boats are prepared from hemp, sirki, Typha altifolia, dib, and other reeds, common on the river bank. Munj (Saccarum munja) is also largely employed by the native boatmen. The great boat-building localities of the Panjab are Pind Dadum Khan, Wazirabad, Jhelum, Attock, Nowshera, Hashtnagar, Mokhud, and Kalabagh.

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BOATS AND SHIPS OF MALABAR.

these boats are thus formed into rafts, cattle and burdensome articles are conveyed across the rivers, as also the native regiments, with all their followers, horses, bullocks, baggage, carts, etc.

Pamban Manche, the Snake Boat of Cochin, is a canoe of great length; they are used by opulent natives and Europeans as boats for the conveyance and despatch of persons on the numerous rivers and backwaters, particularly on that between Cochin, Allepey, and Quilon, which is about 80 miles southward, and on that which runs to Ralfpact and Trichoé; the former place being about 20, the latter about 60 miles to the northward. These boats are from 30 to 60 feet in length, without any regard to breadth or depth, as they are worked from the solid tree. The breadth do not exceed 5 feet. Those of the raja and officers of state are very handsomely fitted up, and carved in a most fantastical manner; they are made very neat, and even splendid, with painting, gilding, etc. The largest boats are sculled by about twenty men, double-banked; and when pressed, their velocity is surprising, as much as a mile in five minutes. Mr. Edye had himself been sculled in one of them a distance of forty-eight miles in six hours. These boats are peculiarly adapted to the rivers; for it frequently occurs that in the dry season there are sand-banks, perfectly dry, nearly a hundred yards in breadth, over which they must be drawn by the strength of the few men who are in them, the smaller size having only six rowers and a coxswain. Those natives who can afford the expense, have the cabin neatly fitted up with venetian blinds on the sides, but generally the cæscus or grass-mat is substituted. This boat is formed from the angely-wood, which is very durable if kept oiled.

Cochin Bandar Manche, or Canoe of Barthen,—are canoes which are cut and formed from the largest and softest timber of the forest. They are from 20 to 50 feet in length, their breadth and depth being proportioned to the full size of the tree, so as to reduce its dimensions as little as possible. They will carry about 18 tons burden, and are made from 3 to 5 inches thick at the bottom; but at the top of the side, or gunwale, about 1½ to 2 inches, with a proportionate increase of thickness at the extreme ends to protect the end-grain of the wood, and withstand any shock that they may meet with. At the distance of about 5 feet on the inside there are ribs about 6 inches broad, projecting about 2 inches from the side of the boat, for the purpose of giving support and strength to the body of the canoe. These boats may be considered valuable for the service of the port at which they are used, and, notwithstanding their heavy appearance, they are very buoyant, and go very fast through the water. In one of about 35 feet long, with six men, and a tindal (coxswain), they paddled the Minden's (Capt. admiral's ship) barge, which had twelve men on board, and in a distance of four miles to that ship's anchorage he gained on them by time about twenty minutes, although there was a strong sea-breeze and swell against him. At Cochin, these boats are used for the purpose of conveying various articles of burden and water to the ships in the roads.

Mangalore Manche of the Western Coast of the Peninsula is a flat-bottomed boat of burden, about 25 to 35 feet long, 6 to 7 feet broad, and 4 to 5 feet deep. It is formed to meet the river, which is very shallow and flat; and to land the cargoes of the Patamars, which are discharged and loaded at the mouth of the rivers. These boats are sewn together similar to the masula boat and other native vessels; they are forced along by bamboo poles, as the water is not more than from 6 to 10 feet deep, except in the south-west monsoon, when the rapids swell, and the whole of the river is considered impassable; and at this period all the vessels are taken to the shore and laid up.

Calicut Manche is a boat very similar to that of Mangalore, with the exception only of a taking stem, for the purpose of taking the beach, as the port of Calicut is open to the coast and there is no river. These boats are propelled by the paddle and sail, and generally carry eight men; they are much employed in watering and completing the sea-stock of ships homeward-bound; also in loading ships with pepper, timber, etc., for Bombay; and in shipping the produce of Canara and Malabar, all of which is rafted off to vessels called Dow, Boatile, Patamark, etc.

Panyani Manche is a coating boat, of about 50 feet long, 10 to 12 feet broad, and 5 to 7 feet deep. It is framed with timbers and planks, which are sewed together. The timbers are about 4 feet asunder, and on them, inside, some few planks are placed as bands and clamps, which are nailed to the frame. These are very rudely put together, and not of much importance either in form or construction. During the south-west monsoon, or from June to November, they are laid up at Baiapur river for safety, and are only used in the fine-weather season. They carry the productions of the coconut tree, viz. coir, copra, cajan, the leaf of the Corypha umbraaculifera, which is used for coverings of houses, also for books, and various other purposes; jagari, oil, and arrack, to Cochin and Mangalore; and bring from these ports rice, cloth, salt, etc. They work along shore, and take advantage of the sail in rowing. They have generally from eight to ten men, who are fishermen of the Mopila caste of Musalmans, descendants of the first Arabian settlers on the shores of the Peninsula, and who, marrying the daughters of the country, obtained the name of Mapilai.

The Boatila Manche of the island of Ceylon navigates the Gulf of Manar, and the southern part of the Peninsula of India. This boat, which is about 50 to 60 feet in length, 16 to 18 feet in breadth, and 8 to 10 feet in depth, has more of the European form than of any of the Indian-built vessels that are met with. The after part shows the origin to be of Portuguese construction, as it is very similar to that of many of the boats still in use by the people of that country, which are said to be of the same shape as the vessels in which Vasco da Gama sailed to India. They have a deck fore and aft, and are built with all sorts of jungle wood in a very rough manner, and fastened with nails and bolts. They are equipped with one mast, which inclines forward, and a square lug-sail; also a small bowsprit, at about the angle of 45°, with a sort of jib foresail, one pair of shrouds, and a backstay, which closes the rigging. These vessels carry on the trade of the island across the gulf. The exports are rice, tobacco, etc., and the imports, cloth.

The Bombay Fishing Boat is one of the swiftest
and most elegant sea-going vessels of that coast.
A complete set of models of the native vessels
plying on the coast, at an estimated price of Rs. 15
each, or about Rs. 1,000 in all, was sent to the
Exhibition of 1851. The mode of building is
precisely the reverse of that pursued by Europeans,
who begin with drawing the lines, then lay down
the keel, ribs, and frame, and finally applying the
planking. In India, drawn lines are dispensed
with altogether. Having laid down the keel, the
Indian shipbuilders fasten on the planking, leaving
the ribs and frame to the last. The keel having
been laid, and the stem and sternposts put in
their places, they are fashioned in both sides with
a groove. The lower edge of the plank next laid
is made to conform in shape to this. The under
groove is smeared over with red ochre and water,
and the edge of the plank that follows is tried on
from time to time till it takes a tinge everywhere,
showing with what exactness it coincides. It is
then steeped in water, and bent over a fire of wood
in the proper shape, and applied to the hull. When
all is ready, the channel in the lower plank is
filled up with cotton and tar. The two planks
are now sewed together in the following manner,—
a pair of holes are bored in the upper and a
 corresponding pair in the lower plank, all along
 at intervals of a foot or two, according to the
 nature of the lines; a strong coir string is laced
 through this in the form of the letter X, the knot
 being inside. A stout wedge of wood is next
 driven through the strings outside, so as to bring
 the planks perfectly in contact. The planks being
 put sufficiently in their places, when gunwale high
 is attained, the timbers are put in; when the
 planks have been nailed to them, the sewing holes
 are filled up either with nails when opposite a
 timber, or with wooden pins. The masts rake
 forward instead of back; the keel is hollow in the
 middle, and not so long as the sternpost; the fore-
 part of the boat sharp, with hollow lines, the stern
 plumb and round. The Bombay fishing boats
can beat the best of the English yachts. There
 are three great fishing villages in Bombay island,
at Wocrli, Sion, and Mahalunge. A Patamun
 employs from 15 to 20 men, a fishing boat from
 10 to 15, a canoe from 3 to 4. Canoes are chiefly
 employed in the coast fishing, and attending the
 men on the mud banks, and in landing cargo when
 there is no depth of water sufficient for larger
 vessels. They are hollowed out of a single log,
 and are very serviceable, handsome-looking, well-
 finished craft. They are impelled either by
 paddles or sail; when the latter are employed, an
 outrigger is resorted to; they will bear a surpris-
ing stretch of canvas, and make their way rapidly
 through the water.

The Patamun vessels sail remarkably well, and
 stow a good cargo. They belong principally to
 Bombay merchants, and partly carry on the coast-
ing trade to that port. They are grappled, that is,
 with a prow stem, which is the same length as the
 keel; and the dimensions of the large class are
 76 feet 6 inches in length, 21 feet 6 inches in
 breadth, 11 feet 9 inches in depth, and about 200
 tons burden. They are planked with teak, upon
 jungle wood frames, and are really very handsome
 vessels, being put together in the European
 manner, with nails, bolts, etc.; and their bottoms
 are sheathed with inch-board, and a layer of
 chunam mixed with coconut oil and a portion of
 damar (country rosin); this is a very durable
 substance, and a great preservative to the plank
 against worms. Some of the smaller of these
 vessels, of about sixty tons burden, are sewed
 together with coir, as other native boats are.

The small class has one, and the large class two
 masts, with the lateen sail; the foremost raking forward,
 for the purpose of keeping the ponderous yard
 clear when it is raised or lowered. The yard is
 slung at one-third of its length; the tack of the
 sail is brought to the stern-head, through a fixed
 block, and the sheet hauled aft at the side, as
 usual. The lateyard is a pendant and treble
 block from the masthead aft to midships; thus
 acting as a backstay for the mast’s security,
 together with about two pairs of shrouds. These
 vessels generally export salt from Bombay to
 the coast, and take back coir, rice, cocaanut,
copper, oil, timber, sandal-wood, pepper, and
 various articles, the production of the coast.
 They are navigated with much skill by men
 of the Mopila caste, and other Musulmans,
 and have an across of ten or twelve men and a
 tindal, who are good pilots. The navigators off the
 coast from Bombay to Cape Comorin,—
generally speaking, honest and trustworthy.

The Arab Dow is employed in the trade between
 the Red Sea, the Arabian coast, the Gulf of
 Persia, and the coasts of India, in Cutch, Gujerat,
 and Malabar. They were also used in the Persian
 Gulf for war and piracy. They are always manned
 by Arabs. The Arab Dow is 50 to 500 tons,
 but usually of about 150 to 250 tons burden by
 measurement; grappled, with 10 or 12 ports;
 about 85 feet long from stern to stern; 20 feet
 inches broad, and 11 feet 6 inches deep. Of late
 years this description of vessel has been built at
 Cochin, on the coast of Malabar, most perfectly
 in the European style. These vessels have a great
 rise of floor, are calculated for sailing with small
cargoes, and are fully prepared, by internal
 equipment, for defence, with decks, hatchways,
 p.g., poop-deck, etc., like a vessel of war; many
 of them are sheathed on two-and-a-half-inch plank
 bottom, or may be covered with a full sheathing
 of chunam and oil, as before described, which is
called galgal, put between the planks and sheath-
ing-board, causing the vessel to be very dry and
durable, and preventing the worm from attacking
 the bottom. The worm is one of the greatest enemies
 in India to timber in the water, while the white
 ant is as much so out of it. On the outside of the
 sheathing-board there is a coat of whitewash, made
 from the same articles as that between the sheath-
ing and planks, which coat is renewed every
 season they put to sea. These vessels have gener-
 ally one mast and a lateen sail; the yard is the
 length of the vessel aloft, and the mast raking
 forward for the purpose of keeping this ponderous
 weight clear in raising and lowering. The tack of
 the sail is brought to the stern-head, and sheets
 aft in the usual way; the halyards lead to the
taffrail, having a pendrel with double purchase
 block, which becomes a halyard, and the preparation
 of the mast when the sail is set; this, with three
 pairs of shrouds, completes the rigging, which is
 very simple, the whole being of coir rope. (The
 Ki-Dow is a small Dow.) Several of these vessels
 were fitted as brigs after their arrival in Arabia,
 and armed by the Arabs for cruising in the Red
 Sea and Arabian Gulf, as piratical vessels: they
were also the class of vessels of which Tipu Sultan's fleet at Onore (Hunawar) consisted. When armed, they were too powerful for the Bombay marine brigs, but this never happened but when in great numbers and the brigs weak and unsupported. Sir John Malcolm says the large Dow ships make generally one voyage in the season to the southward of Arabia, taking advantage of the north-east monsoon to come down, and the south-west to return with an exchange cargo. They generally bring dates, fruit, preserves, Shiraz wine, and horses, and take back rice, coir, canvas, coconuts, oil, timber, damar, etc., various articles of cloth of the country manufacture; and from Bombay, European articles of every description. The trade in those vessels, extending from Allipoy, the southernmost port on the coast of Malabar, up to Bombay,—all the trade to Bengal,—is carried on by ships which are called 'country traders,' from the Gulf of Persia and Arabia.

The Bagla or Bulgerow takes its name from an Arabic word, the feminine of baghl, a mule. The Bagla is engaged in the trade of Cutch, Gujerat, and the Malabar coast, to the Gulf of Persia, the coast of Arabia, and the Red Sea. They are Indian vessels, and manned with Indian seamen called lascars. It is one of the most ancient vessels to be met with in the Indian seas. Their extreme length from stern to taffrail is about 74 feet, the breadth about 25 feet, and the depth in hold 11 feet 6 inches, with about 150 tons burden. The peculiarity of form and extraordinary equipment of these vessels is said to have been the same from the period of Alexander the Great. They are armed with two guns on the afterpart or right-af of the stern, for defence against pirates, and have their poop-deck heightened with a high stern, their extreme sections about the centre or middle of the vessel; they are very broad in proportion to their length, with a sharp rising floor; the stern is straight, and rakes very little more than the stern-post. These vessels are constructed with timbers and planks, which are nail and trenail fastened in the most rude and unsafe manner possible. The topside above the deck is barricaded with mats on the outside of the timbers, which run up to about eight feet from the deck; and when they have no cargo on board this barricade is removed. They have only one mast, with a huge yard made from two spars, the small ends lashed together, and a lateen sail, the tack of which goes to the stern-head; they generally trade like the Dow, and are navigated by Arabs and the people of Cutch. This singular and rude vessel, as well as the Arab Dow, is peculiarly adapted to the nature of the trade and the winds, which are subject to periodical winds, during which these vessels are navigated with much ease.

The Sambuk is a small coasting vessel from 15 to 50 tons burden, trading in the Red Sea.

The Doni of the Coromandel coast is a huge vessel of the ark-like form, about 70 feet long, 20 feet broad, and 12 feet deep, with a flat bottom or keel part, which at the broadest place is 7 feet, and at the fore and after parts of the vessel it breaks into 10 inches, which is the sideing of the stern and stem post. The fore and after bodies are similar in form from midships. Their light draught of water is about 4 feet, and when loaded about 9 feet. These rude, unshapely vessels trade from Madras and the east coast to the island of Ceylon and Gulf of Manar. They have only one mast, with a long sail, and are navigated from land to land and coastwise in the fine season only. The rate of current in the Bay of Bengal is very great at the change of the season or monsoon, as much as sixty miles in twenty-four hours. When they are off a port in a calm, their sailors throw a handful of sand or shells and feathers in the calm sea, and by the drifting of the feathers on the surface, and sinking of the sand or shells, a calculation of the rate of current is formed, and they anchor off the coast accordingly. The anchor is made by lashing together three crooked branches of a tree, which are then loaded with heavy stones, and their cable is formed from coir yarns. In fact, the whole equipment of these rude vessels, as well as their construction, is most coarse and unsavoury, and far behind those of any other part of India.

Mr. Edye remarks that among all the numerous vessels of every class and description which traverse the ocean, there is a peculiarity of form and construction intended to meet the various localities of the ports or seas in which they are navigated; and perhaps in no part of the globe is this principle more fully displayed than in the Indian seas, and on the coasts of the southern Peninsula of India, including the island of Ceylon, where the nature and change of the season, the monsoons, and the navigation of the seas and rivers, are singularly well provided for by the truly ingenious and efficient means adopted by the natives in the formation of their rude but most useful vessels.

Catamarans of Ceylon, and of the Eastern and Western Coasts of the Peninsula, are formed of three logs of timber, and are used by the natives for similar purposes; the timber preferred for their construction is of the duf wood, or chenne maran (piney tree). Their length is from twenty to twenty-five feet, and breadth two and a half to three and a half feet, secured together by means of three spreaders and cross-lashings, through small holes; the centre log being much the largest, with a curved surface at the fore-end, which trends and finishes upwards to a point. The side logs are similar in form, but smaller, having their sides straight, and fitted to the centre log. The Catamaran is generally navigated by two men, sometimes by one only, but with great skill and dexterity; they think nothing of passing through the surf on the beach at Madras, and at other parts of the coast, where the boats of the country could not live in the breakers; and they are propelled through the water to ships on the coast by propelling them off the bank construction and form would swamp. In Ceylon the man, when a sail can be got on them, a small outrigger is placed at the end of two poles as a balance, with a bamboo mat and yard, and a mat or cotton cloth sail, all three parts of which are connected; and when the tack and sheet of the sail are let go, it all falls fore and aft alongside, and, being light, it is easily managed. In carrying a press of sail, they are trimmed by the balance lever by going out on the poles, so as to keep the log on the surface of the water, and not impede its velocity, which in a strong wind is very great. They are frequently met in with ten or fifteen miles off the southern part of the island of Ceylon, and will convey any letter or despatch to the shore with
safety; but as to its dryness, the man who takes it has nothing but a pocket made from the leaf of the areca tree (A. catechu, Linn.), which is tied round his waist, and is the only article about him. These are the persons who are employed in the pearl fishery.

Canoes are largely used in India as ferry boats, and have shapes and forms to suit the rivers and waters. Small canoes are formed of hollow palmyra tree, two of which lashed to a couple of spars form the usual mode of crossing lakes and rivers in the Circars; the root forms the head of the canoe, the smaller end is either elevated out of the water by the form, or some six inches of the pith is left at that end. As this decays, a lump of clay supplies its place. Formerly, sewing vessells were planked with this wood, but the iron fastenings are soon destroyed. Boats planked with it were till lately common on the Godavery, being built probably where sawyers were not procurable. Canoes of Calcut are hewn out from the trunk of the jack-fruit tree, Artocarpus integrifolia. Canoes of Point de Galle and the Malabar coast have weather-boards on an outrigger in the form of a smaller canoe; they are sharp at both ends, and boat to windward without tacking. The Jangar of the Malabar coast, for rivers, is a kind of canoe.

The Point de Galle Canoe, or Market Boat, is formed from a single stem of dup wood, or piny varnish-tree. They are from eighteen to thirty feet in length, from eighteen inches to two and a half feet in breadth, and from two or three feet deep, exclusive of the wash-board, which is about ten inches broad, and sewed to the gunwale by coir yarns, with loose coir padding on the joints, in the same manner as the other boats used in India are sewed together, which will be more fully described below. These boats are fitted with a balance log at the end of the bamboo outrigger, having the mast, yard, and sail secured together, and, when sailing, are managed in a similar way to the Catamarans. Vessels passing the southern part of the island of Ceylon are generally boarded by these boats, even at the distance of twenty to twenty-five miles from shore. They will sail at the rate of ten miles an hour in strong winds, which are generally prevalent there, and with a crew of five men. As the outrigger must always be kept to windward, and shifting it from side to side would be impossible, the canoe is so constructed as to proceed with either end foremost. This form of canoe is common wherever the Malays have extended themselves, throughout Polynesia and the coral islands of the Pacific, and to Madagascar and the Comoros, where a Malay colony settled. The great canoes of Ceylon called Ballam or Vallam are usually made of the Artocarpus hiranta, the angley or angelica tree.

Mudras Musala Mouche is used all along the eastern coast of the Peninsula. It is planked with a flat bottom, for the purpose of taking the beach in the surf, when European boats cannot approach it. These boats are beached in the third surf, and taken most completely out of the water, on the immediate receding of the swell, by natives. They are 30 to 35 feet long, 10 to 11 feet broad, and 7 to 8 feet in depth. Their planks are sewed together with coir yarns, crossing the seams over a wadding of coir, which presses on the joints, and prevents leakage. By this peculiar means of security, the boat remains pliable, and yields to the shock which it receives on taking the ground; whilst boats with framed timbers and planks, nail or trenail fastened, would be broken to pieces from the heavy surf, that at times runs as high as from six to ten feet. The Catamaran can be kept in attendance as a life-preserver in the event of any accident to the Musala boat by upsetting, or in case of any of the Europeans being washed out by the surf. The crews of the Musala boats are brave, self-reliant men. The Musala boats receive their cargoes and passengers from the ships outside the surf, and land them in perfect safety. They are rowed by twelve men, in double banks, with paddles, that is, a board about ten inches broad and fourteen inches long, fixed at the end of a pole. They are steered by a tiubal (cock-swain), and one or two men constantly bale out the water. The steersman gives time by a song, which is sung by all the boatem, and, according as its modulations are slow or quick, the oars are piled. These modulations are regulated by the waves, as they may be slow or rapid in succession.

The Ganges boats are the Begurder, Boleah, Panswah, Palwar, Puteli, Bhur, Oolak, and Dengi. The bulky Oolak, or baggage boat of Bengal, is sometimes as large as the Puteli, and used for the same purposes. The Palwar and Bhur are rowing ships.

The Puteli is a large boat used for goods traffic.

The Palwar, also a cargo boat, from 15 to 20 tons burden, was originally built at Dacca.

All the common arts and manufactures of Bengal are carried on at Dacca, but in none of them do the Dacca workmen show more superior skill than in that of boat-building. For their work in this art they have been celebrated since the reign of Jahangir, when the Nowarras was established here for the protection of the lower districts of Bengal against the incursions of the Mugs of Arakan.

The Tista river in the Terai at Leelpigoree is navigated by canoes, 30 to 40 feet long, some being rudely cut out of a solid log of sal, while others are built, the planks, of which there are but few, being sewed together, or clamped with iron, and the seams caulked with the fibres of the root of the dhak (Butea frondosa), and afterwards smeared with the gluten of Dipsyps embrypertis. The bed of the river is here three-quarters of a mile across, of which the stream does not occupy one-third; its banks are sand-cliffs, fourteen feet in height.

On the Brahumbi rivers, two kinds of vessels, of entirely different structure, are used, the larger of which may reach to 120 or 150 tons burden.

The larger boats are termed Huun, and are of the form of construction more commonly met with. The keel-piece is a single tree hollowed out, and stretched by the aid of fire when green, to a complete canoe, in fact. From this, ribs and planking are carried up. The bow is long, with beautiful hollow lines, strongly resembling those of the modern steamers. The stern rises high above the water, and below the run is drawn out fine to an edge. A high bench or platform for the steersman, elaborately carved, is an indispensable appendage. The rudder is a large paddle lashed to the larboard quarter, and having a short pillar passing athwart the steersman's bench. The most peculiar part of the arrangement of these vessels is in the spars and rigging. The mast consists of two spars; it
is in fact a pair of shears, bolted and lashed to two
posts rising out of the keel-piece, so that it can be
left down, or unshiped altogether, without any
difficulty. Nearly the same kind of mast is used by
the Ilanun pirates of the Eastern Archipelago.
When chased, they are thus enabled to run into a
creek and drop the mast instantaneously, so that
it gives no guidance to their whereabouts. Above
the mainyard the two pieces run into one, forming
the topmast; wooden rounds run as ratlines from
one spar of the mast to the other, forming a ladder
for going aloft. The yard is a bamboo or a line
of splited bamboo of enormous length, and, being
perfectly flexible, is suspended from the masthead
by numerous guys or halyards, so as to curve
upwards in an inverted bow. A rope runs along
this, from which the large mainsail is suspended,
running on rings, like a curtain, both ways from
the mast. There is a small topsail of similar
arrangement.

The staves of the ususal teak, bamboo, or other,
lightest stuff, is used for clothing. If of any heavier
material, it would be impossible to carry the
enormous spread of sail which distinguishes these
boats. The mainyard of one vessel was found to
be 130 feet long, and the area of its mainsail
would not be very much less than 4000 square
feet, or one-twelfth of an acre. From their rig,
these boats can, of course, scarcely sail but before
the wind. But in ascending the Irawadi, as on
the Ganges during the rainy season, the wind is
almost always favourable. A fleet of them speed-
ning before the wind with the sunlight on their
bellying sails, has a splendid though fantastic
appearance. With their vast spreading wings
and almost invisible hulls, they look like a flight
of colossal butterflies skimming the water.

Pae-go or Pae-go-na is another description of
Burmanse boat, and it is said to be the peculiar
craft of the Ning-the or Kyempwen river. Though
it traffics to no parts of the Irawadi, it is exten-
sively used at Ye-nan-gyoung for the transport of
petroleum. It is flat-bottomed or nearly so,
having no canoe or keel-piece like the Hnau,
but being entirely composed of planks, which ex-
tend throughout the length of the vessel, wide in
the middle and tapering to stem and stern like the
staves of a cask. A wide gallery or sponson of
bamboo, doubling the apparent beam of the boat,
rans the whole circuit of the gunwale. These
boats are generally propelled by oars or a pole,
though occasionally carrying sails, but not of the
same spread of cloth as the Hnau. The prow of
a Burmanse boat appears to be regarded by the
Burmanse boatmen with almost as much supersti-
tious veneration as the quarter-deck of a frigate
is by an English post-captain.

The buoyancy of the Pein-go boat is increased
by one or two large hollow canoes being lashed
with rattans along the water-line. When laden
with rice or bagged paddy, about 8 or 4
feet bread, made of bamboo, with a rail, is
thrown out the whole length of the sides, for
increase of stowage. The cargo is protected by a
thatch roof. The steerman sits at the stem on
a high chair, elaborately carved, and having a little
thatch roof. When not favoured by a breeze
the boat is propelled by 6 or 8 rowers.

Longy-yuet, is a round-bottomed boat, with
tem and stern high but rounded in or curved in;
in other respects like the Pein-go-na.

Longy-go.—Bottom made up by scooping out a
very large log. The depth of the boat is increased
from two to three feet, by having nailed on planks
running from stem to stern. Six to eight feet of
the stern end is covered in by a hood of bamboo
matting, made water-proof with earth oil or earth
air and dammer; here the crew and family live.
The large boats of this description have a mast
and sail; the smaller ones, when favoured with a
breeze, put up two bamboo ten or fourteen feet
in length, joined at the top and spread out at the
bottom, and for a sail both men and women's
clothes are spread out. The crew are three or
four and a steersman, generally the owner.

Ka-do-lay, a ferry boat, bottom made from a
single log, sides planked, the whole length from
1 to 2 feet in breadth; about 5 or 6 feet of the
stern end is covered with a rounded hood of thatch
and bamboo. The steersman sits at the extreme
term end and steers with a paddle, while the boat
is propelled by two oars.

Scot-dho, a canoe made up from one log, vary-
ing in length from 6 to 15 feet and 2 to $\frac{1}{2}$
in breadth.

Canoes of two different forms are in use on the
Irawadi, some of which are ridiculously small
in proportion to the number of persons they carry.

Longy, a racing boat, bottom made up of one
large long log, from 30 to 40 feet or more in
length, with a side planking like the Ka-do-lay,
paddled by 25 or 40 men according to size.

Gandoo.—This is the largest kind of native
trading boat; it is built on a canoe of a single tree
of the largest size, chiefly of peeggado, but teak
and thengan canoes are also used for this purpose.

These canoes are from 25 to 30 cubits long and 3
to 4 cubits wide; ribs are fastened inside the
canoe, and planks are then built on them up to the
size required; the largest are 35 to 40 cubits long
and 8 cubits deep, with a breadth of 15 cubits.

Burden from 40,000 to 60,000 viss, and have a crew
of from 40 to 50 men. They are built principally
in the Henzadhah district; they have two masts, and
are rigged with square sails on the foremost, gen-
ernally two of very large size. They trade to Arakan
and Dacca chiefly, the cargo consisting principally
of cutch and cotton, which they exchange for
beteel-nut and tobacco, and generally realize large
profits.

Koton.—This form of trading boat is an improve-
ment on the foregoing. It is built with a thick
plank from a keel, in the same way as ordinary
vessels, and usually with the forepart in imitation
of the Chinese junk. The largest kind carry
about 20,000 viss, and the rig is similar to the
junk, two or three fore-and-aft sail, which enable
them to beat when the wind is adverse.

Stampen, a Chinese ferry boat shaped much
like a spoon with just the handle cut out, leaving
and shaping the bow. The boat is flat-bottomed,
built of teak planks nailed to ribs set about 8
inches apart; over the ribs are planks loosely fitted
on and forming a deck. The boat is propelled by a
single Chinaman, who stands in the bowel of
the spoon with his face to the head of the boat.
Sometimes a large square sail is used, when a large
square rudder is shipped to guide the boat. A
very unsafe boat under sail. It is painted like
the junk in the forepart and stern. About two
feet of the head of the boat is plankd up, and
serves as a box. Cost of Stampen, Rs. 50 to Rs. 60.
The Stampen boat at Singapore is remarkable
for its swiftness both with sails and oars. When skilfully managed, they are exceeding safe, and are sometimes employed on rather distant coasting voyages, from Singapore to Penang, for example. The passenger Sampan is employed at Singapore and on the Irawadi chiefly in conveying passengers between the shore and the shipping.

**China, Malacca, Archipelago.**—The boats of the Straits of Malacca are the Prawu, Sampan, Loretta, Pakat, Chompren, Sekong, and Tong-kong or Ting-king. In the Eastern Archipelago, the generic name for a boat or vessel, large or small, is Prawu, a word which belongs equally to the Malay and Javanese languages, and from these has been very widely spread to others, extending as a synonym to the principal Philippine tongues. The usual name for a canoe or skiff, both in Malay and Javanese, is Sampan. The large vessels which the natives of the Archipelago used in war and trade were called by them Jung, which is the word, corrupted Junk, that Europeans apply to the large vessels of the Chinese, of which the proper name is Wang-keng. For a square-rigged vessel or ship, the natives have borrowed the word Kapal from the Teling people.

The Chompren is a river cargo boat. The Sekong is made of one log of wood, very sharp fore and aft, with long outriggers to prevent its upsetting.

**Pantjdlang,** of the Malay, is a canoe made from a tree in Palembang; some of them are 42 feet long. The paddlers were liable to be seized by crocodiles.—Court.

The Biduk is a canoe of Sumatra similar to the Pantjdlang, but with gunwales raised by additional planks. It is a safe boat; used for goods.

The Malay war Prawu is built of timber at the lower part; the upper is of bamboo, rattan, and kajan (the dried leaf of the Nipa palm). Outside the sides, about a foot from the waterline, runs a strong gallery, in which the rowers sit cross-legged. At the after part of the boat is a cabin for the chief who commands, and the whole of the vessel is covered by a strong flat roof, upon which they fight, their principal weapons being the kris and spear, both of which, to be used with effect, require elbow-room.—Marryat's *Ind. Arch.*

The ordinary Prawu made of by the Malay pirates at the present day, are from eight to ten tons burden, very well manned, and exceedingly fast. Usually they are armed on the bows, centre, and stern with swivel pieces.

The most common pirate vessels made use of among the floating communities from the Straits to the south-eastern groups, are the Penjajap and Kakap, with Padukan, and Malay boats of various size and construction.

The Penjajap Prawu is of light build, straight, and very long, of various dimensions, and carrying usually two masts, with square kajan sails. This boat is entirely open, except that aft is a kind of awning, under which the head-man sits, and where the magazine of arms and ammunitions is stored away. In front it carries two guns of greater or less caliber, of which the muzzles peer through a wooden bulwark, always parallel to the line of the keel. Penjajap of large size generally carry, in addition to these, some swivel pieces, mounted along the timber parapet; while boats of inferior tonnage are armed only with two lelah, elevated on a beam or upright. From twenty to thirty rowers, sitting on benches well covered with mats, communicate to the vessel with their short oars a steady and rapid motion, the more swift as the Prawu is small. Large ones, therefore, are often kept hidden in some creek, or little maze of islets, while the light skiffs, flying through the water, proceed on their marauding errand.

The Kakap Prawu is a small light boat, provided with a rudder only, but with no other oars or sculls. It carries only one mast, with a single quadrangular sail. Like the Penjajap, it is built of very buoyant timber, planks being held together by wooden pins, and lashed with rattans. The pirate never goes to sea with a Kakap alone, and the voyager may be sure, whenever he describes Kakap, that a Penjajap is not far behind, moving along, perhaps in the shadow of the high coast, or lurking behind some island, or lying within the seclusion of some woody creek. Eight or ten of the best fighters are, therefore, chosen to man these light skiffs, which remind us of those long Prahus of the Ladrones. In calm weather, they run along in these buoyant galleys along the shore, or mount the small rivers, confiding in their agility; and, knowing well that if surprised they may fly into the woods, they bear their little skiff with them, and launch it again at some spot unknown to their pursuers.—Kolfi, *Rapport,* 1851.

The Padukan have a single mast in the form of a tripod, and carry a large lateen sail of mat. They are from twenty to fifty tons burden, and of great beam, with lofty sides, and little hold in the water. They are steered by two long rudders, which are lifted up when the vessel is moored or passing through a shallow.

The trade with New Guinea and the Eastern Islands (commonly called the Bogis trade), and the trepang fishery on the north coast of Australia, is carried on chiefly in the Padukan. These leave Macassar and the other parts of Celebes for the Eastern Islands during the westerly monsoon, returning with the south-east trade wind.

A second-class *Ilamou* pirate Prawu of Mindanao carries a crew of about 60 men. It has a stage or platform suspended to the mast, with grappling hooks attached to the end, which is used as a bridge for boarding a prize. The first-class *Ilamou* pirate Prawu of Mindanao carries a crew of 100 men or thereabout. In this description of vessel, the tripod mast, the two after feet of which work on hinges, is used as a bridge in boarding.

**Kora-kora** is a boat of the Malay Archipelago, near Batchun, some of them being of 5 or 7 tons burden. They are open, have a bamboo outrigger five feet on each side, which supports a bamboo platform; they are low in the water. A boat having two outriggers, with balance logs, is used by the natives of some of the islands in the Eastern Archipelago. The natives of New Holland appear to use this for war contrivance, but of a more simple construction.

The Chinese, besides their ocean-going ships, have Junks for war and peace, and for their rivers, *Koo-Tay,* or fruit boats.

*Si-qua,* lighters for tea; *cassia,* passenger, mandarin, flower, bed-chamber, and Hong boats; floating kitchens, and floating homes for sailors.

*Nam-no-Teng.*
BOATS AND SHIPS OF CHINA.

Shu-Teng or Sampans, hawkers' Sampans, ferry boats, dragon boats, post boats; floating rice stores, rafts.

The ocean-going War Junks of China are of great size, have several water-tight compartments, with very high bulwarks. They are three-masted, and generally fly at the main a flag with a representation of the Yin and the Yang, or the male and the female principle. The sails are of matting, the mainsail, shaped like a butterfly's wing, of matting and cocoanut fibre; and cotton cloth, with ropes made of bamboo, rattan, coir, or hemp, the cables as a rule being of rattan.

A smaller war Junk with two masts is employed on the rivers and creeks; the Hi-Fi, or Fast Crabs, also two-masted, are of great length, very narrow in the beam, and cost from 2677 to 4978 taels of silver, or from $800 to $1200. In a calm, oars are used. Their first frigate on the European plan was launched at Shanghai on the 24th May 1872, but since then a powerful war fleet has been built for them in Britain.

Trading Junks of China, that traverse the ocean to Batavia, Singapore, Malacca, Siam, Shanghai, Tien-tsin, and Chefoo are also in water-tight compartments, some of them equal to several thousand tons. The sails are of matting, gunny, or cotton cloth. On the stern-board is painted a Foong, on a large board, with outstretched wings, represented standing on a rock in the midst of a troubled ocean. There are also figures of the sun and moon. On each side of the prow or stern is the figure of an eye, by which the seamen imagine the vessel can espy sunken rocks, shoals, and other dangers of the deep. Every large Junk has the idol of Tien-how, the queen of heaven, carefully enclosed in a glass case and daily worshipped. They have four masts.

In the Yang-tse-kiang river the ships are flat-bottomed. Koo-Tay, or fruit boats, are numerous in the Canton river. They are 90 feet long, and 20 or 25 feet in beam, with two masts.

The Si-qua are so named from their resemblance to a water melon. They are one-masted, with a large mat sail, and have two large sculls, each requiring six or seven sailors.

The Ma-Yong-Shun are larger than the Si-qua. Their mast is of the form of shears. They cannot tack, and, having no sculls, have to be towed in contrary winds.

The Sun-Fo-Teng are cargo boats on the Yang-tze; are of great length.

The Hooe-Two-Shun are the tea boats of the Canton river. They have an arched deck; are about 90 feet long, and 15 feet in beam. The hold is 4 feet deep, with several water-tight compartments for storing the tea and other produce.

The Cha-Shun of the Canton river is another tea boat of great length and narrow beam.

The Too-Shun boats, for passengers on the Yang-tze, are in five classes, from 38 feet to 72 feet long, and with 10 to 15 feet beam. They have one mast and one sail. They are licensed, and under very strict surveillance. A class of vessels trading between Canton and Hong-Kong, 100 feet long and 26 feet broad, also bear the name Too-Shun.

The Cho-Ka-Shun are boats in which the mandarins travel. They are not unlike large floating caravans. Their mast is in the form of a pair of shears. They are poled or towed in contrary winds. Their saloons are spacious and comfortable.

The goddess Loong-Moo, or dragon's mother, is the deity invoked by the sailors of the coast and river boats, as the queen of heaven, Tien-how, is of the sea-going Junks.

The Wang-lau and Fu-Shun are flower boats of the Canton river. They are floating cafés, the saloon extending the whole length of the boat, profusely decorated and ornamented.

The Che-Tung-Teng are floating hotels, and sometimes hired for travelling in.

The Ten-Poo, or bed-boats, are much frequented by Chinese travellers, who pay from 50 cents. to a dollar for a night's lodging. Assignations also are kept in them.

The Cha-Teng, or floating kitchens, in size and shape resemble the flower boats, but have no decorations; the stern is fitted up as a humble café. They are largely used at boatmen's marriages for providing the dinner banquets.

The Koong-Sze-Teng or Hong-Me-Teng, known as Hong boats, are 30 to 40 feet long, and somewhat resemble the gondola of Venice. They have carvings and gildings, and their saloon may hold ten or twelve persons. They are propelled by a scull.

The Lou-Shun, or chamber boats, on the Canton river are floating temples or shrines, at which the boatmen solemnize their marriages by Taoist priests, who also, in them, say masses for the repose of the drowned and the unclaimed dead.

Nama-Mo-Teng are boats used as residences by the Taoist priests, whose services day and night are required by the boat population. They are similar in construction to the Chee-Tung-Teng boats, but have no glass windows, only sliding wooden shutters. They are stationary.

The Cho-Ke-Teng are very similar to the Nama-Mo-Teng, only smaller. They are stationary river dwellings for sailors and river boatmen. They are numerous, and anchored in streets.

The Sha Teng, or Sampans, are river boats up to 28 feet long, in great requisition by persons moving about on business. There are many kinds, some with a saloon and benches; some with stools, and navigated by a man and his wife, or by one or more women.

Ma-Leng-Teng is a shallow boat, shaped like a China slipper, and the boatman faces the bow of the boat as he pushes the oars from him.

Wang-Sheew-Too of the Canton river are ferry boats. They are propelled by a scull made to rest on a pivot at the stern. Each is licensed to carry six to fourteen passengers. Many of them are of great length, with a flush deck on which cattle and horses embark.

The Two Boats of China are long and narrow, capable of holding forty to eighty men. They are employed by the Chinese in their boat races and rowing matches, in the festival of the fifth day of the fifth month, usually falling in June, and seemingly relating to the summer solstice.

Chaong-Loong, or Long Dragon boat, are much used by pirates who infest the Chinese rivers, creeks, and seas.

There are snake-like craft on the rivers, creeks, and canals of the Eastern and Midland Provinces, used as post boats.

Tcha-Ho-Teng boats on the Canton river are somewhat similar to the Chaong-Loong. They are used by the river police.
BO-AY-GY-IN.

Sampan means three boards, and is the ordinary name for small boats or punts propelled by short oars or paddles. They are very narrow, without keels, and draw very little water.

The Chu-Teng, or hot congee boat, has a small galley for the purpose of enabling its owner to heat rice water, calling out, Mi chuk! Congee for sale.

Other boats of China are the—
Chay-Teng, or sugar-cane boats.
Cho-y-Teng, or vegetable boats.
Chu-Yuk-Teng, or pork boats.
Fu-Teng, or flower boats.
Kow-Teng, or cake boats.
Kung-Nya-Teng, or chinaware boats.
Mi-Teng, or rice boats.
Nga-Yuk-Teng, or meat boats.
Na-Chay-Teng, or green-pea boats.
Sau-Kwo-Teng, or fruit boats.
Tchi-Teng, or reedwood boats.
Tai-Tou-Teng, or barbers' boats, which are the smallest of the lot.

Yu-Teng, or fish boats.

You-Teng, or oil boats.—Layard, Nincech, ii. 97; Drew, The Northern Barriers; Ferrier's Journ. 429; Yule, Embassy; Marraty, Ind. Arch.; Bunsen's Egypt, v. 233—264; Miyanah's Travels, 242; Postans Pers. Observ. 124—7; Burton's Scinde, ii. 296; Cunningham, Hist. of the Punjab, 19; Dr. Taylor; Hooker's Him. Journ. i. 392; Powell's Handbook; Wellsted's Travels, i. 16; Burton's Mecca, i. 262; John Edye, R. As. Soc. 1833; Crasweld, Dict.; St. John's Ind. Arch. ii. 183; Mr. R. Wallace, ii. 35; Mr. Nettcher, in litteris; Journ. Ind. Arch. Nos. 6 to 12; Court's Palembang, 101; Kolf Rapport, 1831; Earl, Voyage of the Daryaq, p. 89; Burns' Travels; Captain Careless Report; Gray's China, 246.

BOBAN ESWARA. Lee, Karli.
BOBARRU. Tel. Dolichos Sinensis, L.

BOBBERRY. Angelo-Hind. for Ba-ri. Oh! thou Father! a very disrespectful address; to create aobby is to cause a disturbance.

BOBBILL, a zamindari estate in the Vizagapatam district of the Madras Presidency. It has been in the possession of a Hindu family since A.D. 1652. Its fort was the scene of a tragic occurrence in 1757, when it was besieged by M. Busy, on the instigation of the raja of Vizagapatam. M. Busy offered terms, which being refused, M. Busy then in one day thrice stormed the fort; and on at last gaining admittance, he found that the garrison had destroyed their women and children, and only dead and desperately wounded men remained, with the infant son of the raja, Ranga Rao, and an old man. Four others of the defenders had not perished, and two nights later they crept into the tent of the raja of Vizianagram, and killed him with thirty-two wounds. Other troubles followed; but in 1794, the son, Ranga Rao, was restored to his father's zamindari. Bobbili town is in lat. 18° 34' N., and long. 80° 25' E. The estate has 154,413 inhabitants.—Orme, ii. p. 258; Imp. Gaz.

BOD, in lat. 29° 50' 20" N., and long. 24° 21' 41" E., is the chief town of the tributary estate of Bod in Orissa, which has a population of 108,868 souls.—Hindus, with 23 per cent. of the population of the native tribes, mostly Kandis, with Pani, Damal, Guala, Sud, and Kent. The Mahanad bounds it on the north. The ruling family are Kshatriya The tribute is Rs. 8,000 annually.—Imp. Gaz.

BODANTA. Tel. Bauhinia purpurea, L.
BODARA. Hind. Marlea begonfolia.

BODASARAM BODATARAPU. Tel. Sphagnetic hirtus.

BODDA. Tel. Ficus glomerata, B.; F. racemosa, Wild. Bodda, Atti and Medi are applied indiscriminately to various kinds of Ficus, but most frequently to F. glomerata. Bodda-mar, fibre of F. racemosa.

BODDAMA KAIA. Tel. Bryonia callosa. Its bitter seeds are given in worm cases, and yield also a fixed oil, used in lamps. —O'Sh.

BODDA MAMIDI. Tel. Cupania canescens.

BODDI CHETTU. Tel. Macaranga Roxburghii, R.

BODDI KURA. Tel. Rivea hypocritiformis, Ch. The leaves are used as a vegetable in the Bodo; as a food or choice of R. Bona-nox in Bengal. The buds of Calonyction and some sp. of Ipomées, especially I. reptans, are also eaten as vegetables (kura).—Voigt; Elliot.

Boddu Pavili Kura or Ganga Pavili Kura, Portulaca oleracea, L.

Boddu Malle, Jasmium sambac.

Boddu Tunga, Hymenochaete grossa, Nees.

BODDI. Burm. The pipal tree, Ficus religiosa, under which Gautama attained Buddhahood. See Bo Tree; Buddha.

BODDI-SATWA, a Buddhist saint, who in the next birth becomes a Buddha; a candidate for the superior Buddhahship in Buddhism; an actual experimental religiousist. A mortal who has arrived at supreme wisdom (Bodhi), and yet consents to remain as a creature (satwa) for the good of mankind. The Boddi-satwa, Avalokiteshvara, was the Chinese Kwan Yin.—Hardy's Eastern Monarchism, p. 434; Grose, p. 96.

BODDI, or Choli, is worn everywhere in the south of India. It is cut in square pieces, which meet in front, and are tied by the ends in a strong knot under the breasts; and the sleeve, which in some instances reaches below the elbow, and in others above it, is put into the opening left unseen in the upper part of the square body piece. The construction of this article of dress is very simple, and most women make their own. In the south of India, bodiccs are not worn by the women of some races. It is only, they say, courtresses who are ashamed of them who hide their bosoms. A form of bodice, named angia, is entirely closed in front, and is shaped out to fit the bosom. This garment is worn alike by Mahomedan and by many Hindu women. The dress of Mahomedan women further consists of petticoats, generally very wide indeed, and falling in heavy folds. Some wear an underp Petticoat of fine calico as a protection to the costly stuff of which the outer garment is composed, or to escape friction. The stuff—satin, silk, or cotton cloth—is gathered into a strong band of tape, which is tied over one hip, and the plaits or garters are carefully made, so as to allow the cloth to fall in graceful folds. Over the choli or angia bodice is a light muslin shirt, which continues below the waist, called a koortni; and over all a scarf of white or coloured muslin of fine texture, do-patta, passed once round the waist, and thence across the bosom and over the left shoulder and head, like the sari, completes the costume. Where the langa or petticoat is not
worn, paizama or trousse take their place. These are sometimes worn loose, as in Oudh and Bengal, and elsewhere as tight as they can be made. The cutting out of these tight troupes is no easy matter, for they have several gores on the inside of the thigh, and are contrived so that they are flexible, however tight, and do not hinder the wearer from sitting cross-legged. With these troupes, which are tied at the waist, are worn the angia or choli bodice, the koorti or shirt, and the do-patta or scarf. In full dress, a Mahomedan lady wears the pealwah or Persian robe, in which dancing-women usually perform. It has long tight sleeves, a tight body crossed in front, and a very voluminous muslin skirt, the most fashionable amplitude being about forty or even sixty yards in circumference. This garment is often trimmed in a costly manner with gold or silver lace, and is only worn as a bridal dress or at domestic festivals. Any additions to the above consist only in variations of the component parts; cloth for bodices is made like saris, with coloured borders. In the cutting out of the bodice, it is contrived that each sleeve ends with the border, and that the seams round the bottom of the garment, if not entirely, at least to some extent. Bodices are also made of English white muslin, jacquct, or fine calico, and of chintz, provided the colour is fast. Many are of silk and cotton mixed, others of silk or cotton only.

The silk sari, and also the pitambar, or men’s silk waist-cloths, are worn by Hindus at entertainments and festivals, as also in religious worship. Saris are nearly universal for Hindu wear; and soussi, made into petticoats and troupes, is as universal for Mahomedan women and men also, and it has this advantage over saris, that the colours and patterns differ very little anywhere within the confines of India; whereas the saris, dihotis, and loongis must be made to suit particular localities, and the patterns of one locality would inevitably be rejected in another. A kind of soussi is produced in France, blue striped, closer in texture than the Indian, perhaps, but belonging to the same class or category; and another, called grivas, in particular, near Vieil, both excellent and fast-coloured fabrics, and both used for troupes and bouses. The Indian soussi are always striped or checked, woven in narrow patterns, with coloured yarn, blue and white, black and blue, red and blue, yellow, white, and blue, green and chocolate, as detailed in Dr. Watson’s list; and they are worn, fine and coarse, literally by millions of the people of the middle and lower classes. In Sind, under the shift, but of cloth called kanjari, the choli or gaj conceals the bosom. When it passes round the side like a bodice and is fastened behind, its name is puth. This article of dress is very often omitted in Sind, a fact which may in some measure account for the pendent shape which the bosom assumes even in young women after a first or second child.—Watson, Burton’s Seinula, p. 391.

BOEDANA. *A* Jakun tribe inhabiting Queclah. BODO JAMO. Uri. Eugenia jambolana.

BODOKA. *Uri.* In Garjum and Gunusur, a common timber tree, extreme height 35 feet. It has a light, white wood, used for seabards, bazar measures, boxes, bulklo yokes, the poles of palanquins, tonjons, and toys.—Captain Macdonald.

**BOEHEMIA INTERRUPTA.**

BODON. *Hind.* A tree of Chutia Nagpur, with a hard, reddish-grey timber.—Cat. Ex. BOD-PA, a name of Tibet.


BOEHMERIA, a genus of plants belonging to the nat. ord. Urictaceen. The species in the East Indies are—macrostachya; macrophylla, *D. Don*; platyphylla, *D. Don*; frutescens, *Thunb.*; frondosa, *D. Don*; ternifolia, *D. Don*; interrupta, Wild.; gogalado. Many of these are staining netels; B. nivea, the Urctes tonacissina of Roxb., yields the Rhee fibre of Assam. B. salicifolia has an edible berry.—*Roxb.* 590; *Royle*, 372.

BOEHMERIA FRUTESCENS. *Thunb.*


This plant grows wild, to a height of 6 or 8 feet, in the mountain valleys of Eastern Nepal and Sikkim, and in the hills near the Terai, to elevations of 1000 to 3000 feet. Its fibre is used for twine, rope, fishing-nets, and game-bags, and could be woven into sailcloth. When to be used as a fibrous material, it is cut down when the seed is formed, as with the common flax in Europe. At this time the bark is most easily removed, and the produce is best. After the seed is ripe it is at least deteriorated. As soon as the plant is cut, the bark or skin is removed, and is then dried in the sun for a few days; when quite dry, it is boiled with wood ashes for four or five hours; when cold, it is beaten with a mallet on a flat stone until it becomes rather pulpy, and all the woody portion of the bark has disappeared; then it is well washed in pure spring water, and spread out to dry. After exposure for a day or two to a bright sun, it is ready for use. When the finest description of fibre is wanted, the stuff, after being boiled and beaten, is daubed over with wet clay, and spread out to dry. When thoroughly dry, the clay is rubbed and beaten out; the fibre is then ready for spinning into thread, which is done with the common distaff. The Pooh is principally used for fishing-nets, for which it is admirably adapted on account of its great strength of fibre, and its extraordinary power of long resisting the effects of water. It is also used for making game-bags, twine, and ropes. It is considered well adapted for making cloth, but is not much used in this way. Pooh fibre, when properly dressed, is quite equal to the best Europe flax, and will produce better sailcloth than any other substance seen in India. If potash were used in the preparation (which is invariably done with Russian hemp and flax) instead of clay or mud, the colour would be improved, the substance rendered easy to dress, and not liable to so much waste in manufacturing. Captain Thompson thought that it would be worth twelve rupees a maund in Calcutta.—*Royle*, p. 368.

BOEHEMIA INTERRUPTA. *Wild.*

Urctes interrupta, *Linna.*


Grows in the Bombay and Bengal Presidencies, and in Burma. Its hairs sting like those of the nettle.—*Voigt*, 281.
BOEHMIA NIVEA. Hooker and Arn.

Urtica nives, Linn. [Urtica leschinius, Roxb. candidans, Burch.]—Boehmia candidans.

China grass. Exo. Raha, Dom Raha, Hind. [Boehmeria candidans, var. ptiloides, Linn.] This plant is cultivated in the eastern parts of India and in China for its fibres, which are second to none in strength and beauty, and are used for textile fabrics. It grows rapidly and luxuriantly, and can be cut three or four times in the course of the year; the young shoots are those which are used, and on the stem being cut down, numerous straight simple shoots spring up from one to eight feet high.—Drury's Useful Plants. See Raha.

BOEHMIA PUJA, Royle, is botanically a different species from the B. nives, though its fibre is almost identical with that furnished by B. nives. It flourishes at Darjiling, Darha Doon, and other places in the north of India. Its commercial value is the same as that of Raha, affording the Puja fibre of Northern India.

BOEHMIA RUGULOSEA, Wedd., grows in Garhwal and Darjiling Teral.

BOEHMIA SALICIFOLIA. D. Don.

Urtica salicifolia, Roxb. Siharu. [Panji.] A plant of the Maluccas and of the Himalayas, as far as Darha Doon, found in Simla and in Garhwal, and in the Sutlej valley between Rampar and Sungrah, at an elevation of 6000 feet. Used for making ropes. Its berries are edible.—Royle; Voigt, 280; Clegghorn, Panjib Report, p. 68.

BOEHMIA UTILIS. Royle. Raha.

Bun or Bun Raha. [Leipeeh of Nepal.] Jungle Raha is common in Nepal and the Assam forests, and thrives best in the vicinity of water or of running streams. When unmoistened it grows to a tree, but, by proper management, the divided roots afford numerous shoots, and the plant can be propagated by slips as well as by the seed. Its cultivation for its fibre might be carried on, as with the willow in Europe. It is said to be exported into Southern, from Northern China. It is cultivated largely by the hill tribes north-west of Yunnan, and by the Singhpoas and Dhoomnas of the north-eastern frontier of India to a slight extent only, for a coarse cloth, but chiefly for nets. It is sometimes recognised as the Leipeeh of Nepal (Journ. Agri.-Hortic. Sec. vii. p. 222). This fibre is well adapted for rope-making. It is about five feet in length, brown in colour, strong, and flexible. It is all that can be desired either for canvas or lines, and only requires to be known to be generally used for such purposes. It was made into a five-inch rope by Messrs. Huddart, along with the Dom Raha or China-grass, and broke with a weight of about nine tons, or precisely 21,025 lbs. Since then, it has been made up into ropes of various sizes, which greatly exceed in tenacity those made of Russian hemp of the same size. It has also been made up into lines and cords, some of them almost fine enough for fishing lines; in which it displays its fitness for all such purposes, from the union of strength and flexibility. It was valued at £5 a ton.—Royle, Fl. IV. p. 363.

BOERHAIAXIA ERECTA. Linn. Hog-weed.

procumbens, Roxb., W. Ic.

Tikri. [Hind.] Mukaratay kiny. [TAM.

Tamiramana. [Malay. Ataka mamidi. [TEL.

Sindikia. [Sansk. Adavi mamo.] [Tel.

Var. a. Roes, Gada-pooma, deep-tose.

Var. b. Alba, Shwol-poorna, white.

BOHIRA.

A very common, troublesome weed. The long fusiorm perennial roots strike so deep as to render it no easy task to dig them up. It produces blossoms and ripe seed during the whole year. Horsfield says that in Java this is deemed emetic. The native practitioners of India reckon the root amongst laxative medicines, and prescribe it in powder. The small round leaves which grow at the joints of the stalks of the plants are eaten.—Roeb. ii. 146; Ains. 68. Sch. Voigt, 329.

BOGAIA. Singh. Ficus religiosa.

BOGLE, GEORGE, in 1743 was deputed to Tibet by Warren Hastings as ambassador.

BOGNO or Bounigo, Japan. A governor.

BOGRA, a revenue district in the Rajpoot, Koch-Bihar, division, between lat. 24° 32' and 25° 18' 30" N., and long. 88° 54' 15" and 89° 48' E., with an area of 1491 square miles, and a population of 689,476 souls, chiefly semi-Hinduised aborigines of the Kochi, Pali, and Rajbansi races, and the Ghatwal. There are also a large number of Kailbart cultivators, with boating and fishing castes. The mound of the ruined city of Mahasthan is, as the shrine of Shah Sultan, largely visited by Mahomedans.—Blang. Dir. Impr. Gov.

BOGSHA, a tribe occupying the low Terai adjoining Rohilkhand.

BOHIN, the Bohi, were captured by the British navy on the 25th February 1841.

BOGUM - WANLI. Tel. From Sanskrit Bhogam. Common women. See Basaya; Murli.

BOHRA. Hind. Bignonia undulata.

BOHINI. Hind. With shopkeepers and hucksters, the first money received of the day; it is the handsel of the British. Throughout India, credit for such transaction is not allowed; it must be a ready-money transaction.—Elliot.

BOHIRA. Many of the Mahomedan shopkeepers on all the western side of India, and as far east as Secunderabad and Bellary, are Bohra, and they are in many parts of Central India and the N.W. Provinces; in the Rajput states, on the north-western coast of peninsular India, and are gradually extending to the south. They call themselves Insull, acknowledge an Arabian dree or religious chief, and are an active, intelligent, mercantile body. They are scattered all over the country, but are found principally in Gujarat and the adjoining provinces of Cutch, Sindi, and other parts of the Bombay Presidency. They are a peaceable, inoffensive body of men. They are fair, robust, somewhat taller than the average Englishman. Wilson says that these appear to have originated in Gujarat, where they became converted to Mahomedanism; but they seem to have come from Sindi. They are engaged in every branch of commerce as wholesale merchants of the first class, as well as pedlars; and sometimes both characters are to be found in the same person. They are a chief medium through which the retail trade in European articles is carried on. The good understanding in which they live with each other strengthens their association; and though they have in former times suffered from the violence of power, few of the ingenious classes have escaped so well, during the worst of times, as the Bohra. They are united under the spiritual rule of their elected mujah, or priests, to whose orders, in conformity with the ancient precepts of the remarkable sect of Mahomedans to which they belong, they render
implicit obedience, corresponding in many respects
with the Imamiyah, the Ansaribah, the Mutawilah,
and the Drusos of Syria, and holding the doctrine
of the divine character of All. They are of the sect
of the Hasani, the Assasins once so dreaded in
Egypt and Persia, for the murders perpetrated in
blind obedience to the mandate of their spiritual
chief, so famous in the crusade history under the
name of the Old Man of the Mountain, or Shaki-
ul-Jabal. At Oojein, in Sir J. Malcolm's time, 1200
families lived in four mohal or wards connected
with each other, but separated by strong gates
from the other parts of the city. No one except a
Bohra is allowed to penetrate without leave. The
chief mullah, who resided at Oojein, was
appointed by the high priest of this class at
Surat, and his authority extended over all his
seet. His orders regulated their most minute
actions; and he promulgated annually a table of
rules for their guidance. He estimated the Bohra
in his diocese or charge at nearly 10,000 families,
or about 45,000 souls. They seem to abstain
wholly from political intrigue, are liberal-minded
and open-handed, and as good citizens far excel the
Mahomedans either of Arab or Persian descent.
The name is said to be derived from Beohar, trade.
Wilson says the word is derived from the Gujeratí
words, Vohora, Wohoro, and Ohoro. The Boira
in the N.W. Provinces of India and the
Upper Doab have a humber branch, called Koyan
or Rabie, who are money-lenders. Sir J. Malcolm
says that besides the Mahomedan Bohra, there is
a tribe of Brahman from Nat’hdwar in Mewar,
who have likewise this appellation.— Elliot: Mal-
colin's Central India, ii. p. 111; Census.
BOI, Tel., also pronounced Bhui. On the
Madras side of the Peninsula, a palanquin-bearer;
fisherman employed also as a house-servant.
BOIDU. Tel. A man of the cowherd or
shepherd caste.
BOIL. The Delhi boil, Sind boil, and Aleppo
boil are very intractable diseases. The Aleppo
boil, about the size of a shilling, occurs in the
Tehe-
ran. It is of a livid colour, not painful; its pro-
gress is slow. It is called the Hebt-us-Simne, or
the Blotch of a year, also the Haleb-chiban. It
is seldom cured in 8 months.
BOIS. Fr. Wood; hence Bois à batir, Bois
decharpente, timber.
BOJ. HIND. Acorus calamus, also Typha
angustifolia.
BOJA. Tel. Inga xylecapra.
BOJAI. HIND. Eleusine coracana; beer made
from this grain.
BOJAVA. JAV. Crocodile.
BOJH, also Boha. HIND. A weight, a load.
BOJDAN, the root of a small plant brought
from Dehli to Ajmir; used as an aphrodisiac.—
BOKA. HIND. A basket, pall, or leather bag;
for throwing water to a higher level. It is the
source of the English word bucket.—Ell.
BOKAARA GAS. SINGH. Gomphia angus-
tifolia var. Vahl.
BOKADA. Tel. Clerodendron viscosum.
BOKARO, a mile west of the Hazaribagh dis-
trict of Bengal, covering an area of 250 square
miles on either side of the Kokaro river. The
quantity available is estimated at 1500 millions of
tons. It is regularly worked.—Imp. Gaz.
BOKAT. HIND. Asphodelus fistulosus.
BOKENAKOO. HIND. Zanania nodiflora.
BOKHARA, a khanate in Turkistan, of small
extent, surrounded by a desert. It lies between
the parallels of lat. 37°–45° N., and long. 60°–65°
E. It is an open champagne country of unequal
fertility, and intersected by the Amu or Oxus on the
southern border. Its rivers are the Amu or
Oxus and Sýr or Jaxartes, the Kolkh or Zar-afshan
and the river of Karshi and Balkh. It is ruled
over by an Amir. The population was esti-
mated by Irving (1809) at 3,500,000, by Burnes
1,000,064 by Fraser at 2,500,000, and by Balbi
(1826) at 1,200,000. A considerable por-
tion of the khanate consists of a clayey, saline
soil, and sandy steppes, with a visible slope to
the south-west, while it is barricaded to the
north-east by huge ranges of mountains. The
prior occupants are the Tajak, whose time of immi-
gration into Bokhara is unknown. Previous to
the conclusion of the first century of the Hijira,
the followers of Mahomed penetrated there, and
forced them at the point of the sword to embrace
the new
creed. At that period Bokhara was governed by
the Samanides. In the 10th century the weak
rule
of these princes was totally overthrown by the
Uzbaks, whose power was not of long dura-
tion; for in the 12th century the khanate of Bok-
bara was deluged by the overwhelming flood of
the Moghul hordes of Chengiz Khan, and the
Uzbaks were driven by the Moghul into the
desert to the west of the Sýr-i-Darya. Bokhara
has often changed its rulers and modified its
inhabitants. At each successive influx new tribes
were added to the bulk of the population. This
intermixture was more particularly felt whenever the
Uzbaks re-entered the khanate. Of the Tajak
there is but a remnant left in the city of Bokhara.
Owing to their peaceful disposition, not to use the
word cowardliness, they abstain from taking any
part in warlike achievements. The most salient
traits of their character are avarice, falsehood,
and faithlessness. They are usually tall; have
a white skin, with black eyes and hair. In their
dress they strictly adhere to the rules of the
Koran, and there is much greater affectation than
is observable among the Uzbak. Their politeness
in conversation often becomes disgusting, especially
if they require the assistance of the person to whom
they address their words. The number of
the Arabs is somewhat greater than that of the Tajaks.
They are chiefly dispersed over the northern parts
of the khanate, having their headquarters in the
vicinity of Vardanzi and Samarcaund. They have
not relinquished the habits of their ancestors, and
continue to lead a wandering life, with this differ-
ence, that the severity of the climate has induced
them to exchange their tents for the kibitki.
Such only as are compelled by the nature of their
occupation, live in fixed habitations. Their fea-
tures betray their origin. Their large eyes are
black as well as their hair; and their skin, which
is very susceptible of the effects of the sun's rays,
often becomes nearly black from exposure. They
speak Arabic amongst themselves.
Bokhara has grain, fruit, silk, cotton, dyes, and
cattle, all unrivalled of their kind. Their horses
are celebrated throughout Asia; their camels sur-
pass all the other sorts of this most useful domestic
animal in the south and west of Asia; and their
mutton is equal to any in the world. The hilly
country east and south of Samarcand is rich in minerals.

The Uzbak are undoubtedly the preponderating race in Bokhara, not so much from their number, as by the ties which bind them together. They are divided into stems and sections, like the Kirghiz, and have their elders or boys, who enjoy a certain consideration among them. The Uzbak branches, with some of their subdivisions, are enumerated in the work called Nasedd-Mameti-Uzbekia. Many of their tribes are in this khantate.

Manghit encamp at different places, partly in the neighbourhood of Karshi, and partly near Bokhara, and it is out of one of its branches, called Tuk, that the reigning dynasty proceeds. Uzbak are generally middle-sized men; the colour of their beards varies between a shade of red and dark brown, whilst few are found with black hair. Their dress is very plain, consisting chiefly of khalat, or flowing dresses of alaja. The wandering Uzbak live, like the Kirghiz, in kibitka. The external felt is usually of a black or dark grey colour, but the interior is more tastefully ornamented than the tents of the latter; for the Uzbaks hang small carpets of home manufacture along the sides, and, through the work be coarse, and the colours generally of a sombre hue, dark red or brick colour in particular, their presence sets off the tent to advantage, and gives it an appearance of cleanliness. Their meals are very monotonous, the staple article being constantly mutton. Kumis (fermented mare’s milk) is only drunk by those who keep large herds of horses. Their chief occupation consists in breeding flocks. Children all but naked are seen driving the sheep round the aul, while the chief sits listlessly in his kibitka, leaving all the household affairs to the care and management of the women, who do not differ in dress from the Kirghiz women. In the interior of the aul, half-naked children may be seen romping about and fighting with dogs.

Bokhara has a considerable number of Persians, especially Persian captives, who are brought thither in small parties. The greater majority, however, of this people were transplanted from Merv, in the reign of Amir Sepid, when that city fell under his sway. With a view of weakening it, and the chance of seizing it for himself, he ordered all its inhabitants and families to be transported from Merv to the neighbourhood of Samarcand. It is from them the Persians of Bokhara chiefly descend.

The Persian population are easily distinguished by the regularity of their features and their bushy black hair. They profess outwardly the Sunni faith, though in their hearts they remain Shia. The Jughi, Mezeng, and Luli are classed among Musalmans in Bokhara; their women go unveiled, and the men are careless in their religious duties. Numbers of them are established at Bokhara and other towns as medical men, fortune-tellers, and horse-dealers. Such as lead a wandering life encamp in tents of a coarse cotton stuff called bez. They have permission to halt near all the lakes and rivers of the khanate whenever those places are not previously occupied by Uzbaks; in consequence of which a great number of them are dispersed along the banks of the Zar-afshan, near Samarcand, while others encamp in the neighbourhood of Karakul Bokhara and Samarcand are the centres of Mahomedan theology. There are no Mahomedans so strict as the inhabitants of Bokhara, but it was the most shameless sink of iniquity in the east. They have a monastery at Bokhara, dedicated to the famous darvesh Mulana Jalal-ud-Din, who centuries ago went from Bokhara to Leonium. Its houses are built of mud and wood. The rooms have no furniture; and glass for windows is unknown, oiled paper being used in lieu. Bokhara and Turkestan send out raw silk of various sorts, called shilja jalier, vardanzwi, lab-i-abi, churki, from Khojan, Balkh, Kunduz, Akcha, Shibarghan, etc., Bokhara gold coins are buduki and tila. Broadcloth is little used, only cotton cloths (alaja), and silk, loose silken garments. Women’s clothes are of a dark colour, often blue, and fit tightly, with a horsehair veil.

Bokhara city, in lat. 39° 46' 45" N., long. 64° 26' E., is about 7 miles from the left bank of the river Zar-afshan. It is about 75 miles in circumference, and is surrounded by a clay curtain, with bastions at intervals. It has about 15,000 houses, and a population of 75,000 souls. The ark or palace was built by Alp Arslan. The foreign traders have their respective caravansaries. It has numerous mosques, and about 140 schools and colleges. The inhabitants consist of the Tajak, Nogay, Uzbak, Arab, Jews, Persians, and a few Russians. The Jews are dyers and silk traders, and must wear a small cap and girdle around their waist. The speakers of the Russian are called Mahomedans. There are merchants from Sind, and many darvesh. Whole streets contain nothing but shops and magazines for merchants from all parts of Turkestan, Kashgar, Hindustan, and Russia. There are, all around, numbers of country houses, with gardens.

The brothers Polo stayed three years in Bokhara in the time of Barak Khan (A.D. 1264-1274); and Anthony Jenkinson, who together with the brothers Johnson travelled in Central Asia as agent for Russian cloth manufactures, was in Bokhara A.D. 1558-59. It was visited in the early part of the 19th century by Sir Alexander Burnes, Dr. Joseph Wolff, Colonel Stoddart, and Captain Conolly. The two last fell victims to the fanaticism of the people. It was taken by Russia in 1868—Wolff’s Bokhara, ii. pp. 3, 4; De Bode, Bokhara; Teisserenc de Bort, personal Narrative; Pierson’s Journey; Max Müller; Porell’s Handbook; Trotter, Central Asia.

BOKHARA CLOVER, Melilotus, a genus of plants of the nat. order Fabaceae, several species of which, native and foreign, are grown in India, Melilotus arvensis, Italicus, lecanthus, officinalis, parvillora, and sulecta. M. arborea is the Bokhara clover, and affords two or three cuttings in a season; most of them are grown as clover.

BOKHARA, LITTLE, a name of Chinese Tar-tary or Eastern Turkestan.

BOKHARI, one of the six principal collectors of the hadis or traditions of Mahomed. The other five collectors were, Muslim, Abu Daud, Tirmidizi, Nassar, Ibn Maja or Ibn Khoezima. Bokhari was a takhallus or literary appellation. His real name and cognomen are Abu Abdulla Muhammad Ismaill. He was born A.H. 194, and died A.H. 236.

BOKHARIAN HAKIM. See Gia-i-Khatal.

BOKHDI. See Aryan.

BOKHEE. Dukh. Hipette madalobta.

BOKKADI. Tel. Ehrutia, sp.

BOKKENA. Tel. Zapania nodilora, Lam.

BOKKUDU. Tel. Hydrocotyle Asiatica.
BOLARUM, B. Hort., Jav., Fr., but pass common of infantry, of productions, that the every ascent, are the valley south, the gum, lower this camels over Kohilkhaud. BOKSA, the great BOKSA, BOKLA. BOLLA, Bola. B. Balsamodendron myrrha, Needs ab Jenny.; also myrrh. BOLA. Beng. Paritium tiliaeceum, St. HIL. BOLA of Bengal, the fish Corvinus chapitis. BOLAN, a pass in Saharanwan in Baluchistan, 614 miles long, leading through the Haiz Mts. from Kutehi to Daski-ib-Baulat. It is a succession of valleys, bounded by mountains. The road is good over the bed of the torrent, from which large stones are removed. It is better adapted for camels than horses or wheeled conveyances. It is the principal route for the traffic from Sind to Afghanistan. In 1838, the British Indian army, 13,050 strong, and Shah Shuja's army, 6070 strong, with 40,000 followers, marched through this pass. The water of the Bolan or Kahi river disappears in the shingle at Ab-i-gum, to reappear lower down. The British Indian army again, in the war of 1878-79, marched through the Bolan to Kandahar. The entrance is 800 feet; Ab-i-gum, 2540; crest, 5793 feet. Dr. Hunter says 8500 feet. Average ascent, 90 feet per mile. The Bolan, with the Moolla pass far to the south, are the only practicable routes intersecting the great chain of mountains, defining, on the east, the low countries of Kutch Gandava and the valley of the Indus; while westward it supports the elevated regions of Kalat and Saharanwan. There are two passes over this chain, but all of them from the east have a steep and difficult ascent, and conduct to the brink of the plateau or table-lands. Such are the passes of Takari and Nagow between the Bolan and Moolla routes, and there are others to the N. of the Bolan. This pass is particularly important, as occurring in the direct line of communication between Sind and the neighbouring countries, with Kandahar and Khorasan. It also constitutes, in this direction, the boundary between the Sard Sair and Garm Sair. The natives say that all below the pass is Hind, and that all above it is Khorasan. This distinction is in great measure warranted, not only because the pass separates very different races from each other, speaking various dialects, but that it marks the line of a complete change of climate, and natural productions.—Masson's Journeys, i. p. 338.

BOLARUM, a military cantonment of the Hyderabad contingent, ten miles north of the city of Hyderabad in the Dekkan, continuing to the north of the Secunderabad cantonment. The force comprises a regiment of native cavalry, one of infantry, and a battery of artillery.

BOLPHYLUM, a genus of plants belonging to the natural order Orchidaceae. B. auricomum, Careyanum, flexuosum, fuscosenus, Jenksenonii, serpens, and sunippia, occur in Nepal, the Khassya hills, Burma, and Tenasserim. The most highly valued of the orchid order among the Burmese and Karens is a sweet-scented bolophyllum, which Karen youths wear in the lobes of the ear, and maidens in their hair. It abounds in almost every part of the jungles, throwing down delicate steam-coloured racemes over the rough grey bark of old Lagerstromia trees. B. Careyanum is common in the vicinity of Moumein, and easily recognised by a long leaf at the apex of a false bulb, and by its small purplish flower.—Masson.

BOLE ARMENIAN, Berlin red.

Boj-Armeni, Ab. Harazni, Panjab. Bole de armenie, Fr. Harmouchi, • Gil-armeni, Pers. Gurukutta, Sanske. Gheru mitti, Sine kavi kallun, Tan. Tannam Foo, Jav. Sina kavi rai, Tel. An earthy mineral of a fine red colour, one of the hydrous silicates of alumina. That found in the island of Lennos is white, and called Lennos earth. Armenian bole is in use in India amongst native practitioners as an astringent; it is largely employed by fraudulent dealers to colour articles of food, etc. It is employed in native painting and gilding. In many countries, Bengal and South America especially, this and other unctuous earths are eaten occasionally by pregnant women, to allay the craving for food so common in that state; and in times of scarcity it has been used by both sexes as a mechanical substitute for proper food. It consists of alumina, silica, magnesia, and oxide of iron. It is brought to India from the Persian Gulf; but it also occurs of fine quality in the Rajmahal hills, also in Mysore, Bellary, and other localities. Reduced to very fine powder, it is used as an absorbent application, sprinkled over ulcers or other raw surfaces. The boles of Biols, Sisela, Lennos, Armenia, and other places are celebrated. They do not effervesce with acids; are astringent, contain silicate of alumina, and a varying proportion of iron and magnesia. The red varieties are called Armenian bole, and the white varieties are Lennos earth.

—O.sh.; Smith.

BOLEDI, a tribe of Arab descent in the Kaj district of Baluch Makran. They were in brief authority in the early part of the 17th century.

BOLEOPHTHALMUS BODDERTI, the leaping fish of the seas of the E. Archipelago. They are salamandrine-looking creatures, scarcely distinguishable from the mud on which they lie, but make a series of leaps on being alarmed. They are 3 or 4 inches long, wedge-shaped, with flat pointed tails, head, and prominent eyes. They are called by sailors Jumping Johnnies. They lea by means of their ventral fins.—Collingwood.

BOLETUS DESTRUCTOR, dry-rot fungus.

BOLETUS IGNARIUS, Agaricus albus.


BOLINTRABOLUM. Tel. Bol ka gond, and Bijs bol, Hind. A dark, reddish-yellow opaque gum, is supposed to be true myrrh. It is considered a woman medicine; is given to children in enlarged abdomen, mixed with aloes, as a dosistri-ment, and is also used in making native ink; one seer costs eleven annas.—Gen. Med. Top.

BOLKUKI. Beng. Adolia castanacarpa.

BOLO CHAPITIS. Buech. Corvinusbola, M. Catt. Corvinus chapitis. A whiting that furnishes isinglass; the jawbone of the fish is described as Boalee.—Masson. See Bola.

BOLOR MOUNTAINS, the mountains of Bali, extend for 300 miles, from the sources of the Gilgit and Yasan rivers in 73°, to the 77th degree E. long., the source of the Nubra river. The Bolor mountains form the western boundary of Chinese Turkestan and Dzungaria. Bolor pro-
duces much gold. The higher mountain range
abounds in rock-crystal, called Bilor-stone. The
people of the neighbouring Dardu districts on the
Indus know Balti only by the name of Patolo.
Balti is still famous for its gold washings. Ptolomy
calls the people Bötarä, or Byltoc.—Yule.

BOLUNGE AND BANSO. Tel. ? Uria? Two
rare bamboos of Ganjam and Gumur; extreme
height 25 feet, circumference ½ foot.—Captain
Macdonald.

BOLU, amongst the Mahrawtas, the cere-
mony of conducting a bride to her husband's
house; also dismissal of the bridge-groom's friends
and attendants. Also, the ceremony of propitiating
the Bhuta or spirits of deceased persons (pestilences)
who have entered a village, inducing them to leave the village
and conducting them across the borders with music and a procession.
The exercise of the Bolu is a cause of great
anger to the villagers to whom the pestilence is
led. Perhaps from tiluna, to call.—Wilson.

BOM or Bun-zu or Bom-du are closely allied
tribes, termed collectively Lungka, Kungye, or
Kuki, who occupy the highlands of Tipihar, and
extend S.E. towards the head of the Koladyn.
Both the Bun-ju and Kuki appear, like the Ku-mi,
to belong to the Burman family. The Kuki
represent its most archaic and barbarous condi-
tion. The tribes that have been exposed, on
the seashore of Arakau or in the basin of the
Irawadi, to the influence of the Chinese, Shau, Mon,
Bengali, and more distant commercial nations,
have attained a comparatively high civilisation.
The Singpho, although much behind the
Burmans, are greatly in advance of the Kuki; and
the Burmese seem, at a very ancient period, when
their condition was similar to that of the Kuki,
and perhaps in many respects more barbarous, to
have spread themselves from the upper Irawadi
to the south and west as far as the highlands of
Tipihar on the one side, and Pegu on the other.
Wherever the stock from which they have been
derived was originally located, they probably first
appeared on the ultra-Indian ethnic stage as a
barbarous Himalayan tribe, immediately to the
eastward of the Mishmi, if indeed they were not
identical with the Mishmi of that era. The upper
Irawadi was probably then occupied by the ruder
and inland tribes of the Mon-Anan alliance.

BOMA-PAPATA. Tel. Stylocoryne Wehera.

BOMBACEAE. Several genera of this group
of plants, as the adsonian, bombax, durio, ochrona,
gossamipinus, and salmalia, grow in the East
Indies. Salmalia Mahabara and Gossamipinus
have a soft down attached to their seeds, and
yield a powerful paste. Some authors regard this
group as a section of the Sterculiaceae.

BOMBAREK, a rock which British sailors so
call. It is the Koh-i-mubarak, also Has-mobarak,
the fortunate or auspicious mountain, or headland,
of the Arabs.

BOMBARIMASA. Tel. Citrus deccanensis.

BOMBAX CEIBA. Linn.

Muh-nien, . . . CHIN. | Pan-chi-hwa, . . . CHIN.

A tree of Jamaica introduced into the E. Indies.
In South America and the West Indies it is used
for canoes. It is common at Canton; and the
fleshy petals of the flowers are sometimes prepared
as food. It is said to be a large tree of the
Burmese country, and its beautiful and soft floss

is used for pillows and thin mattresses by the
natives. The juice of the root is aperient, and its
bark emetic.—Veitg: Malcom's Travels, p. 187;
Riddell: William's Middle Kingdom, p. 284.

BOMBAX MALABARICUM. DC.
Bombax heptaphyllum, Cor.
Salmalia Mahabara, Sch. and Endl.
Gossamipinus rubra, Ham.
Rakto-simul, BENG. | HIND. | SINU.
Adans. | Lepan, | Burm. | Kattu imbal, | SING.
Burragea, | Burman, | CAN. | BURMA, | Tel.
Red Cotton Tree, | Kuma, | Burma maina, | Tel.
Simal, HIND., | PERS., SANSK. | Mula-buraka mani, | URIA.
Sair; | Sairi, | MAHE. | BUR., | UK.
Mul-chau, | MALAKI.

This large and stately tree grows in most parts
of British India, and is often from 80 to 100 feet
to the first bough. It occurs wild in the Siwalk
tract up to 3500 feet, and beyond the Indus, and up
to 6000 near the Tavi; and its wood is used there for
planks, boxes, water tanks, carvings, troughs,
bridges, and scabboards, and light work, its bark
being whitish, coarse-grained, weak, brittle, and
very subject to the attacks of white ants, but it
stands water well. In the Bombay Presidency,
both on the coast and inland, it is one of the most
common trees, and the planks are extensively used
in making light packing-boxes used in the export
of bulky goods from Bombay and other
places; also for fishermen's floats when the Adan-
sonia is not at hand, and for canoes. It is abun-
dant in the plains of British Burma, where its
light and loose-grained wood is used for coffins.
A cubic foot weighs 28 lbs. When the trees grow
large, the stem spreads out towards the base, at
intervals, into buttress-like projections. In spring,
huge Magnolia-shaped scarlet blossoms cover the
trees, and in some places the young flower-buds are
cooked and eaten. Its cotton is used for
stuffing cushions and pillows. In a full-grown
tree on good soil, the average length of the trunk
to the first branch is 60 feet, and average girth
measured at 6 feet from the ground is 15 feet. It
yields the Mocceus-resin, and its roots constitute
the Safed Mooli of the bazaars, which, powdered,
forms a thick mucilage with cold water, and
answers admirably as a nutritious demulcent for
convulsive persons.—Drs. Wright, Brandis, Gib-
son, O'Shauffhney, Stewart; Mr. Thompson;
Captain Beddome.

BOMBAY, in lat. 18° 55' 5" N., and long.
75° 53' 55" E., is situated on an island of
that name, with an area of 18-22 square miles, and
gives its name to a presidency under the rule
of a Governor and Council; also to the army
which holds the Bombay territories and the
peninsula of Aden; also to the small naval force
of the Bombay Marine; and likewise to a group
of islands off the coast of Aden. The Enghsh name
is a changed form of Mumbai-devi, a local Hindu
goddess. The countries under the Bombay go-

dernment present markedly differing features,
like in their physical aspect, in the races occup-
ing them, and in the languages that they speak.
In the times preceding and following the Christian
calendrical vices, the territories under notice were
distinct nationalities,—Kathiawar, Maharashtra,
Gujaratshara, Saunarashtra, and Sindhu; and a power-
ful ancient dynasty seems to have had their capital
at Wallabhi, in the modern Gohilwad, another
being the great Chalukya empire of the Dekhan,
in the Dekhan part of the Bombay territories, on a

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portion of the plateau between the rivers Nerbudda and Kistna, elevated about 1700 feet above the sea. What is known of the history of these regions while under their early rulers is chiefly derived from legends handed down by traditions relating to the various sectarian religions that were acknowledged, and by the architectural and sculptured remains and rock-inscriptions, which Colonel James Tod, Mr. James Ferguson, Colonel Sykes, Mr. James Prinsep, General Cunningham, and Mr. James Burgess have investigated. But since the time of the Arab, Turk, Moghul, and Pathan conquerors, all of them Mahomedans, and all of them credibly recording races, followed by the Portuguese, the Dutch, and the British, the eventful changes in these countries have been well known. The first of these, after the Seythlic and Rajput occupancy, was Mahmud of Ghazni, who in 1024-6 captured and sacked the Saiva temple of Somnath in Gujarat, carrying back with him immense booty. From that time, the Rajput rulers of Gujarat, whose capital was at Anhalwara Patan, had to meet waves of invasion, until their dynasty was at last subverted in 1297 by Alaf Khan, the general of the Turki emperor of Delhi, Ala-ud-Din Khalji. In 1403, Jafar Khan, a Rajput convert, assumed independence, and the dynasty advanced to high power and splendour. The annual revenue rose to 11 millions sterling; and the ruins still at Ahmadabad and Champaner bear a mournful testimony to its former greatness, and to the revolutions to which it has since been subjected; for, in 1573, Gujarat was conquered by the emperor Akbar, and has repeatedly since then changed masters. The Bahmani kings, 1347-1526, the Nizam Shali dynasty in 1490-1595, at Ahmadnaggar, the Adal Shahi, 1498-1579, at Bijapur, the great Sivaji, 1627-1674, carved out kingdoms for themselves; and on the death, in 1707, of Aurangzeb (Alamgir 1.), the disorders led, in 1757, to the cession of the Gujarat Province to the Maharrattas, under the joint rule of the Peshwa and Daimaji Gaekwar. While such changes were occurring in these northern tracts, natives of western Europe had appeared on the southern sea-board,—Vasco da Gama, a Portuguese leader, in 1498; the great Albuquerque, 1508, and that nation possessed of Bombay island in 1532. A ship from England visited Surat in 1608; and the English in 1613 obtained permission from the emperor Jahangir to erect a factory there, which in 1618 was also granted to the Dutch. In 1661 the Portuguese gave Bombay island to Charles II. of England, as part of the dower given with his bride; and Charles sent the Earl of Marlborough, a most experienced sailor, with a strong fleet, to receive it from the Portuguese. In 1668 Charles transferred it to the English East India Company, for an annual rent of £10. In 1686 it was declared the chief seat of the English on that side of India; and in 1708 the territories attached were created the Bombay Presidency. All that remains of the Portuguese power on that coast is the territory of Goa, Daman, and Diu, an area of 1146 square miles, and 438,555 inhabitants.

Since the middle of the 18th century, the Bombay Presidency has been sometimes aggressive, sometimes on its defence. In 1756, in alliance with the Peshwa, the stronghold of Savandrug was captured, and the same year Admiral Watson and Olive stormed Ghoria or Vizadurg.

The first war with the Maharrattas, 1774-1782, ended ingloriously, some districts being retained and some delivered up. In the second war, 1802, the British regained some tracts in Gujarat; and in the third war, 1817, the Peshwa Baji Rao was defeated in the Dekhan, and the greater part of what is now the present Bombay territories, Ahmadabad, Nasik, Ahmadnaggar, Poona, Belgaum, Dharwar, Kalgagi, Sholapur, and the Konkan, fell to the British. At the same time Kandeh was obtained from Holtekamp of Sind was conquered. In 1848 Satara lapsed from want of heirs. In 1860 Sindia ceded the Panah Mahals; and in 1861 North Canara was transferred from the Madras Presidency. The territory thus noticed lies between lat. 13° 53′ to 28° 47′ N., and long. 66° 43′ to 76° 30′ E. Its seaboard, and the rivers Indus and the Gulfs of Cutch and Cambay, 8000 square miles, and the harbours of Bombay and Karwar afford every facility for commercial operations. Its fertilizing rivers being the Mahi, Sabarmati, and Tapti; and its mountains, the Suliman in Sind, the Sahyadri, the Satpura, and the Satwala or Ajunta, are marked features in the landscape. The Manchur lake is on the right bank of the Indus, near Sehwan, and the Ran or Rumm, is a level tract partially flooded during the rainy season of the S.W. monsoon. Thurr and Parkur, in Sind, is a sandy desert. The desert talaqas of Sind consist of a narrow strip of sandhills and waste lying north of the Rumm of Cutch, and stretching about 130 miles from District Mahomed Khan’s Taunda on the west, to the Jodhpur frontier on the east. The principal town is Omerkot, situated between the desert and the plains. It has long been the acknowledged capital of that part of the country, and with its mud fort was considered the key to the desert commanding the high road between Marwar and Sind.

Aden is under the jurisdiction of Bombay. Almost the most southerly point on the Arabian coast. It is situated in lat. 12° 47′ N., and long. 45° 10′ E. It is a peninsula of about 15 miles in circumference, of an irregular oval form, 5 miles in its greater, and 3 in its lesser diameter, connected with the continent by a low narrow neck of land, 8300 yards in breadth, but which is in one place nearly covered by the sea at spring tides. Bombay city in 1872 had 644,405 inhabitants. In 1881 the number was 773,196. The island has two hills of very moderate height, which rise from low lands formerly liable to be flooded. A stone embankment called the Vellaurl was built in 1833–34, to connect the Colaba and the Bombay islands. Malabar Hill is on the south-western side of Bombay island. At the north is Mahalakshmi, a ridge 200 feet high, with a handsome Hindu temple. About its centre are the Parsee dokhmas, or exposure towers. At the south end is Walkeshwur, a Brahman village, with interesting temples. Malabar Point, or Shigundi, its south extreme, forms the north-west limit of the Back Bay. Back Bay lies between Malabar Hill and Colaba, is 23 miles wide, and unsuccessful efforts to reclaim it have been made.

The Bombay group, indeed, consists of fifteen or twenty islands in all,—the island of Bassin, about thirty miles to the northward of that which gives the cluster its name; Drayve and Versova, just off the shore of Salsette; Salsette, by much the largest of them all; Trombay, conspicuous for
the mountain called Neat's Tongue, which attains the altitude of 1000 feet; Bombay itself, united on the northward to Trombay and Salsette, as these are united to each other by bridges and embankments, and to the southward are Old Woman Island and Colaba. Henery and Kenery are far south. In the spacious harbour formed by the islands of Caranja, Colaba, Bombay, Salsette, Elephant, Trombay, and the continent, several smaller rocky islands are scattered, bearing different names. Of these are Elephantana, and Butcher Island, called Dipa-devi, or the island of the gods, or holy island; it is low, less than a mile from Elephantana, in the direction of Salsette. Bombay harbour is very capacious, being from N. to S. 8 or 9 miles, with a general width of from 4 to 8 miles; its shores are irregularly indented by bays and inlets. Bombay Island has five or six banks of trap rock, chiefly greenstone and amygdaloid, separated by beds that have an appearance of being of sedimentary origin. The sea-breeze is felt through the island: the anchorage extends along the eastern face; and it is along this face of the island that the most densely crowded parts are. Owing to the value of property in that quarter, much new land has been reclaimed from the sea. The chief public buildings are the fort, the town hall, the government house, and docks.

For administrative and revenue purposes, the Bombay Presidency is arranged into twenty-four districts, which enclose nineteen Native States under British protection. In 1881 the population of Bombay was 11,025,593, and that of Sind 2,494,954; the Native States, 6,837,505.

### Bombay Territory

<table>
<thead>
<tr>
<th>Area (sq. m.)</th>
<th>Population (16,319,066)</th>
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<td>Pop.</td>
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<td>Area</td>
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### British Territory

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<tr>
<td>3,788,291</td>
<td>3,171</td>
</tr>
</tbody>
</table>

### Native States

- **Kutch**
  - Area: 3,788,291 sq. m.
  - Population: 6,837,505
  - Chief town: Bombay (pop. 10,162)
  - Other towns: Dekhan (pop. 5,204), Kanher (pop. 2,519), Surat (pop. 1,586), Broach (pop. 1,586), Kutch (pop. 1,586)

### Bombay Island

- The total area is 191,855 square miles, and the population 20,180,721.

- The various castes and sects in the British districts professing Hinduism, number 12,606,904 and Mahomedans, 2,504,338 others, 185,469.

- But of these, 163,972 are descendants of races from beyond the British frontier, viz., Arab, Baluch, Makran, Persia, and Egypt. The aboriginal races of this part of India, Koil, Bhill, Kolamb, Ahir, and others, are given as 709,025. The number of castes was about 200; and the Sudra were returned, in 1872, as 10,901,339; these being chiefly the cultivators of the Kumbi and Mali sections.

In 1716 the population of Bombay Island was estimated at 16,300.

- First Maurya, 516,119
- Second Maurya, 644,465
- Third Maurya, 1,588,605

- The vernacular languages spoken are English, Canarese, kokani, gujerati, maharati, indi, and urdu.

- Several of the races are keenly engaged in trade and in banking. Amongst the Hindus, the Bhatia race and the Marwari, Rajput tribes from Central India, and the Banya of Gujerat; amongst the Mahomedans are the Khoja, Borah, and Memon sects; the Lohani of Sind and the N.W. Frontier; with commercial men from Europe and America, Egypt, Arabia, Africa, and Persia, the Parsee (66,493) and a small number of Jews. The Khojas are converts from Hinduism to the Ismaelit sect of Mahomedanism, and acknowledge the Islam of the Ismaeli as their spiritual head. They have large trading colonies along the east coast of Africa.

- Cotton, opium, salt, cereals, are the chief articles of the foreign trade; for domestic use, the principal products and manufactures are, cotton-woolving by hand and steam, cotton thread, woolen fabrics, rugs, carpets, working in leather, gold and silver, and silk lace, kimkhab or brocades, silk fabrics, embroidery, edgings, paper, pottery, carving from sandal-wood, blackwood, ebony, etc., Bombay or Multan work, and blackwood furniture.

- The land-revenue system is the Kayotwari, not, as in Madras, with annual fresh assessments, and the cultivator is part owner of the land. The Government rates levied are Rs. 912 per acre on dry crops, Rs. 393 on rice lands, and Rs. 311 on garden lands. Each village has its patol, who is the head of the village for both revenue and police purposes; the tattali or kulturni, who is the clerk and accountant; the mhar, who is a kind of beadle; and the watchman. The potol, or kulturni, either hold a certain quantity of rent-free land, or are remunerated by a cash payment equivalent to a certain percentage on the collections. The mhar and watchman, in common with the other village servants, also hold land on more or less favourable terms as regards assessment, and receive, besides, grain and other payments in kind from the villagers.——Imp. Gaz.: Horsburgh; Finlay: Census Report.

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**BOMBAY DUCK.**

Bummalo of ... Bengal | Bania of ... Bombay.

This little fish, Saurus neurechus, B. Ham, in-
hhabits the seas of the S.E. of Asia. Its total length is 11 inches. The upper part of its head, back, and sides, light grey or dust-coloured, semi-transparent like gelatine, with minute starlike black and brownish dots; anterior part of abdomen pale silvery bluish; rest whitish; cheeks and opercles, pale silvery bluish, dotted like the body; fins transparent, coloured like the body, but more closely dotted, so as to appear blackish. The fish is of most voracious habits, gorging itself with other fishes of nearly its own size, also with its own species and with prawns. It is frequently taken with the stomach and the jaws expanded with prey. It is very short-lived. The whole body becomes at certain seasons brilliantly phosphorescent. In the Straits of Malacca it is at times very numerous, although less so than it is at the Sunderspur or in the months of the Ganges. Although very rich, it is a great delicacy immediately after it is taken. Salted and dried, it is also highly valued; and in this state large quantities are annually exported from Bombay and the Malabar coast to all parts of India.

BOMBAY MARINE. See Indian Navy.

BOMBAY WORK. The inlaid work of ivory, white and dyed, of ebony or other coloured woods, for which Bombay has long been famous, is said to have been introduced from the Punjab, and is also familiarly known as Multan work. The art dates from a remote period, and paper-cutters, work-boxes, writing-desks, and similar articles are its chief products. The effect of a large mass of it is very poor; the pattern is too fine for being distinguishable, and it fills the eye with a general greysih tint. In articles which do not present more than a foot or two of surface it is very pleasing. The ground of the inlaid pattern is generally scented cedar or sandal-wood, the joinery exhibited in which is very indifferent. The inlaying material is prepared as follows: The wood or ivory is cut into slips of a lozenge or triangular section, as may be required, by a long, thin-bladed, fine-toothed saw. The tin is drawn through between a pair of grooved rollers, like those used for laminating or extending iron; they work together by teeth at the extremity. One or two draws through extends the metal into the length desired. The wires and splints are nearly all either lozenge-shaped or triangular, the triangles being equalateral, the lozenge composed of two equilateral triangles. A pattern being fixed on, the splints are built up into pieces about eighteen inches long, and from a quarter to two inches in thickness, firmly glued together. In the case of borders, or continuous pieces of work, the rods and splints are fixed together between pieces of ivory, or wood and ivory alternately, so as to form straight lines on each side of the pattern. When about to be used, they are sawn across the thickness of a sixpence, and arranged in a box divided into compartments, something like a printer's case. They are then picked up in succession, and applied with glue to the box or other article to be inlaid.

Work-boxes, Rs. 4 to 125  
Writing-desks, 6, 75  
Portfolios, 6, 18  
Watch-stands, 5, 8  
Do. cases, 5, 8  
Embroidery frames, 25, 10  
Inkstands, 8, 10  
Baskets of sizes, 3, 20  
Jewel boxes of sandal-wood, 5, 60  
Do. open work, 5, 10  
Cheroot cases, 3, 4  

Carol-cases, Rs. 1.8 to 5  
Paper-weights, 1.8, 3  
Paper-cutters, 0.8, 8  
Table trays, 10, 15  
Pincushions, 3, 5  
Diapered inlay, 2 to 20  
Jewel stands, 5, 8  

BOMBAZINE, a fabric of worsted and silk, the warp being of silk, and the weft or shoot of worsted.—Tom.

BOMBA, at Gaya, a guide-conductor who precedes Hindu pilgrims, making a noise by beating his mouth.

BOMBYCINA, a group of lepidopterous insects, which, in their metamorphosis, construct a covering or case, generally called a cocoon. Each tribe of the Bombyces produces a cocoon of a peculiar form. They are said to spin or weave their cocoon, and are usually styled silk-moths. The valuable product of the silk-moth is the cocoon; and races have been produced differing much in their cocoons, but hardly at all in their adult states. Several distinct species exist in China and India, some of which can be crossed with the ordinary silk-moth, Bombyx mori. This is believed to have been domesticated in China n.c. 2700. It was brought to Constantinople in the 6th century, whence it was carried into Italy, and in 1494 to France, and has since been transported to many countries, where food and selection have produced many varieties. It is only in some districts of each country that eggs come to perfection. Captain Hutton was of opinion that at least six species have been domesticated. B. Cynthia feeds on the castor-oil plant, and spins very soft threads. Eastward of the city of Canton, on a range of hills called Lo-fau-shan, there are butterflies of large size, and night-moths of immense size and brilliant colouring, which are captured for transmission to the Chinese court and for sale. One of these, the Bombyx Atlas, measures about 9 inches across; the ground colour is a rich and varied orange-brown, and in the centre of each wing there is a triangular transparent spot, resembling a piece of mica. In their scientific classification, the Bombyces are arranged into eight stripes or types, according to the forms of their larva, and those known to occur in India have been classed into 105 genera and 272 species. The most important of these, in a social point of view, are the silk-producing moths, belonging to the genera Bombyx, Criocula, Salassa, Antheraea, Actias, Saturnia, Attacus, Caligula, Nocoris, Ocimaria, Rhodia, Rinaea, Theopilia, and Trilochea. At Simla, nine species of Bombyx, Saturnia, and Actias occur, nearly the whole of which might be turned to account in producing silk.

1. Bombyxmori, Linn., the common domesticated or Chinese silk-worm moth, the Sericaria mori of Blanchard, and the 'pat' of Bengal. It is a native of China, but has been domesticated there and in Siam, India, Persia, France, America, and elsewhere. In China is that this was discovered n.c. 2640, in the reign of the emperor Hwag-To, by his queen. The culture now flourishes principally about Nankin, in lat. 32° N.; but in India, into which it was early introduced, none of the silk filatures extend beyond 26° N. They have been found in a wild state in Kent in England, on shrubs, but the mulberry tree leaves are its favourite food.

2. Bombyx religiosa, Helfer, Deo-mooga, Hind., Joree, Hind., is found in Assam and Cachar, but is supposed by Mr. Moore to be identical with B. Huttoni. This feeds on the Ficus Indica and Ficus religiosa. Its cocoon shows the finest filament, has very much lustre, is exceedingly smooth to the touch, and yields a silk, if not superior, yet
certainly equal to that of B. mori. It has not been domesticated.

3. Bombyx Huttoni, *Westwood*, is found in the Himalaya, about Mussoor. where it occurs abundantly from the Doon up to at least 7000 feet. It feeds on the leaves of the wild mulberry, and breeds twice a year. It has not been domesticated, but feeds on the trees. It spins its cocoon on the leaf, which is cloisoned; the silk is very fine, and of a very pale yellow tint. It is found in the Western Himalaya in great profusion, at elevations of 3000 to 8000 feet above the sea-level. It occurs in the height of the rainy reason, when the hills are enveloped in dense mists. Its eggs are deposited on the trees, and subjected to the influence of the frosts and snows of those mountain winters. The Agri-Horticultural Society of India declared that silk of the very best description can be obtained from its cocoons by careful reeling. The silk is fine and tough, though perhaps somewhat less soft and silky to the touch than that of the Chinese worm, and was valued by the Delhi shawl merchants at 25a. the pound.


7. Bombyx yana mai, the oak silk-worm of Japan, has been naturalized in England. In Japan it is the most precious for the produce, and is a monopoly of the royal family. The cocoons are of a beautiful yellowish-green colour. The silk is as fine, thin, and light brown as that of the mulberry worm.

8. Bombyx Pernyi, of the north of China. It produces the gridelin cocoon and silk.

9. Bombyx Myilita, of India, produces a large cocoon. It feeds on the leaves of the Rhamnus jujuba, and furnishes a dark-coloured or grey silk, coarse but durable, inferior to that of the B. yana mai. Other species are B. Arracanensis, Fortunatius, sinensis, and textor.

10. Cicuta trifenestrata, *Helfer*, has been arranged under the genus Saturnia, Euphranor, Antheraea, and Phanaeus. It occurs in N.E. and S. India, in Sylhet, Assam, Burma, and Java; and feeds on the Protium javanum, Canarium commune, Mangifera indica, and Anacardium occidentale. Its cocoon is constructed like network, through which the enclosed chrysalis is visible. It is of a beautiful yellow colour, and of a rich silky lustre. C. drepanoides also occurs.


This has been classed in the genera Phalanca, Saturnia, Bombyx, and Attacus. It is known to occur in Ceylon, S. India, N.W. and N.E. India, Bengal, Behar, Assam, Sylhet, and Java. It feeds on the Shorea robusta, Zizyphus jujuba, Terminalia alata, T. catappa, T. indica, Bombax heptaphyllum, Tectona grandis or teak, and the mulberry or Morus Indica. The insect has not been domesticated, but is watched on the trees, and, in parts of India, is found in such abundance that the people from time immemorial have been supplied with a very durable, coarse, dark-coloured silk, which is woven into the well-known tassie silk cloth. In the Bhatgolpur district the cocoons are collected in earthenware, and are much used, cut into thongs, as ligatures for binding the matchlock barrel to the stock. In the rainy season the perfect insect appears from the cocoon in about twenty days. But tassie moths are hatched twice in the year, in May and August. The caterpillar first draws a few leaves together, as if to screen itself from observation, and then spins a strong cord, composed of many threads, till about the thickness of a crow quill, at the end of which it weaves the cocoon. For the first 36 hours the cocoon is so transparent that the larva can be seen working within; but it soon acquires consistence, and is then rendered quite opaque by being covered with a gluttonous substance. The moth generally deposits its eggs within a few yards of the cocoon. These the villagers collect and keep in their houses for about ten days, until the young caterpillars come forth, when they are placed on the Assan trees in the jungles, and in eight or ten days more they prepare for change to the chrysalis state. The owners tend them carefully, to protect them from the birds by day and from bats at night, and practise many superstitious ceremonies to aid them in their care.


20. Antheraea Assama, *Helfer*, the Saturnia of Westwood, the Mooga or Moonga of the Assamese, is found in Ceylon, Assam, and Sylhet. It can be reared in houses, but thrives best when fed on its favourite food which are the Adda-kor tree, Champa (Michelia) Soom, Kontooolva, Digluttio, and Souhallo, Teutrathera diglottica and T. maccrophyla, and the Pattee shoba or Laurus obtusifolia. There are generally five broods of Moonga worms in the year.


22. Antheraea —— sp. This is a native of Manchuria, in a climate as rigorous as that of Britain. It feeds on a species of oak. Its silk is strong, with little lustre, and resembles strong yellow linen. Introduced into France. A. Andamanana and A. mezaankooria are also named.


24. Actias clione, *sine*, syn. Tropaeas, Electropterion, Phalaen, is a native of India, but Mussoori and Darjiling, from 5000 to 7000 feet. It feeds on the Coriaria nepalensis, or Munns, Hince, Vandruma ovalifolia, and Carpinus. The eggs are laid for a few days after the visit of the male; they hatch in about 18 days, and the larva begins to form its cocoon when 7 weeks old.


27. Saturnia pyrotorum, Boisdewal, China.
29. Attacus Atlas, Linn., syns. Phalena, Bombyx, Saturnia. This is the largest of all known lepidopterous insects. It is found in Ceylon, all over India, Burma, China, and Java, and the tasar silk of the Chinese is said to be obtained from its cocoon.

30. Attacus Edwarsi, White, a native of Darjiling, of an intensely dark colour.
31. Attacus cynthia, Drury, syns. Phalena, Bombyx, Samia, Saturnia. This is the Eri, Eria, or Arindi silk-worm of Bengal and Assam, which occurs also in N.E. India, Tibet, China, and Java. It feeds on the foliage of the Ricinus communis, the castor-oil plant; hence its name, the Arindi. It spins remarkably soft threads.
32. Attacus ricini, Boisdewal, syns. Saturnia and Phalena. This is found in Assam, Ceylon, and is the Arindi or castor-oil silk-worm of Bengal, so called because it feeds solely on the common castor-oil plant, with which, also, they are fed when domesticated. This is reared over a great part of India, but particularly at Dinajpur and Rangpur. The cocoons are remarkably soft and white, but the filament is very delicate; the silk cannot be wound off, and it is therefore spun like cotton. The yarn thus manufactured is woven into a coarse kind of white cloth, of a seemingly loose texture, but of incredible durability; a person rarely can wear out a garment made of it in his lifetime.


The species of Bombyx called Bhoca, Buro bho, Hind., and Kala Janga, attack the maturing poppy plant in February and March in Lower Bengal.—Major Hutton in No. 8 of Universal Review; Horsfield and Moore’s Lepidopterous Insects, 1858-9; Silk-producing Moths; Proc. Zool. Soc. 1859. See Lepidoptera.

BOMERANG. A projectile used by the Marawar of the Toundamari country, also in Gujarat, and in Australia; it is made of wood, ivory, iron, and wood and iron. The Indian bonemonger, the katureea, is used by the Koli of Gujarat in the same manner as that of Australia. The distribution of the bonemonger corresponds nearly to that of the Australian race as defined by Professor Huxley.

BOMKAR. MAHR. Weavers in Kandesh. BOMILE-MARA, a tree of Canara and Sunda.

Wood very serviceable for planks.—Gibson.

BOMMA JEMUDU. Tel. Euphorbia antiquorum.

BOMMA Kachchhika, Costus speciosus, Sm. Bomma Medii, Ficus oppositifolia.


Bommidapu, Indigofera glandulosa, Willd. BOMMIGAL. TAM. Toya.

BOMNI AMLI. DUKH. Adansonia digitata. BOMORI, a town in Orchastati, Bundelkhand, in the N.W. Provinces, in lat. 25° 26° 20’ N., and long. 79° 54’ 40” E., has an artificial lake four miles long and two miles broad.—Imp. Gaz.

BOMRAJ, an estate in the Nellore district, Madras. In the 18th century, Bomraj, Venkatakri, Kalastri (Kalashiati), and Sayyidpur constituted the district of the Western Palayams.—Imp. Gaz.

BOM-ZU or Bun-zu, Bom-du of the Rakhoing, dwell north of the Kolayen, inhabiting chiefly the upper basin of the Kurnfuli, or eastern branch of the Chittagong river. To the north of the Bomzu are closely allied tribes, termed collectively Lepidopterous. Lepidoptera. Kunya, who occupy the highlands of Tipralal, and extend S.E. towards the head of the Kolayen. Both the Bun-zu and Kuki appear, like the Kumi, to belong to the Burman family. The Kuki represents its most archaic and barbarous condition. The tribes that have been exposed on the seaboard of Arakan or in the basin of the Irawadi, to the influence of the Chinese, Shan, Mon, Bengal, and more distant commercial nations, have attained a comparatively high civilisation. The Singpho, although much behind the Burmans, are greatly in advance of the Kuki; and the Burmees seem at a very ancient period, when their condition was similar to that of the Kuki, and perhaps in many respects more barbarous, to have spread themselves from the Upper Irawadi to the south and west as far as the highlands of Tipralal on the one side, and Pegu on the other.

BONAI, a small tributary state in Chutia Nagpur; area, 1297 square miles. It was ceded to the E. I. Company in 1826. Its Dravidian and Kolarian races are the Bhiyai, Gond, and Kolitas. Tigers, leopards, wolves, elephants, and bison are numerous. Population, 24,832.

BONANG. MALAY. A musical instrument of Java.

BONDARA. MAHR. Lagerstræmia regia. BONOCUT NUT. Seeds of Guifandina bonduc, L.
BOOK THA.

BOOK THA. BURM. A scarce tree on the sea-coast from Amherst to Mergui. When seasoned it floats in water. It is used by the Burmese for shelves, but rots quickly.—Captain Dauce.
The Abor language belongs to the old Assam alliance, but it has been greatly modified by Tibetan. It has a strong ideologic resemblance to the Dhimal, Bodo, Garo, and Naga. — *Jour. Ind. Arch.* 1853; *Treaties*, vii. p. 343; *Indian Annals*; *Latham's Ethnology*.

**BORA-CHUNG**, or ground-fish of Bhutan. It inhabits the jihls and slow-running streams near the hills, but lives principally in the banks, into which they penetrate from one to five or six feet, and are found generally two in each chamber, coiled concentrically like snakes. The entrance to these retreats leading from the river into the bank is generally a few inches below the surface, so that the fish can return to the water at pleasure. It is believed that the fish take possession of holes made by land-crabs. The bor-chung appear to be an Ophioccephalus, probably the O. barks described by Buchanan as inhabiting holes in the banks of rivers tributary to the Ganges.— *Tennent's Ceylon*, p. 367.

**BORAGINACEÆ**. *Linnaeus*. The boraginace tribe, comprising the genera anchusum, borago, colenias, cynoglossum, echinospermum, echium, eheurtia, heliotropium, l洞spermum, messerschmidya, myosotis, onosma, tariadum, tournfortia, and trichodesmu. Borago officinalis, *Linnaeus*, Ch'ot'a Kulpa, *Hind*, a plant of Europe; is grown in India as a pot herb, and the young shoots and leaves for salad; requires treatment similar to Angelica. It is suitable for the flower garden. Country borage is the Coles Ambiocinics.

**BORASSUS LABELLIFORMIS**. *Linn.* Lontar domesticus, *Rumph.*

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<td>Palmyra or bamboo tree, <em>Eng.</em> Panam param.</td>
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<td><em>Rontal.</em></td>
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To eastern nations, the palmyra tree is only inferior in usefulness to the bamboo, the date tree, and the cocaean palm. It grows straight to a height of 70 feet, with a girth of 5½ feet at bottom and 2½ at top. A Tamil poem of Ceylon, the *Tala Vilisaan*, enumerates 801 purposes to which the palmyra may be applied. The trees have to attain a considerable age before they become fit for timber, as their wood becomes harder and blacker by age, and the harder and blacker it is the better. The wood near the circumference of old trees is very hard, black, heavy, and durable. A cubic foot weighs 65 lbs, and it is calculated to last 80 years. In some parts of the Ceylon and Madras coasts, this tree is very abundant, especially in sandy tracts near the sea, though it is to be seen in most parts of India, and occasionally so far north as 30°. It is used chiefly for rafters, joists, and reevers. When of good age, the timber is very valuable for this purpose. The trunk is split into 4 for rafters, into 8 for reevers; these are dressed with an adze. Those of the Jaffna palmynas are famous, and were, in former times, largely exported. From the structure of the wood, it splits easily in the direction of its length, yet supports a greater cross strain than any other wood. Old black palmyra wood was, next to the casuarina, the strongest wood that Dr. Wight tried. One specimen bore upwards of 11,000 lbs, and an average of the trees was about 97 lbs, though he found some very bad. Mr. Rohde also remarks that it is the strongest wood he tried, retaining for a length of time the position it assumed when loaded, without increase of deflection. Iron nails soon rust in this wood. The thickness of rafters when trimmed up rarely exceeds two inches four feet from the ground, and one inch at twenty or twenty-four feet from it.
The fruit and the fusiform roots of the young trees are used as articles of food by the poorer classes, the fruit when young being jelly-like and palatable. Next to Caryota urens, it is the largest palm on the coast of the Peninsula. The dried leaves are used for writing upon with an iron style; also in thatching, making fans and light baskets for irrigation. The fibres of the pectoiles of the leaves (Palmyra mat) are employed for making twine and small rope; they are about two feet in length. The large carpenter beetle, Xylocopa, delights in boring this hard wood, though cumboo wood is still more attractive to it. Small canoes are formed of this tree. Two of the stems lashed to a couple of spars form the usual mode of crossing lakes and rivers in the Circars; the root forms the head of the canoe, the smaller end is either elevated out of water by the form, or some six inches of the pith is left at that end; as this decays, a lump of clay supplies its place. Formerly sea-going vessels were planked with this wood, but the iron fastenings were soon destroyed. Boats planked with it were, till the middle of the 19th century, common on the Godavery, being built probably where sawyers are not procurable. The peculiar structure of the wood of all the palms deserves attention; it appears formed of a series of hard, stiff longitudinal fibres, not interlaced or twisted, but crossed at considerable intervals at various angles by similar fibres, which proceed from the soft heart of the tree to the outer part, probably to the leaf-stem. A radial section of palmaya rafter shows this. The interstices are filled up with pitch, the proportion of which increases with the distance from the outer part. The wood, known as porcupine wood, is used in England for veneers and inlaying. In Ceylon it is used for rafters, pillars, and posts of native houses. In the sandy parts of Jaffna, in Ceylon, a hollow palmaya is inserted to form a well. The dark outside wood of very old trees is used, to some extent in Europe, for umbrella handles, walking-canes, paper-rulers, fancy boxes, wafer stamps, and other articles. The timber of the female tree is the hardest and best; and that of the male tree is never used unless the tree be very old. At certain seasons of the year, thousands are employed in felling and dressing it. Each tree has from 25 to 40 fresh green leaves upon it at a time, of which the natives cut off twelve or fifteen annually, to be employed as thatch, fences, manure, mat, and mat baskets; bags, irrigation baskets, winnows, hats, caps, fans, umbrellas, etc.; books and oyl, tatakoy or putty, for writing on. In the Northern Konkan it is in some parts so abundant that it might be termed a forest. It is a rare tree in the southern jungles of the Bombay Presidency. The wood, when protected from moisture, is very durable, and may be used with advantage for terraces, etc., when the upper part is completely left. Its fruit is of the size of an ostrich egg, grows in clusters; but trees from which toddy or palm wine is drawn, cannot bear fruit. When the spathes of the fruit-bearing trees appear, the toddy drawer, climbing to the top of the tree, binds the spathes tightly with thongs to prevent their further expansion, and thoroughly bruises the embryo flowers within. For several succeeding mornings this operation of crushing is repeated, and each day a thin slice is taken off the end of the racemes, to facilitate the exit of the sap and prevent it bursting the spathe. About the morning of the eighth day, the sap begins to exude, when the toddy drawer again trims this truncated spathe, and inserts its extremity into an earthen pot to collect the juice. These vessels are emptied morning and evening, and the palmyra will continue for four or five months to pour forth its sap at the rate of three or four quarts a day; but once in every three years the operation is omitted, and the fruit is permitted to form, without which the nates assert that the tree would pine and die. The tree, during the first part of the season, yields a pretty large quantity of palm wine. This is either drunk fresh drawn from the tree, or boiled down into a coarse kind of syrup called jagari, or it is fermented for distillation. The date tree in South India also furnishes toddy, and the amount of daily drunkenness exceeds all that is ever witnessed in Europe. A farina, called Ha-panuuki jangun navii, is obtained from the root by treating it as in manufacturing manioc. It is very nourishing to the palate, the germinating seeds (Ponato, Sing.) are boiled and eaten in Ceylon as a vegetable.—Seemn: Simannah: Drz. Wight, Cleghorn, Gibson; Mr. Rolhe; Hartwig, p. 139; Sir J. E. Temmert, ii. p. 523.

BORAX.

Borax, Bi-borate of soda, Tineal.

Boruq, Tunker, Arab. Pijer, Jax, Malay.
Kuddia-khar, Beng. Soda-bhoras, Lat.
Yueh-shih, Pwan-sha, Ch. Chaulanaya, Nep.
H'wang pung-sha, Tunker, Pers.
Korean, Dutt, Tunkana, Sans.
Borak de soude, Fr. Lapsuscanra, Singh.
Tunkun-khar, Gujar. Vengaram, Tam.
Boraces, Fr. Velligaram, Tel.
Solaha, Hind. Tsale, Tin.

The greater part of the crude borax or tineal met with in commerce, was formerly obtained from lakes in Tibet, the waters of which yield a yellowish-white mass, containing from 39 to 50 per cent. of real borax. That was refined chiefly at Venice and Amsterdam. Recently, a lake with waters similarly impregnated has been discovered at California. But, for a long time past, in Europe, the borax of commerce has been obtained by treating with carbonate of sodium, the boric acid obtained from the volcanic district of Tuscany, where jets of vapour issue from the ground. Natural borax is obtainable in large quantities in the valley of Puga, in Ladakh, from Lake Jigatzii in Tibet, 20 miles in circumference; also in the course of the Sanpu river, and from the Chaha lake beyond the Kylas hills. It is collected on the borders of the Tibetan lakes as the water dries up, then smeared with fat to prevent loss by evaporation, and transported across the Himalaya on the backs of sheep and goats, then refined at Umritsar and Lahore by washing with lime water. The salt and borax fields of Gunri, called Lha-thaka or Lhalu-thaka, are to the north of Bongbra Tal. Borax is procurable at Rudok in Changtan at ten annas per maund, of such quality that only about a quarter is lost in refining. That obtained at Puga, in the territory of the maharaja of Kashmir, loses one half. The Rudok borax is conveyed on sheep to Rampur on the Sutlej, at the rate of two miles a day, so that the price on the plains of raw borax rises to 7 rupees the maund, and of refined borax to 25 rupees.—M. and M. Pr. 1872-3. It is largely imported into Digarchi, whence it is distributed to other parts of Tibet and to India.
via Nepal, Sikkim, and Bhutan. It is used in the arts to clean metals before soldering; to form a glaze on earthenware, and in the preparation of varnishes. It is employed as a chemical flux, and in experiments with the blow-pipe, and in the moist way as a solvent for gum-lac. It is much used by the goldsmith, tinters (Cannar, Tam), and tinnmen (Tagara-velecarer, Tam), to facilitate the fusion of their metals. With it and lime-juice, the vaishnava Hindus prepare the irred Tiruchurnum, with which they mark their foreheads perpendicularly. Borax is readily purified by simple solution and crystallization. It is sometimes adulterated with alum and common salt; but ammonia gives a white precipitate (alumina) if the former, and nitrate of silver a white precipitate if the latter, be present. Price of raw borax, 4d. per lb.; of refined borax, 6d. per lb.—Beng. Phar.; Ains. Mat. Med.; Cat. Cat. Ex. 1862; Powell, Handbook.

BORE or Tidal wave.

The seeson... in China. Arrian (Exp. Alex. vi. 19) mentions how this phenomenon astonished the soldiers of Alexander, who had been accustomed to the tideless waters of the Mediterranean. The bore is a tidal wave which comes rolling in from the sea. In the Hoogly this is called Bora or Bore; in China it is known as Eagre; in the mouth of the united Tigris and Euphrates it is called Bar; in the Dordogne in France, it is called Mascaret; in the Maranon it bears the name of the Rollers; but by the American Indians it is called Pororea. This phenomenon is connected with the tides, as it always occurs at the springs.

The crest of the tidal wave in the Bay of Bengal, to the south of the bay, is almost a straight line running N.W. and S.E. between the south coast of Ceylon and the southern coast of Java. As it proceeds up the bay, it becomes convex towards the shore, and near the estuary of the Megna encounters at an obtuse angle vast quantities of fresh water coming down the three channels. When the tide is more than usually strong, as at full moon or under the influence of a strong S.W. wind, or when the river is heavily flooded, the opposing masses of water accumulate more rapidly, and the bore is produced. But when this occurs there are always two bores, one of salt water up the Sundip channel, known as the Chittagong bore, the other, called the Dania bore, up the middle and western channels. These two bores meet to the north of Siddhi. When the bore is violent, as during the equinoxes, and also when the S.W. wind is strong, it advances as a wall of water several feet high, stretching across the channels, and is so dangerous that native boatmen will for no consideration venture out into the river. Dr. Hooker mentions that, at the mouth of the Megna river, the great object in the navigation is to keep aloft and to make progress towards the top of the tide and during its flood, and to ground during the ebb in creeks where the bore (tidal wave) is not violent.

Similarly, the bore in the Hoogly is occasioned by the flood-tide, driven into the narrow river through the broad estuary, overcoming the fresher sent down by the heavy rains of the S.W. monsoon. It occurs between May and October, but is heaviest between July and September, between two days before and two days after the full moon. It also occurs at the change, but not with such violence. The wave usually rises on the Diamond Sand, where the river suddenly contracts and comes in 12 or 15 feet perpendicular with tremendous noise, carrying everything before it, though not with equal force, on both sides of the river, as it goes from point to point in the reaches, travelling at the rate of nearly 20 miles an hour to above Calcutta. There are generally three rollers following one another in quick succession, at 13 to 15 feet apart. When the S.W. monsoon has set in, the bore, for three or four days at the full and change of the moon, may be seen racing up the Hoogly river at the rate of twenty miles an hour, dashing from side to side of the river according as the bends or reaches deflect it in its course. Upon the approach of this wave a distant murmur is heard, which soon turns into the loud, fierce Bora! and, from the mouths of thousands of people, boatmen, sailors, and others, who are on the look-out for this much-dreaded wave. This cry is the signal for all sorts of small craft to push out into the centre of the river, the only spot where the wave does not ever over and break. Should any boat or small craft be caught in that portion of the wave that breaks, instant destruction is inevitable. Numerous boats from the up-country provinces are lost every year, from the crew being ignorant either of the existence of the bore, or from not knowing the correct position to take up so as to meet it. Ships at anchor in Calcutta, though not exposed to the breaking portion of the wave, frequently part their cables when struck with the wave. Standing on the shore during the rapid rushing passage of the bore, it is a curious sight to see the lower portion of the river, that nearest to the sea, the actual water one or two feet higher than the upper portion of the river; the tide rising that number of feet in an instant! The height of the bore in the Hoogly varies from five to twelve feet; it is exceedingly dangerous in some parts of the river, but more moderate in others; it never breaks on both sides of the river at the same time. Deep water engulfs its force but shallow water, or a sandbank, brings out all its power and fury. The bore, in 1782, flowed as far as Nuddea in the Hoogly, but at the present day it falls short of that place by many miles, not ascending much beyond Sooksagar. It reaches Dacea on the Buree Gunge, and Casteo on the Horinghatta branch.

In the Sреги river, of Burma, its fury is great, and occasions much loss of life. Burmans name 30 feet as the height to which it occasionally rises, and this may perhaps be the case in the bends of the river, where the rush has attained its full speed, before being reflected to the next bend. Even in the Hoogly at Calcutta, near the bend at Chandpal Ghat, the pointed curling wave may be seen several foot high.

The bore of the Tsien-tang river, in China, according to a Chinese proverb, is one of the three wonders of the world, the other two being the demons at Tang-chan and the thunder at Lung-chan. As in other countries, it appears generally on the 2d or 3d day after the full and
change of the moon, or at what are called spring tides, and particularly in spring and autumn, about the time the sun is crossing the line. Should it so happen that strong easterly gales blow at these times, the eagre rolls along in all its grandeur, and carries everything before it. Dr. Macgowan gave an account of it at Hang-chow-fu.

Mr. Fortune, from a terrace in front of the Tri-wave temple, saw on a sudden all traffic in the thronged mart suspended; porters cleared the front street of every description of merchandise; boatmen ceased lading and unlading their vessels, and put out into the middle of the stream; so that a few minutes sufficed to give a deserted appearance to the busiest part of one of the busiest cities in Asia. The centre of the river teemed with craft, from small boats to large barges, including the gay flower boats; looking from the fleet unmasked the appearance of the flood, which seemed like a glistening white cable stretched athwart the river at its mouth, as far down as the eye could reach. Its noise, compared by Chinese poets to that of thunder, speedily drowned that of the boatmen, and as it advanced, at the rate of 25 miles an hour, it assumed the appearance of an abaster wall, or rather of a cataram, four or five miles across, and about thirty feet high, moving bodily onward. Soon it reached the advanced guard of the immense assemblage of vessels awaiting its approach, all intently occupied in keeping their prows towards the wave, which threatened to submerge everything afoot; but their boats all vaulted, as it were, to the summit with perfect safety, and when the eagre had passed about half-way among the craft, on one side they were quickly exposing on the surface of the unruffled stream, while those on the nether portion were pitching and heaving in tumultuous confusion on the flood, and others were scaling with the agility of salmon the formidable cascade. This grand and exciting scene was but of a moment's duration. The wave passed up the river in an instant, but from this point with gradually diminishing force, size, and velocity, until it ceased to be perceptible, which Chinese accounts represent to be eighty miles distant from the city. A slight flood continued after the passage of the wave, but it soon began to ebb. The Chinese say that the rise and fall of the tide is sometimes forty feet at Hang-chow. The maximum rise and fall at spring tides is probably at the mouth of the river, or upper part of the bay, where the eagre is hardly discoverable. In the bay of Fundy, where the tides rush in with amazing velocity, there is at one place a rise of seventy feet, but there the magnificent phenomenon in question does not appear to be known at all. It is not, therefore, where tides attain their greatest rapidity, or maximum rise and fall, that the wave is met with, but where a river and its estuary both present a peculiar configuration.—Fortune, A Res. among the Chi, p. 316; Colcutta Review; Avrion; Geog. Mag. 1877; Findlay.

BORECOLE. Brassica oleracea, var. Scottish Kale; winter greens of England and Scotland.

BORECOLE and Boregaurm are names for numerous owns of British India, many seemingly obtaining their designation from the Hindi word Burha, meaning old. Boregaurm would be old town.

BOREE. SIND. Typha elephant."
BORNEO.

BORNEO, after New Holland, is the greatest island on the globe. If we compare the numerous archipelagos by which the island is enwrapt, this group may be said to occupy more than eleven degrees of longitude and about ten of latitude, between lat. 7° N. and 4° 20' S., and between long. 106° 40' and 116° 45' E. Its length from north to south will be about 300 leagues, and its breadth varying from 250 to 500 leagues. Its superficies, calculated by Melvill von Carnebeeck, and published in Le Moniteur des Indes, gives Borneo a surface of 12,741 square leagues, or 6992 myriametres, which makes it 2589 myriametres greater than Sumatra, and 5723 myriametres greater than Java. A native of Portugal, Lorenzo de Gomez, was the first of the European navigators who approached the northern part of this island, in 1518, in the ship St. Sebastien, on his route to China. He says that the natives termed it Branaui or Brauni, but the aborigines do not use any name appropriated to the whole extent of the country. The island is well known to the savage and wandering tribes, who are separated by great distances from each other. The different tribes designate themselves by the names which they give to the rivers on the borders of which they have established their abode; it is thus that all the Dyaks of the great river Duson (the Banger of the maps) call themselves Orang Duson, and those of the river Sampit, Orang Sampit; Raja Brooko makes mention of Dyak tribes under the names of Sarebu, Sakarran, Lundu, Sibnuw, etc., established on the rivers which bear those names. Lofty ranges of mountains are in the centre and the north-west. Mr. St. John, in 1838, found each range looking more lofty as he approached the interior, but presenting one uniform aspect of forest, covering hill and valley. The great mountain Kinibaloa, in the N.E., is 13,000 feet high. The land on all sides gradually slopes towards the coast. The Sultan of Brau nei claims an immense territory. The Dutch claim a territory exceeding 200,000 square miles on its western and south-eastern sides, with a population in 1881 of 1,014,547. The Spaniards till lately claimed territorial rights; and in 1881 Great Britain allowed a British company to obtain from the Sultan 30,000 square miles and 500 miles of seaboard, with the royal rights of life and death. Lubnan has belonged to Great Britain since the middle of the 19th century, and Sarawak to the Brooke family.

Its inhabitants are generally recognised as of the Malay, the Kyan, and Dyak stocks. The Malay are settlers along the coast from Sumatra, Java, and Malacca; the Dyak is the name for the prior races, divided into land and sea Dyak, the latter being richer and more powerful, those of the interior being broken up into innumerable clans, some of them being tributary to the Sultan of Branaui, some of them under the Dutch in the south and west of the island, and some under the Sarawak Government. The Milianowe are on the north-east of the Sarawak territory. They are of a fair complexion, and are occupied with agriculture, trade, and peaceful pursuits. The Kyan are a powerful tribe of about 100,000 souls, who occupy the country from the south of the kingdom of Branaui right away into the interior; they strongly resemble the Dyak. The Dyak are generally well made, with a muscular, well-knit frame, and are rather under than over the middle height. Their features are regular. Their colour is a dark brown, occasionally varying to a lighter shade. They dwell in very long houses, occasionally large enough to contain a community. From their supposition that the owner of every human head which they can procure will serve them in the next world, the system of human sacrifice surpassed that which was practised by the Batu of Sumatra, or, it is believed, by any people yet known. A man could not marry until he had procured a human head; and the possessor of several was distinguishable by his proud and lofty bearing. The chiefs sometimes made excursions of considerable duration for the sole purpose of acquiring heads, proceeding in their canoes to the more distant parts of the country, to which the numerous ramifications of the rivers afford them easy access. Upon their arrival near a village, if the party were small, they would take up their position in the bushes some parasay, and attack a passer-by unawares. A larger party would attempt perhaps to surprise a whole village; would remain concealed in the jungle on the banks of the river during the day, and at night surround the village so completely as to prevent the escape of the intended victims; an hour or two before daybreak, the attack commenced by setting fire to the houses, and their victims were destroyed as they endeavoured to escape. Apparently head-hunting was only general among those tribes inhabiting the banks of the large rivers, on which distant voyages can be made with facility, the Dyak race in the northern parts of the island being content with an occasional human sacrifice on the death of a chief. The sacrifice of a cock is sacred, as with the Karen and Chinese, and they believe that the Divine Being eats the spirit or essence of the offerings made to him. Head-hunting is now scarcely heard of. They are brave, hospitable, simple, and truthful, loyal, bountiful, and willing to receive instruction. Chastity before marriage is not insisted on, and they marry when grown up. The men wear a narrow cloak passed between the thighs. The women have a still narrower strip, allowed to fall from the hips half way down the thighs, and affords little concealment. The clans have different languages, and they had no written character. With some Dyak tribes the couvade custom prevails. Among the Milianowe Dyaks the custom prevails of burying a slave at the foot of the excavation for a house post. The Milianowe, southward and westward, living on rivers near the sea, an industrious, intelligent people, who occasionally took heads, but have not the ferocity of the Kyan.

Orang Pooman, a forest race near the territory of the Moorish sultan of Koetei. Their tribe is like the Veddahs of Ceylon, pass day and night entirely in the open air, with no other shelter than a mat. They keep up fires all night. They wear a head-dress and a waistcloth of bark, and eat monkeys and game, which they kill with the sumpitan or blow-tube and poisoned arrows. The women are fairer than the Dyaks, but very dirty in their persons. They welcomed Mr. Bock by asking for beads and tobacco.

Mr. Carl Bock, writing in 1881, mentions his visit to a chief of the cannibal Dyaks, who had just slaughtered, and, with his followers, eaten up
and presented the author with two crania and a shield, in return for rice, beads, and twenty-four yards of calico. A high priestess of these savages stated that the palms of the hand were considered the best eating. A war-dance was executed by a Dyak, with much shouting, stamping, and flourishing of a sword. A Dyak is never without his sword, and his basket for betel and tobacco. Generally he wears a cloth or piece of bark round his loins, and a covering for the head of the same material. The lobes of their ears are hideously enlarged by artificial means; and when a warrior has secured a good many skulls, he is allowed to deck his ears with the canine teeth of a leopard. The Dyak, in their physical and social characteristics, resemble the Tarajah of Celebes.

The Idaam, occupying the northern parts of Borneo, suspended human skulls in their houses. The dominant Malay and the colonists of China are an active and industrious but turbulent and intractable part of the population (Revue de deux Mondes, ii.).

The orang dusun villagers of the north are agricultural; the Murut in the inland parts of Brunei; the Kaduans of the same country, are industrious, peaceful nations, valuable for their qualities.

The Kayan are more numerous, more powerful, and more warlike than any other in Borneo. They are an inland race, inhabiting a district extending from about sixty miles up the interior from Tanjong Barran to within a similar distance on the eastern shore. Fierce, reckless of life, and hot-blooded in their nature, they are nevertheless represented to be hospitable, kind, and faithful to their word, and honest in their dealings. The Kayan, on the Kapuas, are said to have been cannibals, eating the flesh of their enemies. They prize heads like the Dyaks. They carry spits in the scabbards of their swords. The Dyaks of Jiangkang also are said to be cannibals. They live between Sangow and Sadong on the Sakiam, a branch of the Sadong river. The Jiangkang people eat Malays or Dyaks or any one else whom they kill in war, and they kill their own sick if near death, and eat them. Whilst a party of these people were staying at Sangkang, one of them fell out of a mango tree and broke his arm, besides being otherwise much hurt, and his companions cut his throat and ate him up. The Jiangkang Dyaks are said to eat only the tongue, brain, and muscles of the leg. The men of this tribe file down their front teeth to a point, like the teeth of a saw. They cut off their beards.

The Taituts, Balinians, and Kanaوات have dialects of their own, and are wild and savage in their manners. Nine vocabularies have been collected, the most extensive by Mr. Robert Burns, and it is that of the most numerous, advanced, and powerful tribe in the island, the Kayan or Kaiin, whose possessions extend from the northern to the southern coast. No native tribe of Borneo has ever invented letters. Mr. Crawford had seen the names of at least sixty of these small nations who have no common name by which to distinguish themselves from the people of other regions. The many languages of this island belong to the same class of languages as the Malay and Javanese; and the aboriginal inhabitants of Borneo are all of the same race with the Malays and Javanese.

In 1824, out of the forty wild tribes in its interior, eight had adopted Malonomanian and the Malay language. Amongst those were the Dyak race of Suguam, who long since abandoned the cruel practice of head-hunting. There are twelve tribes located between the Malay of the coast and the Kayan, namely the Kanawit, Bakatan, Lugan, Tan-gong, Tatan, Balinian, Puman, Sokapan, Kawayan, Bintulu, and Tifan, the majority of whom are tributary to the Kayan. The six first mentioned are all more or less tattooed, both male and female, and certainly have all sprang from the one called Kanawit, who in habits closely resembles the Dyak of all Saririus, whose neighbours they are. The tribes Puman, Sokapan, and Kawayan are the chief collectors of camphor and birds' nests. The trees, which produce excellent timber, amount to upwards of sixty species.

At the mouths of most of the rivers on the east coast of Borneo, and also on the north and north-east coasts, the orang bauu are found. They dwell in boats of eight or ten tons burden, which are covered, when in harbour, with a roof of matting. Each boat contains about fifteen inhabitants, men, women, and children, who employ themselves chiefly in catching and curing fish and trepang, and in making salt from seaweed. The latter they dispose of to the Dyaks. The women are equally skilful with the men, both in fishing and in the management of the boats. During the south-east monsoon, when the weather is fine in the southern parts of the island, they cruise about Passir and Pulo Laut; but when the monsoon changes, they sail on the northern parts of the island. In addition to these, living in prahus, and wandering about the shores of the southern Lauts of Bintulu, from Magimiano, and the orang tidong, country unknown. Bruzen images, ruins of temples, and other remains of Hindu civilization, are still to be seen on the southern coast. The coasts of the island are inhabited by several nations, totally unconnected with each other, governed by their own laws, and adopting their own peculiar manners and customs. The west coast is occupied by Malays and Chinese, the north-west coast by the half-caste descendants of the Moors of Western India, the north part by the Cochin-Chinese, the north-east coast by the Sult., and the East coast by the Bugis tribes of Celebes. The greater part of the coast of Borneo is rather dotted than peopled by Malay settlements, according to the Malays themselves, the result of migrations from Sumatra dating as far back as thirty generations. A small portion of the eastern coast is occupied by settlements of the Bugis of the Celebes of more recent date. The aboriginal inhabitants are thus in a great measure locked up in the interior, and precluded from access to that commerce with strangers which might civilise them. The Malays and natives of Celebes, by their superior civilization and power, dominate over the rude aborigines, without, however, being able to penetrate into the interior, or to dispossess them of their land. The Malays build their houses 18 or 20 feet high, to avoid the Dyak spears. All the houses in a kampong are erected on posts 10 or 12 feet high, and are all under one roof, with only a slight partition separating the families.

Borneo, as a mineral country, is very rich, producing gold, coal, antimony, and iron, while caoutchouc and gutta-percha are amongst its
vegetable products. From the river Baram coal is traced to the upper parts of the Bhitaul, and thence southward to the Rajang river, on the left bank of which, at Tujol Nang, there is a seam exposed, upwards of thirteen feet in thickness. At different other parts of the river, and also in several of its branches, coal is in abundance. From Tujol Nang the strike of the coal is southward across Dragon's plain. It is again found in the river Lang-Tha (a distance from the former place of about fifty miles), where it remained in a state of ignition for several years. Iron ore, yielding from 60 to 80 per cent. of iron, abounds in the Bakuw or Rajang district, over nearly one-half of the extreme breadth of the island. The iron is preferred to that of Europe.

The varieties of animal life are great. Some species of Actinia of enormous size occur in the China seas and on the coasts of Borneo, and fish live within them. Of 29 species of birds in Borneo and 21 in Sumatra, 20 are common to both islands. Of 29 in Borneo and 27 in Java, 20 are common to these islands. Of 21 of Sumatra and 27 of Java, 11 are common to both islands. The remarkable coleoptera beetles found in Borneo by Mr. Wallace, were the Necocerabys aneas, Cladognathus turandus, Diurus furcellatus, Ectatorrhinus Wallucei, Megacriodes Saundersii, Cyriopalus Wallacei. He collected about 2000 distinct kinds of beetles.

On every mountain-top is the pitcher plant, climbing over trees or running along the ground. The finest are on the summit of Kinabalu; and the pitcher of the broad sort, Nepenthes raja, will hold two quarts of water. Another, the Nepenthes Edwardsiana, has a narrow pitcher twenty inches long, and grows to a length of 20 feet. Ferns are abundant. The Vanda Lowii, one of the Orchidaceae, grows on the lower branches of trees. Its flower-spikes, 6 or 8 feet long, hang down to the ground, bearing large handsome flowers, 3 inches across, colours varying orange to red. The Polygonum or tender rice rises from a pyramid of roots, which descend for 70 or 80 feet to the ground below.—Wallace, i. 37, 161; Journ. Ind. Arch. 1845, 1849; John's Ind. Arch. ii. p. 265; Quarterly Review, No. 222; Marriage's Ind. Arch. p. 10; Earl's Ind. Arch. p. 270; Voyage of the Menander in J. I. Arch. 1853; Carl Bock's Headmasters of Borneo; Regering's Almanac; Low's Sarawak; p. 59; Pritchard's Researches.

BORO or Bodo, a race chiefly found in the forest tract, 15 to 20 miles broad, between the Himalaya mountains and the plains. They entered from northern Assam along the southern side of the Brahmaputra to the Surma, and along the skirts of the Himalaya as far west as the Konki, and are also spread in large numbers over the eastern portion of the space between these two diverging lands, that is, Middle and Lower Assam, outside the forest limits, between lat. 25° to 27° N., and long. 88° to 93° 30'. It is the northern section to which are said to have occupied the eastern part of Assam, and to have conquered Kamrup about 1000 years ago, spreading over Assam, Cachar, Tiperah, and Sylhet, and it is presumed as far as the present western boundary, on the north. The Rangtesa have for many centuries been intermixed with Nagas and Mikiris. The Hajong, who are found along the foot of the hills from Gauhatti to Sylhet, appear to preserve the same name. Mr. Hodgson considers that they and the Rabhas of the same tract are Bodo. The Rangtsa, according to their own traditions, come from the N.E. of Assam, where they conquered Kamrup, and extended their sway over all Assam, Cachar, the Barak valley, and Tiperah, nearly four centuries before the Ahom invasion. The period falls within the era when Tibetans spread into the Sub-Himalayas and Bengal; and as the conquest or resumption of Kamrup by the Koch took place some time before the beginning of the 12th century, the event was probably connected with the decay of the Tibetan or Tibeto-Himalayan predominance. They seem to have been the principal Tibetized tribe of Lower Bhutan. The ruling families in Hirumha (Cachar) and Tiperah appear to have remained Cachari; and it is probable that the Cachari retained a certain degree of independence along the skirts of the Himalaya. The Hirumha tribe call themselves Rangsa or Ramsa, and give the same name, Ramsa, to the languages of the Cachari of the plain; Bodo, their own tongue being called Hojo or Hojai. The Hojai, according to Mr. Grange, is totally different from that of the Cacharis of the plain.

The western branch of this tribe belongs to Behar and Bengal, and to the Sikhim and Bhutan frontiers; the eastern branch occupies Assam and Koch-Bihar. They reside in villages of from ten to twenty huts; their clothing consists of cotton and silk materials. Fermented barley, rice, or millet is used by them as a slightly intoxicating beverage, which resembles the aji-mana of the Newar of Nepal. They do not occupy a locality permanently, clearing and cropping and moving again to clear and crop another spot. A Bodo and Dhimal will only touch flesh which has been offered to the gods by a priest. The bridegroom purchases his bride either by money or labour. Polygamy is rare. There are professed exorcists among them.

The eastern Bores in Cachar are called Borro, and are divided into the Cachiari of the hill country and those of the plains. They are partly Hindu and partly pagan. Those in the plains in Assam are called Hazai, Hojai, or Hajong; are of the Hindu creed, and speak a Hindi dialect. The hill Cachiari is stouter, harder, and more turbulent, and lives in villages of from 20 to 100 houses. Like the Naga, their young men reside together in a large building. Chatgari, a frontier district between Desh Durnig and the Bhutan hills, is the chief locality of the Boro of Cachar, the numbers there being about half the whole Boro population. Of the three separate people, the Kochh, the Bodo, and the Dhimal, the faintly yet distinctly marked type of the Mongolian family is similar in all three, but best expressed in the Bodo features and form. When the Mahomedan power was established in Bengal, the Kocchh (Kochh or Kowadh) kingdom extended from 58° to 93° E., and from lat. 26° to 27° N., from the south-eastern extremity of Nepal along the southern extremity of Sikhim and Bhutan into Assam, with Koch-Bihar as its capital; and the people consisted of the present Kochh, Dhimal, and Bodo. They dwell in the sal forests with impunity.—Latham's Descrip. Ethn.; Hodgson. See Cachar; India; Kocch.
temple at Gaya. It was designed by artists from the west of India, and is supposed to have been erected during the latter half of the 7th century A.D. It must have taken about 100 years to complete. Its figures show that the Buddhist Mahayana doctrines prevailed.—Ferg. p. 315.

BORODA. Uta. Bauhinia variegata.

BOROJUAN. Beng. Psychotria ajwain.

BOROKOLE. Tel. Uta. This tree is supposed to be a species of Zizyphus. Planks, doors, boxes, matchlock stocks, and palanquins are made of its wood; the leaves, pounded and mixed with turmeric, are said to be efficacious in curing rheumatism; the seeds are also used medicinally in diseases of infants; the tree yields lac.—Capitan Macdonald.

BORERA ASHNEH, Royle, is the Chilichilhera lichen of the Himalaya. With ammonia it gives a reddish-brown colouring matter, and is used accordingly as a dye-stuff. Dr. J. D. Hooker found only this Borera on the Donkia pass of the Himalaya, above an elevation of 22,990 feet; it migrates over the lofty slopes and ridges, blown about by the violent winds.—Royle; Hook. Hist. Journ.; O'Sh. p. 672; Z. in Indian Field.

BORSIPPA. See Birs Nimrud.

BOS, a genus of bovine animals. See Bovinæ. BOSCA TRINERVA. Rozb. A large tree of the Circar mountains.—Rohe, MSS.; Rozb.

BOSCAVEN, a British admiral, who in 1747 sailed for India with a great armament. On his arrival at Fort St. David, he took command of all the land and sea forces, and marched against Pondicherry, to which he laid siege on 23d June 1748, but raised it in November. In 1749 he took part in the war against Tanjore. In August he received Madras from the French, and in October returned to Britain.


BOSWELLA glabra and B. thurifera occur in India. They yield a fragrant gum-resin, called in Arabic Luban, also Kundur, supposed to be the same as the Lysimachus of Theophrastus and the Theonas of the Romans. It seems to be olibanum, and identical with the frankincense that was used by the ancients in their religious ceremonies. Dr. Carter described and figured the frankincense tree of Arabia; and Captains Cruttenden, Vaughan, and Kempthorne have noted the presence of frankincense trees in the Somali country. Dr. Birdwood described three of these trees, with figures, and is of opinion that the frankincense or olibanum of commerce is obtained from the Somali country, and from Hadramaut in Arabia, being partly re-exported from India to Europe. He described five plants under this genus, and named the three new ones, Boswellia Carterii (Moor-Madow of the Somali), Boswellia Bhan Dajiana (Moor Adh of the Somali), and Boswellia Freecanea (Yegar of the Somali). B. glabra yields a resin used as incense and as pitch. Resins analogous to the ambabam are obtained from species of Croton, Bailliera, Amyris, Icica, and Lestia of America.—Birdwood.

BIRDWOOD. BOSWELLA GLABRA. Rozb. p. 384.

Kungli, . . . Tam. | Anduga, Gugalu, . . . Tel. The Gum-resin, Olibanum. Koundrienn, Male., Tam. | Salaca Gond, Gugal, Hind. Captain Beddome says this fragrant resin-yielding tree is very common in many of the dry sub-alpine jungles of the Madras Presidency, particularly on the eastern side of the presidency, on the Vellore, Cuddalore, North Arcot, and Kurnool hills; Mysoore, Guzzlederry pass, etc. etc. It grows also in Kumaon, though rare; on the west of the Jumna, but it does not occur in Ceylon. It flowers in January and February, generally when quite destitute of leaves, and the tree is of good size. The gum-resin is the olibanum of commerce, and is much used as a fragrant incense, and (when boiled with oil) as pitch. It is said to possess stimulant, astringent, and diaphoretic properties. It is largely used in some parts of India as an application to indolent sores, and is supposed to form the chief ingredient in 'Wroughton's ointment.' It is well deserving of careful attention, and can be procured in almost any quantity. The substance is better and pungent, and is soluble in ether and spirits of wine. In Kumaon nothing is known of its yielding the salace, gum-resin. Its timber is said by the natives to be of little or no value.—Hook. Manual: Econ. Prod. Panph.; Rohe, MSS.; Besant, Fl. Syl. p. 121; Mr. Thompson See Olibanium.


A large tree with pinnate leaves, which grows on the hills of the Dekhan, in the Konkan jungles, above Rajoo, in the hill of Shedur, in the Belgaum collectorate, in Bundelkhand, the mountainous tracts of C. India, Chutta Nagpur, Ajmir hills, and very common in the Shahabad country. Dr. Hooker, in ascending from Belcquip in Behar to the height of 1380 feet, came upon a small forest of it, conspicuous from its pale bark and spreading curved branches, leafy at the top; its general appearance was that of the base of the mountain ash. The gum, celebrated throughout the east, was flowing abundantly from the trunk, very fragrant and transparent. Ganda biroza is prepared from the gum-resin of this tree, and is similar in appearance and qualities to Venice turpentine. It is brought from Mewar, Haraoit, and the Shkhowatthi hills, and is considered stimulating. An oil is distilled from it said to cure gonorrhoea. It is much used in painting, and by the lakheri, one maund costing twelve rupees from the Shahabad country. At Chandlagar it is termed, in the dry state, sukha biroza. B. glabra and B. thurifera both furnish the male frankincense of Dioscorides. The resin olibanum occurs in reddish or pale yellow tears, oval, oblong, and obtuse, sometimes in dense, opaque, brittle masses. The ganda biroza of the bazaars is soft, of a dull, metallic, or white, and white. The colour is balsamic and resinous, especially while the resin is burning; the flavour balsamic, and rather bitter. The powder is citron yellow. It is frequently adulterated by dammer, sandarach, and other cheaper resins; when chewed, the hard variety softens, and dissolves partially in saliva, which it renders white and emulsive. Used for incense; also medicinally as a stimulant, astringent, and diaphoretic in affections of the...
chest, also in chronic affections of mucous membranes, but chiefly in plasters, ointments, and for fumigation.—Royle, p. 383; Hooker’s Illus. Jour. p. 29; Med. Top. of Ajmir; O’Sh. Beng. Phar. p. 383; Faulkner; Birdwood; Roxb. ii. 383; Powell, Handbook, i. p. 336; Cal. Cat. Ex. 1862; Mr. Rohde, MSS.

BOT. also written Bhot, the race occupying Tibet, Bhutan, Ladakh, and Balti. Their language is the oldest of the Turanian formations. See Bhot; Bhutan.

BOTA KADIIM, also Botta kadapa chettu, Tel. Naneela purvifolia. The Telugu is from the resemblance of the capsule to the stamp used for impressing the botto or seational marks of the Madhavacharya Brahmans.

BOTANY is the Ilm-i-Nabat of the Persians. There has not been any branch of natural science, in its relation to the East Indies, so devotedly followed out as scientific and economic botany. Whether we regard the numbers working, the personal labour undertaken, the vast sums expended by its cultivators, or the important advantages which eastern countries have derived from them, their names ought ever to be kept in remembrance. During the past 300 years, amongst others who have worked in the East Indies, may be named, Governor Henry van Rheede, George Everhard Rumph, Leonard Ploenkct, Koenig, Dr. John, Klein, Rottler, Sonnerat, Thunberg, the elder John Burman, and the younger Nicholas Laur. Burman, Herrman, Father Loureiro, Leeschena, Forskal, Kempter, Swartz, Jack, Carey, John Gerard, Jones, Fleming, Hunter, Anderson, Berry, Heyne, Buchanan, Russell, Noton, Shuter, Govan, Finlayson, Roxburgh, Wallisch, Royle, Binme, Horsfield, Spry, Voigt, Griffiths, Wight, Sir Joseph Dalton Hooker, Thomas Thomson, J. L. Stewart, Baden Powell, Hugh Cleghorn, Heber Drury, A. Moon, W. Munro, Arnott, J. E. Stocks, Edward Waring, K. Aitchison, Macelland, Sir Whitehall Ainslie, Sir William Hardwicke, Sir William O’Shanghnessy, Sir Stamford Raffles; Colonel Beddome, Sir George Birdwood, Edgeworth, C. B. Clarke, Clement Markham; Drs. Mason, Thwaites, Jameson, Brandis, Forskal, Don, Bentham, Bidic, and Kurz; and notices of them will be found in this work under their respective headings.

In the 18th century Madras was the great home of research. In the 19th century the botany of the Bombay Presidency was greatly advanced by Mr. John Graham, Mr. Joseph Nimmo, Mr. Law of the Civil Service, Mr. Dalziel, and Drs. Lush, A. Gibson, and Natali. In the 19th century, under the Presidency of William Roxburgh, Nathaniel Wallich, John Forbes Royle reigned supreme; and many younger men are treading in the footsteps of the above.

Agri-Horticultural Societies and their gardens have been formed at Calcutta, Saharunpur, Dapoolie, Bombay, Madras, Bangalore, and Ootacamund, to attend to the introduction of new plants into India, and to the useful application of the natural products of the country.

In March 1768 a Botanical Garden was established in Calcutta, under the care of Colonel R. Kyd. In 1793 Dr. Roxburgh was put in charge; and its superintendents have been successively, Dr. Roxburgh (obit 1814); H. T. Colebrooke, Dr. Francis Hamilton, Dr. Nathaniel Wallich, Mr. Bentham, and Assistant-Surgeon W. Griffiths.

The Botanical Gardens at Peradenia are about five miles from Kandy, in Ceylon, and occupy a considerable extent of ground.

Baron Ferdinand von Mueller, of the Melbourne Gardens, has written a volume of great value (Select Extra-Tropical Plants, 1880), enumerating the plants which could be beneficially introduced and interchanged between Australia and the East Indies. In the middle of the 19th century, Clement Markham, C.B., devoted years of his life, risking life and health in a residence in South America and voyaging to the Neighberry hills, in order to introduce there species of the Cinchona trees; and his efforts were so eminently successful, that the Cinchona alkaloids by 1852 were being sold at a rupee an ounce.

The total estimated number of Indian species are 12,000 to 15,000. The climate of India is generally tropical, and even on mountains of 4000 to 5000 feet the vegetation is temperate. The perennially humid forests are uniformly characterized by the prevalence of ferns; and at elevations below 5000 to 7000 feet, by the immense number of epiphytal orchidaceae, orontiaceae, and seitanineae. They contain a far greater amount of species than the dry forest of North India, and are further characterized by zingiberaceae, xylidaceae, palmae, pandanaceae, dracaceae, piper, chloranthaceae, araceae, fiiit, urticaeaceae, araliaceae, apocynaceae, shrubby rubiaceae, aurantiaceae, garinelieae, anonaeeae, nutmegs, and dipterocarpaceae.

In the Himalaya, the truly temperate vegetation surpasses the subtropical above 4000 feet, and ascends to 12,000 feet, when it is succeeded by the alpine or tundra.

India contains representatives of almost every natural family on the globe, a very few American, Australian, and S. African orders of plants being the chief exceptions. In India the number of peculiar families largely represented in it is very limited. The Aurantiaceae, Dipteraceae, Balsaminaceae, Ebenaceae, Jasmineae, and Cytandraeae are the only orders which are largely developed in India, and sparingly elsewhere, and of these few contain a hundred Indian species. Sir Joseph Hooker is bringing out a descriptive work on the flora of India.

The species are much scattered. It is believed that nowhere in British India could more than 2000 flowering plants be found in a radius of 10 miles; and there in India an almost complete absence of absolutely local plants. The plains of India are everywhere poor in species, and such a country’s individuals are usually of a woody character. Indeed, there are few other countries in which the vegetation of the more accessible parts presents so little beauty or such short seasons of bloom. The great number of 222 British plants extend into India. Many North African and Arabian forms occur. Several Australian species are found in the Malay Peninsula. Many of the Himalayan, Neighherrues, Khassia, and Ceylon species are found in the Malay Peninsula and in Java. Guatentheria nummularia extends from the N.W. Himalaya to the Java mountains; and plants common to India and Java are Sedgwickia cerasifolia, Griff., Marlea, Cardioptera lobata, several oaks and chestnuts, antidesmea, a willow, and Myrica. The Chinese type is abundant in
BOTANY.

the temperate region of the Himalaya; and plants of N. America, west of the Rocky Mountains, also occur.

An immense proportion of annual plants, which vegetate on the last rainy seasons in the plains, and ascend the lofty mountains, are uniformly distributed throughout India. Of these the most conspicuous are grammineae and cyperaceae, a vast number of small leguminosae and scorpiolariaceae, composite, some labiate, amaranthaceae, convolvulaceae, and acanthaceae.

The winter months of the colder northern countries have a corresponding cold season in India, during which oy-trumpet, cornel, wheat, barley, and more rarely oats, with various kinds of pulse, are cultivated; and many wild plants appear, very many cyperaceae, grasses, and such aquatics as myriophyllum, potamogeton, vallisneria, zannichella, zemna, and others. The mountainous regions of Afghanistan are rich in Himalayan forms, and contain an immense number of European and Persian plants, which find their eastern limits within the British Himalaya; and many plants are found in those mountainous regions common to Europe and the Himalaya. Nepal, Bhutan, East Tibet, and the Khasaya mountains present a flora which has much in common, and, in a geographico-botanical point of view, is one of the most important regions in India, if not in all Asia. In the Himalaya, the genera rhododendron, monotropa, pedicularis, corydalis, nupetea, carex, spirea, primula, cerasus, lonicera, and viburnum attain their maximum of development.

In the Himalaya the truly temperate vegetation supersedes the sub-tropical above 4000 to 6000 feet, an elevation at which there generally is an annual fall of snow.

On the Himalaya, and on the isolated mountain ranges of the Peninsula of India, on the heights of Ceylon, and on the volcanic cones of Java, many plants occur, either identically the same or representing each other, and at the same time representing plants of Europe not found in the intervening hot lowlands. A list of the genera collected on the loftier peaks of Java raises a picture of a collection made on a hill in Europe. Still more striking is the fact that Southern Australian forms are clearly represented by plants growing on the summits of the mountains of Borneo. Some of these Australian forms extend along the heights of the Peninsula of Malacca, and are thinly scattered, on the one hand, over India, and, on the other, as far north as Japan. Along the Himalaya, at points 900 miles apart, glaciers have left the marks of their former low descent; and in Sikkim Dr. Hooker saw maize growing in gigantic ancient morasses. There are plants on the Himalaya and Neelgherries, Ceylon, and the Khasaya mountains, and in the Malay Peninsula, and the moister and more equal parts of India, identical with those of Java. The genus calamus, orchids, araceae, zingiberaceae, and ferns are especially abundant; the genus grammatophyllum, the wonderful nepenthaceae, or pitcher plants, of which solitary species occur in Madagascar, Ceylon, the Socheilles, Celebes, and the Moluccas.

Several species of Australian genera, myrtaceaee, the leptospernum, Brackia, and metrosideros, are found in the Malay Peninsula. The Eastern Archipelago type forms the bulk of the flora of all the perennially humid regions of India, the Khasaya mountains, the Upper Assam valley, the forests of the base of the Himalaya from the Brahmaputra to Nepal, the Malabar coast, Ceylon, and the whole of the Malayan Peninsula, many of the plants being identical with Japanese mountain species. Gualtheriæ moummularia ranges from the N.W. Himalaya to Java; and the more conspicuous of the trees common to Java and India are the Salixgwickia cariosa, Griffith, which is undoubtedly the Liquidambar altingia, Blume, Marle, extending from China to Kashmir. The various Cardiopetria lobata of Java is also a native of Assam; and several oaks and chestnuts, anti-daeame, a willow, and myricas, are common to Khasaya and Java.

The Chinese type is abundant in the temperate regions of the Himalaya, extending westward to Garhiwal and Kamaon, but is most fully developed in Sikkim, Bhutan, and the Khasaya, and, as examples, are species of acaena, Helwingia, stachyurus, onkianthus, Abelia, Skimmia, Adaniba, Benthamia, and corylopsis, all of them genera that have been regarded almost exclusively Japanese and Chinese; also Micropletea pavillora, Hamamelis Chinensis, Nymphaea pygmaea, Vaccinium bracteatum, Quercus serrata, illicium, thea, magnolia, the schizandrace, lardizabela, camellia, dentzia, viburnum, Cornacea, Houttuynia, Bowringia, Wikstromia, daphneae, Henslovia, secqua, antidesma, Benthamia, Goughia. Euryale ferox, which is wild in the Gangetic delta, and is found as far westward as Kashmir, is abundant in China; and Nepenthës phylamphora, a native of the Khasaya mountains, is also found at Macao and eastward to the Louisiane Archipelago.

European forms abound in India. 222 British plants extend into India; and a multitude of mountain plants, and many of the most conspicuous of these, range from the coasts of the Levant and the Black Sea to the Himalaya, as Corylus colurna, Quercus ilex, Ulmus campestris, Celtis Australis, C. orientalis. Few European species, comparatively, extend into Nepal, and still fewer occur in Sikkim.

Egypt, southern Arabia, the warmer parts of Persia, Baluchistan, Sind, and the Panjab, have a remarkable similarity of climate. Many North African or Arabian forms extend throughout all the drier parts of India. Others are restricted to northern and western India; and though tropical Asia and Africa are separated by a vast expanse of ocean, there is a great similarity in the families of the trees and shrubs; and an affinity can be traced between the mountain vegetation of western tropical Africa and that of the peninsular chain. —Royal on the Productive Resources of India; Wight's Prodromus Flora Indica; Hooker et Thomson's Introductory Essay to the Flora Indica; Darwin, Origin of Species; Wallace; J. A. M. Med. Science.

BOTERO. Giovanni Botero, an Italian, in A.D. 1550, was the first European author who treated of the tea-plant. His book was written to indicate the causes of the splendour and wealth of cities.

BOTLA BENDA. Tel. Abutilon Indicum.

BOT-PA, a race occupying Ladakh, or Little Tibet. They speak the Tibetan language, and are Buddhists, with a hierarchy of monks called Lama.

BO-TREE, AngloSingh, F.cnus religiosa, grows...
all over India. One of these is to be found within the precincts of every Buddhist temple in Ceylon, and it is frequently met with in deserted localities, or near the sites of ancient villages, and there the occurrence of a solitary Bo Tree, with its circular buttress of stone work round the stem, indicates the existence, at some former period, of a Buddhist temple in the vicinity. The planting of the Bo Tree in Ceylon, a ceremony coeveal with and typical of the introduction there of Buddhism, is one of the most striking passages in the 18th chapter of the Mahawamsa, entitled 'The obtaining of the Bo branch'; and the 19th chapter describes the arrival of the Bo Tree. A tree of unusual dimensions, which occupies the centre of a sacred enclosure at Anarajapoora, is still reverenced as the identical one which the sacred books record to have been planted by Mahendra 250 years before the Christian era, consequently in the year 560 it will be 2150 years old. 'So zealously is it preserved, that the removal of a single twig is prohibited; and even the fallen leaves, as they are scattered by the wind, are collected with reverence, as relics of the holy tree.'

When Asoka, 250 B.C., sent his son Mahendra and his daughter Sangamitta to introduce Buddhism into Ceylon, one of the most precious things which they carried with them was a branch of that celebrated pipal tree beneath which Sakya became a Buddha, and which is still growing from the top of a small pyramid at Gaya. It was received with the utmost reverence by Devanampiyatissa, and planted in the most conspicuous spot in the centre of his capital. There it has been reverenced as the chief and most important numen of Ceylon. The city is in ruins, its great dagobhas have fallen to decay, its monasteries have disappeared; but the great Bo Tree still flourishes; annually thousands repair to the sacred precincts within which it stands, to offer up prayers for health and prosperity. On the altars at the foot of the sacred tree, the inhabitants scatter offerings of flowers and perform their accustomed devotions. —Tennent's Ceylon; Tennent, Christianity in Ceylon; Hardy's Eastern Monachism.

BOTRYCHIUM VIRGINICUM. This large succulent fern grows plentifully in the Raklang pass in the Sikkim Himalaya. It is boiled and eaten, both there and in New Zealand. Other ferns are used for food. In Calcutta, the Hindus boil the young tops of a Polypodium with their shrimp curries; and both in Sikkim and Nepal the watery tubers of an aspidium are abundantly eaten. So also the pulp of one tree-fern affords food, but only in times of scarcity, as does that of another species in New Zealand, the Cytherea medullaris. The pith of all is composed of a coarse sago, that is to say, of cellular tissue with starch granules.—Hooker, Fl. Journ.

BOTRTIS BASSIANA. See Dry Rot.

BOTTA, French census at Mosul, in 1842 began excavations on the sites of the buried cities of Assyria. He commenced his labours at Kouyunjik, a large mound opposite Mosul. Along with Mr. Layard, he made large researches, and during the entire period of his excavations, M. Botta sent to Mr. Layard not only his descriptions, but copies of the inscriptions.—Layard's Nineveh.

BOTTA-GENDA. Gond. Spilonis cheela.

BOTTA KADAPA CHETTU. Tel. Naucal parviflora. The name is taken from the remen-

blance of the capsule to the stamp used for impressing the bottu or sectarian marks of the Madhavacharya Brahmans.

BOTTLE GOURD, Lagenaria vulgaris. BOTTLIES.


Kacha, bull, balang, MAL.

Skin or glass or stoneware vessels for holding liquids are of various shapes and sizes. The leather bulids in which the people of India carry ghi and oil, is manufactured in many places by stretching skins over a clay model, which is afterwards broken and shaken out.

BOTTLE TREE, Delabecheia rupesiris of Australia. It is one of the order Sterculiaceae. It attains a height of 35 to 55 feet, with huge branches at the summit, and the bark rugged. The foliage is small in comparison with the great size of the tree. The interior substance of the tree and branches in a mucilage resembling gum tragacanth. The circumference of the trees, measured 7 feet from the base, is from 12 to 35 feet. The trees grow very luxuriantly in a soil of sand or sandy loam, and are often tapped by stockmen and others, who procure from them a glutinous and refreshing beverage. Large-sized trees scooped out form excellent canoes. It should be introduced into India. See Brachychiton.

BOTTU. Tel. The sectarian marks of the Madhavacharya Brahmans.

BOTTU KURA. Tel. Cordia polygama.

BOT YUL, the Tibetan name for Tibet.

BOUEROSIA AUCHERI. Dru.

Changi, Char-ungli, Hind. Pawannee, Pawaouke, Panj-angushi, . . . Pers. | PANJ. 

This plant is found in the N.W. Himalaya, Trans-Indus, and Salt Range up to 3000 feet. Its stems, four or five inches long, resemble the fingers of the hand, are juicy, generally eaten raw. —Dr. J. L. Stewart.

BOUEROSIA EDULIS. Edgeworth.

Chang, Pippa, . . . PANJ. | Pippa, Sittu, SHU. Pani.

Suhith Gandhal, . . .

Stem used as a relish for farmaceous food; not uncommon in the arid tract from the Salt Range southward to the boundary of the Panjab, and in Sind.—Edgeworth; Dr. J. L. Stewart.

BOUGHTON, GABRIEL, surgeon of the E.I. Company's ship Hopewell; about the year 1859 was summoned to the Dekhan from Surat to attend on a daughter of Shah Jahan, who had been severely burned. He asked as his reward liberty for the E.I. Company to trade in Bengal free of duties. Orme says he was sent for that purpose from Surat to Agra. The patient recovered; and the emperor, besides other favours, granted him a pension to trade freely of customs throughout his dominions. Boughton proceeded to Bengal, on reaching which he made his peace in order to attend on one of his favourite women, who recovered. Boughton remained in the nawaib's service, who gave him and the English the right to trade; and Boughton induced the Company to send, in 1640, two ships.—Broome, Hist. of the Bengal Army, London, 1850; Orme, ii. p. 8.

BOULMA, a stone procured from the hill state of Dhenkanal in Orissa, used to make small mortars and the little tripods on which sandalwood is ground by natives.—Col. Cat. Ez. 1862.

BOURA CHANG, a fish of Bhutan, believed by
the natives to fall from heaven, from the circumstance of its being found after rain far from the water.

BOURBON, also called Reunion and Mascarennes, is an island of a round form above 42 miles from N.W. to S.E. A volcano near its S.E. part, is in lat. 21° 9' S. It is larger than the Mauritius; but it is only a great mountain except in three places, and clothed with wood, though portions below are cultivated. It was discovered by the Portuguese, who called it Mascarenhas. The French took possession of it in 1675. It was captured 10th July 1810 by the British, but restored at the general peace. Bourbon cotton is Gossypium Barbadense, and Bourbon Tcacuana, Calophyllum inophyllum.—Horshorh. BOURDONNais, La., sailed for India when only 14 years of age. He became the governor of Mauritius and Bourbon in 1734. He returned to France; but in 1746 he revisited India, had an encounter with the British fleet, and on the 10th September he captured Madras, which capitulated, but was ransomed on the 10th October. He sailed for France, but was captured on his way. He was shortly after released, in consideration of his lenient treatment of Madras; but on arriving in France he was thrown into the prison of the Bastile, where he lingered for three years and died. Duplexis was jealous of him, and caused his imprisonment. He introduced cotton and indigo into the Mauritius.

BOURO ISLAND, one of the Moluccas. It is high, and has a semicircular mountain on its N.W. part. The island has two races; the larger number are Malays of the Celebes type, often exactly similar to the Tomore people of East Celebes, who are settled in Batebian; but the other, a taller, bearded race, resemble the Alfurs of Ceram. Amongst its birds are two kingfishers, Tanysiptera acis and Ceyx cajet; a beautiful sun bird, Nectarina proserpinia; and a black and white flycatcher, Monarcha loriaca.—Wall.

BOVID, a family of mammals, comprising the sub-families Antilopinae, Caprinae, and Bovinae. The Antilopinae have been enumerated under their own heading; the others are as under:

Sub-Fam. Caprinae, goats and sheep.

Nemorcoës bubalina, Jordan.
N. procilus, Hodg. | Antilope thar, Hodg.
Ramu, | Kashmir, | Simla, | Sarao, Tibet.
N. | | | |
Sere. | Punjab |

Sub-Fam. Bovinae, cattle.

Hemitragus jemlaicus, Jerdon.
H. quadrians, Hodg. | Capra jemlaicus, Hodg.
Kras, Jala, | Kas. | Jehr, | Simla.
Kart, | Kel, | Eshu, Eshu, | Sutlej.
Jula (m), thar, tharan, | Kun.

The tehr or Himalayan wild goat inhabits the whole of the Himalaya.
tricts infested with the tiger. They have been domesticated in India and the Archipelago.

The Buffaloes.

Bubalus Arni, Jerdon. | B. bubalus, Anderson.

B. bubalus, Blyth.

Mung of BHAGULPUR. | Jangli bhyus (m.), HIND.

Gera eruni, GOND. | mlyus (f.), HIND.

Arna (m.), Arni (f.), HIND.

Occurs wild in Assam, in the Terai from Bhutan to Oudh, in Central India from Midnapur to Rajpur, in the Purniah district, and a few in the N. and N.E. of Ceylon. The domesticated species is little changed from the wild buffalo.

BOYRA KORRO. Prim. A large desert partridge in northern Peru. Pterocles exusta.

BOWRING, Sir JOHN, K.C.B., governor of Hong-Kong, but best known as an author by his political and literary writings. He was born at Exeter 17th October 1792, and became, in early life, a pupil of Jeremy Bentham, maintaining his master's principles for some years in the Westminster Review, of which he was the editor. He wrote Bowring's Siam, and a work on the Philippine Islands. Obit 1872.

BOWSTRING HEMP, fibre of Sansevieria Zeylanica. Very tenacious fibre; the natives make their best bowstrings of it.

BOXWOOD, Buxus sempervirens, Wall. This is a valuable wood of a yellowish colour, close-grained, very hard, and heavy; it cuts better than any other wood, and is susceptible of a very fine polish. It was highly valued by the ancients as a material for musical instruments. It is of use for the turner, engraver, mathematical instrument maker, and pipe maker. The Himalayan box, Buxus sempervirens, Wallich, appears to be identical with the tree common all over south Europe, and extending into Persia, chiefly in valleys, at an elevation of from 3000 to 6000 feet. Dr. Stewart met with it from Mount Tira, near Jhelum, to Wangtu bridge on the Sutlej. It is variable in size, being generally 7 to 8 feet high and the stem only a few inches thick, but attaining sometimes a height of 15 to 17 feet, as at Manikarn in Kulin, and a girth of 22 inches as a maximum. It is found in the valleys of the Sutlej, Parbati, and near Dharamsala, and in the Salt Range. In the Nepal valley it is larger and more abundant than in other parts of the Himalaya. It is made by the villagers into little boxes for holding ghi, honey, snuff, and tinder. It is in demand for plugs for Minie rifle balls, and at Sealkote it is turned into pill boxes. The wood is liable to split in the dry weather, and should be seasoned in store and covered. Thumberg says that B. sempervirens was not uncommon in Japan, in a wild and cultivated state. The annual consumption in Great Britain exceeds 2000 tons, half of which is of foreign growth. The wood of Sarcoceca trinervia also gets this name. The Karens sometimes furnished Mr. Mason with specimens of a wood that can scarcely be distinguished from the boxwood of Europe. Nauclea cordifolia has wood coloured like that of the box tree, but much lighter, and at the same time very close-grained. Dr. Hunter highly praises the wood of the Euonymus dichotomus of the Pulney hills.—Jour. A. H. Soc. xi. 413, 1859; Clegborn, Panjab Rep.; Statistics of Commerce; Thomson's Travels; J. L. Stewart; Pownell's Handbook; Hunter; Royle.

BOY, an Anglo-Indian term applied to a native domestic man-servant, supposed to have come from Bhu, the name of a Teuling tribe.

BOYA, plural Boyadu or Boyidu, also Boyi, Tel. A mountaineer, a forester; was a title of some Teling chieftains, as Avar-Boyidu, Mara-Boyidu, Gondla-prote Boyidu.

BOYAR, a race widely diffused in the hilly parts of Palamau, Singhaja, Singrauli, Korea Bhakhar, Rewa, and other places. They cultivate millets and pulses on the virgin soil of newly-cleared forests. They live in small hamlets or detached houses. They bury their dead, depositing with each body of a male an axe; a knife, and a bow and arrow. The Boyar are generally of a dark-brown colour, fairly proportioned, and averaging upwards of five feet in height. The features have great breadth across the cheek-bones, very narrow forehead, nose broad, nostrils wide apart, the nasal bone more prominent, the mouth so wide as nearly to equal the space occupied by both eyes, lips protuberant, chin receding, but not so the brow, more hair on the face than is generally found amongst the tribes of this class.—Dalton, Ethnol. p. 134.

BOYILLA or Boigigiah, a race in the southern Malratta country, whose sections take the name of Bhaka, Holga, and Berdur. The Bhaka again subdivide into the Ramusi, Yadu, Roray, and Gurgal. The four branches of the Bhaka constitute one people apart from the Holga or the Berdur. They are hardy, active, and enterprising, but predatory, covetous, rapacious, and treacherous.

BOZAH. HIND. A fermented liquor obtained from Eleusine coracana, and somewhat resembling country beer. It is chiefly used in the higher provinces of India, but the materials used in brewing or fermenting it vary in different places. The Sorghum vulgare is occasionally used, and it is occasionally made more intoxicating by the addition of drugs.—Ainslie's Mat. Med. p. 263.

BOZDAR, a border tribe on the N.W. frontier of India, with about 2500 fighting men. They dwell west of the Derajat, in the hills opposite Mungrota, about 50 miles north of Dehra-Ghazi Khan. After a series of troublesome inroads on the plains, a force was sent against them in March 1857, through the Mahvi and Mungrota passes, and, after seeing their green crops destroyed, and seeing the Osterani, a small but warlike tribe, join the British, one morning the Bozdar chiefs rode into the British camp and sued for peace. They were received in solemn durbar; and for every man they had killed a suit of clothes was paid, and 60 rupees for every wounded man, this being the regular price of blood in the hills. A few months afterwards, they furnished a contingent to protect the frontier when the troops were sent to quell the mutiny of 1857. This Baluch tribe occupy the mountains and the low country, and have the following sections—Sehrani, Suwaram, Gulamanni, Jalalani, Chandini, and Shahani. From the Kusranee limits the hills of the Bozdar tribe extend along the British frontier for about 15. or 20 miles. The region is intersected by some nine passes leading into the plains, the chief of which is the Sungur pass, through which there is considerable traffic with Kandahar and the Pandjab. Opposite these hills lies the Sungur lowland (forming the upper portion of
shell bracelets is one of the indigenous arts of Bengal, in which the caste of Sankhri at Dacca excel. The charms of which they are made are large multivalve shells (Turbinella pyrum) from six to seven inches long, and of a pure white colour. They are imported into Calcutta from Rannial in Southern India, and from the Maldives Islands. At Dacca those shells are used for beetle fine muslins, but principally for making the large massive bracelets which are worn by Hindu women. They are sawn into semicircular pieces, and these are riveted and cemented to form the bracelets, some of which are elaborately carved, and inlaid with a composition of lac and a red pigment. A pair of bracelets of this description frequently costs as high as 80 rupees. Of the thick pieces of the shells, beads are made to form the necklaces, which the Bengal sepoyos wear.

Some Marwari women and the Binjara women have the entire fore arm from the wrist to the elbow covered with heavy massive bracelets, and the lower part of the legs covered with anklets. The bracelets of the Binjara women are of deerm horn. Amongst the Rajputs, the women adopt a brother by the gift of a bracelet. The intrinsic value of such a pledge is never looked to, nor is it requisite it should be costly, though it varies with the means and rank of the donor, and may be of flock silk and spangles, or gold chains and gems. The acceptance of the pledge and its return is by the Katchi, or corset, of simple silk or satin, or gold brocade, and pearls. Colonel Tod was the Rakhi band Bhai of the three queens of Udaipur, Boondi, and Kotah, besides Chundbai, the maiden sister of the Rana, as well as of many ladies of the chieftains of rank. Though the bracelet may be sent by maidens, it is only on occasions of urgent necessity or danger. The festival of the bracelet (Rakhi) is in spring. The adopted brother may hazard his life in his adopted sister's cause, and yet never receive a mite in reward, for he cannot even see the fair object who, as brother of her adoption, has constituted him her defender. - Tod's Travels in Rajashan. See Phychitus, Trans. xv. 4. 13.

BRACHYPODA, a class of molluscs, comprising the families Terebratulida, Spiriferida, Rhyonchelida, Orthida, Productida, Cramiidae, Discinidae, and Lingulidae. See Molluscan.

BRACHYCHITON DELABECHIEI, Australian bottle tree, trunk similar to a soda-water bottle. The natives refresh themselves with the mucilaginous sweet substance, and make nect of its fibre.

BRACHYPTERNUS AURANTIUS. Linnaeus, the orange coloured woodpecker of Ceylon. B. Ceylonus and B. rubescens also occur there.

BRACHYPTERUS SCANDENS. Benth. A creeper of Coromandel, Konkan, Travancore, Siam, Bengal, and Assam, with small pale rose fragrant flowers, well adapted for trellis work.

BRADDOCK, Lieutenant, a Madras officer, wrote on balances for delicate weighing in the Mad. Lit. Soc. Trans.; On the Assay of Silver; On the Induration of Channa; On Chemical Tests; On the Sculptures at the Seven Pagodas.

BRADLEY, Dr. W. H., a Bombay medical officer, who wrote a statistical memoir on Cirear Dowlatabad in Mad. Lit. Trans. xvi. p. 481; A Statistical Memoir on the Cir ear of Pytun, ibid.
BRAHMÁ.

Alpani, or As.

Recognise two polytheism, most school learned all posible, to the soon and Apama of ancestors (Hindoo of disciples.

Inanimate objects are woven and a shrub. B. tomentosa is intensely bitter, and used as medicine in Java.—Drury, Useful Plants.

BRAHMÁ, or Para Brahm, Sansk., the Supreme Being, is a name that first appears in Hindu religions books, in some of the best uplished, or appendages to the Vedas, of later date than the first three, and introducing a different and superior theology. It seems to have been a first effort towards the recognition of a Creator; and many Hindus of the present day recognise that the almighty, the infinite, the eternal, incomprehensible, self-existent being, he whose power is too infinite to be imagined, is Brahman, creator, preserver, and destroyer of the universe, from whom all souls come, and to him again return. While the learned Vedants thus acknowledge one God, they have confined their doctrines to their own school of philosophy, and have tacitly assented to, even taught in public, a religion in which the most discordant fictions have been erected, and have woven a mythology of the most extensive character. A philosophic few excepted, Hindus are worshipers of a superstitious and idolatrous polytheism, and Hindus erect no altars to Brahman (Hindoo Pantheon, p. 4). The Narayana of the present Hindus is rather the Spirit of God (Ins. of Menu, chap. i., v. 10), though the two Hindu sects claim for Vishnu and Siva the title of Narayana, and Brahma himself is sometimes called Narayana. At present there will not be found two Hindus who are exactly agreed, even amongst Brahmans, though almost all the educated of the people recognise one God under one name or another.

From time to time great reformers rise, condemning the prevailing Hindu idolatry, and so anxious are the people to know the truth, that every new teacher immediately gathers round him a number of disciples. But it is without the basis of a recognised revealed religion, and the zeal of the pupils soon calms down. In the meantime the bulk of the Hindu people are engaged in spirit-worship and hero-worship; in the worship of the names of ancestors; in the worship of plants and animals; of the inanimate objects of nature and of natural phenomena, of forms of men and women, and of shapeless blocks of stone and wood. Some forms of Hindu belief are systems of rationalism, others are systems of philosophy, and others are physiological doctrines, with emblems to illustrate views entertained as to cosmogony and production which take the place of religion. The human form in its natural state, or possessing the heads or limbs of various animals, the elements, rivers, fountains, stones, and trees, have been deified, and become objects of religious adoration. The sun, moon, and all the heavenly host; fire, earth, and all natural phenomena,—all nature, indeed,—the passions and emotions of human beings, their vises and virtues, are transformed into persons, and act appropriate parts in the history of man.

—Taylor; Moor, Hindoo Pantheon; Coleman; Wilson, See Upishashad.

BRAHMÁ, a word supposed by some to be from the Sanskrit 'vrith' or 'brdh,' to increase. Brahma occurs in a hymn of the Rig-Veda, and, according to Dr. Haug, this word originally meant the stirring of the sacrificial grass on the spot appointed for the immolation. One of the earliest meanings of the word, as used in the Veda, was 'food,' also riches. In the Rig-Veda, a more frequent meaning is sacrificial food. But in the same work Brahma is repeatedly used to express the song of the soma singers, a magic spell; and is applied to ceremonies having a song of praise as their characteristic. In the language of the Zendavesta, 'barseman,' an absolutely identical word, is found, which the Parsees interpret to mean a bundle of twigs tied together with grass, used in the fire-worship like the bundle of kusa grass used by the Brahmins in the soma sacrifices. In both worship the bundle is a symbol of 'growing,' 'increase,' or 'prosperity,' and the name of the symbol was transferred to the texts, hymns, sacrifices, and ceremonies used in the rites. As sacrifice among the Vedic Hindus, he was the chief means of obtaining all earthly and spiritual blessings, but was useless without the Brahma, i.e. success, the latter was at last regarded as the original causes of all being. The Imperial Gazetteer says Brahma means a prayer; and Brahman, a praying person.

Brahma, with Siva and Vishnu, form the triad of Hindu deities. There is nothing extant to show either that Brahma ever had much consideration shown him, or that his worship was overwhelmed by the intrusion of the Vaishnava and Saiva religions. Brahma in former times is said to have had temples the same as Siva and Vishnu, and to have been worshipped separately, but the followers of the two last are said to have entirely destroyed the temples and worship of Brahma. Brahma alone of the three is mentioned by Menn (Kennedy's Researches, p. 270). He seems to have had some sort of pre-relevance in ancient times, but there is no evidence that he was ever much worshipped. According to Colonel Tod, he has now but one temple in India (Tod's Rajastan, vi. p. 774); and though invoked in the daily ritual, his separate worship is almost entirely neglected. His Sakti or consort, Saraswati, has not fallen so completely out of notice. A figure of Brahma is shown in a temple at Gunli, three-faced, seated cross-legged on two hansa, with two female attendants, and to his right is Siva, three-faced, with Nandi below, and two females.

A Saiva legend, in the Tamil book Arumaza Arunam, is to the effect that Brahma and Vishnu endeavoured to overthrow the religion of Siva; that Vishnu abandoned the attempt, and Brahma was overpowered, and condemned to have neither temple nor worship for evermore. Also the Brahma-bord, in Brindapur, is a little square tank, supposed to be of natural excavation, and regarded as the sacred spot of Vishnu's triumph over Brahma. In Benares they make Vishnu worship Siva. In Brindaban they make Brahma worship Vishnu, to assert the superiority of sect over sect (Tr. of Hind. ii. p. 65). At the present
day, Brahma is worshipped or revered at Bittur on the Ganges (Oudh Census, p. 114). He is particularly revered at Pushkara, near Ajmir, as also at Bittur in the Doab, where, at the Brahmavarta ghat, he is said to have offered an Aswa Medha on completing the act of creation. The pin of his slipper is still worshipped there. On the full of the moon Agnayvarta (November and December) a mela or fair, a meeting that mixes piety with profit, is annually held at that place.—(Wilson.) There is no doubt that he is the least important, at the present day, of the Hindu deities, though termed the creator, or the ancestor of gods and men. He has been imagined to correspond with the Saturn of the Greeks and Latins. He is usually represented as a red or golden-coloured figure with four heads. He is said, by the Saiva sect, to have once possessed five; but as he would not accommodate the superi-

BRAHMACHARYA.

BRAHMACHARYA. SANSK. The state or period of pupilage of a Brahuman, Kshatriya, Vaisya, or Sudra youth, who is thus called a Brahmachari. It is also applied to men who are mendicants, but affect to be students. Mr. Sherring says this name is given to a sect of Brahman ascetics who wear red cloth and the rudraksha, let their hair and beard grow, and besmirch their bodies with ashes. They are worshippers of Siva. The Brahmacharis live as recluses apart from their families, and at death their bodies are burnt.—Sherring’s Tribes, p. 265.

BRAHMA DANDA PURANA, a religious book of the Hindus, the object of which is similar to that of the Skanda Siva Purana and Linga Purana, viz. to inculcate the worship of the lingam. See Lingam.

BRAHMADANDI. SANSK. Argemone Mexi-

BRAHMADICA, supposed by Hindus in their mythology to be the first created beings; but in their cosmogonies their origin and names are variously explained. It is said, in the Institutes of Menu (chap. i. 32), that the Almighty Power, having divided his own substance, became male and female, and from that female produced Viraj. Viraj produced the first Menu, named Swayambhu; he, the ten Brahmical or Purvajaputra, whom he calls the ten lords of created beings, also the sons of Brahma. They produced seven other Menu, whose names were Swayambhuta, Swarochohsa, Utamsa, Tamasa, Rivata, Chac-

BRAHMAN.

Atri, Vasishtha, Palashta, Anirv, Palashta, and Kritu. Colonel Wilford, in the Asiatic Researches, has considered the Brahmacica, the Menu, and the Rishi to be seven individuals only. The names of some of the Brahmacica correspond with those of some of the Rishi.—Cole. Myth. Hind. p. 8. In an account of Viraj, translated by Mr. Colebrooke from the White Yajur Veda, it is said He (the primal being) felt no delight; therefore man delights not when alone. He caused his own self to fall in twain, and thus became a husband and wife, and the human race was produced; and, changing their forms, all created beings appeared. Another account makes Rudra assist in the theogony. Brahma said, ‘Risa up, O Rudra, and form man to govern the world.’ Rudra immediately obeyed. He began the work, but the men he made were ferocious tigers, having nothing but the destructive quality in their composition, and they soon destroyed one another, for anger was their only passion. Brahma, Vishnu, and Rudra then joined their different powers, and created ten men, whose names were Narelda, Daksha, Vasishtha, Birigum, Kritu, Pulaha, Pulastya, Angirsa, Atri, and Marichi (that is, Reason, Ingenuity, Emu-

BRAHMAN.

BRAHMAN: roadside or temple of Brahma. In the Buddhism of Ceylon, it is the highest of the celestial worlds, sixteen in number.—Hardy, p. 434.

BRAHMAN. This is written Brahmanna, but the final a is dropped in conversation. It is the designation of the highest of the Hindu castes, whom it is usual to call the priestly class. Their duties, according to Menu, are—(1) Performances of holy sacrifices; (2) assisting at the performance of such by others; (3) reading the Vedas; (4) teaching the Vedas; (5) making gifts; (6) ac-

BRAHMA-LOKA. SANSK. The abode or heaven of Brahma. In the Buddhism of Ceylon, it is the highest of the celestial worlds, sixteen in number.
trading occupations, being restricted, however, as to the articles in which they might trade. But now-a-days Brahmans employed in mercantile functions are considered to be in a degraded position. The author of the Gita says, 'The prescribed duties of the Brahmans are peace, self-restraint, zeal, purity, patience, rectitude, wisdom, learning, and theology' (Gita, p. 130). The word Brahman, according to Weber, means drawing forth, as well in a physical sense 'producing,' 'creating,' as in a spiritual sense 'lifting up,' 'elevating,' 'strengthening' (Weber).

The Mahā-Brāhmaṇa of Hindustan, who performs usual ceremonies, is deemed so unclean that other Brahmans will not touch him. Gunga-putra or Ghat Brahman is a byword; and the Pānda or temple priests, the Bara Brahman who conduct the worship of the lower castes, the Gyawal and Prayagwal who rule over the ceremonies connected with pilgrimages to Gya and Allahabad, the Ojhas exercising the vocation of wizards, the Dayabagya, the Ganak, and the Jaudi Brahmans who cast horoscopes and predict events, are all looked upon by other Brahmans as lower classes. Menu writes in high-flown terms (Instit. chaps. ii. iii. vii. viii. ix.) of the sacred character of the Brahman learned in the Vedas, but comments with an equal severity on the unlearned of this class.

There are ten great divisions of Brahmans, viz., Gaur, the Kanya-Kubhya, Saraswat, Gaur, Maithala, and Uzbek; and five Dravidian, viz., Dravida, Telinga, Karnata, Maharashtra, and Gurjara. These have many subdivisions. The Gaur tribe, for instance, has 56 branches; the Kanouja are divided into Sarwaria, Sanaudha, Jijhotia, and Bhnihar, and these again have subdivisions. Some of the subdivisions' names are taken from the district to which they originally belonged, others are named from their sects, or literary acquisitions. The Chaturji of Benga! are so named from their acquaintance with the four Vedas, Chaturpadya. The Chuckerbutty of Bengal are the Chakravarti, meaning a prince or ruler. Smarta is the name of a religious sect of Brahmans founded by Sankaracharya, whose expositions of the principle of unity, according to the Vedanta doctrine, they professedly follow. Siva is held by them in especial honour.

Brahmans are also recognized as three classes, viz., Loukik or secular; Vaidik or theologian; and Bhikuk, whose sole means of support is the alms obtained by begging.

The Brahman as a distinct class seems to be first mentioned in the Atharva Veda, the oldest of the Vedas. They were known before the great war between the Kaurava and Pandava, but were seemingly in humble positions. Arjuna disguised himself as a Brahman when he competed at the Swayanvara of Draupadi, and won her, as he hit the golden fish with his arrow after all the rajas had failed. Draupadi became the wife of the five Pana brothers.

The great bulk of the Brahmans of India are admirably of Aryan origin,—tall, robust men, and light yellow in colour. In the Tamil and Telugu countries of Southern India, the recognised Brahmans are all undoubtedly of the same stock. Some of them can converse in Sanskrit, although they use the vernacular language of the district in which they reside, and are styled Dravida, Kerala, and Karnatika, etc., with reference to the language of their district. Brahmanical tribes are as much separated as are other castes. Some of them may eat together, but they do not intermarry; and the first approach at union is seemingly to be with the Konkan, Maharata, and Gujarat Brahmans, amongst whom the influence of European knowledge has had more effect than upon any of all the other races in India. Good seed has fallen there on a good soil; and from a body of mendicants, these have become active, powerful, and useful men.

There are Brahmans in the hills north of the Panjab, in the extreme N.W. of India, occupying both the valley of Kashmir and the hills immediately to the west and south of it. Kashmir itself is a Brahman country,—all its people, though long since converted to Mahomedanism, having been of the Brahmanical race. The educated class there, who maintained their own tenets and are still very numerous, are known as pandits, and form quite an aristocracy. They are all educated, are exceedingly clever, and are an excessive and somewhat oppressive bureaucracy, which has ruled Kashmir under every successive government, and has sent out colonies to seek their livelihood in Northern India. The features of the Kashmiri Brahmans proclaim them to be one of the highest and purest races in the world. They are of quite high Aryan type, very fair, with a handsome, well-chiselled figure, with a hand as vigorous as strong. In many the nose is high and slightly aquiline, but not Jewish; but in others the nose is straight. Their brow is a little more raised and their nose more arched than in the Greek statues. The ordinary Kash-miri has a strong athletic figure, but none of them are martial; and the Brahmans in these respects correspond,—they rule by the brain and pen. They have a greater refinement and regularity of feature than the Afghans and others of a rougher type, with, however, a less manly-looking physique, a colour less ruddy, and more induced to a somewhat sallow fairness. The Kashmiri Brahmans eat meat, and are excluded by the Indian Brahmans alike from the five Gaur and from the five Dravid, and form a separate Brahmanical class, being more secular than the priestly Brahmans of Hindustan and the Dekhan, than whom they are altogether looser in their observances.

Kashmiri pandits are known all over N. India as a very clever and enterprising class of office-seekers; as a body, they excel in acuteness the same number of any other race with whom they come in contact. Almost all the secular pandits use the Persian character freely. They are perfectly versatile, and, serving abroad, will mount a horse, gird on a sword, and assume at a push a semi-military air.

The lower classes of Kashmir have long since been converted to Mahomedanism, but they seem to be ethnologically identical with the Brahmans; and tradition asserts that they are of the same race.—Campbell. The Brahmans of Kashmir are regarded by those of Bengal as of an inferior order, and the agricultural Brahmans on the Saraswat banks are similarly regarded. Brahmans are numerous in Kamaon and Garhwal, where education is more advanced and the Nagri character used. People of Brahmanical origin, approximating to the Panjabi, but in language, habits, manners, and dress quite different from the Kashmiri, dwell in the hills between Kashmir and
the Panjab, but they have abandoned the Hindu religion, and are now partly Sikhs and in part Mahomedans. Their language is a dialect of the Panjabi. They are good soldiers. Mr. Campbell thinks that the Brahmans of the frontier hills are even handsomer than the Kashmiri, the people in general of these hills being the handsomest of the human race. The Brahman hills are of Brahmanical origin, but now profess Mahometanism. On the eastern side of the Jhelum the hills are shared with other races by a numerous tribe of Sikhs, converts from Brahmanism. Their Brahman ancestors became converts to the Sikh religion before it became a political power, and entirely threw off their Hindism. They are very useful soldiers and servants. There are some Brahmans at the foot of the N.W. Himalaya. They are not found beyond the Indus, but are pretty numerous in part of the Rawal Pindi district. South of the Salt Range, in the plains, the Rajput and Jat occupy the country. But there are villages of agricultural Brahmans in the fertile plains under the hills in the districts of Sealkote, Goordaspur, and in the valleys of the broken country between Hushearpur and Kangra, and in parts of the Umballa district and the adjoining Sinha hills. They are not numerous near the source of the Saraswati; but lower down its course, in the somewhat desolate countries of Marwar and Jeyulsamir, where the lands are moist, the Brahams are still numerous, and are good cultivators, and claim to have occupied the country before the Jats and Rajputs became dominant.

In Central India, the town of PalI seems to be a Brahmanical centre. The Marwari or Saraswati Brahmas form a considerable portion of the most industrious of the cultivators in Malwa. The Saraswati Brahmas seem to have kept much to the tenets of their forefathers. They are called in the south, Kashastale Brahmas. The oldest of the Brahmanical race are the people of the upper hills in the western Himalayas, who date from a time anterior to Hindism. The Kashmiri were a civilised and literary Brahmanical people, not yet fully Hindu. The Saraswati Brahmas were the earliest, most simple, and pure Hindus of Vedic faith; and those of the Ganges and the rest of India are in various phases of modern Hindism. There are ten classes of Saraswati Brahmas, who are supposed to come from the N.W. of India.

In the Panjab, Sindh, and countries about the Saraswati, having been superseded by other races, there are few Brahmas, except in the eastern part of those tracts, where they are industrious cultivators, and claim to be the ancient occupants of the country.

Hindustan.—The main country of the Brahmas is that part of Hindustan lying between the Vindhya on the one side, and the Himalaya on the north, from the longitude of Kanouj and Lucknow near the frontiers of Bengal, with a large segment of more especially Rajput country cut out of the centre of this tract. The Brahmas of Hindustan are generally good-sized, and, on the whole, well-looking men, with good features, not particularly fair. They are not of the high Arya type. The greater number are quite illiterate. The priests and pandits have never adopted the Persian writing character. They are not very clever, have little social position, but serve humbly as soldiers and servants about courts and jails.

From the Gulcheter down to Delhi, and in the country about Delhi, there are Brahman villages, quite industrious and intelligent, the women working as well as the men; but Brahmas do not form a large proportion of the agricultural population. They were kind to and protected fugitives during the mutiny. Some of the less pure agricultural Brahmas of these parts are called Tuga or Gaur Tuga. All the Delhi country is occupied by Gaur Brahmas. South of Delhi the country of these Brahmas is very extensive; and in the Saharump districts there are a good many Brahmas following secular pursuits, besides the priests of Hardwar.

About Benares and the greater part of Behar are a numerous class of Brahmas called Brahman or Bhawan, or, according to Sir H. Elliot, Bhoonhar, to which the raja of Benares and all the great landholders of Behar belong.

Brahmas are many in the Banda district, and numerous in Bagheleund or Rewah, and there they condescend to yet, menial vocations, and groomed most of the horses on the Jubbulpur road. In the proper Brahman country, some of them affect the Rajput prejudice against actually holding the plough, though performing every other agricultural labour, and take the names of Dobi, Tewari, and Chaubli, i.e. men with a knowledge of three, and four Vedas, and are considered to be of very high caste. Between the Ganges and the Gogra, as we recede from the Ganges, the population becomes more Rajput than Brahman, but there are many Brahmas about Ajodiah, the old Oudh. Beyond the Gogra is a numerous Brahman population, humble, not soldiers. Thence to the north of the Gogra and Ganges, all the way to Tihut, there are many Brahmas. South of the Gogra, and thence across the Ganges into the Arrah district (Bojpur), runs the Rajput dominions.

The Toga Gaur Brahmas seem to be identical with the Bhuinhar, and the Bengali Tagores (properly Thakur) may be an offshoot from them. Like the Bhuinhar, the regular Brahmas repudiate all connection with them; and Mr. Beames even says there seems no reason for supposing them to be anything but low Aryans.

Bengal.—The Brahmas of Bengal are numerous. They claim for themselves a northern origin, but they differ much from the Hindustan Brahmas in language, dress, and habits. They are fairer and larger than the mass of the Bengali population, and some are fine-looking men in size and feature. They are largely employed as clerks and accountants, in learned professions, merchants and bankers, sharing the scriptory work with Kayasthas. They are acute and intellectually capable, but not energetic. In Bengal about nine per cent. of the Hindu prisoners in jails are Brahmas. They will not put their hands to the plough, are aristocratic, but altogether unwarlike and effeminate, and in mercantile business are not equal to the Marwari. They are not numerous in Eastern Bengal. There are many in Orissa and in the Urya portion of the Ganjam district. Many of the Urya Brahmas are cultivators and traders, and are stated to be also brickmakers and bricklayers.
In Gujarat, the Brahmans are numerous, and are employed in public offices and in trade. In the Peninsula, the Brahmans are numerous from Damna to Goa, and from Bombay to Nagpur and the Wain Ganga, that is, all through the Maharrata country. They principally trace their got or clan from Kasyapa, the first Rishi. There are two classes intermixing here,—the Konkani Brahman and the Maharrata Brahman. Maharrata Brahmans are a highly intellectual race, and have been distinguished as accountants and clerks. Some of them, as Peshwas, put aside the descendants of Sivaji, ruled over the greater part of India, and took the command of Maharrata armies. The Maharrata or Deshasth Brahmans are dark, swarthy men, much shorter than the Konkani Brahman, often squat, with large, coarse features, large lips, and becoming in advancing life unwieldy. The men are not good-looking, and the women are decidedly plain. The men are largely engaged in public offices as accountants and clerks. They are stolid men, inactive, and of sedentary habits, with literary tastes, and may be justly proud of their poets.

The Konkans or Konkanistha Brahmans belong to that small strip of land lying between the Syadhri mountains and the Indian Ocean. They are all fair men, not large, but with lithe and agile frames, and decidedly of Aryan descent. They are good-looking, though in this respect inferior to the Afghan and Rajput races; and their women are fair and have pleasing countenances, with good figures, but even by their own relations are not considered to be equal to other of the women of India, amongst whom the fair Jewesses of Western India may be quoted. The race were agricultural until the British became supreme. The men are ready to move abroad in search of employment, and are met with amongst the Maharrata nation, throughout Berar, and are largely employed in the various public offices as accountants, clerks, in the educational department, and in mercantile houses. They are not military nor agricultural, nor do they engage in trade. The Konkan Brahman has a pleasant expression, is easily moved to laughter, much enjoys a joke, and is of an active turn of mind. They are easily distinguishable by the peculiarly large turbans which they wear.

Konkani and Maharrata Brahmans eat together, but do not intermarry. They do not marry in their own tribe or got; but the Maharrata Brahman will marry his mother's sister's daughter, and the Konkani Brahman will not marry a relative unless very remotely related.

The Maharrata or Deshasth Brahman is a reserved man, little inclined to seek friendships, and rarely seen to laugh. They at one time filled almost every office under the Peshwa and under the British, and even in Madras till the middle of the 19th century the revenue accounts were kept in Maharrati by these Brahmans; and in their own states were zamindars, or holders of land, and despahundi, and almost all the village accountants were Deshasth Brahmans. Both these castes have to compete for employment with the writers known as Purshu (Prahbu), of which there are two classes, the Patri Purshu and the Kayasth Purshu.

Mysore.—Mr. (Sir George) Campbell mentions (pp. 74, 130) that in the N. Canara district, in the high lilly country above and about the ghat, and on the adjoining parts of Mysore, there is a large population of Brahmans, industrious and thriving cultivators and landowners. Most of these are called Haiga Brahman, and the culture of the betel-nut is their especial pursuit. They are very fair, with large eyes and aquiline noses. In the Nagar district of Mysore they are very numerous, not very literary or highly educated, but devoted to agriculture.

In South Canara and the Tulwa country are many Brahmans, who do much cultivation; and all down the west coast to the extreme south of India, the country is said to have been extensively colonized by Brahmans led from Calpee by Parasrama.

In the festival of Bhaubij, on the 2d day of the month Kartik, the wives of all Brahmans, whether of the Saiva or Vaishnava sects, worship their husbands, standing before them, sacrificing with the lamp and ghi, and pouring rice over their heads.

Canarese-speaking countries the Brahmans are largely employed as accountants and office clerks. They are much disliked by the Vira-Saiva lingasets. A village of lingasets near Kadigi abstained from digging a well in their village, to avoid attracting Brahmans amongst them.

Among the population of Southern India, out of a total population of about 32 millions, over one million belong to the Brahman caste,—547,027 males and 548,418 females. In 1871, of the 547,027 male Brahmans in the Madras Presidency, 352,934 were occupied as follows:—

<table>
<thead>
<tr>
<th>Class</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Civil Service</td>
<td>8,887</td>
</tr>
<tr>
<td>Professional, Military or Police service</td>
<td>747</td>
</tr>
<tr>
<td>Professional, Unskilled Professions</td>
<td>18,400</td>
</tr>
<tr>
<td>Minority</td>
<td>55,994</td>
</tr>
<tr>
<td>Domestic</td>
<td>19,684</td>
</tr>
<tr>
<td>Commercial, Traders</td>
<td>12,910</td>
</tr>
<tr>
<td>Commercial, Conveyors</td>
<td>369</td>
</tr>
<tr>
<td>Agricultural, Farmers</td>
<td>152,468</td>
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<td>Agricultural, Dress</td>
<td>152</td>
</tr>
<tr>
<td>Agricultural, Food</td>
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</tr>
<tr>
<td>Agricultural, Metals</td>
<td>20</td>
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<tr>
<td>Agricultural, Books</td>
<td>40</td>
</tr>
<tr>
<td>Industrial, Household goods</td>
<td>16</td>
</tr>
<tr>
<td>Industrial, Combustibles</td>
<td>11</td>
</tr>
<tr>
<td>Industrial, Others</td>
<td>1,988</td>
</tr>
</tbody>
</table>

Definite and Unproductive, Property, Unproductive, 15,925; Others, 5,884; Total, 352,934;
Over 24 per cent. are agriculturists, and over 11 per cent. are classed as deriving income from property. In the southern districts, especially, a large proportion of the Brahmans are agriculturists. In Tinnevelly over 40 per cent. of them come under this head. But as a rule these Brahmans do not work with their own hands in agricultural pursuits, and employ labourers to till the ground. In the northern districts and Tanjore the Brahman landowners figure chiefly as owners of land, and are relieved from other income from property.

Avocations and Castes.—Among the earliest functions of the Indian priestly tribe was that of Purushottam, or house-priest attached to a princely household. But their character and avocations have altered with changing circumstances. The descriptions in the Vedas show us a primitive race of shepherds and husbandmen praying to the gods for the safety of their flocks and crops, but as the Arians came into India they seem to have risen above manual labour; and Menu (iii. 165, iv. 5) even denounces agriculture as absolutely degrading. There are, however, in Orissa numerous Brahmans who cultivate vegetables, but they are stigmatized as yan-growers, also lokik or worldly Brahman; also brickmakers and bricklayers. In the Himalaya, in Chamba and near Dahlounies, they are shepherds. In Kangra, the Doab, and Benares, Brahmans guide the plough. In Central India there are peasant Brahmans; and in Southern India Brahmans are to be seen as betel-leaf growers and fishermen; while throughout the Tamil and Telugu countries they are to be found as blacksmiths and goldsmiths, who wear the sacred thread, and refuse precedence to the recognised Brahman; and in Ceylon the descendants of an imported race, the Goi Banamo, are cultivators.

Almost every Indian province contains two or more distinct classes of Brahman, descendants of different immigrations. The Chamba Brahman shepherds are a fierce, stalwart race, very fair, and their women singularly handsome. In the Simla hills the Brahman population consists indiscriminately of shepherds, husbandmen, day-labourers, cooks, and menials. In the inner hills they marry the widows of their elder brothers, like the lower castes of Orissa, and sell their daughters into a slavery faintly disguised by the name of concubinage. The Patidra Brahman engage as day-labourers and are palanquin-bearers. Bishnvi cultivators and graziers are numerous in Dhat; Somnun Chore and in Omerkoti; Dharnas, and Merti.

In Benares and the districts along the Ganges to the southward, a large peasant population claim the title of Brahman; and their claim was recognised by the native governments exempting them from capital punishment. The Buinhar or Brahman of Behar, a peasant Brahman, number three-fourths of the whole Brahman population of the Bhagulpur district. They resemble the ordinary husbandmen.

There have been at times large manufactures of Brahmans by rulers. Some princes have imported Brahmans from distant localities, and other princes have raised lower castes to the dignity of Brahman. Jeypore has a class of ploughing Brahman, as regards whom a tradition relates that a warlike prince required a vast concourse of priests to give dignity to his sacrifice, and accordingly created five tribes of Brahmans out of the surrounding populations. They migrated into Oudh, where also is one of the Brahmanical families, who derive their origin from a prince whose self-importance would not allow him to offer sacrifice until he had 125,000 priests in attendance, and who accordingly invested the common people of the country with the sacred thread. In Behar the mass of the peasant Brahman attribute their origin to a manufacture of a hundred thousand priests in prehistoric times. In Mahabharata Parashurama made the whole fisherman population into Brahman. They claim a very exalted rank. The Konkan Brahman also are descendants of a fisher race; and this day the casting of a net and the catching of a fish form part of their wedding ceremonial.

Adilur, the founder of the Sen dynasty, brought from Kanonji five Sangu Brahman of the tribes or gotra, Sambhala, Kasbyapa, Vatsa, Savarna, and Bharudwaja. Several Sudra families, Ghose, Bhose, Dutt, Guha, Mittra, etc., accompanied them, and these take the position of Kulin Kayasthas. In the reign of Bullal Sen, about 284 years before the Mahomedan invasion, all these Kulin Brahman and Kulin Sudras had greatly increased, and, though degenerated in learning, they arrogated to themselves a position above all the Sapta-sala or aboriginal Brahman; and Bullal Sen ennobled those Brahman by giving to them the title of Kulin. The Kulin Brahman subsequently consented to marry the daughters of the aboriginal Brahman, who eagerly seek alliances with the Kulin; and the Kulin have taken advantage of this, and have established a scale of fees for conceding to accept a daughter of an inferior. They marry gold. Of the Kayasthas who came from Kanonji, Bhose, Ghose, and Mittra were ennobled by Bullal Singh into Kulin Kayasthas, and are still in Bengal. The Dass, Dutt, Dutt, Guha, Kar, Paulit, Sen, and Sing hold a second rank.

Kulin Brahman women are married with difficulty, and generally to aged men. In 1868 there were 11 Kulin men in Hoogly and 1 in Bardwan, each of whom had contracted 50 to 80 marriages; 24 in Hoogly and 12 in Bardwan, who had contracted from 20 to 50 marriages; and 48 in Hoogly and 20 in Bardwan, who had contracted between 10 and 20 marriages. Kulinism is thus a great polygamic institution, and a few Kulin women have become prostitutes. In 1867 the abolition of this polygamy was contemplated, and will doubtless soon be carried out (Cal. Rev. May 1868).

Agnivatra Brahman are the remnant of the worshippers of Agni, who still preserve the family fire, but in other respects conform to some mode of popular Hindu devotion. According to prescribed rule, where a perpetual flame is maintained, it is used to light the fire round which the bride and bridgroom step at the marriage ceremony, and the funeral pile of either; but the household fire is preserved only by this particular sect, the Agni-vatra, and the great body of the people have nothing of the kind. In this case they distinguish between the sources whence they obtain the kindling flame according to the purposes of its application, and the fire of the marriage rite is taken from the hearth of a respectable person, except for the funeral pile any unpolluted fire may be used. It is only necessary to avoid taking it from
BRAHMAN.

another pie, or from the abode of an outcast, of a man belonging to the tribe of exegetists, of a woman who has lately borne a child, or of any person who is unclean.

The Agnivada was a supposed Scythic race, whom the Brahmanas, in order to oppose the Buddhists, formed into a religious confederacy.

Aradhy Bhrahmans profess the Jangam creed, but adhere to their caste views. They are chiefly in the Canarese country. In other sects of Hindus, the Brahmanas uniformly take precedence of other castes; but among the Jangam or Vira-Saiva he is degraded beneath all others. Hence there is a perpetual feud between the Aradhy Brahman and the Jangams, who (unless at funerals, where all are bound to assist) treat these Brahmanas with contempt (Brown on the Creed and Customs and Literature of the Jangams. p. 8).

The emigration of the Brahmanas to peninsular India appears to have been subsequent to the first great change in their religious system. The religion they introduced was probably a rudimental form of Saivaism, with a tendency to the mystical and mythological system of the Puranas. There is not the least reason to suppose that the Vedic or elementary system was ever known in the Tamil country, either as an indigenous religion or as introduced by the Brahmanas.

The Brahmanas deeply impressed Alexander by their learning and austerities. One of them, Kalanos by name, was tempted, notwithstanding the reproaches of his brethren, to enter the service of the conqueror. But, falling sick in Persia, Kalanos determined to put an end to his life. Along with the pardon of his philosopher's resolve, vainly tried to persuade him; then loaded him with jewels, and directed that he should be attended with all honours to the last scene. Distributing the costly gifts of his master as he advanced, wearing a garland of flowers, and singing hymns, the Brahman mounted a funeral pyre, and perished in the flames.

The Brahmanas of the present day are a race of the highest culture, the result of 3000 years of hereditary education and self-restraint, and they have evolved a type of mankind quite distinct from the surrounding population. Even the passing traveller in India marks them out alike from the bronze-cheeked, large-limbed, leisure-loving Rajput or warrior caste of Aryan descent, and from the dark-skinned, flat-nosed, thick-lipped, low castes of non-Aryan origin, with their short bodies and bullet heads. The bulk of the Brahmanas stand apart from both, tall and slim, with finely-modelled lips and nose, fair complexion, high forehead, and slightly coconant-shaped skull,—the man of self-centred refinement. He is an example of a class becoming the ruling power in a country, not by force of arms, but by the vigour of hereditary culture and temperament. One race has swept across India after another; dynasties have risen and fallen; religions have spread themselves over the land, and disappeared. But since the dawn of history, the Brahman has calmly ruled, swaying the minds and receiving the homage of the people, and accepted by foreign nations as the highest type of Indian mankind (Imp. Gaz. vol iv.).

Brahmanism is the ordinary designation of the Hindoo religion at present prevailing. It is accommodating to anything that partakes of idol-worship; similarly as a Roman would worship Isis and Osiris, so a Hindoo makes offerings to apotheosised Mahomedans, such as Shaikh Sadu, Ghazi Mian, and Shaikh Madar in Northern India; and throughout all India there are multitudes of figures of local divinities who have been admitted into the Hindoo Pantheon as avatars of Vishnu or Siva, the chief gods of the modern Hindoos. The Vaishnava doctrine raises Vishnu to the highest place, and adores his different avatars, together with a multitude of other deities, powers of nature, and mythical persons. The Siva doctrine places Siva highest in the rank of the gods. The professors of this doctrine number many millions more than the professors of Vishnusm. Although Siva is the god of destruction, he is also the god of reproduction. As regarded with respect to the idea, which ever pervades the doctrine of Brahman, namely, that death is but the recommencement of a new life, Vedantism, so named after the Vedanta of Vyasa, has few adherents, consisting of some philosophical Brahmanas. Of the thousands of temples in India consecrated to various deities, only one, it is said, is consecrated to this doctrine, in which Brahman is worshipped alone.

Various ceremonies are attendant upon Hindu boys between infancy and the age of eight years. After that age, and before a Brahman lad is fifteen, it is imperative upon him to receive the poita, yadvapavita, zonar, janavi, or jhandian, the sacred thread, which the Brahmanas in their secret ceremonies call Yadvapavita. In the investiture, the priest offers a burn sacrifice, and worships Rama, repeating, several times, the vedic prayers. The boy's white garments are then taken off, and he is dressed in yellow or red, and a cloth is brought over his head, that no Sudra may see his face; after which he takes in his right hand a branch of the vilva, Agle marmelos, and a piece of cloth in the form of a pocket, and places the branch on his shoulder, with shoes on feet and umbrella in hand. A poita of three threads, made of the fibres of the surn, to which a piece of deer's skin is fastened, is suspended from the boy's left shoulder, falling under his right arm, during the reading of the incantations or invocations. The father of the boy then repeats certain formulas, and in a low voice pronounces three times, the Gaitri, O'm! Bhrurhuva sauvah, O'm! Tasa vih varamyam, D'haro deva ya dhimani dihiyo yonah praho dayath. O'm! earth, air, and heaven, O'm! 'Let us meditate on the adorable light of the divine Sun (Savitri), may it guide our intellects.' After this prayer the sura poita is taken off, and the real poita, or sacred thread, put on. The receiving of the poita is considered as the second birth of a Hindoo, who is from that time denominated 'dwija' or twice-born. A Brahman boy cannot be married till he has received the poita.

The sacred thread must be made by a religious Brahman. It consists of three strings, each ninety-six saha (forty-eight yards), which are twisted together; it is then folded into three, and again twisted; these a second time folded into the same number, and tied at each end in knots. It is worn over the left shoulder (next the skin, extending half-way down the right thigh) by the Brahman, Kshatriya, and Vaisyia castes. The first are usually invested with it at eight years of age, the second at eleven, and the Vaisyia at twelve.
The Brahman.

The period may, from special causes, be deferred; but it is indispensable that it should be received, or the parties resisting it become outcastes. An individual is not fully a member of this class until he has assumed this emblem. It is like the Roman lad's assumption of the toga virilis.

A Kulim Brahman can marry as many wives as he likes; but there are certain Brahmans in Bengal who find the greatest difficulty in getting married to even one wife. These are the Bangshaja Brahmans of the Shrotiroya class. While a Kulim Brahman gets for every wife that he marries a handsome bride, a Bangshaja Shrotiroya Brahman has to pay down a large sum of money to the father of the girl that he seeks to obtain. The consequence is that, owing to their poverty, numbers of Bangshaja Shrotiroya Brahman never get married at all. To remedy this evil, in Eastern Bengal, when in any village the number of unmarried Shrotiroya becomes inconveniently large, one of the ghatak of the place—those under-servants of Bidhata who take a prominent part in all marriages—goes to Shrihatta in Sylhet. There, with the assistance of his agents in the district, and by means whether fair or foul, he procures a number of girls, to whom he holds out the prospect of a pleasant settlement in life. The girls may not all be Brahman girls, some of them may be of the Chandal caste, and others may be young widows; but whatever may be their caste, character, and antecedents, they are huddled together in a boat, often fifteen or sixteen in number, and taken to the ghat of the Shrotiroya village.

The faces of the old Shrotiroya bachelors become lighted up with joy, when they hear of the arrival of the barge-boat. The agnates which these highly-favoured boats create in Eastern Bengal, is infinitely greater than that produced in Calcutta by the orange-boats of Sylhet, or the mango boats of Malda. The Bangshaja bachelors besiege the boat in numbers. Each one selects a girl according to his taste, a bargain is struck with the ghatak, and the celebration of the rites of marriage, according to the forms prescribed in the Shastras, soon follows. The plain-looking girl, for whom no Shrotiroya may have a fancy, is employed as a maid-servant either of the ghatak himself, or of any other who may stand in need of her services.

The influence on India of the Brahman races has been great. They developed a noble language and literature. They were the priests and the philosophers of their race; also the lawgivers, administrators, men of science, and poets. They have brought together the backward races into the religious and political organization of Hinduism. They wrote the Vedas, Brahmanas, Sutras, and Upanishads, meaning the science of God and his identity with the soul; the Aranyakas, or tracts for the forest recluses; and the more recent Puranas, or traditions. The six Darasana, or schools of philosophy—Sankhya, Yoga, (3, 4) Vedanta, (5) Nyaya, and (6) Vaisheshika—originated from them. They treated philosophy as a branch of religion. They had also a circle of the sciences, the Science of Language. Panini, B.C. 350, was the founder of Sanskrit Grammar. Under every dynasty and government in India, Brahmans have held the highest executive offices alike in the civil executive and in the political administration of the country, for, until the middle of the nineteenth century, all learning and science centered in them. The introduction into India, by the British, of the western forms of education, and the system of grants-in-aid to schools, however, have permitted, particularly in the south of India, all the Sudra and Vaisyas races to compete with the Brahman, who are being largely displaced from their former exclusive position, though they are still a great power in the state.

There is no being more aristocratic in his ideas than the secular Brahman or priest, who deems the bare name a passport to respect. The Kulim Brahman of Bengal poxes himself upon his title of nobility, granted by the last Hindu king of Kanouj (whence they migrated to Bengal), and his virility and majesty is courted. But although Menu has imposed obligations towards the Brahman little short of adoration, these are limited by him to the learned in the Vedas; he classifies an unlearned Brahman with an elephant made of wood, or an antelope of leather, nullities save in name.

Owing to the segregation which all the Hindu races practise, Brahmans have never formed a compact body, and their influence and power have been local. Learned Brahmanas are much respected. At festivals, weddings, and feasts for the dead, they are invited to the houses of the wealthy, are feasted, treated with honour, and on their departure receive gifts of value, dresses, gold and silver vessels, ornaments of numerous kinds, food, and also money. A man of learning often takes one or more of his scholars to such assemblies, both to enhance his own reputation and to accustom them to respect his position in society; and the students also obtain a share of the presents. From gifts of this kind the larger number both of teachers and students in the Hindu schools of learning are supported, their food procured, and their house accommodation provided. Tolas, or native colleges of this kind, are scattered all over the province of Bengal, and one or more may be found in all the great villages. The Zillah of Bardwan, for example, though not particularly celebrated for learning, contained, a few years ago, 190 Sanskrit schools and 1350 students. Some places are more celebrated as seats of learning than others. In North India, for instance, Nuddea, Santipur, Tirihat, and above all Benares, contain a large number of colleges. In South India they are chiefly found in the provinces of Tanjore and Madura. These schools are divided into three classes—those wherein general literature is studied, the schools of law, and those of philosophy.

In the first the subject-matter of study embraces grammar, lexicology, poetical works, and rhetoric. According to Bunsen, Brahmanas have systematically adulterated and adjusted the early history of India (iii. 513). Brahmanas were acquainted with the Tahmi; and Sir W. Jones thought that Genesis ii. 21, 23 is referred to in the form of Siva and Parvati, known as Art'hasvati, of which the right hand half is Siva and on the left hand Parvati.—Brown on the Jangnus; Bunsen's Egypt, iii. 513; Chose-Chose, p. 44; Mullen's Hindu Philosophy, pp. 10, 11; Coleman's Mythology, p. 154; Calcutta Review, May 1868; Tod's Rajastan, i. p. 512; Taylor, Maclear's MSS. Bonga-

gad-Gita; Sir George Campbell's Ethnology: Pouring's Ethnology in B. As., Soc. Jo.; Darwinism in Morals, p. 279; Hunter's Orissa; Imp. Gaz.; Moor's
BRAHMANA.

Pantheon; Weber's Indian Literature; Wilson's Glossary.

BRAHMANA, Sanskrit prose works, of later date than the Vedas; the oldest is the Aitareya, which has much historical information. The several Brahmana are chiefly liturgical, ritualistic, and legendary, and, in the various Upanishad, passing into the rationalized state, and becoming metaphysical and mystical. Their professed objects are to teach the sacrifice; they appeal continually to earlier authorities, and evolve their dogmas under the guise of free Mimmsā discourse. They are the work of several individuals, and Professor Müller limits their age to the two centuries from B.C. 800 to 600, if not prior thereto. Each of the Sanhitas or collection of hymns has its Brahmana, and these generally maintain the essential character of the Veda to which they belong. The Rig-Veda has the Aitareya Brahmana, also the Kaushitaki or Sanbhayan; the Sajur-Vedas, in its Taetiirya Sanhita, has the Taetiirya Brahmana; and its Vajasaneyi Sanhita has the Satapatha Brahmana. The Sana Veda has eight Brahmanas, and the Atharva one.—Weber; Müller; Dowson.

BRAHMANABAD, a ruined city in the Hyder-abad district in Sind, supposed to have been destroyed by an earthquake; and recent excavations show whole households overwhelmed together, men and women at their work, and cattle in their stalls. Sculptures, engraved gems, carved ivory, earthenware and coloured glass, have been found. Tradition says it was destroyed in the seventh century by the gods, in punishment for king Doloras' iniquities.—Insp. Gaz.

BRAHMANA WANSE, a race in Ceylon who take a high place amongst the Hindu races of the island.

BRAHMANA, in Hinduism, the mundane egg created by Brahma; also the visible sky, which is supposed to be the shell of this egg.

BRAHMANI, a name of Saraswati as goddess of learning; also any Brahman woman.

BRAHMANICAL CAVES. See Architecture. BRAHMANICIDE, the sin of killing a Brahman.

BRAHMANISM. Early writers on the religions of India, who drew their information exclusively from Sanskrit and Brahmanical sources, amongst whom was Klaproth, inclined to favour the pre-tensions of Brahmānism as more ancient than Buddhism; but in later times the translations of the Pali records and other sacred volumes of Buddhism in Western India, Ceylon, Burma, and Nepal, have inclined the preponderance of opinion in favour of at least a contemporaneous development. A summary of the arguments in favour of the superior antiquity of Buddhism is to be found in the notes, etc., by Colonel Sykes, in the twelfth volume of the Asiatic Journal, and in the Essaï sur l'Origine des Principaux Peuples Anciens, par F. L. M. Maupied, chap. viii. The Rev. Mr. Gogerly says the sacred Buddhist books in Ceylon expressly demonstrate that its doctrines had been preached by the twenty-four Buddhhas who had lived in succession prior to Gautama or Sakya, in periods incredibly remote, but that they had entirely disappeared at the time of Gautama's birth, so that he re-discovered the whole, and revived an extinguished or nearly extinct school of philosophy. (Notes on Buddhism by the Rev. D. J. Gogerly, appendix to Lee's translation of Ribeyro, p. 265, quoted in Tennent's Christianity of Ceylon, p. 157.) Bunsen says (iii. 516) the worship by the arian immigrants and the institution of castes seems to have commenced after they crossed the Sutlej river; and the original seat of this worship extended from the Indies to the Ganges and to Bengal (Behar). He adds that Brahmans, after crossing the Sutlej, introduced Siva and other deities, and threw those of the Vedic period into the shade. According to Bunsen, also, it was about the year 3000 B.C. that the schism took place amongst the Aryans, when all India east of the Sutlej adopted Brahmānism, and the religious views, forms, and habits of Bactria were for ever abandoned. According to Menu, the world had passed through four yugas when Brahmānism was introduced.

F. H. von, the Chinese priest of Buddha, who travelled through Tartary to India and Ceylon in the fourth and fifth centuries A.D., mentions that in the whole of that vast route, including Afghanistan and Bokhara, he found a Buddhist people and dynasty, with traditions of its endurance for the preceding thousand years. As to Hindustan itself, he says, from the time of leaving the deserts of Jeyasunirik and Bikanir and the river Jumna to the west, all the kings of the different kingdoms in India are firmly attached to the law of Buddha, and when they do honour to the ecclesiastics they take off their diadems. See also Maupied, Essai sur l'Origine des Principaux Peuples Anciens, chap. ix. p. 209.

According to Strabo (Dionysos, p. 117), Siva was worshipped in the mountains (Rudra, Soma, Siva); Herakles (Indra, Vishnu) in the plains. Brahmānism was found established in Hindustan by Megasthenes, ambassador of Seleucus in the court of Chandragupta, and at the time of the Periplus the very southernmost point of the Peninsula was, as now, a seat of worship of Siva's wife.

From the above it would appear that prior to the preaching of Sakya Sinha, there were in India numbers who entertained doctrines with some similarity to those which he taught; but until Asoka (b.c. 257) adopted the Buddhist beliefs, the followers of the Vedic and Puranic doctrines, as expounded by the Brahmans, were by far the most numerous. The two creeds were, however, co-existent throughout India, and in the same towns, but Brahmānism fell into the shade for about a thousand years, from the time of Buddha, b.c. 629-3, till the reappearance of Brahmans at the court of Vikramaditya, A.D. 490-500, when the religion then recognised began to assume the form which it still maintains in India, confused mass of local superstitions and myths. About b.c. 700-1 Brahmans had become a recognised caste, who shared power with the Kshatriya; the Vaisya, as merchants, had become a power; and the Sudras had become a recognised division of the population. Between the times before Sakya's advent and the centuries after Brahmans began to rise in power, the old Vedic books and their doctrines had been pushed aside by other old writings, now known as the Puranas. The Brahmānism of the Vedas and that of the Puranas are of very different characters; the change having been greatly influenced by the rise and progress of Buddhism which intervened between the two forms.
The change from Buddhism to Brahmanism was brought about often with much violence and cruelty, by great efforts of the Brahmanical sectarins. The great champions of Brahmanism were Kumara Bhatta, who was a violent opposer of the Buddhists; Sankara Acharya, the great Vedantic reformer, who flourished in the 8th or 9th century; Ramanuja, who lived in the 12th, Madhavacharya in the 14th, and Valabhaacharya in the 16th century A.D. The last three were Vaishnava teachers. Ramanuja was the first to introduce Bhakti doctrine, and was followed by several others, including Chaitanya in Bengal. Brahmanism is at present synonyous with Hinduism, and the Brahmanical religionists are of three classes, the worshippers of Vishnu, of Siva, and of the Sakta or female energies of the gods. But it is in some places a nature-worship, in others an idolatry, in others a hero-worship, in others a physiology, in others a philosophy, perhaps in all a spirit-worship.

Learned Hindus, however, have six schools of philosophy, called the six Darasana, viz. Nyaya, Vaiseshika, Sankhya, Yoga, Purva Mimansa and Utara Mimansa. These have one starting-point, ex nikholobhi; fit; and all have the same final object, the emanicipation of the soul from future birth and existence, and absorption into the supreme soul of the universe. Besides these six are a later system, called the Puranie and the Ecclectic school.—Weber’s Indian Literature; Elphinstone’s India; Dutt’s Egypt; Todd’s Rajastahan; Regrov’s Ceylon; Todd’s Christian Raj, p. 199; Calcutta Review; Dowson’s Classical Dictionary; Weber.

BRAHMAN, a river of Orissa, rises in the Palanow table-land, lat. 23° 25’, long. 84° 13’. It is formed by the South Koel and the Santh rivers, at the prettiest spot in the Gangetic state of Chutia Nagpur, from which it passes through the Benai, the Talcher, and Dhenkanal states and the Cuttack district into the Bay of Bengal near, pt. Palmyras. Length, 410 miles. The confluence of the South Koel and the Santh is said by local tradition to be the scene of the amour of the sage Paräsara with the fisher-girl Matsya Gandila, who became the mother of Vyasa, the reputed compiler of the Vedas and the Mahabharata.—Imp. Gaz.

BRAHMAN BULL, a term applied to the humped cattle of India and the Archipelago; the Boa Indicus of authors, partly wild and partly domesticated; also the vovte liberatd bull, set free by Hindu择a roan. See Bovine; Bjar; Brithotsara; Saur.

BRAHMAN DUCK, Casarea rutilla.

BRAHMAN KITE, the name given in the Peninsula of India to the Haliastur Indicus. It receives its name from Europeans because Hindus reverence it, and regard it as the vahan of Vishnu. It is often fed by Hindus, on whose call of Hari! Hari! the birds assemble, and animal food is tossed to them. This is to be seen daily, everywhere. The birds are expert fishers. See Garuda; Vahan.

BRAHMA PURA, the fabled city or heaven of Brahna on the top of Mount Meru.—Dowson.

BRAHMA PURANA, the first of the Puranas. It chiefly relates to sun-worship, hence another name, Sanrya Purana.—Dowson.

BRAHMAPUTRA, a river in the N.E. of India, flowing into the Bay of Bengal. It has not been traced from its source, but is generally believed to rise among gigantic glaciers to the S.E. of lake Manasarowara. An old Lama told Abbé Desgodins that in his youth he had visited nearly the whole of Tibet, and had followed the great river from its source, in or near the lakes of Tso-ma-pung, in the western part of the province of Nogaré, the most western of Tibet, and the Lama said that some days to the east of Lassa the river turns towards the south, making a long bend, and traverses the Tibetan district of Hia-yul, a rich and well-peopled district just to the north of Lhopa. The river enters the country of the wild Lhopa tribe, and winds among steep and rugged bare rocks, without roads, and which can be passed only by means of wretched ladders made of bamboo. In a certain course among the Lhopa, the river falls over a high rock into a valley which is not known. The height of the fall is so great that the Lama said it made him giddy to look down. At this place, he said, the river is almost as considerable as the Kin-sha-kiang at Bathang.

The Imperial Gazetteer says that the Dibang is believed to be the continuation of the Sangpu or Nariehu Sangpu of Tibet, which rises on the further side of the Himalayas, in about 31° N. and 83° E., and flows past Lassa eastwards through the whole of Tibet, but the continuity has not been verified, owing to the difficulties of the mountainous region and to the inhospitable character of its occupants. The main stream in the Assam valley is made up by the confluence of three swift rivers, the Dibang, Dibang, and Brahmaputra proper, in lat. 27° 70’ N. and long. 95° 30’ E.; the two latter are supposed to penetrate the Himalaya by a rocky gorge.

On entering the valley of Assam, the united stream runs for 450 miles from the N.E. to the S.S.W. through the plain, with a vast expanse of water, broken by innumerable islands. On leaving Assam near Dhubri, it turns sharply due S., sweeping round the spurs of the Garo hills, and runs S. for 180 miles through the plain of Eastern Bengal as far as its confluence with the Padma, or main stream of the Ganges at Goalanda. Here the conjoint delta of the two rivers commences. The strong banks of the waters of the Brahmaputra flow toward the S.W., and ultimately reaches the sea by the broad estuary known as the Megna. Shortly after leaving Assam, what is at present (1882) the chief channel of the Brahmaputra takes the name of Jamuna, the bed along which it flowed in the middle of the 18th century running past Maimansingh further to the east, and, retaining the original name, to unite with the larger body of water by means of the Megna. After the confluence of the Brahmaputra, Dibang, and Dibang, as it rolls to the sea it receives successively the Subansiri, 180; Boroholi, Mans, 180; Gadadhur or Sanks, 160; Dhurka and Tista, 313, on the right bank; and the Noa Dihing, 100; Buri Dihing, 150; Di Sang, Dhansir, and Kapli, on the left. All of these are navigable by country boats of the largest size.

The Brahmakund, a place of Hindu pilgrimage, is a very deep basin-shaped enlargement of the river, just before it emerges from the mountains to descend into the plains of Assam. The velocity of the current, which both above and below the Brahmakund is very great, suffers a great diminution at this point. In its S.W. course, along the whole length of the left shore
of the Brahmaputra, and nearly parallel to the broad valley through which it runs, we meet with a longitudinal range of secondary hills, inhabited by the various scattered tribes of the Naga, Khassa, Jaintia, and Garo, in the Patkoi, Khassa, and Garo hills. These latter hills run south-east, skirting the rice-fields of Maimansinh, Comillah, and Noa Colly, and forming the greater part of Chittagong and Arakan down to the Irrawadi. The level of the Brahmaputra at Sadia is 210 feet, the fall from Sadia to the delta consequently amounting to half a foot per mile. Sadia is situated near the spot where the most considerable branch of its affluence from the Assam-Sangphu, viz. the Dihang, a river seemingly identical with the Tibetan Zambu, or Sang-pan. The ebb and flood of the tide extend, in the season when the river is low, upwards beyond Dacca. The branches of the Brahmaputra, together with those of the Ganges, intersect Lower Bengal in such a variety of directions as to form a complete system of inland navigation. The Brahmaputra begins to rise in April, owing to the melting of the snow at its alpine sources. About the 1st July it is at full flood, and all the level country is submerged; herds of buffaloes, deer, and hogs then swim for refuge to the hills. The Brahmaputra drains Assam in every direction. It is known in Assam by the name Hiranyo or golden. In the rainy season it rises 30 or 40 feet above its lowest level, overflows its banks, and inundates the country like an inland sea. In the dry season it is a labyrinth of half-filled channels, rendering the navigation intricate, and fit only for steamers of light draught. It is not navigable for steamers higher than Dibrugarh; 800 miles. As seen from Ogri hill, near Tezpur, the river is sweeping along in a bed of from ten to twelve miles in breadth, with numerous islands, covered with canes and shrubs. The chief towns on the banks of the river are Bishnath, Durrung, Gohwatty, Goalpara, Nasseerabad. It is navigable from the Bay of Bengal to Dibrugarh near the head of the Assam valley, within 500 miles of Pengahaw, on the Yang-tse-kiang river. Of these 500 miles, 300 are known, and if this route can be opened, the rich province of the Yang-tse-kiang may hereafter be opened to India.—\textit{Schlagenuetz\'s General Hypomometry of India}, ii. p. 38; \textit{Imperial Gazetteer}. See Assam; Megna.

**BRAHMA RAKSHASI.** Tam. Fourcroya cantala.

**BRAHMA - RANDHRA, Pinacle gland. See Yug-byass.**

**BRAHMARI.** Tel. Clerodendron serratum.

**BRAHMA-RISH, five patriarchs of the Hindu people who founded clans or gotra of Brahman, viz. Kasypa, Vasishtha, Angriras, Atri, and Brighu.**

**BRAHMA SAMPRADAYI, or Madhavachari, a small Vaishnava sect of Hindos in Southern India, founded by Madhavacharya, a Brahman, son of Madhiga Bhatta, born a.d. 1199 in Tuluva. At Udipi, Madhyatala, Subrahmanyana, and other places, he established temples, and eight mathas in Tuluva, below the Ghats. The superiors or gurus of the Madhava sect are Brahman and Sanyasis, or profess celibacy, lay aside the Brahmanical cord, carry a staff and a water-pot, go bareheaded, and wear a single wrapper stained of an orange colour with an ochre clay. They are usually adopted into the order from their boyhood, and acknowledge no social affinities nor interests. They regard Vishnu as the supreme spirit, as the pre-existent cause of the universe, from whose substance the world was made.—\textit{Wilson}.**

**BRAHMA SAVARNI, one of the 14 patriarchs who are supposed to preside successively over the 14 Manusmrtas of the Calpa.---Warren, \textit{Kala Sanchita}.**

**BRAHMA SIDDHANTA, the second of the authentic Hindu Shastras.**

**BRAHMA SUTRA, or Brahmin Mama Sutra, appendix on the Vedanta philosophy, by Badarayan or Vyasa.---Dowson. See Sutra; Veda.**

**BRAHMA VAIVARTA PURANA contains 18,000 stanzas; a sectarian work on the youthful Krishna and Radha.---Dowson. See Sacta.**

**BRAHMAVARTA, according to Menu, a tract of land immediately to the westward of the Jumna, between the rivers Saraswati (Sersooty) and Drishadwati (Drishladvati) (Cagger), about 100 miles to the N.W. of Delhi, and in extent about 65 miles long and from 20 to 40 miles broad. Its customs are models to pious Hindus. The country between that tract and the Jumna, and all to the north of the Jumna and Ganges, including North Behar, is called Bramashti by Menu; and Brahmanas born within that tract are pronounced to be suitable teachers of the several usages of men.—\textit{Elphin.}, p. 205.**

**BRAHmüESWARA, in Cuttaak, not far from Bhubeswara. Here a slab was found with an inscription in Sanskrit verse. It commemorates the temple of Brahmeswara being erected to Siva by Kolavati, the mother of Udyotaka. The era Samvat 18 is used. The temple was no doubt erected after that to Siva at Bhubeswara, which Mr. Stirling says was completed a.d. 657, and that at Kanarak a.d. 1241. If the Samvat era 18 be that of Gaur of the dynasty that subverted the Bhupala, it corresponds to a.d. 1141.—\textit{J. A. S. B. v. p. 660, vii. p. 557}.**

**BRAHMO, a name applied by Mr. Hodgson to the Kusunda, a Bhot tribe occupying the dense forests of the central region of Nepal.**

**BRAHMO-SAMAJI, a small reforming Hindu sect, who regard their views as a pure aethism; recognise the absolute unity and spirituality of God, the abolition of caste, and the elevation and instruction of woman. During a very few years, Brahmoism ran through three different stages. In the first it had for its foundation Vedtic testimony tempered by reason; in the second stage, reason and philosophy; and about 1870 it was supposed to stand on intuition guided by reason. But quite one-fourth of the total number of Brahmo rest on Vedtic testimony, and nearly one-third look up to reason alone. And though the intuitive Brahmo have done away with Sras, Anoprasinghas, etc., their brethren of the first stage perform those Hindu ceremonies in all their forms. The Brahmo of the second stage hold a middle place. On its decline, another theological body arose, the Dharma Sabha. Brahmoism, in all its phases of development, has carried on a crusade against the institutions and usages of caste. Its leading members have strongly advocated a reputation of two great social customs, that of infant marriages and the prohibition of widow marriages. They have deprecated polygamy, and have striven to place
the marriage institution on a footing similar to that which has received the moral and practical sanction of civilized communities. In 1880 there were 149 Samajhs scattered throughout India. In Calcutta alone there were 20: in Bengal, 54; in Assam, 7; Chatia Naupur, 3; Behar, 7; Orissa, 2; N.W.P., 8; Central Provinces, 1; Punjab, 5; Sind, 3; Gujarat, 3; Bombay, 6; and Madras, 6. Of these, 44 have mandirs, or places of worship. In connection with the society eighteen different periodicals were published. Of these, six were in English, nine Bengali, one each in the Hindi and Urdu languages, and one in Anglo-Mahratti. There are schools kept up by the society, besides schools and classes kept up by the local Samajhs.

**BRAHMYA.** In Hindu astronomy, the Yoga Star of the 28th lunar mansion, 'a Pegasus.—Warren.

**BRAHUI.** The dominant race in Baluchistan. Their tribes, above 70 in number, are nomades, residing in one part of the country in summer, migrating to another for the winter season, and constantly shifting for pasturage. The Baluchi has a tall figure, long visage, and raised features. The Brahui have short, thick bones, with round faces and flat lineaments, are stout and squat, and numbers of their tribes wear hair and beards. Their name is said to be from an affix 'bon,' and 'roh,' a hill; and the name of the Narui, or Baluch, race is said to mean 'not mountaineers.' The Brahui have no religious men, whether syed, pir, mullah, or fakir. The tribes reside in tomans, or collections of tents. These tents are made of goat's hair, black or striped. The furniture is very simple,—a few metal cooking-pots, a stone hand-mill, and some rough carpets and rugs, with a distaff for spinning wool, and a hookah, are all that are usually found in a Brahui tent. That of the chief may perhaps be better furnished, and he is richer than his neighbours in flocks and herds. The dress of the lower orders is made up of a long tunic, trousers loose at the feet. The Kamburani, the chief tribe, are divided into three distinct gradations of rank, called Ahmedzai, Khanai, and Kamburani. The first supplies the khan; the Khanai are of the secondary rank of chiefs. The word Kamburani includes the remainder of the tribe, but in common is applicable to the whole body. They receive wives from, but do not marry their daughters into, other tribes. The typical Brahui are certain tribes in Saharawan and Jhalawan. The Brahui are Sunni Mahomedans. They have, both in feature and speech, indications of a Turanian element. Their political chief is the Khan of Kalat.

They are entirely illiterate; not a single book exists in their language, or specimen of their language reduced to any form of writing. It is called Kur-Gali, and, according to Dr. Caldwell, is mainly Panjabi, with a Dravidian element; according to Mr. Campbell, is mainly Aryan (Iudo-Persic), with a Turanian element. Ethnologists are inclined to consider them to be of the same Scythic stock as the Dravidian races in the Peninsula, and infer from this that the passage of the Dravidian race from Turan was along the valley of the Indus.—Mr. Campbell, pp. 54-56.

**BRAJ or Brah-manial,** a pastoral district extending in a circuit of 84 cos around the town of Mathura, celebrated in the traditions of Hindustan as the country where Krishna pastured his herds. The soil is poor and thin, with few trees, the nim, faras, and species of the fig tribe being the most prominent. The Jumna is the only great river; for the rainy season it is a mighty stream, a mile or more broad, but for eight months in the year, a mere rivulet, between wide expanses of sand. The untidy Sat and Gujar are the chief proprietary classes. Hindustan is celebrated for its water-melons in August, pantanubate its 24 groves or rips ban and 12 ban or woods. The people are still pastoral; the villages contain much horned cattle. Braj-bhasha is a term applied to the Hindi tongue of that district.

**BRAJBAZI,** a native of Braj; an armed attendant, a guard, a watchman or doorkeeper.

**BRAHMA.** Maleal. A small tree on the Malabar coast, used for boats, and for timbers and knees in larger vessels; it is considered strong and durable.—Edge, M. and C.

**BRAHMA.** Hindu. Astragalus multiceps.

**BRAHMANG.** Malay. A sour fruit used for chutnies and in curries, perhaps the Averrhoa bilimbi; also said to mean the onion, Allium cepa.

**BRAH-MUG.** See Insects.

**BRAM.** Hindu. Anemone, sp.; also Takus baccata. Beng. Saracenoma bracteisatum.—W.


**BRANDIS.** Dr., Conservator of Forests of Bengal, author of works on forestry. In 1881 his recommendation to form a school of forestry at Dehra was acted on by the Government of India.

**BRANDY,** Cognac.

Shau-tseu, CHIN. Aquarzente, It.
Hwang-tseu, VINUM AQUA,

**BRAN.** A spirit largely imported into India from France and England, obtained by distilling wine. Its qualities vary with the kind of wine employed. It is manufactured in the south of Europe, from white or pale red wines and the skins of grapes. Cognac is made from the palest, eau de vie from dark red wines; British brandy is a compound of rectified spirits. Brandy began to be distilled in France about the year 1843, but used only as a medicine, and was considered as possessing such marvellous strengthening powers that the physicians termed it 'eau de vie,' the water of life. Raymond d'Albi, a disciple of Arnold de Villiers, considered that it was intended to reanimate and prolong the life of man.—Statistics of Commerce.

**BRANSH BRANTLI.** Hind. Myraine Africana.

**BRANTLEY.**—In Penang, a light, brown-coloured, weak wood, used for building.

**BRARRAH.** A wood-louse in Swat which infests mosques and houses where old mats are lying about; the place bitten by them becomes red and
inflamed. The insect is of the shape of a bug, but larger.—_Lt._ Col. MacGregor.

**BRASS.**

**Hind.** Rhododendron arboreum.

**MALAY.** Rice.

**BRAS-BRAS,** the Glam tree of the Malay Peninsula; furnishes a paper-like bark much used in caulking the seams of vessels. Wood used as floats for fishing nets.

**BRASILLETTO WOOD,** Casalpia sappan.

**BRASS.**

Hwang t’ung, ... **CHIN.**

**MISSING.** Messing; **GIL-**

koper, Geelkoper, **DUT.**

Cuirvre jaune, Laiton, **FR.**

**MESSING.** .... **GER.**

Nehest, Pital, **HIND.**

Ottone, **IT.**

**BRASS.**

Brass is an alloy of copper and zinc, generally the yellow alloy, with about an equal weight of zinc and copper, called yellow brass; copper alloyed with about one-ninth its weight of tin is the metal of brass ordnance or gun-metal. Similar alloys used for the brasses or bearings of machinery are called hard brass, and when employed for statues or medals they are called bronze. Brass is extensively used in India for domestic utensils, and is in greater request than copper among the natives. Generally, Mahomedans use copper, and Hindus brass utensils.

In the Panjab, for smaller work, they prepare the alloy in their own kuthali, or crucibles; for making the larger sizes, however, the gogara, shamadan, etc., they prefer the fine sheet metals imported from Europe. A metal giving a beautiful sonorous ring when struck, and called Phul or Khani, is made in the Panjab; Roin, a genuine bell-metal, is also manufactured; also an alloy called Bath, and an inferior one called Kuth. A good brass may be made by fusing two parts of copper and one of zinc; but various proportions should be used according to the purpose required. The substances used in alloying are in various proportions by native braziers to form brass, gun-metal (lokam), pewter (satki), bell-metal (kansu), and bedery ware. Occasionally silver is added to form gongs and bells. In general, however, the proportions used are regulated by reducing the quantities of the more expensive and increasing those of the cheaper metal, as far as may be practicable. Repeated meltings, by drawing off the excess of zinc, leave a good malleable brass; and for this reason old brass is much sought after by smiths when they desire it for any work requiring it to be particularly malleable. Guns taken at Kurnool were little better than spelter. Ordinary yellow brass is rendered very sensibly harder by a small addition of tin, say a fifth or half ounce to the pound; on the other hand, by the addition of a like quantity of lead, it becomes more malleable and cuts sharply. Brass becomes a little whiter for the tin and redder for the lead; the addition of nickel to brass constitutes German silver. Gun-metal (copper and tin), by the addition of a small proportion of zinc, mixes better, and the malleability is increased without materially reducing the hardness. Lead in small quantities improves the ductility of the metal, but at the expense of its hardness and colour; it is seldom added.—_Tommison, M. E._

Mr. Rohde. See Bolls.

**BRASSAK,** a subdivision of the district of Pangkal-pinang, in the island of Banka, producing much tin. See Tin.

**BRASS CAMPHIRE.**

**Brass—sapur, GEZ.** Hind. | Karpuram, TAM., TEL.

This commercial term is a corruption of Bums campire, also called Borneo and Malay camphor. It is the product of the Dryobalanops camphora of Sumatra, Borneo, and the Malay Peninsula. It is found only in small quantities, in concrete masses, in the fissures of the wood. It is more fragrant, and less biting and pungent, than the common camphor, and is held in much higher repute. It is imported into Bombay from China. — _Paulkener._

**BRASSFOUNDER.** The brassfounder or brazier trade in India is almost exclusively in Hindu hands. They form one of the five Kumalas or artisan classes, the other four being the goldsmith, blacksmith, stonecutter, and carpenter. These castes all wear the zonar or sacred string. They do not allow any Brahmanical interference with them, have their own priests and ritual, and they bury their dead in a sitting posture.

**BRASSICA.** _Linn._ A genus of cruciferous plants, containing several very important alimentary species.

**Brassica campestris, Linn., Sarson, Hind._ This has been supposed to be the source of the Swedish turnip; it furnishes the colza oil of Europe. It is grown as a cold-weather crop in the plains of India, and as a summer crop at Ambala. It is cultivated in Afghanistan, and in Tibet up to 10,000 feet. The seed is being largely exported from Kurachee, but in N.W. India a bland oil is largely expressed from it.

**Brassica erica, Linn., garden rocket.**

**Erica sativa,** ... **LAM.** | Kala Sarson, HIND.

This is largely cultivated in the arid parts of the Panjab for its bitter oil from its seeds, which is used for lamps.

**Brassica erucagrum, Linn., of France, Italy, Switzerland, etc., is largely cultivated in the Panjab and Oudh for its seed and oil. The cost of the (Tecora) oil is from 3 to 10 seers per rupee. It is used for burning.

**Brassica juncea, Linn., Rai, Turia, and Khardil, HIND.,** is grown largely in the Panjab, also in the Himalayas, and up to 10,000 feet in Tibet; also in Afghanistan. Its oil, somewhat acrid, is burned, and occasionally used in cooking. Its seeds are an ingredient in pickles.

**Brassica napus, Linn., rape, wild cabbage;**

colza, cole seed, or sursul of Gujerat. Much cultivated in Europe. Used as salad similar to mustard; the leaves are eaten when the plant is in seed, but it is of no great value as a vegetable. This plant is cultivated for the sake of its seeds, from which oil is extracted by grinding and pressure.

**Brassica oleracea, cabbage.**

_Theem ban mung la, BUM. | Karam, Kopi, Gobi, HIND._

Amongst Europeans, both in Europe and India, a highly-esteemed vegetable; its varieties are—

a. *Acephala, D. C.*

ramosa, cavalier cabbage.

vulgaris, common green colewort.

quercifolia, oak-leaved cabbage.

b. _Bullata, D. C._

major, Savoy cabbage.

a. *Acephala, D. C.*

ramosa, cavalier cabbage.

vulgaris, common green colewort.

quercifolia, oak-leaved cabbage.

b. _Bullata, D. C._

major, Savoy cabbage.

gemmifera, Brussels sprouts.
The cabbage plant is supposed to be indigenous in the Kashmir valley at 5000 to 5500 feet.

Brassica rapa, Linna, the turnip, rape.

Bread.—The materials for bread are 60 lbs. of first sooji, 20 lbs. of second sort or naka sooji, and 20 lbs. of first sort flour. 100 lbs. of these ingredients produce 128 lbs. of bread.

Biscuit is made from second sort sooji and flour mixed in the proportion of 75 lbs. of naka sooji and 85 lbs. of second sort flour. This produces only about 85 lbs. of biscuit, which, after being well baked, is dried for two days in a kiln.

Barm or yeast sufficient for 800 loaves, 1 lb. each, is made from brown sugar 2 lbs. potatoes, 1½ lbs.; hops,½ oz., with half a gallon of water. Boil and mash the potatoes; boil the hops until none appear on the surface of the water; strain and dissolve the sugar in the liquor. The potatoes are then added, and the whole is strained into a jar or small tub. The quantity produces about 3½ pints, and is generally ready for use in twelve hours. The addition of a small portion of the old barm hastens fermentation.
BREAD-FRUIT TREE.

Wheaten bread is largely used in Northern India and by the Chinese. In Ho-nan, Shen-si, Shan-si, and Shan-tung, wheat bread and pastry are staple articles of diet. Chinese bread is free from alum. It is raised by means of leaven, pearl-ash; and the small loaves or cakes are steamed in a very ingenious and simple way.

Cakes of wheat-flour, prepared on the girdle, are a common article of diet amongst the well-to-do races of Northern and Central India. Further south, on the table-lands of the Peninsula, the natives of India use unleavened cakes made of the flour of the Indian corn, the zea mays, rather less nutritious than that made from wheat, but more fattening, in consequence of the greater quantity of oil contained in it. Also, amongst the millets, bread is made of the great millet, Sorghum vulgare; the spiked millet, Pennicillus espicata; and the very poor of the people use the hard raggy, Elenusina cococana, in the form of cakes or porridge. Barley is occasionally used to the westward. Along the seacoast of all Southern Asia, towards the eastward into China, however, boiled rice is the great article of diet, and it is often cooked, with unfermented palm-wine, into the cakes familiarly known in India as 'hoppers,' the 'apa' of the people.

Rice flour is scarcely ever made into fermented bread, although it is said to be occasionally mixed with wheat flour for that purpose. The superiority of wheat to all other farinaceous plants, in the manufacture of bread, is very great. Its essential constituents are starch, also called farina or fecula, gluten, and a little sugar and albumen. It is occasionally adulterated with alum, which is added to whiten the flour, and to enable it to retain a larger quantity of water. Salt is also employed in the adulteration of wheat bread, to whiten the flour and enable it to hold more water; and carbonate of magnesia is improperly used to obtain the same result.

In Eastern and Southern Asia, the well-known sago is made from the starch granules contained in the pith of several species of palms. It is largely used as an article of diet, alike for the robust labourer as for the invalid, and is extensively exported for the use of the sick and the nursery. Amongst the Arabs, burgoult is wheat boiled with leaven, and then dried in the sun. The dried wheat is preserved for a year, and boiled with butter and oil. Leavened bread is called khabz. —Robinson's Travels, ii. 132; Tomlinson: Howell, Simmonds, p. 217; Royle: Bombay Times; Stewart; Smith: Powell; Mc Culloch. See Cereal Grains.

BREAD-FRUIT TREE, Artocarpus incisa, Wilde. When cultivated, its seeds are abortive. It is grown in Ceylon, in some parts of India, and its fruit is a staple food of the South Sea islanders. Their peakan or bread-fruit season is in March and April, but some kinds ripen considerably later or earlier, whilst in some districts the season itself is altogether later, and it may be said that there is ripe bread-fruit, more or less abundant, throughout the year. . . . The fruit is made into puddings, or simply boiled or baked. Quantities of it are preserved underground to make native bread. The tree is hollowed out as a canoe; its gum forms a good pitch; its bark can be made into a cloth. The skin of the fruit being pared away, the pulp is sliced and roasted, or baked in ovens.—Dr. Seemann: Viti; Montgomery, p. 222.

BREJ or Brege pan is an article which is occasionally brought to the Panjab from Siberia (Sebere, Seetha or Seth, by the natives of the N.W. Himalayan and Panjab, Seythia). It is seen usually as a lining for plinths, caps, stockings, gloves, neckties, etc. From its nature it cannot be spun into thread. It is of a white colour, with a certain gloss, and is supposed to be a species of cider down. It is fancy-priced.—Powell, Handb.

BREN. HIND. Quercus annulata, also Bleri, Ulmus crosa.

BRES. HIND., of Kulu; also Karma-bres. Parogyrum esculentum, buckwheat.

BRI. HIND., of Kulu. Desmodium, sp. BRIALI. HIND. Colebrookia oppositifolia.

BRICK.

Karmid, . . . . AB. Bata, . . . . MALAY.
Ziegelstein, . . . . Ger. Shengal, Shengkallu, TAM.
Brique, . . . . HIND. Hikai, . . . . Tel.
Mattone, . . . . It.

A building material formed of clay, hardened either by the sun's rays or the heat of a furnace, the former being called sun-dried bricks, and the latter burnt bricks. The various argillaceous earths are for the most part unfit to be used alone for brickmaking. Some are almost pure clay or alumina, and are strong and exceedingly plastic, but cannot be dried without splitting; light and sandy clays or loams are too loose to be made into bricks without the admixture of lime as a flux to bind the materials; others, again, natural compounds of alumina and silica, if free from lime, magnesia, or metallic oxides, are exceedingly valuable clays, being, from their infusible nature, well adapted for making fireclays for lining furnaces, for making crucibles, glasshouse pots, etc. Fire clay is found in many places in India. Bricks, burnt almost to vitrification, are much employed as a road material on all alluvial lands of India. Sun-dried unburnt bricks of a very large size were formerly employed in building, and they may still be seen in the basements of some of the old ruined Jain temples at Hira Tumbal in the Ceded Districts, Amagerry in the Southern Mahratta country, and in the walls of the mud forts at Guduk, Dummul, and other localities. The bricks appear to have been usually 2½ feet in length by 16 inches in breadth, and 7 or 8 inches in thickness. The seams are apparent from the effect of the weather, but the bricks cannot be separated without breaking. The basement and a good deal of the interior of the solid muntapums or pyramidal towers of these Jain temples were built with unburnt bricks; and the masonry and carved slabs, ornaments, and pillars were erected over this foundation of earthwork. The greatest height which any of these complicated parts of these temples. In the walls of the old forts in Southern India the lower part of the walls is made of unburnt bricks and the upper part of hewn stones. The more modern forts are chiefly constructed of mud embankments, cased in large blocks of stone, very accurately fitted, but not cemented with lime or mortar. In the ancient buildings of India, brickwork does not appear to have been extensively employed, although in some of the temples we find the upper storeys made of brick, while the lower ones are of stone. The earth-walls of the Bellary district are formed of sun-dried bricks of great size.

The material used in Babylon was unburnt
brick. Many of the ancient ruined cities of Persia are built of unburnt bricks, beaten up with straw or rush to make the ingredient adhere, and then baked in the sun. In the days of the Egyptian bondage, Pharaoh commanded the taskmasters of the people and their officers, saying, 'Ye shall no more give the people straw to make brick as heretofore; let them go and gather straw for themselves.' They gave them brick for stone, and slime had they for mortar' (Genesis xi. 3). Assyria abounds with asphalt, or bitumen. Herodotus and many ancient authors affirm that the walls of Babylon were cemented with it; and Arrian says, 'The temple of Belus, in the midst of the city of Babylon, was made of brick, cemented with asphalts.'—Migman's Travels, p. 166; Dr. Hunter in M. E. J. R.

BRICK TEA. Tung-k'au, China, is tea compressed into a solid form. This article, and the khata, or 'scarf of felicity,' are great articles of trade between China and Tibet. A prodigious quantity of these goods is exported annually from the provinces of Kan-su and Seeh-u'en. In Ya-tcheon or Ya-tzon, the last large town of Western China, brick tea gives occupation to thousands of workmen either in its manufacture or transport to Ta-tsi-en-lu. This tea can only be made with a particular leaf. The tree which furnishes it grows on the banks of the river Yaho. It attains often 15 feet in height, and its leaves are large and tough to the touch. The cultivation requires little care. It is planted often on the borders of fields, or round the houses. Each grower gathers his little harvest of leaves, and finds a ready sale for them in the market of the town. The manufacture of brick tea is a monoply secured to the dealers of this town, and for which they pay a considerable sum to the Chinese Government. For the first quality tea, the leaves are gathered in June and July, before the spring rains commence. The leaves at this period of the year are about an inch in length. As soon as detached, they are spread in the sun, and, when slightly dried or withered, they are rolled with the hand until they become humid by the evaporation of the sap. They are then made into balls about the size of a large teaspoon, and left to ferment. When they are in fermentation, they are placed between wooden moulds or lever pressed securely by pegs or bolts. These moulds are then placed over a wood fire. The tea is taken out in a compact mass, and forms the brick tea of commerce. They are then delivered to the merchants of the town, by whom they are wrapped in yellow paper, on which is impressed the stamp of the Government and the mark of the dealer who exports it. They are then packed in baskets of plaited bamboo, about four feet long. One of these baskets, weighing about twenty pounds, is the unit of trade. The baskets are carried on men's backs to Ta-tsi-en-lu, a distance of two hundred miles. There they are carefully wrapped in fresh hides, to prevent the tea from imbibing moisture. They are then fit to be sent to Lassa, or even beyond. A basket costs about twelve taels, that is, at the rate of 4s. 8d. the English pound. A second kind is made with older and yellow leaves. The mode of preparing is the same. It is sent chiefly to Lithang and Batang. At the latter place it sells for about five taels the basket, or at the rate of 1s. 6d. the pound. A third quality is made with the waste and debris of the leaves. The bricks of this quality resemble those sometimes made with the young shoots of the tea tree cut up. The manufacture differs from the two other sorts, inasmuch as it is necessary to add rice water to combine the substance and to make it retain the form of the mould. This quality is only sold at Ta-tsi'en-lu and its neighbourhood, and fetches 9d. per pound. The quantity of brick tea exported annually from Ya-tcheon to Tibet is roughly estimated at six million pounds. The high price of tea in the markets of Tibet arises from the monopoly of the Chinese, which is increased by that of the Lamas, who keep in their hands the retail sale. And as tea is an article of prime necessity in Tibet, the Celestial Empire keeps in dependence the Lamas, and by them the people of Tibet. Brick tea is cooked in a varied manner. Mr. Atkinson (Orient. West. Siberia, p. 477) was given it mixed with milk, butter, salt, and flour, presenting the appearance of thick soup. The form of bricks was doubtless given to it for the convenience of carriage.—Mr. Cooper in Stateroom; Huc, Chinese Empire.

BRIDELIA LANCEFOLIA. Roxb. A tree of considerable size, native of Bengal.

BRIDELIA MONTANA. Gibson.


This is a large and very valuable timber tree. It is common in most jungles and dry forests throughout Ceylon and the Madras Presidency, in Ganjam, Gumsir, Bengal, in the lower spurs of the Himalayas. The wood is of a dirty red or copper colour, very stiff, strong, close-grained, and durable, but not easily worked. Its extreme height is 30 feet, circumference 3 feet. A cubit foot unseasoned weighs 68 to 70 lbs., and 60 lbs. when seasoned, and its specific gravity is 960; it is used for house-building, construction of carts, agricultural implements, railway sleepers, rafters, spinning-wheels, and a variety of other purposes, and it stands the action of water; the bark is a strong astringent. Cattle eat the leaves greedily, and they are supposed to act as a vermifuge.
In Gunsur it is also burnt for firewood, the tree being very common. The leaf is used medicinally for its poisonous, and a preparation of it is often used for the purpose of destroying life, particularly by the Orya widows, among whom suicide is a frequent occurrence.—Captain Macdonald; Beddome, Fl. Syl. part xxii. p. 260.

BRIDELIA SPINOSA. Wilde, Roxb.
Cluyttia spinosa, Roxb. C. Pl.
Assam, Assam, Maleal. Mulla vengay, ... Tas.
Mulla vangay, Maleal. Kora man, Duria
Katu Kote Kola, Singh, madde, ... Tel.

This large tree is a native of several parts of Southern India; in the alpine jungles of Coimbatore it attains one cone. It grows on lands in fields, where its wood is esteemed as very strong and good. It is rather a common tree in the Bombay forests, both coast and inland. The wood is strong and tough, and stands the action of water well; it is often used for the frames of wells, wherein the superstructure of masonry is erected. It is also used as beams for houses. This wood deserves, in Dr. Gibson's opinion, to be more extensively known than it is; cattle eat the leaves voraciously. They are said to destroy worms in their bowels. The odoroo wood of the Northern Circars is a species of Bridelia.—Drs. Roxb., O'Sh., Gibson, Wright, and Clegliorn; Captain Beddome, Flor. Andh.

BRIDGE.
Pont, ... Fr. Basho.
Brock, Steg. ... Gér. Pol, Pool, His, Prus.
Pal ... Ir. Panteo, ... Str.

Bridges in the S.E. of Asia are built of stone, brick, wood, iron, rope, bamboo, canes, and twigs. Hindu and Mahomedan rulers in India built but few bridges. The Bhot, Mongol, and Tartar races of the Himalaya and Burma have numbers of them. In Burma, bridges are seldom wanting near villages where nullahs or inundated fields obstruct the communication; near towns they are sometimes of extraordinary length. The construction there never varies. Large teak posts are driven in pairs or triplets, with bays between, not exceeding twelve or thirteen feet. Mortice holes are cut through those parts in which cross beams are laid, with beams and solid planking over those, and a railing is added.

The most characteristic of Hindu bridges are composed of stone posts, several of which form a pier, and are connected by stone beams. Others are thick piers of masonry, with narrow Gothic arches.

Turner tells us of a simple bridge for the accommodation of single passengers, constructed between two opposite mountains, which consisted of two large ropes made of twisted creepers, stretched parallel to each other, and encircled with a hoop (Embassy, p. 54). This is the original of the jhula or rope bridges of the Himalaya. In the early part of the 19th century, Mr. C. Shakespeare advocated rope bridges in India, and one of 160 feet span was erected over a stream at Benares. The bridges of Kamaon are of four kinds,—a simple spar thrown across from bank to bank; the sanga, by successive layers of timber, those above gradually projecting to form an arch; the jhula of ropes stretched from bank to bank, with a suspended ladder; and (4) a single cable across a stream along which a basket traverses.

In Jummo the chiba or havel bridge is in use; a smooth rope of several strands is hung across from bank to bank, on which traverses a wooden ring, from which is suspended a loop. In this the traveller seats himself, and another traversing rope pulls the ring and traveller across. Down the curve the passage is quick, but the pulling up is tedious. The ordinary bridge is of three ropes, made of birch or other twigs, and hung, one for the foot to traverse, the other two a yard above it for the traveller to steady himself. The jhula consists usually of three ropes stretched across the stream, at a height of 8 or 40 feet, between two battress piers. The three ropes are suspended like the letter V, two parallel ropes forming the upper span and one the lower plane. This disposition is secured by large V-shaped prongs of wood, which at intervals of four or five yards are secured in position above and below by thongs of raw hide, and further strengthened above by a cordage, which is passed across between the two upper points where they are fixed to those ropes. It is crossed by the traveller walking on the lower of the ropes, which is sometimes of double or triple strands, and holding his balance with the hands on the upper ropes, which run at each side on a level with his shoulders.

The Kudal bridge of Kashmir is made of wood, and is very strong and durable. It consists of undressed logs of pine and cedar timber, the undressed trunks of the trees supported on piers 20 to 25 feet apart. The piers rest on a foundation of stones embedded in the muddy bottom of the river, and protected by a cutwater pointing up the stream, and built of loose stones filled into a frame of logs of wood. Those above Serahan, opposite Miru, and at Pooni, whether swinging or suspension bridges, are unsuited for the passage of sheep and mules. The elevation of the rope bridge (jhula) at Tuni on the Tons river is nearly 8000 feet above the sea.

The Nara, over the Nyn Sukh, near its junction with the Jhelum, consists of a single cord stretched across from bank to bank, and secured on either side to some projecting rock or firmly set tree. The cord is furnished with a loop-eradle, which is slung on to it by a forked piece of wood. This last forms the upper part of the cradle, which, when once adjusted, is irremovable from the cord, though it slides freely backwards and forwards on it by shaking the cord. The cord is made of a climbing plant, with the straight twigs of a species of indigofora.

In the N.W. Himalaya the timbers used for ordinary wooden bridges are Alnus, sp., Bombax heptaphyllum, Cedrela toona, C. serrata, Phoenix dactylifera, P. sylvestris, and Salix alba. For swing bridges, Andropogon involuta, Bpetula bhojputra, Cotoneaster obtusus, Indigofera heteranthra, Olae Europaea, Parrotia Jacquemontiana, and Salix alba.

A writer in the Bengal Asiatic Society's Journal (vol. xiii. p. 614) mentions that he had seen half a dozen bridges, within as many miles of Cherra, made by intertwining the growing india-rubber tree. The rope bridges of the Panjab Himalaya, made of the twigs of the Parrotia Jacquemontiana, Decaines, have often a span of 300 feet. Lt. Wlicox, in 1825-26, describes a bridge or satlu near the Dihang river, consisting of two strong canes stretched between stages.
BRIDGE.

of bamboo, which are secured in piles of the largest portable stones heaped up around them; the points of suspension were 80 yards distant. A cradle or long basket, in which a passenger may sit or lie, is hung on the canes by two loops, and two or three men pulled it across when loaded.

The three rivers of Western Yunnan are the Lan, Lu, and Lung. The suspension bridges, which are the pride of Yunnan, are all constructed on the same principle,—five or more chains, formed of oval links about 6 inches in the long diameter and ¾ inch thickness, are strained very tightly across, the ends being imbedded in rock or masonry. The way consists of planks laid on these, not suspended from them; and two other chains, hung from massive gatehouses at both ends, form a protection and assistance to the passenger. In some cases the road chains are tied with bars. The bridges vibrate considerably, but the curve is not great.

It is mentioned in the Bengal Asiatic Society's Journal (xiii. 613), that on the top of a huge boulder by the river-side was growing a large India-rubber tree, elapsing the stone in its multitude of roots. Two or three of the long fibres, whilst still easily pliable, had been stretched across the stream, and their free ends fastened on the other bank. There they had struck firmly into the earth, and now formed a living bridge of great and yearly increasing strength. Two great roots run directly one over the other, and the secondary shoots from the upper have been bound round and grown into the lower, so that the former affords at once a hand-rail and suspending chain, the latter a footway. Other roots have been laced and twisted into a sort of ladder as an ascent from the bank to the bridge. The greatest thickness of the upper root is a foot, from which it tapers to six or eight inches. The length of the bridge is above eighty feet, and its height about twenty above the water in the dry season. One bridge measured ninety feet in clear span. They were generally composed of the roots of two opposite trees (apparently planted for the purpose) bound together in the middle.

On the Wa-lingtia, or larger branch of the river, were several other remarkable bridges. One on the suspension principle, across a precipitous gorge on the road between Cherra and Tringhai, was about 200 feet long. It was composed of long rattans stretched between two trees, at a height of forty feet above the river in the dry season. The footway was a bundle of small canes lashed together, and connected with two large rattans forming hand-rails, but these so low and so far apart, that it must be difficult to grasp both together. The hill Kasaimg brought these straps on it, but the War, or men of the valleys, cross it drunk or sober, light or laden, with indifference and security. Still further up the river, and near the little village of Nonpriang, immediately under Cherra, is another specimen of Kasa engineering and ingenuity,—a bridge of about 80 feet span, composed entirely of strong bamboo, bent into a semicircular arch, affording a sound footing and firm rails for the hand.

The bridge has been metaphorically in use with many nations to indicate the means of passage of the soul of the dead. The Zoroastrians were devout believers in the immortality of the soul and a conscious future existence. They taught that immediately after death, the souls of men, both good and bad, proceeded together along an appointed path to the bridge of the gatherer.

Chinvat-neretu (Hang). This was a narrow road conducting to heaven or paradise, over which the souls of the pious alone could pass, while the wicked fell from it into the gulf below, the place of punishment, in the kingdom of Angromanyus. The good soul was assisted across the bridge by the angel, 'the happy, well-formed, swift, tall, Serosh;' and as he entered, the archangel Vohuman rose from his throne, greeting him with, 'How happy art thou who hast here come to us from the mortality to immortality.' Then the pious soul went joyfully on to paradise.

The modern Parsee has still the bridge Chinvat-neretu that leads to heaven; and on life departing, the dog is brought to gaze on the dead (Sag-di!), that it may know when Chinvat may be secured. And the Mahbheshan has the Dari-Sarat, across which the good walk easily, but it is as sharp a razor for the wicked, whom it cuts in two. There is a bridge for the dead in Java, and in N. and S. America. In Polynesia, a canoe is the object typified, as with the Greeks and Romans, with whom a boat was the supposed means of transport. The river Baitaran of Orissa is the Styx of the Hindus.—Drew, The Northern Barrier; Turner; Drs. Clegghorn, Stewart, and Mason; Jour. of Asia, Soc. xiii. p. 614; G. Rucki. ii. p. 389.

BRIGGS, a general officer of the Madras army, author of Letters on India; Translation of Ferishta, Lond. 1829, 4 vols.; A Short Account of the Sheilhy Family, Lond. As. Trans., vol. vi. 77; Description of a Persian Painting, ibid. vol. v. 314; On the Land-tax of India. Editor of the Persian Tarikh-i-Ferishta. He was Assistant Resident at Poona under Mr. Elphinstone as Resident, and was there when the last Baji Rao moved out of Poona and burnt it down. The Residency, and with it his manuscript of the translation of Ferishta. When peace was restored, he retranslated and printed it.—Dr. Buist's Catalogue.

BRIGGS, H. G., author of Cities of Gujarashtra, Bombay 1849; On the Parsees, Bombay 1852; —Dr. Buist's Catalogue.

BRIGU, in Hindu mythology, is a Vedic sage. Many traditions are related of him; his name is frequently found in the Hindu writings.—Cole. Myth.

BRIHADRATHA, of the line of Pandu, father of Jarasandha, one of the Barhadratha dynasty of Indian kings. According to Bunsen, he ruled B.C. 866 to B.C. 847.—Bunsen, ill. p. 547.

BRHASPATI, also Brahmanspathi, a deity of the ancient Hindus, to whom several positions are assigned.—Dowson. See Hindu; Vrishaapati.

BRIHAT - CHAKRAMED. Hind. Sesbania aculeata.

BRIHATCHITRA. Hind. Cassia sappho.

BRIHATEE. Beng. Solanum ferox.

BRHIAT SANHITA, an astronomical work by Varaha Milirn.—Dowson.

BRIJ BHASHA, the Hindi tongue proper. See Braj.

BRIKHOTSARG, Brishotsarga, or Vrishtotsarga, is the marriage ceremony performed in the name of the bull which the Hindus of N. India liberate on the eleventh day of mourning for a near relative. In the Northern Dekhan, in Oudh.
and the N.W. Provinces, these are known as saur (taurus) bijar, and the British call them Brahman bull. They are a nuisance in the streets.

See Banotsary: Jalotsarg.

BRITISH. Hind. Sansk. Pol. that and. Fr. It. Szecheny, POL.

BRISTLES.

Borstels, ... DUT. Ruins, ... MALAY.

Soese, ... FR. Szechetschina, ... POL.

Borsten, ... GER. Schetschina, ... Rus.

Setole, ... IT. Cerdas, Setas, ... SP.

The strong hair from the back of the hog and wild boar, used by brushmakers, shoemakers, saddlers, etc. Russia is the great mart for such bristles. Those of the elephant's tail, hedgehog, and bandyoot rat, are also utilized.—Faulkner: M. Cuthbert, Dict.

BRISYA, called Vishu in the Karnatic. In Hindu astronomy, the 16th year of the cycle of Jupiter.—Warren.

BRITAIN. The United Kingdom of Great Britain and Ireland is a dominion in the extreme west of Europe, which now sways the destinies of British India, and has many colonies. It is ruled over by a sovereign, with responsible ministers, and two Houses of Parliament, viz. the House of Commons and the House of Lords. And for the government of India, there is, in London, a minister with a council of twelve, composed of men acquainted with India; it also sends to British India for administration, a Viceroy and Governor-General, with a Governor for Bombay and one for Madras; appoints councillors and finance ministers, with judges for the High Courts of Calcutta, Madras, and Bombay, and for the North-West Provinces. For the command of the three British-Indian armies, Great Britain sends three Commanders-in-chief, with several generals of divisions. The United Kingdom of Great Britain has many colonies and dependencies. And its entire dominions are usually designated the British Empire in which it rules by means of viceroy, governors-general with councils, governors with councils, parliaments, and commissioners. The area and population are as under:—

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brit. N. America, Gt.</td>
<td>5,438,000</td>
</tr>
<tr>
<td>Britain, and Brit. India</td>
<td>188,514,000</td>
</tr>
<tr>
<td>British Feudatory India</td>
<td>596,700</td>
</tr>
<tr>
<td>Colonies of Great Britain</td>
<td>4,502,000</td>
</tr>
<tr>
<td>161,480,000</td>
<td></td>
</tr>
</tbody>
</table>

In Europe, it includes Heligoland, with five square miles of territory; Gibraltar, with less than two; and Malta with 115,—the last two being military stations, with garrisons amounting to some 14,000 men. The population of Heligoland in 1871 was 1813; of Gibraltar, 26,216; and of Malta, 29,084.

In America, in the Dominion of Canada, a population but slightly exceeding that of Scotland inhabits a country ten times the extent of Scotland, and is increasing steadily, but not rapidly, at something like an average rate of 14 per cent. in the decade. Of the several provinces of which the Dominion is made up, Ontario (which contains the purest Anglo-Saxon population) had in 1871, 1,620,851 inhabitants, Quebec had 1,191,516, and New Brunswick had 285,594, Nova Scotia had 887,900. Prince Edward Island, which joined the confederation in 1873, had 94,021; and Newfound-land numbers 146,000 inhabitants. Besides these are Manitoba (formerly known as the Red River Settlement), British Columbia, and the sparsely-peopled territory formerly ruled by the Hudson's Bay Company.

With the Bermudas, but excluding the unenumerated provinces of the North-West, the total population of this section of British dominions
is set down at 3,789,670, inhabiting an area of 3,376,295 square miles.

The West India Islands, with an area of 13,109 square miles, have a population of a little more than one million, and there is abundant room for the development of the human race in their splendid climate and genial soil. Jamaica, which had 377,000 inhabitants in 1844, and 441,000 in 1861, reached in 1871 the aggregate of 506,154; and in the last ten years there has been no devastating epidemic. In Barbadoes, the black and mixed population is growing in numbers, while the whites are dwindling.

Passing from the islands of the Mexican Gulf to the continent, there is British Honduras or Belize, a dependency of Jamaica, with a population of 24,710, of whom only 377 are whites. British Guiana reckons 193,491 inhabitants, excluding the 'aborigines,' but including 48,976 'coolies,' immigrants from Asia. The Falkland Islands, with 803 inhabitants, close the list of British American possessions.

The African Continent and the adjacent islands, Britain claims 236,800 square miles of territory, peopled by 1,815,450 inhabitants, of which the island of Ascension has 27, and that of St. Helena 6241. On the mainland, Sierra Leone had 38,936 inhabitants in 1871. The Gambia Settlements, 14,190 inhabitants; the Gold Coast about 400,000. The island of Lagos, which was ceded in 1861, has 62,021 inhabitants, of whom 91 are whites. In South Africa, the colonized or partially colonized settlements—the Cape, Griqualand, and Natal—comprise an area of 229,582 square miles, and have an estimated population of 961,505 inhabitants.

In the Indian Seas, the Mauritius, with its dependent islets, has its area of 708 miles, closely packed with a thriving population of 330,400 inhabitants, the Indian immigration numbering here on the census day 153,703. West Australia has not yet been, in the proper sense of the word, colonized, and has only 24,785 inhabitants to its 978,000 square miles of domain. South Australia, with an area of 760,000 square miles, has 185,626 whites and 3365 aboriginal inhabitants. Victoria, with an area of 81,000 square miles, has 731,528 inhabitants (including 17,935 Chinese and 1300 aborigines). New South Wales has on its 323,437 square miles, 503,931 inhabitants, the population in 1821 having been no more than 29,000. Queensland has 120,104 inhabitants. Tasmania's present population of 99,328 is only 10 per cent. greater than that registered in 1861. Norfolk Island contains a total population of 401 souls. New Zealand white population numbered, in 1871, 256,993, while the aborigines (all, except a couple of thousands, established in the North Island) were estimated at 37,500. In 1851 the immigrant inhabitants were only 26,000 in number.

The island of Ceylon showed a population of 2,802,257. Singapore had 97,000 inhabitants: Penang, 67,000; Province Wellesley, 71,000; and Malacca, 77,000. The island of Hong-Kong and the peninsula of Kow-loon have an aggregate population of 120,000.

India is divided into twelve provinces, two ruled by governors, three by lieutenant-governors, and seven by chief commissioners, the Viceroy being supreme over all; it is distributed for administrative purposes into 53 divisions, 231 revenue and judicial districts, and 1114 executive subdivisions. The village is the 'recognised territorial unit,' and averages in area something like the fourth part of an English parish. The population of the British Empire in India under direct British control, in 1881, was 290,217,901; and within its borders, under sovereigns in alliance or as feudatories, the people numbered 43,323,596, being a total of 322,541,210. In British India and its feudatory states, about 190,000,000 profess some form of the Hindu or aboriginal religions, about 45,000,000 are Mahomceans, and 3,000,000 Buddhists and Jains. The empire possesses 7,769,449 square miles of territory. The United Kingdom, 121,508 square miles; the colonies, 6,685,021; India and Ceylon, 902,820. There are 38 persons to a square mile in the empire; 260 in the United Kingdom, 201 in India, and 141 in the colonies. It should be observed, however, that in some parts of India the density of population more than equals that of Britain. The Empress Victoria, seen against the British sovereigns over 234,762,593 acres; her people dwell in 44,142,654 houses.—Times.

BRITISH GUM, Mien kau, Chuix., is made by heating common wheaten flour up to 400° Fahr. It is very useful in the treatment of stanch bandages.—Smith.

BRITISH INDIA is a name which is applied to a great collection of different races, with different religions and different forms of government. Its people, in manners and habits, are as diverse as their climates, or as the plains and the mountains, fruitful valleys and savage jungles, that they occupy. The British are only recent arrivals. In 1825-26 the East India Company established a factory at Armapurā, on the Coromandel coast. In 1826 a mercantile agency was formed at Surat; in 1834 the emperor of Delhi granted permission to trade in Bengal. In 1845, Gabriel Broughton, a ship's surgeon, obtained for the East India Company the additional privilege of planting factories in Bengal. In 1852 the British territory and those of the allied feudatory chief had a population of 25,541,210, as under:

<table>
<thead>
<tr>
<th>Province</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal</td>
<td>68,329,900</td>
</tr>
<tr>
<td>Madras</td>
<td>30,393,131</td>
</tr>
<tr>
<td>Bombay</td>
<td>13,927,485</td>
</tr>
<tr>
<td>N. India</td>
<td>9,210,258</td>
</tr>
<tr>
<td>Assam</td>
<td>8,163,057</td>
</tr>
<tr>
<td>Assam</td>
<td>8,163,057</td>
</tr>
<tr>
<td>N. W. Provinces</td>
<td>32,699,436</td>
</tr>
<tr>
<td>Oudh</td>
<td>11,407,625</td>
</tr>
<tr>
<td>Punjab</td>
<td>18,307,976</td>
</tr>
<tr>
<td>Central Provinces</td>
<td>10,300,495</td>
</tr>
<tr>
<td>Burma</td>
<td>3,707,646</td>
</tr>
<tr>
<td>Coorg</td>
<td>178,283</td>
</tr>
<tr>
<td>Ajmir</td>
<td>433,974</td>
</tr>
<tr>
<td>Berar</td>
<td>2,670,882</td>
</tr>
</tbody>
</table>

The island of Ceylon and the Straits Settlements, though in the East Indies, are British colonies, and are not included in British India.

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The British had been trafficking in the East Indies for some time prior to the grant, by Queen Elizabeth, of a charter to a company of merchants, who, under various re-grants, up to 1653 continued to trade with India, while they were also waging wars with, and acquiring dominions from, its previous rulers. Amongst the earliest of their possessions was the island of Dhoneb, which Charles II. received as a dowry with his Portuguese bride. The British power did not, however, rise to its present magnitude over the ruins of ancient kingdoms, or by dispossessing dynasties that had long held sway. But the fortunes of war set aside a few families whose dominant position was almost ephemeral, and whom the British succeeded in the rule over the various populations. And, briefly, as has been the British dominion, at no period within historic times have so many portions of British India been so long under one paramount rule. The population of all India by the 1881 returns is 252,541,210. Its foreign trade — imports and exports — is £124,840,000, consisting in round numbers of imports, £50,000,000; exports, £74,000,000. Yet, as a recent visitor has well remarked, there has been anything like a British conquest of India. No plan of such conquest was ever formed in Britain. No armament ever left the British shores for such purpose, nor did the British exchequer ever furnish subsidy or supply with that object; and further, no British viking, no one like the Norman chiefs of the middle ages, ever left Great Britain to found a nation or to acquire a principality in the East Indies, but a trading company and their officials gradually became transformed into the most powerful oligarchy that the world has ever seen. The first occasion of the natives of Britain coming in contact with a force of natives of India, was in 1604, when Sivaji attacked and plundered Surat, on which occasion Sir George Oxenden won the applause of Auranz- zeb by an uncommon display of valour. With the foundation of Bombay and the hiring of troops to defend them, was laid the foundation of a central power, which has gradually grown in strength sufficient to control and shelter the various races, and extend its sway from Cape Comorin to the Indus.

Madras was constituted a Presidency in 1639, Bombay in 1662, and Bengal in 1682. In 1773, the Governor of Bengal was made Governor-General of India, with certain powers, chiefly political and financial, over the other two. In 1784, a Board of Control was created in Britain, composed of the king of Great Britain's ministers, who in that capacity bore the title of Commissioners for the Affairs of India; and this system of superintendence continued until the year 1858, when British India was taken under the direct control of the Crown. During that interval the home administrators of India had consisted of a board of 18 members, called the Directors of the East India Company, and the President of the Board of Control. These directors had mostly all the patronage as to appointments, except to the higher offices and commands which were made in communication with the British ministry, who likewise originated all questions of peace and war, possessed the power of reversing the acts of the East India Company and those of the Government of India, and also of sending out instructions on special matters to the Governor-General, without consulting the Directors.

Sir George Birdwood has furnished the following list of the acquisitions of territory:

1754, 30th Dec., the Twenty-four Parganas, from the Nawab of Bengal.
1759, 14th May, Masulipatam, from the Nizam.
1767, 27th Sept., Bardwan, Midnapur, and Chitta-
gong, from the Nawab of Bengal.
1768, 3rd April, Bengal, Behar, and Orissa, from the Emperor of Delhi.
1769, 30th Augt., Chingleput, from the Nawab of Arcot.
1769, 12th Nov., the Northern Circars, from the Nizam.
1775, 21st May, the zamindari of Benares, from the Vizir of Oudh.
1776, 22d May, Salsette island, from the Mahattaras.
1777, 17th June, Nagore, from the Raaj of Tanjore.
1778, 15th Sept., the Guntur Circar, from the Nizam.
1780, Penang island, from the King of Qua Ma.
1792, 17th March, Malabar, Dingilug, Salem, Bara Malal, from Tipu Sultan.
1793-96, Ceylon, from Holland; in 1801, made a colony.
1793, 13th July, Coimatore, Canara, Wynad, Nilgir-
ith hills, from Tipu Sultan.
1795, 25th Oct., Tanjore, from the Raaj of Tanjore.
1800, 12th Oct., the Ceded Districts, from the Nizam.
1801, 31st July, the Carnatic, from the Nawab of Arcot.
1801, 10th Novv., Gorakhpur, Lower Doab, Bareilly, from the Vizir of Oudh.
1802, 31st Dec., Districts in Bundelkhand, from the Peshwa.
1803, 17th Dec., Cuttack and Basarsore, from the Raaj of Sowomtwar.
BRITISH INDIA.

Boundaries.—British India is enclosed on its north, its west, and its east by mountain ranges, amongst which are to be found the highest summits in the world. The seacoast on the south extends from Cape Monze, in lat. 24° 50' N., and long. 66° 43' E., to the Pakhan river in the Mergui district of Tenasserim.

The inland boundary, on the west, extends from the Arabian Sea to the Himalaya, running northward from Cape Monze along the Hala, the Sullman, and the Safed Koh mountains, up to the Kâbul river; thence it skirts the lower slopes of the Himalaya along the plain of Peshawur up to the river Indus, and, crossing this great river, the boundary penetrates the Himalaya up to the north-western extremity of the British district of Hazara, in lat. 35° 2' N., and long. 74° 9' E., separating Kashmir from a group of independent tribes, up to the Chinese province of Hsi Yarkand. The passes through the enclosing mountains are not numerous, and are all difficult, particularly those on the north and on the west. On the north-west are the Khaiber, 3373 feet, and the Kuram, leading into Afghanistan; and on the west are the Gwalari near Dera Ismail Khan, the Tal near Dera Ghazi Khan, and the Bolan, which at top is 5800 feet. The districts on the British side of this western frontier are occupied by many tribes, under the administrative control of the Commissioner of Sind and the Lieutenant-Governor of the Panjab; the foreign side being occupied by similar Baluch, Brahui, and Pathan tribes under democratic constitutions.

On the north, British India is bounded throughout by the Himalayas, the native principality of Kashmir occupying their north-western angle; among their more southern ranges lie the independent states of Nepal and Bhutan and Sikkim; and up to long. 97° 5' E., the mountain face of Assam is occupied by many uncivilised, even barbarous, tribes.

Turning south from Assam in 97° 5' E., the eastern boundary runs conterminous with other tribes, and with native Burma as far as the Karen highlands and the Salwin river, where it joins the frontier of the kingdom of Siam, and runs south with it to the Pakhan river, in lat. 10° 48' 14" N., and long. 98° 55' 40" E.

Several mountain ranges and several rivers traverse the region within these bounds. The Vindhyas north of the Narbada, with the Satpura hills south of that river, separate Hindustan tom the Dekhan, and from prehistoric times their toasts and valleys have given shelter to abandant tribes whom intruding races had driven vast the plains. The Vindhyas run eastwards ruins,ujerat across Malwa and the central parts Sarjooa, rising from 1500 to 4500 feet high, on the Rajmahal Hills jut into the valley of the gharas on long. 80° 45' E., Aoree or pura stretch from east to west for 600 the shore narkantak is their eastern boundary. Mopatax are elevated between 3000 and 4000 Aryabov e the sea.

class the north-east angle of the Himalaya spurs it chains project southwards. They are known knossively as the Abar, Naga, Patkoi, and Barel Siges, culminating, in lat. 22° N., in the Blue mountain, 7100 feet high, and then stretch south under the name of the Arakan Yoma, which also are sheltering many uncivilised tribes. The Arakan Yona range, starting from the Blue Mountain, in 22° 37' N., strikes southwards from the mountains of S.E. Assam, separating Arakan from Independent Burma in the north, and from British Pegu in the south, and terminating at Cape Negrais. The Pegu Yoma, starting from Independent Burma, separates the valleys of Sitang and Salwin, and terminates near the head of the Irrawadi delta. Further southwards, the mountains on the Tenasserim coast mark the boundary line to the Pakhan river, already noticed.

Within these outer barriers are less prominent ranges running north and south, and detached hilly tracts and spurs tenanted by tribes in various stages of civilisation, but mostly of a low type, several of them utterly barbarous, addicted to human sacrifice, and one at least, the Birhor, still cannibal.

On the east of Assam and Bengal, the low ranges and the valleys of Hill Tiperah are occupied by the Tiperah, the Nowattias, and the Rieng populations, numbering 75,792 in an area of 3876 square miles.

The Garo hills, in the S.W. corner of Assam, between lat. 25° 9' and 26° 1' N., and long. 89° 52' and 91° 3' E., are occupied by a race with polyandric customs. The Khasya and Jainits hills have an area of 6157 square miles; they lie between lat. 25° 1' and 26° 14' N., and long. 90° 47' and 92° 52' E. They form the central section of the watershed of the valleys of the Brahmaputra and the Surma. The Garo and the Syn-teng of the Jainits have both fought with the British for independence; the Syn-teng so recently as 1862-3.

In Rajputana, the Aravalli hills, from 6 to 60 miles broad, and rising 1000 to 2555 feet above the sea, run for 300 miles in a N.E. and S.W. direction between the Rajput states and Ajmir-Mahirwarra, dividing the plain of Marwar from the high table-land of Mewar, and merging into the Vindhyas near Abu. It is sparsely occupied by the Mboir and other Mongoloid races. Misairs of the Ajmir-Mahirwarra hill tract are still a small body of 69,234 souls, in an area of 602 square miles. They are brave mountaineers, but were wild and highly predatory, until Lieutenant-Colonel Dixon transformed them into disciplined soldiers.

In Southern India are the Eastern Ghats, commencing in Orissa, and skirting the east coast southwards to Tinnevelly, affording shelter to many large tribes,—Gond, Juang, Kandhi, Saura, Chennur, and Yenadi.

The Western Ghats run from the valley of the Tapti southwards for 800 miles, and terminate in Cape Comorin, presenting several high peaks above Mahabaleshwar above 4000 feet, and in the Nilgherrries up to 8000 feet elevation. In these most northerly parts they give shelter to the Bhil and the Koli, and in their southern forest and hill tracts to the Kadar, Pilliar, Malai Arasar, and Maleali, with Irular, Toda, Badaga, and Kurubar. The great alluvial low-level tract of Northern India, watered by the Ganges and Indus and their tributaries, is known as the Indo-Gangetic plain. It is an immense expanse of flat country stretching from sea to sea, entirely composed of alluvial deposits of very late geological age, and separating the hilly ground of the Peninsula from the various mountain and hill ranges of Sind, the Panjab, the Himalaya, Assam, Burma. The geological formations of the peninsular area are arranged in the
BRITISH INDIA.

Manual of Geology as recent and post-tertiary, eocene, miozoic, paleozoic, and azoic, the last comprising the Vindhyan series, the transition, and the metamorphic or gneissic. The formations in extra-peninsular territories being recent and post-tertiary, plioceocene, miocene, eocene, cretaceous, jurassic, trias, permian, carboniferous, and silurian, and infra-silurian, all the infra-silurian being non-fossilliferous.

Rivers.—The navigable rivers of India are the Ganges, the Indus, the Brahmaputra, the Irawadi. The Ganges rises in the Garhwal State, in lat. 30° 50' N., and 79° 6' E., and enters the Bay of Bengal by many mouths, after a course of 1557 miles. Under the name of Bhagirathi itissue from an ice-cove and the foot of a Himalayan snow-bed, 13,800 feet above the sea. Twelve rivers of British India are deemed holy by the Hindus, and the pushkaram festival is held at them. But the Ganges is the most sacred. To live on its banks, or near it, is a happiness; and to die on its banks, or in its waters, a great privilege. It is used for navigation and for irrigation. Its catchment basin is 391,100 square miles, and maximum flood-discharge 1,500,000 cubic feet per second.

The Jumna, Jamna, or Yamuna, joins the Ganges at Allahabad, after a course of 680 miles. Its source is in Garhwal, in the Himalaya, 5 miles N. of Jumnotri, 10,819 feet above the sea; and its catchment basin is 118,000 square miles. On its banks are the cities of Hamipur, Agra, and Dehli; the eastern and western Jumna canals have been led from it at Faizabad and above Agra, but in the hot weather it dwindles to a small stream. The Jumna at Agra, and at other places, since many years had been bridged by a line of boats, and now splendid railway bridges span it at Dehli, Agra, and Allahabad.

The Brahmaputra river course is 1800 miles; and it is navigable for steamers up to Dibrugarh, 800 miles from the sea. Its drainage basin is 361,200 square miles. Its valley is the province of Assam, and many tribes occupy both its banks. At Golanda, about half-way between the delta head and the sea, the Ganges unites with the main stream of the Brahmaputra, and farther down with the Megna. Their combined waters represent the drainage collected by the two vast river systems from an aggregate catchment basin of 752,000 square miles on both sides of the Himalaya, together with the rainfall poured into the Megna from the Burmese watershed.

The Indus river was known to the Greeks as the Sindhu or Σφογο. It rises in lat. 32° N., and long. 81° E., on the north-western slope of the Kailas mountain, the Sutlej river rising on its southern slope, and the Brahmaputra, under its Tibetan name of Tsang-pu, at some distance from its eastern base, in lat. 31° N., and long. 83° E., and 16,000 feet above the sea, the Dihang river being supposed the connecting link between the Tsang-pu of Tibet and the Brahmaputra of Assam. The Indus pours its waters into the Arabian Sea after a course of 1800 miles, its drainage basin being 372,700 square miles.

The Ravi in the Panjab is the Hydrites of Arrian; the Saptkri, or the Sakrak Airavati. This stream has been utilized to supply the Barī Dōb canal. In March and April its depth on the borders of the district of Amritsar is not more than a foot.

Between June and September it rises to 18 or 20 feet. The main bed alters but little, and the greatest volume of water only floods a mere fringe on either bank. In 1870 it carried away a Sikh shrine near Derā Nanak, and it still threatens damage.

The Irawadi river (Airavati), after a course of 900 miles, disembogues by several mouths into the Gulf of Martaban. It rises, by two branches, from the Patkoi mountains, one of them in lat. 27° 43' N., and long. 97° 25' E., the other a little to the east, the Myit-gye and Myit-gne, which unite about lat. 26° N., and run to the south along a catchment basin of 155,000 square miles. It is 311 miles long. It was explored by Simon de la Loubère, and at Mogong, when at its lowest, the bottom was not sounded at 40 fathoms.

The Kólaḷduṇ or Kuladan, a river of Arakan, is supposed to have its origin near the Blue Mountain (22° 37' N.), and it passes the town of Akyab to enter the Bay of Bengal. It is navigable for 50 miles for vessels of 300 or 400 tons.

The chief rivers of the Peninsula of India, are the Mahanadi, Godavery, Kistna, and Cauvery, and, though not navigable, are valuable for irrigation.

The Mahanadi rises in the Raipur district, in lat. 20° 10' N., and long. 82° 3' E., and, after a tortuous course of 520 miles through the Central Provinces and Orissa, falls into the Bay of Bengal. Its catchment basin is estimated at 43,800 square miles; its flow is rapid, and its flood-discharge 1,500,000 cubic feet per second. An elaborate system of canals has been constructed to husband its water, and designed to irrigate 1,600,000 acres.

The Godavery river, rising near Tribhak, in lat. 19° 55' N., and long. 73° 34' E., 50 miles from the sea, runs through the Hyderabad dominions into the Northern Circars, where it forms a delta of 3000 square miles, and enters the Bay of Bengal by seven mouths (three of which are large), after a course of 898 miles. Its drainage basin, 112,200 square miles. A great dam has been constructed across it at Dowlaishwar, the head of its delta.

The Kistna river is south of the Godavery. It also has been largely utilized for irrigation, by throwing a dam across it at Bezwar. It rises near Mahabaleshwar, in lat. 18° 1' N., and long. 73° 41' E. Its catchment basin is 95,500 square miles, and its maximum flood discharge is 1,188,000 cubic feet per second.

Still further south is the Cauvery, the Xαυρας of Ptolemy, with a river basin of 27,700 square miles. It flows across the southern parts of the Peninsula. It rises in the Western Ghats, in lat. 12° 25' N., and long. 75° 34' E.; and its length is 465 miles. It is one of the twelve holy rivers of the Hindus, who call it the Dakshina Ganga. Crowds of Hindu pilgrims annually visit its banks. Its waters are utilized for irrigation in Mysore and in Coimbatore; and at Srirangam, near Trichinopoly, a prehistoric Hindu king constructed a dam, and led off its waters into the Cauvery proper and Colerun; 385,000 acres in the districts of Trichinopoly, Tanjore, and S. Arcot are now irrigated by it, yielding a revenue of 236,000. In the benefits it bestows on those districts, it rival in usefulness with the canals of the Godavery, the Ganges, and the Indus.

In the river system of British India there is
peculiarity which merits notice. Shortly after issuing from the mountains among which they rise, the rivers run through low-lying valleys to the sea. Their fall is so gentle, that, following their windings for even 1000 miles from the ocean, they are still found in beds only seven or eight hundred feet above the level of the sea. Where the united streams of the Panjab join the Indus, the altitude is only 363 feet at a distance of 450 miles from the sea; the confluence of the Ganges and Jumna at Allahabad, 846 miles from the sea, is 340 feet. This peculiarity is the more worthy of notice, because, throughout these territories, there are no natural inland lakes or seas which can be used for commerce, most of them being only fit for purposes of irrigation. The largest natural waters in the country are equalled, and in many cases surpassed, by the magnificent tanks which have been formed in several places by throwing embankments across great valleys. The many shallow marine lagoons, known as backwaters, found running close around the shores of the Bay of Bengal and of the Indian Ocean, some of them from 20 to 50 miles long, are, however, well meriting notice, and greater attention than has hitherto been given to them, as they afford facilities for a safe inland traffic along the coast line, the violence of the monsoons and the few sheltered harbours on the eastern coast of the Peninsula rendering navigation at times perilous, and periodically impossible. After the East India Railway was opened, steamers ceased to ply upon the Ganges, but they still run on the Brahmaputra and its tributary the Barak, also on the Irrawaddy, and on the Indus.

Ancient India.—Dr. Vincent was inclined to believe that in the very earliest ages, even prior to Moses, the communication with India was open; that the intercourse with that continent was in the hands of the Arabsians; that Thebes had owed its splendour to that commerce; that Memphis, from the same cause, came to the same pre-eminence, and Cairo succeeded to both in wealth, grandeur, and magnificence. Passing by the mythological Bacos, also Semiramis, queen of the Assyrians, who is said to have crossed the Indus about B.C. 1960, and to have been defeated by Sabrobrates, also Sesostris, king of Egypt, who is said to have led an army to the Ganges B.C. 1308, we come to the first mention in the Bible, of India, by that name, in the book of Esther about B.C. 450.

Of the ancient dynasties who ruled in India, Colonel Tod, in his Rajasthàn (t. p. 44), endeavoured to bring together what was known of the Solar and Lunar races. The wretches of almost all the vast cities founded by them are not yet to be traced in ruins,—the cities of Ishwara and Rana on the Sarag, Indraprestha, Mathoora, Scoopora, Poorag on the Yamuna, Hastinapura, Canayucuba, Rajgrah on the Ganges, Maheswar on the Narbada, Aron on the Indus, and Koonauthuli Dwaria on the shore of the Arabian Sea.

Menz calls India Aryavarta, the abode of the Aryas. Bharata or Bhṛata-varsha is the classical Sanskrit name; and in Sanskrit poetry it is mentioned as Jambu-dwipa. The name as known to Europeans is derived from the river Sindhu, pronounced by the Aryans Hindu, and known to Europe as the Indus. The Greeks named the people Ἰδρότης. The seven rivers, Sapta Sinduvah, in old Persian or Zand were called Hapta Hindu; and to the present day, all along the western frontier of British India, a and b continue interchangeable.

The first Greek who speaks of India by name is Herodotus of Miletus, B.C. 459-466. Herodotus, who wrote about B.C. 450, appears to have heard but indistinctly of any but the western part of it, and that only by its being tributary to Persia. He informs us (book iv.) that Durian Hyætæpes had despatched Scylax of Caryandra to explore the Indus, about B.C. 508, and that he departed from Caspatyrus and Patya, which were situated near the head of the Indus. Herodotus continues to say that the Indians who inhabit towards the north, and border on these territories of Caspatyrus and Fason resemble the Bactrians (that is, their neighbours) in manners, and are the most valiant people of all India. The eastern part of India, says he, is rendered desert by sands; which description applies only to the country lying east of the Indus and south of the Panjab, and this was the eastern limit of Herodotus knowledge. Following him, Ctesias, the physician, B.C. 401, brought back from his residence in Persia only a few facts about the products of India.

Prior to Alexander the Great, B.C. 327, there are doubts as to anything historical in the Indian accounts, for the Sanskrit-speaking Indians had no historical pursuits; and east of the Indus was earliest made known by the learned men who accompanied Alexander, and particularly by the writings of Megasthenes, who, B.C. 306-298, was the Greek ambassador at the court of the Hindu prince of Pataliputra-pura. Other of the Greek writers say we have lost, but Strabo, Pline, and Arrian have given us in thin or thick.

Most of the writers about Alexander call the inhabitants of the hilly region to the south of the main ridge of Caucasus and near the Indus, Indians, and also mention an Indian tribe or nation who inhabited the seashore on the western side of the Indus; and close to the Indus, especially on the lower part of its course, there were other Indian tribes, though less considerable than those two. The Indians on the seashore were named Orità and Arabitae, and are recognised by Major Rennell (Memoir, p. 21) as the people called Asiatic Ethiopians by Herodotus. Their country was the narrow tract between the mountains of Baluchistan and the sea, separated from Makran on the west by the range of hills which form Mount Arbo, and on which still stands the famous Hindu temple of Hinglez. The Indians whom Herodotus includes within the satrapies of Xerxes, are probably the more northern ones under Caucasus, for he mentions (Thalia, pp. 101, 102) that those in the south were independent of the Persian monarchy. Arrian (Indic, pp. 8, 9) denies the alleged invasions of Bacos, Hercules, Semiramis, Sesostris, and Cyrus; and Strabo (lib. xv. near the beginning) denies the mythological invasions, adding that the Persians hired mercenaries from India, but never invaded it (see Diodorus, lib. ii.). The other Greek writers, though they speak of Indians beyond the Indus, strictly limit India to the eastern side of that river; and Arrian, though he called the mountaineers Indians, from the place where Alexander entered Paropamisis, is careful to explain that India lies east of the Indus; and Strabo (lib. xv.) declares the Indus to be the western boundary of India from the mountains to
the sea. Pliny, indeed, states that some consider the four satrapies of Gedrosia, Arachosia, Aria, and Paropamisus to belong to India, but this would include two-thirds of Persia. The ancient Sanskrit writers also regard the Indus as the western boundary of India, and class the nations beyond it as Yavana and barbarians; and there is a tradition that Hindus ought not to cross that river, the town of Attock taking its name from this prohibition. Later on, the countries between Hindustan and China came to be called the Further India, or India extra-Gangem; whereas Hind, or India, was restricted to the country of the people called Hindus or those of India intra-Gangem.

Conquerors from the North-West.—From the earliest historic times, Persian, Greek, Scythic, Arab, Turk, Moghul, and Afghan conquerors from the N.W. have been coveting the wealth and the fertile plains of the Gangetic valley, and dynasties professing Buddhism, Hinduism, and Mahomedanism have been striving for possession within.

Scythic races appeared in India in the early centuries of the Christian era. They came from the inhospitable mountain and desert lands in the north and north-west; and after them Turk, Moghul, Arab, and Afghan have continued to the present day to seek dominion in the more genial climate of India, and to engage in its commerce. Darius Hystaspes, b.c. 518, had conquered to the N.W. part of it. The Greeks appeared under Alexander b.c. 327-325, and under Seleucus b.c. 312, and Menander b.c. 181-161. During his two years' campaign in the Panjub and Sind, Alexander captured no province, but he made alliances, founded cities, and planted Greek garrisons. At Taxila (Dera Shahan) and Nikaia (Mong) in the Northern Panjub, at Alexandria (Uchhi) in the Southern Panjub, at Patala (Hyderabad) in Sind, and at other points along his route, he established military settlements of Greeks or allies. A body of his troops remained in Bactria; and in the partition of the empire after Alexander's death in 323 b.c., Bactria eventually fell to Seleucus Nicator, the founder of the Syrian monarchy.

During the next six hundred years the Greeks were followed by Scythic tribes of the Su, the Saka, the Hun, the Naga, and the Geta, who made continuous, several of them successful, efforts to remain. About b.c. 126, the Tartar tribe of Su are said to have driven out the Greek rulers from Bactria. The Greco-Bactrian settlements in the Panjub were overthrown by the Yue-Chi; and during the rule of Kanishka, who held the fourth Buddhist council about a.d. 40, Scythic settlements were formed as far south as the districts now known as the Central Provinces. Scythian races more than once overthrew Scythic rulers and more than once sustained great defeats; but some of the Rajput dynasties, and also the Jat, the ancient Geta, now about 9,000,000 in the Panjub, retained a permanent hold on the country east of the Indus and southwards to the mouth of that river, and Jat princes are still ruling in Bhatpur and Dholpur.

The Sah of Saurashtra (b.c. 70 or 60), the Gupta of Kanauj (a.d. 319-470), and the Valabhi of Cutch (a.d. 480-722), seem to have opposed successive hordes of Scythians. But Mr. Ferguson believes that it was the White Huns who overthrew the Gupta dynasty between a.d. 450 and 475, and that the Saka and the Hun were finally defeated at the great battles of Kauru, near Multan and Maushari, which that learned writer supposes to have been fought between a.d. 526 and 644.

During these struggles for dominion, Vikramaditya, a king of Oojain, about b.c. 57, drove back one Scythic invasion, and his victory gave rise to the Samvat era still current in India. Salivahana, another king of Southern India, is supposed to have successfully checked another Scythic invasion, a.d. 78, from which event the Saka era is reckoned; but the impulse was not permanent, for Kosmas Indicopulestes, who traded in the Red Sea about a.d. 585, speaks of the Huns as a powerful nation in Northern India in his day.

Tradition names Nushirwan, king of Persia a.d. 521-579, as having invaded Western India and left descendants there; but from that time till near the 19th century, it was Arab, Turk, Moghul, and Afghan races who were the invaders, till Portuguese, British, Dutch, Danish, and French appeared on the scene.

The Khilaf Urjan (a.d. 636) sent an expedition to Thanesar and Broach. A few years later (a.d. 662 and 664), raids were made towards Sind, which the youthful Kasim (a.d. 712-714) conquered, again to be lost and again regained (a.d. 828), only to be finally lost again.

The Valabhi dynasty of Cutch, Malwa, and the N.W. districts of the Bombay Presidency (a.d. 490-722), seem to have been overthrown by the Arab invaders of Sind in the 8th century; and since then the Mahomedan dynasties who have ruled in India have come from Central Asia, and their families have reigned for various periods from 20 to 331 years.

The Jat settled in the country as cultivators of the soil, and they continue to the present day engaged in husbandry, but with the Mahomedan dynasties, the Turk Mahmoud, the Moghul Timur, the Persian Nadir, and the Afghan Ahmad seem to have been attracted by the hopes of plunder. Mahmoud of Ghazni twelve times (a.d. 1001-1026) made inroads on the south-western parts of the country, carrying back with him immense wealth; Timur (a.d. 1398-99) sacked Delhi and Meerut, and left fifteen years of anarchy, famine, and pestilence behind him. Nadir Shah (a.d. 1738-39) took away with him from Delhi eight or nine millions in gold and silver money; Ahmad Shah, in his invasions, obtained the Panjub (1751-52) and sacked Delhi (1756); and his invasion of 1759 led to the assassination of Alamgir II, but after he overthrew the Mehrattas at Paniput (1761) he left India never to return to it.

The duration of such the invading dynasties as obtained a hold of the country, was as under:—

- House of Ghazni (Turki), a.d. 1001-1186
- Delhi (Aurangzeb), a.d. 1186-1326
- Slave Kings (scythic Turk), 1290-1529
- House of Khilji (Turki), 1290-1320
- Timur (Moghul), 1320-1444
- Moghul, 1526-1857
- Sikh, 1857-1900
- Lodi (Afghan), 1450-1556
- Baber (Moghul), 1526-1530

Whilst these races were striving for the possession of the Indo-Gangetic plain, several dynasties of prior occupants in the south of India were overwhelmed by Mahomedan armies, and families professing Islam formed kingdoms in Gujerat, Kuburkha, Beder, Golconda, Bijapur, Ahmadnagar, Malwa, Kandeeli, Bengal, Berar, Sind Hyderabad, Mysore, and Arcot.
In the 14th century (1347), Hasan Gaung, surnamed Bahmani, headed a successful rebellion in the Dekhan against Mahomed Taghlaq, and drove the army of Delhi across the Nerbada. Hasan was an Afghan of humble origin, but had attained distinction in the Peninsula, and, declaring for independence of the empire, he fixed his capital at Kaliburg. His descendants reigned 179 years (1347-1526), through thirteen generations. Their territory, when at the height of their power, comprised the central parts of the Dekhan from sea to sea, and from Berrar in the north, southwards to Conjeevarum; and when at length the dynasty became extinct, several smaller houses assumed sovereignty:—

Adal Shahi of Bijapur, 1489-1579
Nizam Shahi of Ahmadnagar, 1490-1505
Kutub Shahi of Golconda, 1512-1580
Imad Shahi of Berrar, 1484-1569
Barid Shahi of Bidar, 1498-1572

Almost contemporaneously (1336-1565) a Hindu race had been dominant at Vijayanagar. But it fell to a combination of four of these Mahomedan dynasties, who were victorious at Taltika. The aged monarch, Rama Raja, was taken prisoner, and put to death by the Kala-Chattras in cold blood. The Vijayanagar monarchy at that time consumed almost all the south of India, but mutual jealousies prevented the victors from extending their respective frontiers, and they, too, in succession shortly disappeared.

During the 14th and 16th centuries, Bengal, Kandesh, Malwa, and Gujerat saw many changing Mahomedan monarchies; but in the 17th century (1662) a great Hindu power was formed in the Peninsula by Sivaji, a Maharrat, a brave and skilful leader, between whom and the Mahomedans no faith was held, and, on his death, a Brahman tribe, with the title of Peshwa, continued to direct the energy which Sivaji had evoked. The emperor of Delhi, Aurangzub (Alamgir I.), during a long life stove to hold the Central Dekhan, but from his death, A.D. 1707, the Moghul dominion there was practically at an end, and for the next fifty years the empire even of all India was uncertain. The separate Maharratas of Poona and the Moghuls of Delhi. The Peshwas, however, never recovered from the destruction of their army at Paniput (1761); and the British under Clive, and Hastings, and Coote, and Laurence, and Hector Munro, obtained a prominence which they still maintain; the Maharrata territories of the Peshwas became partitioned into many separate states, often at war,—Kolhapur, Satara, Gujerat, Gwalior, Indore, Tanjore, and Berrar, with many Hindu chiefships along the valleys of the Kistna and its affluents. During the convulsions, Mahomedans of Arab, Afghan, Pathan, and Turk descent seized on Cuddapah, Hyderabad, Kurnool, Banaganapally, the Carnatic, and Mysore; chief officers of the Maharratas retained the jaghir lands which had been assigned for their own followers and that of their followers; and rajas of Sundur, Mudhol, Akalkot, and sirdars of the Dekhan, still hold these estates. The power of the Wadoja family of Aroost in the Carnatic, closed after a few troubled years. Hyder Ali and his son Tipu, after a brief sway in the Mysore, which they had won, were followed by a Hindu monarch. Numerous Hindu polygar chiefs apportioned among themselves the lands of the Pathans of Cuddapah; Satara, Berrar, and Tanjore disappeared as Maharrata dynasties; and in 1859 the Pathan ruler of Kurnool, dreaming of conquests, was overthrown in battle at Zorapore.

In the north-west, since many thousand years, the Panjab has been a battle-field of the races contending for empire; and within historic times, Greek and Sceytian, Hindu and Buddhist, Turk and Mongul, Aryan, Persian, Afghan, and British have been there. At the close of the 17th century, Ranjit Singh, an able ruler of the Sikhs, established his sway over all the parts of it west of the Satlej, and he conquered also Kashmir. But anarchy followed his death (1839); and the latest contest for dominion was by the East India Company, who fought for safety at Moodkee, Firuzshah, Ailwah, and Sobraon in 1845, and at Gujerat in 1849, on which maharaja Dhunip Singh transferred his sovereignty to the British. A few years later on (1856), the king of Oudh, hereditary wazir of the Moghul empire, was set aside for utter misrule. The following year the titular Moghul dynasty of Delhi threw in their lot with mutineers, and were swept away. And the Mahomedan states of Hyderabad, Bhopal, and Banganapally, with the Hindu kingdoms of Bhatpur, Dhopol, Baroda, Cochin, Mysore, Jodhpur, Oodeypur, and Travancore in Hindustan, in Rajputana and in the Dekhan, respectively dynasties among the princes of India,—the most ancient, perhaps, in the world, being the Rajput houses of Oodeypur and Jodhpur.

Within historic times, except for brief intervals and in very small principalties, the ancient people of India have never had rulers of their own races. Periodical literature not infrequently alludes to British domination as a foreign rule. But the imperial dynasties ruling from Delhi had merely a military occupation; the cultivators of the Rajput states, and of the Gaekwar, of Holkar, and of Sindia, are largely of the Kurni, Kunbi, Kachhi, and Mali races, and of the aboriginal Gond, Koli, Meena, Mhair, Bibi, and others. Hyderabad, in the Dekhan, is a very compact Mahomedan state, with eleven millions of population, but its people are almost all Telug, Cunararch, Mahratta, and Gond, in nearly equal numbers. The language of Mysore is of a most varied character; and the Hindu kingdom of Travancore, another compact state, has rulers of the Nair race, and the bulk of their subjects professing some form of Hinduism, has only 440,952 Nair in a population of 2,311,379.

Cities.—With such continuous revolutions, the people have never had time to collect into large town populations. Tradition tells of Ajodhya as a great city, covering an area of ninety-six miles, but there are now, perhaps, more large towns than India has ever before known, and even yet only 139 of them have more than 20,000 inhabitants. The former unsettled state of the country, and the craving of the people for protection in their peaceful labours, are well illustrated by the histories of the struggle between the British and the Calcutta, Madras, and Bombay. At these three cities, fortresses were erected by the British, and the people have gathered around them. The great capital of British India, which now contains a population of 794,645 souls, was, at the close of the 17th century, a cluster of three small mud hamlets. The only previous notice of ‘Kalikata’ is a brief entry of it as a rent-paying village in the emperor
Akbar's great statistical survey of 1596. But in 1868 the English merchants at Hoogly, being compelled to quit their factory in consequence of a rupture with the Mogul authorities, retreated, under their president, Job Charnock, to Sutiahati, a village on the east bank of the river, now a northern quarter of Calcutta. In 1696 they built the original Fort William, and a few years later purchased the three villages of Sutiahati, Kalikata, and Govindpur from Prince Azim, son of the emperor Aurangzeb. But with the security given by its fortress and its bordering river, the population is now approaching a million of souls.

Madras, as it is called by the British, is still only known to the people as a collection of several hamlets, Chinpatsu, Mutulpat, Vepery, Nangambikam, and others. In March 1689, Francis Day, chief of the commercial settlement at Aram- gon, obtained from the representative of the Vijayanagar dynasty a grant of the site on which Madras now stands, and a factory with some slight fortifications was at once constructed. It may be doubted if there were a thousand people in all the hamlets. But the natives settled around the factory, a better fort was built, and at the census of 1881 the population numbered 406,117.

Bombay Island formed part of the dower of Catharine, queen of Charles II. of England, who in 1668 transferred it to the East India Company for an annual payment of £10. The population was estimated at 10,000 souls. The Company strengthened the fortifications; in 1673 the inhabitants numbered 60,000; piracy was put down; its island position further protected it, and in 1881 its population had increased to 773,196.

Similar increments are going on in and around all the sites taken up by the British as canto- ments and military stations. Secunderabad, for instance, had no existence until the British Sub- sidiary force, during the reign of Secunder Jah (1808), encamped on its present site; but its inhabitants in 1868 numbered 32,000 in 7938 houses.

In the war with Burma of 1852-53, Rangoon, on a branch of the Irrawaddy, was taken by the British, and its population was estimated at 25,000; in 1872 it had 89,897 (99,745) inhabitants, but in 1881 its population reached 134,176 souls.

The great towns, Calcutta, Bombay, Madras, Rangoon, continue to attract immigrants from all parts of Asia. The 1881 census showed the foreign residents to be—Asiatics not natives of India, 540,989; British, 75,754; Europeans, 38,463; Africans, Americans, Australians, 6961.

The 540,989 Africans and Asians not natives of India comprised—

**Abdansians**, 60; Jews, 7,828; Afghans, 3,191; Malay, 1,493; Arabs (Bombay 6008), 5,311; Meckrani in Kuruch, 5,285; Armenians, 1,254; Manipuri (in Assam), 11,866; Balouch, Panjap, 235,123; Nepalese, 31,192; "Boonj", 144,772; Parsee, 68,476; Bhutan in Assam, 339; Persian, 5,946; Brahui, 845; Siamese, 58; Kashmiri, 142; Syrian, 69; Chinese (Burma 12,169), 928; Others, 13,340; 2,056.

Most of the Parsees are permanent residents, and portions of the others must also be so classed, but the numbers suffice to show the continuous stream of immigrant races.

On the other hand, several of the Kolarian and Dravidian races emigrate freely. Rangoon, Tavoy, Mongui, Malacca, Penang, and Singapore contain many of them; and the more distant Mauritis, Bourbon, S. Africa, West Indies, and Central America have received numbers. From 1876-77 to 1880-81, the following—

1876-77 Left British India 10,036 Returned, 4,485
1877-78 25,219 4,400
1878-79 22,092 5,568
1879-80 17,728 7,768
1880-81 16,794 7,061

**Population.**—The census taken of India in 1881 has not yet (October 14, 1882) been checked. It showed a population of 252,641,210 in an area of 1,477,768 square miles. In these numbers, however, are included provinces which are British proper, and also territories belonging to native princes and chiefs under subsidiary, or other alliance, as here shown:

**British Districts**

<table>
<thead>
<tr>
<th>Province</th>
<th>Popu.</th>
<th>Area. Sq. m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal (Sikkim wanting)</td>
<td>68,280,920</td>
<td>115,997,401</td>
</tr>
<tr>
<td>Madras</td>
<td>30,893,181</td>
<td>140,383,226</td>
</tr>
<tr>
<td>Bombay Brit. territory</td>
<td>13,079,488</td>
<td>126,445,190*</td>
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<tr>
<td>Bombay Native States</td>
<td>6,941,651</td>
<td>96,309,786</td>
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<tr>
<td>Assam</td>
<td>4,813,157</td>
<td>33,420,493</td>
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<tr>
<td>N.W. Provinces</td>
<td>32,690,436</td>
<td>81,748,760</td>
</tr>
<tr>
<td>Oudh</td>
<td>11,407,025</td>
<td>33,420,493</td>
</tr>
<tr>
<td>Punjab Brit. territory</td>
<td>18,786,107</td>
<td>107,010,168</td>
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<tr>
<td>Catharine, Lahoul, Spit, and Hazara excluded</td>
<td>11,565,149</td>
<td>84,928,707</td>
</tr>
<tr>
<td>British Burma</td>
<td>3,707,646</td>
<td>57,279,413</td>
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<tr>
<td>Coorg</td>
<td>476,292</td>
<td>1,573,955</td>
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<td>Ajmar</td>
<td>452,073</td>
<td>2,711,107</td>
</tr>
<tr>
<td>Berar</td>
<td>2,070,992</td>
<td>229,267,164</td>
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<tr>
<td>Mahom ed Native States</td>
<td>4,186,399</td>
<td>24,744,169</td>
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<tr>
<td>Baroda</td>
<td>2,134,469</td>
<td>4,399,162</td>
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<tr>
<td>Travancore</td>
<td>2,404,158</td>
<td>6,383,500</td>
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<td>Cochin</td>
<td>699,278</td>
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<td>Rampur</td>
<td>545,152</td>
<td>945,254</td>
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<tr>
<td>N.W. Provinces</td>
<td>3,859,252</td>
<td>41,743,760</td>
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<td>Punjab</td>
<td>5,370,096</td>
<td>130,988,777</td>
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<tr>
<td>Khanship woods</td>
<td>3,123</td>
<td>1,061,933</td>
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<tr>
<td>Calcutta</td>
<td>9,208,881</td>
<td>89,988,984</td>
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<tr>
<td>Hoogly</td>
<td>9,107,789</td>
<td>43,283,566</td>
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<tr>
<td>Berar</td>
<td>252,541,210</td>
<td>176</td>
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**French Possessions**

<table>
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<tr>
<th>Province</th>
<th>Popu.</th>
<th>Area. Sq. m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portuguese Possessions</td>
<td>444,617</td>
<td>729,039</td>
</tr>
</tbody>
</table>

*Excluding Sind.

Enumerations of the British territories had been previously made between the years 1866 and 1875, and the following is a comparative state- ment of populations according to census of 1881 and the previous census:

<table>
<thead>
<tr>
<th>Province</th>
<th>Census of 1881, both sexes</th>
<th>Census of 1875, both sexes</th>
<th>Year of Census</th>
<th>Difference p.c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal</td>
<td>68,280,920</td>
<td>62,700,407</td>
<td>1871</td>
<td>+ 9%</td>
</tr>
<tr>
<td>Assam</td>
<td>4,815,337</td>
<td>4,009,974</td>
<td>1871</td>
<td>+ 20%</td>
</tr>
<tr>
<td>Madras</td>
<td>30,893,181</td>
<td>31,507,872</td>
<td>1871</td>
<td>- 2%</td>
</tr>
<tr>
<td>Bombay</td>
<td>13,079,488</td>
<td>14,038,350</td>
<td>1872</td>
<td>- 7%</td>
</tr>
<tr>
<td>Do. Native States</td>
<td>6,941,651</td>
<td>6,786,885</td>
<td>1872</td>
<td>+ 2%</td>
</tr>
<tr>
<td>Total</td>
<td>20,200,119</td>
<td>20,825,214</td>
<td>1872</td>
<td>+ 10%</td>
</tr>
<tr>
<td>N.W. Provinces</td>
<td>22,092,486</td>
<td>20,709,056</td>
<td>1872</td>
<td>+ 10%</td>
</tr>
<tr>
<td>including Rampur and Native Garhwal</td>
<td>12,044,904</td>
<td>12,044,904</td>
<td>1872</td>
<td>0%</td>
</tr>
<tr>
<td>Oudh</td>
<td>11,407,025</td>
<td>11,239,675</td>
<td>1872</td>
<td>+ 1%</td>
</tr>
<tr>
<td>Punjab (Brit. terr. only)</td>
<td>18,786,107</td>
<td>17,411,498</td>
<td>1872</td>
<td>+ 7%</td>
</tr>
<tr>
<td>Central Provinces</td>
<td>3,859,252</td>
<td>4,009,974</td>
<td>1872</td>
<td>+ 5%</td>
</tr>
<tr>
<td>Berar</td>
<td>2,070,992</td>
<td>2,265,149</td>
<td>1872</td>
<td>- 8%</td>
</tr>
<tr>
<td>British Burma</td>
<td>3,707,646</td>
<td>3,007,412</td>
<td>1872</td>
<td>+ 24%</td>
</tr>
<tr>
<td>Coorg</td>
<td>2,404,158</td>
<td>2,098,850</td>
<td>1872</td>
<td>+ 14%</td>
</tr>
<tr>
<td>Ajmir</td>
<td>455,675</td>
<td>420,263</td>
<td>1872</td>
<td>+ 8%</td>
</tr>
<tr>
<td>Baroda</td>
<td>2,104,469</td>
<td>2,098,850</td>
<td>1872</td>
<td>0%</td>
</tr>
<tr>
<td>Travancore</td>
<td>2,404,158</td>
<td>2,098,850</td>
<td>1872</td>
<td>+ 14%</td>
</tr>
<tr>
<td>Cochin</td>
<td>600,278</td>
<td>611,144</td>
<td>1872</td>
<td>- 2%</td>
</tr>
</tbody>
</table>

Grand total of 17 Provs. 218,559,916 306,771,558
Provinces in India according to (unchecked) census of 1881, and total of sexes in previous census:

<table>
<thead>
<tr>
<th>Province</th>
<th>Population according to Census of 1881</th>
<th>Previous Census</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Both sexes</td>
<td>Males</td>
</tr>
<tr>
<td>Bengal</td>
<td>65,296,609</td>
<td>32,410,095</td>
</tr>
<tr>
<td>Assam</td>
<td>4,513,187</td>
<td>2,265,433</td>
</tr>
<tr>
<td>Madras</td>
<td>30,060,191</td>
<td>14,736,122</td>
</tr>
<tr>
<td>Bombay</td>
<td>13,978,488</td>
<td>7,110,924</td>
</tr>
<tr>
<td>N.W. Provinces</td>
<td>6,080,832</td>
<td>2,573,553</td>
</tr>
<tr>
<td>Bihar</td>
<td>2,404,924</td>
<td>1,311,066</td>
</tr>
<tr>
<td>N.W. Provs.</td>
<td>32,099,430</td>
<td>17,014,026</td>
</tr>
<tr>
<td>Rajput</td>
<td>545,162</td>
<td>284,503</td>
</tr>
<tr>
<td>Nat. Gwalib</td>
<td>200,225</td>
<td>102,044</td>
</tr>
<tr>
<td>Total</td>
<td>38,445,111</td>
<td>17,477,657</td>
</tr>
<tr>
<td>Patna</td>
<td>11,407,665</td>
<td>5,860,960</td>
</tr>
<tr>
<td>British ter.</td>
<td>118,276,107</td>
<td>10,189,727</td>
</tr>
<tr>
<td>Native States</td>
<td>3,855,323</td>
<td>2,106,550</td>
</tr>
<tr>
<td>Khyber Pass.</td>
<td>8,113</td>
<td>7,757</td>
</tr>
<tr>
<td>Total</td>
<td>22,047,542</td>
<td>12,304,054</td>
</tr>
<tr>
<td>Central Provs.</td>
<td>11,509,149</td>
<td>5,761,889</td>
</tr>
<tr>
<td>Benal</td>
<td>2,670,992</td>
<td>1,378,507</td>
</tr>
<tr>
<td>Bihar</td>
<td>7,839,169</td>
<td>3,761,889</td>
</tr>
<tr>
<td>Mysore</td>
<td>4,176,399</td>
<td>2,090,960</td>
</tr>
<tr>
<td>Coorg</td>
<td>178,283</td>
<td>100,854</td>
</tr>
<tr>
<td>Native States</td>
<td>111,005,328</td>
<td>No sex details</td>
</tr>
<tr>
<td>Ajmer</td>
<td>453,364</td>
<td>224,333</td>
</tr>
<tr>
<td>Central India</td>
<td>9,200,881</td>
<td>4,448,796</td>
</tr>
<tr>
<td>Baroda</td>
<td>2,154,469</td>
<td>1,142,321</td>
</tr>
<tr>
<td>Hyderabad</td>
<td>9,131,556</td>
<td>4,568,144</td>
</tr>
<tr>
<td>Travancore</td>
<td>2,401,158</td>
<td>1,197,334</td>
</tr>
<tr>
<td>Cochin</td>
<td>600,275</td>
<td>301,415</td>
</tr>
<tr>
<td>Grand total</td>
<td>262,541,210</td>
<td>123,211,327</td>
</tr>
</tbody>
</table>

* Population details for Sikkin district. Excluding Naga hills; not censused.
* # Excluding population of the Lahoul, Spiti, and Hazara districts; not censused.
* « Approximate.
* + Including population details for the Paghani districts wanting.

Food and Races.—Taking the populations and their means of subsistence, from the purely agricultural point of view, the country, as a whole, is under-peopled. In certain districts in Bengal and the N.W. Provinces, there are more cultivators than the land actually requires; but in Assam, the Panjabs, Sind, the Madras plateau, and Burma, there are vast tracts of arable land unoccupied. Even in portions of Bengal there are still reserves of virgin soil. The difficulty is to induce the population to distribute itself; though several of the races of India, the Tamil, and Telug, and Dhangar, in particular, freely emigrate to remote countries.

The supremacy of British India, while it has brought peace within the borders and improved the condition of the inhabitants, has not been unattended with difficulties, and the famine, which was kept down by the wars, pestilences, and famines of former times, has rapidly increased. In the ten years 1871 to 1881, the increase was 12,788,865, notwithstanding the occurrence of a severe famine, causing great loss of life in Mysore, in the Carnatic, in parts of Bombay, and in the N.W. Provinces. In the year 1789, one-third of the land lay unoccupied, but many jungle tracts and swamps have since been reclaimed. Some districts and provinces have become over-peopled; the surplus of some of the races is emigrating to Ceylon, to the Malay countries, to the Mauritius, Bombay, Africa, South America, and the West Indies; and the Government of India is looking at carelessly-peopled Burma as a country to be filled. In Burma, Assam, Berar, and Sind, the increase was the greatest; but in the years 1876 and 1877, a severe famine, and consequent disease, occurred in parts of the Peninsula, which carried off numbers, and in the decade the decrease in the Bombay Presidency was 93 per cent., in that of Madras, 23 per cent., and in Mysore, 1,130,987, or 17 per cent.

During the decline of the Moghul empire and the raiding expeditions of the Marathas, several of the predatory races were actively plundering; armed bands of dacoits made their attacks on large towns; and the armed and disciplined bodies known as Pandaras, composed of all races, traversed the country, till they were finally swept away in the war of 1817–18–19.

But the greatest alteration in the mutual habits of the people has occurred amongst the north-west frontier tribes, who have long been inured to war. When first, after the fall of the Sikh power, the British came in contact with the Pathan, Brahui, and Baluch races of the N.W. Frontier, not a year passed by without raids on the Indian territories, and armies were needed to repel them; but these raids are now extremely rare, and the democratic Councils are ready to afford redress. Perhaps the most remarkable instance of civilising a border race has occurred with the Karen on the borders of British Burma, where the Baptist missionaries, and notably Dr. and Mrs. Mason, have done more to subdue and civilise that race than armies could have accomplished.

India is pre-eminently agricultural. The (uncheck) census shows that the adult male population in 1881 was 62,092,461. Of these, 37,395,655 were engaged in agriculture, 8,137,082 were then labourers, and 8,749,270 were engaged in industrial occupations. Thus the latter, 156,450, are domestic servants, 3,425,738 in commerce, and 2,401,630 in professions and Government service.

The bulk of the agriculturists profess some form of Hinduism. In the extreme south of the Peninsula, the Tamil-speaking race, who assume the titular designations of Mudali and Pillai, are there the most numerous; further north are the Carnatic-speaking race, who are all agricultural; several tribes in Telengana, the Reddis, the Naidu, the Kamavaras, westwards as far as Beder, and southwards to Mysore and the Carnatic are engaged in tillage; further north are the Uria race and the Gond, the great Kunbi and Mali races of the Maratha country; and throughout the plateau and the plains of Northern India, are the Jat, Kurmi, Kachhi, Kori, Lodhi, Mali, Kallabattu, Sadog, Khasa, and Gujar, with the pastoral Ahir, Ahur, Dhangar, Gadariya, Gop, Goela, Kurub, and Rankar, the labouring population being the numerous fanilless, broken, non-Aryan tribes and clans, as the Pahari, Dher, Miar, Mang, Dom, and others, who are dispersed, are scarcely yet freed from a condition of predial slavery, and evince no inclination to abandon their own fetish and shamanistic cults.

The mountain ranges harbour many tribes, who have fled to them for shelter, or been thrust into them by more powerful races; and similarly the corner provinces, as of Kattyawar and Oriasa, have a diversified population. In Kattyawar, of the old ruling races there remain the Jaitwa, Churamasa, Salunki, and Wals, who exercised sovereignty in the country prior to the immigration of the Jhala, Jarija, Pranara, Kathi, Gohl, Jat, Mahomedans, or Mahsalt. So, in Oriasa and Ganjam are the Bhumi; Bhuinya, Gound, Kandu; Khaira, Kol; Pan; Santal, Savara, Telug, and Urya.
The frontiers of British India are nowhere con- 
temporary with any highly-civilised state. On 
the north Kashmir, on the north-west Nepal, and 
in the south-east Burma and Siam, alone can 
claim possession of a literature. Both within the 
British bounds and beyond are many tribes and 
nations under democratic rule. The most power- 
ful of these are on the north-west, and may be 
thus shown:—

Independent Tribes, dwelling along the outer face of 
the north-west frontier, and inhabiting hills, viz.—
Adjoining frontier of Hazara district,—Hussanai.
Adjoining frontier of Peshawur district,—Judoon, 
Bunoorwall, Swati, Ranizai, Osmankhill, Upper 
Mohmand.
Adjoining frontier of Peshawur and Kohat districts, 
Afridi.
Adjoining frontier of Kohat district,—Buzoti, Sipah, 
Orakzai, Zaimusht Afghan, Turi.
Adjoining frontier of Kohat and Dehra Ismail Khan 
districts,—Waziri.
Adjoining frontier of Dehra Ismail Khan district,— 
Sheerani, Oshterari, Kanarsi, Bozdar.
Adjoining frontier of Dehra Ghazi Khan district, 
Khattaristan, Kohat, Lyghi, Gurchani, Murri, 
Bugti, Muzari.

British Tribes within the frontier, and British subjects, 
inhabiting partly hills and partly plains—
Hazara district,—Turnouli, Gukkar, Doodn and Suttli, 
Kaghan Synd, and other tribes of Hazara.
Peshawur district,—Yusufzai, Khaled, Mohmand of 
the plains.
Peshawur and Kohat districts,—Khattuk.
Kohat district,—Bungush.
Dehra Ismail Khan district,—Bunnoochi, Murwutt, 
Butani, chiefs of Tank, chiefs of Kohali, chiefs of 
Dehra Ismail Khan, Nootkani, Lesou.
Dehra Ghazi Khan district,—Dreshuk, Muzari.

The number of their fighting men has been 
estimated at about 170,000, which would 
represent a total population of one million. The fighting 
men of the principal tribes being—

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muzari</td>
<td>2000</td>
</tr>
<tr>
<td>Bugti</td>
<td>1500</td>
</tr>
<tr>
<td>Murri</td>
<td>2500</td>
</tr>
<tr>
<td>Gurchani</td>
<td>4,000</td>
</tr>
<tr>
<td>Laghari</td>
<td>3,700</td>
</tr>
<tr>
<td>Khosa</td>
<td>4,000</td>
</tr>
<tr>
<td>Khutnur</td>
<td>4,500</td>
</tr>
<tr>
<td>Bozdar</td>
<td>2,700</td>
</tr>
<tr>
<td>Afridi</td>
<td>2,500</td>
</tr>
</tbody>
</table>

The Himalaya on the north is the meeting 
ground of the Aryan and Turanian races, who in 
some places are curiously intermingled. In the 
extreme north-west are found the Dard, an Aryan 
race abutting on the Afghans on their west, and 
with the Balti, a Turanian race of Mahomedanized 
Tibetans, on the east. Here also are the Champa 
nomades who wander about the high level valleys 
of Rupshu, and likewise the Chadaki cultivators in 
the valleys of Ladakh. The other Aryan races are 
the Pathari or mountaineers, the Kashmiri 
and the Dogra and Chibali who inhabit the outer 
hills.

The people occupying Garhwal and Kamaon are 
the Kanwari inhabitants of Bushahr, the Nilang, 
who do not differ from those of Huned, and the 
inhabitants of the Bhutta Mahal of Kamaon and 
Garhwal, who are of mixed Tartar and Indian 
descent.

Farther to the east of these, the numerous 
valleys interspersed throughout the mountains of 
Nepal are occupied by various races. The features 
of the aboriginal tribes mark them as of Mongoloid 
origin. Proceeding from west to east, the 
following tribes occur in Nepal, Sikkim, and 
Burma, viz. the Tibetans or Cis - Himalayan 
Burta, the Sunwar, the pastoral Garung, the 
Madar, the Jaryia, the Newar, the Dhowar, 
Manjhi, Bhutia, Bhuam, Murmi, Newar, Kiranti, 
Limbu, Lepcha who inhabit Sikkim, and the 
Bhutanese or Lhopa.

Assam and the north-east frontier province of 
British Burma have many tribes in their valleys 
and on their borders, some of them still barbarians. 
Assam province is bounded on the north by the 
Himalaya, the frontier tribes from west to east being 
respectively the Bhutta, Akha, Dofa, Mri, Abor, 
and Mishmi. On the north-east the Mishmi hills sweep 
round the head of the valley. Along its southern 
boundaries are (from west to east) the Kuki or 
Lushai tribes, the state of Hill Tiperah, the Kom 
Naga, Angami Naga, Singpho, Shan, Khamti, 
Kemong, and the races in Mynipur.
Between lat. 25° and 26° N. are tribes in the 
Garo, Karajas, and Jaintia hills, and in the valley 
are the Aham, Chittagong. Chittagong (51,482), 
Kai Bartia (198,525), Koch or Rajbansi (300,000), 
and Kolita (179,000).

Other tribes occur the Abar, Naga, Patkoi, 
and Barel ranges, as also the Chittagong and 
Arakan hill tracts, and the Yoma mountains separ- 
ating British India from Independent Burma. 
These are the Shandoo, Khyen, Ka-mi, Khyen, 
Mri.

There are other and larger tribes of non-
Hinduized aborigines interspersed amongst the 
civilised nations. In 1872, exclusive of those in 
the Madras Presidency and in the Feudatory States, 
they were estimated at 17,716,825.

Bengal . . . 11,116,883 Barar . . . . . . 168,059
Assam . . . 1,499,588 Mysore . . . . . . 80,067
N.W. Provinces, . . . . . . 377,674 Coorg . . . . . . 42,516
Oudh . . . . . . 90,490 British Burma . . . . . . 1,004,991
Panjahl . . . . 959,720 Bombay . . . . . . 711,702
Central Prov., . . . . . . 1,669,835

Nearly all that is known of their early history 
or origin has been derived from their physical 
appearance, which has proved them to belong to 
one or other of the great families of mankind, 
Mr. B. Hodgson writing from the Himalaya, and 
Mr. Logan writing from Penang, have laid great 
stress on this means of ascertaining their first 
appearance in India, in preference to the linguistic 
test.

Nearly sixty different tribes are specified among 
the aboriginal races in the provinces of Bengal 
and Assam. The most numerous of these are the 
Santal, of whom there are 850,000 in British 
territory alone, exclusive of others in the Tributary 
Mahals. The Santal dwell in villages in the 
jungles or among the mountains, apart from the 
people of the plains. They give their name to a 
large district, the Santal Parganas, 140 miles 
north-west of Calcutta.

The Gonds are in numerous tribes, many of them 
semi-barbarous, others of them under rulers who 
claim a Rajput descent. They are partly under 
the Hyderabad Government, partly under the 
British in Chutia Nagpur, Berar, Orissa, and 
Gazan, with 1,500,000 of them in the Central 
Provinces. The Maria Gond still use strong 
bamboo bows, which they hold with their feet 
and draw with their hands.

The Bhumi of Orissa, of Chutia Nagpur, 
dispersed through various districts of Bengal,
numbering in all about 200,000, were known formerly as the Chuar, and distinguished for their martial habits.

The Bhil have no language of their own. They are scattered through a wide extent of country, from Dowlatabad in lat. 19° 57' N. to Mewar in 26° 26'. They are careless, indifferent cultivators, are decidedly predatory, and have suffered severely from all the regular governments; but they are unyielding, and only in 1882 compelled the Mewar Government to give in to their wishes. There are from forty or fifty clawless tracts throughout the length and breadth of the Indian Peninsula than the billy region occupied by the Bhil. The natives of Bombay style them Kala-Pur, or black men.

Similar observations might be made regarding the widely-dispersed Gujar race, existing from the Panjab to Gujerat, which takes its name from them; or the great Kol tribes of the Vindhyas; or the Koli of the northern parts of the Bombay Presidency; or the Meo, the Mhair, the Mina, the Ramusi, the Kollari, the Maravar, or the Bairdah (Pindara). In the Animaly Hills are a whole series of broken tribes. Hamlets of long-haired, wild-looking Pulari, who live on jungle products, mice, or any small animals they can catch, and worship demons; Mundaver, who shrink from contact with the outside world, and possess no fixed dwellings, but wander over the innermost hills with their cattle, sheltering themselves under little leaf sheds, and seldom remaining in one spot more than a year. Thick-legged, small-bodied Kaders. 'Lords of the Hills,' a remnant of a higher race, who file the front teeth of the upper jaw as a marriage ceremony, live by the chase, and wield some influence over the ruder forest folk.

Princes and Chiefs of India.—Around and within the borders of British India are many Native States,—feudatories, tributaries, or in subsidiary alliance; and France and Portugal have small possessions, aggregating 1264 square miles, with populations numbering 729,639 souls.

The Native States are as under:

Central India and Bundelkhand (1881 census, 9,200,881), area, 89,098 sq. m.; pop. 3,607,571.

Gwalior, 33,112,500,000 Baghelkhand.

Indore, 8,435,635,450, Agency, 1,250,235,000

Bhopal, 8,500,769,200, Bhopawur.

Rewah, 10,000,035,000, or Bhil.

Dhar, 2,500,150,000, Agency.

Dewas, 2,576,121,800, Ganti Ag., 4,520,157,634

W. Malwa, 22,424,210,000, Baghelkhand.

Agency, 9,057,1,278,000, Agency.

Rajastahan (1881 census, 11,005,512), area, 130,989 sq. m.; pop. 10,192,871.

Oodeypur, Jeyulsuir, 16,447,720,000

Mysore, 12,670,1,374,700, Jholla, 2,500,331,268

Jeypore, 14,465,1,570,550, Pertauburgh, 1,460,150

Jodhpur or Banswara, 1,500,150,000

Marwar, 37,000,2,650,000, Maroti, 3,000,153,000

Kota, 3,797,527,000, Dongargarh, 1,000,175,000

Bikanir, 23,500,300,000, Shahpur, 40,000,360

Boonde, 2,300, 224,000, Lava, 18, 2,597

Kerrowlee, 1,260,140,000, Hidostan.

Bhurpur, 1,974,174,710 (1881), 809,000,1,176,789

Tonk, 2,730,320,000, Berar, 17,711,670,982

Kishengarh, 724,105,000, Baroda, 4,399,215,469

Ulwpur, 3,024,778,590, Manipur, 7,184...

Dholpur, 1,300,250,000

Central Provinces, Chutia Nagpur, area, 29,112 sq. m.; pop. 1,704,971,10-

Gujerat, 18,134,802,691, Juneepra, 325,976

Cutch (excl. of the Runn), 6,500,457,300, Javgir (S), 2,734,610,434

Malik Kanta Agency, 4,000,447,056, Satara Jag., 3,508,471,295

Sind (Khairpur), 6,109,127,000, Surat Ag., 1,181,124,808

Kattywar, 769,120,000, Sarnawar, 70,687

Agony, 20,338,2,319,629, Narukot, 147,403

Palanpur, 8,000,528,566, Kandah, 9,057,1,278,000

Rewa Kanta, 4,792,505,722, Danug.

Cambay, 350,83,494, (23 States), 3,840,39,111

Sawantwari, 900,190,814

N. W. Provinces, area, 5,125 sq. m.; p. 636,543—

Garhwal or Rampa, 940,507,013

Bengal, area, 37,988 sq. m.; pop. 2,328,400—

Sikkim, 2,660,50,000, Chutia Nagpur

CoochBihar,1,307,532,565, Mahals, 16,025,498,607

Hill Cuttauk

Tiperah, 2,869,91,799, Mahals, 15,187,1,559,509

Punjab (35), 114,742 sq. m.; pop. 5,370,096—

Kashmir and Jummo, 79,784,1,534,722, Kalsia, 168,689

Patiala, 5,412,1,586,000, Pataudi, 53,205

Bahawul, 15,000,465,633, Loinar, 255,190

Jubbul, 985,190,475, Bagh, 124,240

Nabha, 804,226,155, Baghat, 30,106

Kapurthala, 620,235,372, Jubbull, 258,400

Mandi, 1,000,145,999, Kunhimahra, 90,100

Sirmur, 900,149,289, Jhajji, 90,100

(Nahar), 1,096,90,000, Maliog, 45,900

Kahlur, 57,900, Balsa, 51,600

(Bilaspur), 448,600, Dhami, 26,500

Bushahr, 3,230,900, Kuthar, 28,000

Hindur, 8,250

(Nalagarh), 256,700, Mangal, 13,800

Keotthial (incl.), 800,108

Ratels), 116,50,000, Dokutki, 8,700

Maler Kota, 164,91,650, Tare, 67,600

Parikshet, 600,60,000, Sangir, 16

Chamba, 3,216,130,000

Mysore (1881 census, 4,168,399), area, 24,744 sq. m.; pop. 1871, 5,055,412—

Bangalore, 2,901,528,354, Hassan, 1,809,686

Kolar, 1,819,615,954, Shimoga, 3,797,498

Tumkur, 3,420,632,239, Kadur, 3,675,333,925

Mysore (with Chitradurg), 4,571,531,360

Yelandur, 2,980,943,157

French Possessions (1877 census, 280,381), area, 178 sq. m.; population, 258,022.

Pondicherry, 113,156,094, Karkil, 52,92,516

Chander, Mahé, 5,842

nugur, 3, 2,246, Yanaon, 5, 5,474
The British Empire's influence was vast, occupying a large portion of India. This influence expanded through various means such as trade, military conquest, and the establishment of a network of treaties and alliances. The Raj put in place a system of governance that was both authoritarian and paternalistic, aiming to balance the interests of the British Crown, the Indian nawabs and maharajas, and the local populations. The British aimed to stabilize the region, which had been destabilized by various local conflicts and power struggles. The British were keen to ensure that the nawabs and maharajas were aware of their position and duties, as expressed in the passage: "The Indian and Junr. Patharia, pop. cavalry, 1,443 Bijna, Behat, Banswarra, Ajeygurh, Bijawur, Baonee, Bhurtpur, Beronda, Bhujjee, Bhughat, Bijnor, Chief, Bundelkhand."

The British also sought to recognize and foster the rights and interests of the Indian nobility, as stated in the text: "The maharaja of Patiala sought for the recognition of himself and his house as an Indian noble of the British empire. Above all rewards for his great services to the empire in those days, he asked for perpetuity for his house and honours, and Sir John Lawrence, Lieutenant-Governor of the Punjab, worked out the chief's ideas into a recognition of the right of adoption on the failure of natural heirs; and, after a reference to Her Majesty's Government, the following suzum or patent of nobility, of 11th March 1862, was framed:— Her Majesty being desirous that the governments of the several princes and chiefs of India, who now govern their own territories, should be perpetuated, and that the representation and dignity of their houses should be continued: In fulfilment of this desire, this suzum is given to you, to convey to you the assurance that, on failure of natural heirs, the British Government will recognize and confirm any adoption of a successor made by yourself, or by any future chief of your state, that may be in accordance with Hindu law, and the customs of your race. Be assured that no British influence will disturb the engagement thus made to you, so long as your house is loyal to the crown, and faithful to the conditions of the treaties, grants, or engagements which record its obligations to the British Government. (S.d.) Canning.

The following is a list of princes to whom it has been given, but others since have been honoured with it, and all who hold that patent are nobles of the British Indian Empire:

- Ajeaygurh, Raja, Bundelkhand.
- Akukote, Raja, S. Mahratta Country.
- Allpoom, Jaghir, Bundelkhand.
- Bansawara, Chief, Kolhapur.
- Banswarra, Chief, Rajputana.
- Baroda, Naveeb, Baroda.
- Beglah, Chief, Panjab.
- Bheraj, Jaghir, Bundelkhand.
- Bichut, Jagdir, Bundelkhand.
- Belaspore, Chief, Panjab.
- Beed, Chief, Panjab.
- Bera, Chief, Rajputana.
- Bhaghat, Chief, Panjab.
- Bhoyer, Chief, Panjab.
- Bhownaggar, Chief, Shahapur.
- Bhughat, Chief, Panjab.
- Bhuj Chief, Panjab.
- Bhurtpur, Maharaja, Rajput.
- Bikinur, Maharaja, Rajputana.
- Bijaup, Chief, Bundelkhand.
- Boonde, Raja, Rajputana.
- Buxan, Chief, Panjab.
- Buxaundh, Chief, Jaghirdar, Ceded Districts.
- Bussariah, Chief, Panjab.
- Bussar, Raja, Central Provinces.
- Cooch-Bahar, Chief, Panjab.
- Coob-Bahar, Chief, Panjab.
- Coob-Bahar, Tributary Mahals, Oussia.
- Dewas, Chief, Central India.
- Dwipoor, Chief, Bundelkhand.
- Dwipour, Raja, Rajputana.
- Dhoory, Chief, Bundelkhand.
- Dojana, Naveeb, Dojana.
- Durkote, Chief, Panjab.
- Dhaurnpurpor, Chief, Rajputana.
- Donguppor, Chief, Rajputana.
- Duffie, Jaghirdar, Satara.
- Duttia, Raja, Bundelkhand.
- Edar, Chief, Kolhapur.
- Fereen, Chief, Panjab.
- Gerowee, Jaghirdar, Bundelkhand.
- Gourihar, Chief, Bundelkhand.
- Gunvar, Raja, N. W. Provinces.
- Gourihar, Jaghirdar, Bundelkhand.
- Gwakwar, Baroda.
- Hologar, Central India.
- 5 Hazara Raja Jaghirdars, Bundelkhand.
- Hyderabad, Nuzum, Hyderabad.
- Jeychopore, Chief, Rajputana.
- Jheend, Raja, Panjab.
- Jilawar, Rana, Satara.
- Jiggs, Jaghirdar, Bundelkhand.
- Joolni, Chief, Panjab.
- Joshipur, Chief, Rajputana.
- Juss, Jaghirdar, Bundelkhand.
- Koonth, Chief, Panjab.
- Korrwello, Chief, Rajputana.
- Kishengurh, Chief, Rajputana.
- Khana, Chief, Kolhapur, Raja, Kolhapur.
- Koomharsein Chief, Panjab.
- Kohonwala, Chief, Panjab.
- Kotab, Chief, Rajputana.
- Kothur, Chief, Panjab.
- Kothra, Jaghirdar, Bundelkhand.
- Kunnya Dhana, Jaghirdar, Bundelkhand.
- Kuppoorttuda, Raja, Panjab.
- Kutch, Chief, Gujrest.
- Logassie, Jaghirdar, Bundelkhand.
- Makrane, Chief, Central Provinces.
- Mandi, Chief, Bundelkhand.
- M. of Bengal.
- M. of Bombay.
- M. of N. W. Provinces.
- M. of Orissa.
- M. of Rajputana.
- M. of Sind.
- M. of S.-West Provinces.
- M. of West Provinces.
- M. of Bengal.
- M. of Bombay.
- M. of N. W. Provinces.
- M. of Orissa.
- M. of Rajputana.
- M. of Sind.
- M. of S.-West Provinces.
- M. of West Provinces.
- Moodhola, Chief, S. Mahratta Country.
- Mundee, Chief, Panjab.
- Mungul, Chief, Panjab.
- Mungul, Chief, Rajputana.
- Mylog, Chief, Panjab.
- Nabha, Raja, Panjab.
- Nabha, Raja, Rajputana.
- Nahin, Chief, Panjab.
- Nareshwar, Chief, Satara.
- Nowanngur, Chief, Kolhapur.
- Nyagaon Behai, Jaghirdar, Bundelkhand.
- Oodeypur, Maharaja, Rajputana.
- Powrree, Chief, Bundelkhand.
- Puludootthata, Chief, Puludoottha.
- Purn Banda, Jalligor, Satara.
- Partagbarg, Raja, Rajputana.
- 5 Putwurths, S. Mahratta Country.
- Patiala, Maharaja, Panjab.
- Rajpeepa, Chief, Kolhapur.
- Rewah, Raja, Bundelkhand.
- Satara, Jaghirdar, Satara.
- Sawantwar, Chief, Sawantwar.
- Serohi, Chief, Rajputana.
- Shahpurka, Raja, N. W. Provinces.
- Siodin, Central India.
- Suhowai, Chief, Bundelkhand.
- Teles, Chief, Bundelkhand.
- Teg Singh, Panjab.
- Toree, Chief, Bundelkhand.
- Travancore, Maharaja, Travancore.
- Turoch, Chief, Panjab.
- Ulwur, Chief, Rajputana.
- Mysore, Maharaja.
- N. L. M. of Bengal.
- N. L. M. of Bombay.
- N. L. M. of N. W. Provinces.
- N. L. M. of Orissa.
- N. L. M. of Rajputana.
- N. L. M. of Sind.
- N. L. M. of S.-West Provinces.
- N. L. M. of West Provinces.
- Patharr, Thakur.
- Prithee, Maharaja.
- Prinsep, Chief, Kolhapur.
- Prinsep, Chief, Kolhapur.
- Prithve, Chief, Kolhapur.
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and seven nobles had personal salutes allowed of 13 to 21 guns.

Timur had, as his arms, supposed to represent the three regions over which he ruled. His full titles in the height of his power were Sultan, Kamar, Amir, Khoja-i-Din, Timur. Kur Khan, Sahib-i-Kuran, meaning 'sovereign, ruler, noble, polar star of the faith'; Timur, of the lineage of sovereign princes, lord of the grand conjunctions.' Amongst other titles, three of the emperor of China are, Tien-tse, son of heaven; also Kwa-jen, the man who stands by himself, and Kwa Kuin, solitary prince. Anak-Angon, son of heaven, is a title of the raja of Lombok.

In 1808, Fattah Ali Shah, emperor of Persia, instituted the order of the Lion and Sun, Sueru-Khurshid, to decorate foreign envoys who had rendered services to his government, and it is now given to Persian subjects. In the treaty of peace with Persia of 4th March 1857, the emperor is styled 'His Majesty, whose standard is the sun; the sacred, the august, the great monarch, the absolute king of kings of all the States of Persia.' At the same time, his ambassador, being the court of France, was styled 'His Excellency, the abode of greatness, the favourite of the king; Firokh Khan, Amin-ul-Mulk, the great ambassador of the mighty State of Persia.'

In Mewar, the bala band, a head fillet, the diadem of the Greeks, is the symbol of honour; in Burma, the tsal-tee chain is a badge of nobility; in China, small globes, or buttons, as they are called, of mother-of-pearl and other substances, are used for distinction. In Burma the figure of a peacock and of a hare are painted on the king's throne, a peacock is borne on the royal standard, and No dwet bun yeng, sun-descended monarch, is one of the Burmese royal titles.

The titular designations of the Mahomedan rulers of Southern Asia are almost all formed of Arabic words, with a few derived from the Persian; but in addressing the chiefs of British India, Arabic, Persian, Hindi, and English words are now all intermixed. Along the borders and within, the ordinary royal titles of Mahomedan princes are amir, khan, khanan, malik, malikah (feminine), mir, nazam, nizam, paishah, shah, shahinshah, sultan, bahadur, jung, khan, daulah, umra, jah, and nawab; royal Hindu titles being adira, jam, rae, raja, rao, rana, rawal, maharana, maharawal, rana-raja, siwai, thakur, wall, zamarin; and both Mahomedans and Hindus assume tukhallas or literary titles.

The Indian Government addresses the Rajput ruler of Jumna and Kashmir as 'His Highness Ranbir Singh Bahadur, Grand Commander of the Most Exalted Order of the Star of India, Companion of the Indian Empire, Siqar-i-Sultanat (Shield of the Sovereignty), Councillor of the Empire of India, Honorary General in the Imperial Army, Chief of Jumna and Kashmir,' similarly Kalab-ali-Khan, the Mahomedan ruler of Rampur, is styled 'His Highness Farzand-i-Dil-Pazir-i-Dault-i-Daulat-i-Inglisb, Kalab Ali Khan, Nawab of Rampur, K.G.C.S.I. and C.I.E.,' the Persian words meaning Heart-loved Son of the British Government. The Governors-General have always followed it. In 1805 Sir George Barlow's seal was engraved with Persian words, signifying the crown of the princes, mighty in dignity, high in honour, exalted in position, the noble of nobles, Sir...
BRITISH INDIA.

George Hilaro Barlow, Baronet, Bahadur, Governor-General of the Countries under the Government of the English Company in India, Devoted Servant of the victorious Emperor Shah Alum Bahadur, 1805, year 1220 Hijri. The British Indian Government has now adopted the practice of the native princes in freely granting titles.

Administration. — In 1784, Mr. Pitt, while Prime Minister of Great Britain, brought in a bill to establish a Board of Control over the East India Company. It consisted of six members of the British ministry. It became known as the India Board, and its duties allotted to it were to check, superintend, and control all acts, operations, and concerns which in any way related to the civil and military government of the East India Company's territories; and a secret committee was at the same time authorized, consisting of the President of the Board of Control, with the chairman, or the deputy-chairman, or one of the East India Company's directors.

The directors of the Company consisted of twenty-four members, elected by the votes of the shareholders. The directors elected their own chairman and deputy-chairman, each of whom received a salary of £500 a year, the pay of each of the other directors being £300. Their patronage was great. Governors for India, commanders-in-chief, judges, and bishops were nominated by the British ministers, but the directors appointed all other covenanted and commissioned officers for the civil, military, medical, and naval services — and they averaged about 374 annually.

The mutiny of the Bengal army, and the rebellion in Northern India, was yet scarcely suppressed in 1858, when, on the 1st September of that year, the Court of Directors was abolished, and the government of British India was transferred from the East India Company to Queen Victoria, and a proclamation to the princes, chiefs, and people was made at Allahabad on the 1st November. A Secretary of State, a member of the British Cabinet, with a council of fifteen members, took the directors' places. The Council is now appointed for ten years, but may be re-appointed for a further five years for special reasons. In 1861, the Indian Councils Act was passed, augmenting the Councillors by the addition of non-official members, the Governor-General was raised to the rank of Viceroy; and by another Act the supreme courts of Calcutta, Madras, and Bombay were amalgamated with the courts of Sadr Adalat of the three presidencies, and the united body designated the High Court of Judicature.

In the proclamation of 1858, Queen Victoria accepted all the treaties made by the East India Company, disclaimed all desire for extension of territory, or to impose the Christian religion on the people; the public service was declared open to all the Queen's subjects, of whatever race or creed; and royal clemency was extended to all, except such as had taken part in the murder of British subjects. In that proclamation, the British sovereign was designated —Victoria, by the grace of God, of the United Kingdom of Great Britain and Ireland, and of the colonies and dependencies thereof in Europe, Asia, Africa, America, and Australia, Queen Defender of the Faith. And subsequent to this, on the 28th April 1876, Queen Victoria assumed the title of Indir Imperatrix, Empress of India, with the royal style and titles of Victoria, by the grace of God, of the United Kingdom of Great Britain and Ireland, Defender of the Faith. Proclamation of this was made by the Viceroy on the 1st January 1877, in an imperial camp at Dehli, at which the princes of India were present. The maharajas Sindia of Gwalior and Ranbir Singh of Cawnpore were added to the rank of generals; and the orders of the Bath were bestowed on Sindia and the rajbas of Bundi, Bhatpur, Benares, Kolhapur, Dhar, Dendra, the jam of Nawangar, and the nawab of Banagana-pilly. That part of the 1858 proclamation which related to employment in the public service was a repetition of 3 & 4 Will. iv. c. 85, sec. 87, which declared that no native of the said territories, nor any natural-born subject of His Majesty resident therein, shall, by reason only of his religion, place of birth, descent, colour, or any of them, be disabled from holding any place, office, or employment under the said Company.

The British administration in India was long purely that of a military government, and the entire policy necessarily conform to military necessities. Only towards the middle of the 19th century has the condition of the country permitted its British rulers to throw energy of the government into the path of peaceful development of its resources. The East India Company had governed the country on the simple terms of cheapness and non-intervention. But India has since taken its character from British rule, and has expressed a more positive policy than before. Great improvements in the laws have been made; more economical justice, more extended education, increased irrigation works, and larger appliances of European capital and energy to the undeveloped resources of the country. The prominent Secretaries of State for India have been Lord Stanley, Sir Charles Wood (Lord Halifax), Earl de Grey, Viscount Cranborne, Sir Stafford Northcote, Duke of Argyll, Marquis of Salisbury, Marquis of Hartington.

British India since 1860 has been subdivided into local administrations: Assam, Bengal, Bombay, British Burma, Central Provinces, Madras, N.W. Provinces, Oudh, Punjab, British Iraq, the colonies and protectorates. The Governor-General is temporarily assigned. The Government of India has retained direct control over Ajmir, Berar, the Andaman islands, Nicobar islands, Coorg, the provinces of Central India and Bundelkhand, also over the political relations with Baroda, Hyderabad, Manipur, and Rajputana, and with the princes and tribes on the borders; all these are supervised by a Viceroy and Governor-General in Council. But the presidencies of Madras and Bombay, each with a Governor, Commander-in-chief, and a Council composed of officials, are in direct correspondence with the Secretary of State as well as under the Governor-General. Berar is administered for the nizam of Hyderabad. The provinces are administered by a covenanted civil service, an uncovenanted civil service, and military officers of the staff corps in civil employ. Each province is subdivided into zillas or districts, under collector-magistrates or deputy collectors and commissioners, with joint, deputy, and assistant magistrates. In the Bengal Presidency, these districts are in most cases grouped into divisions, each under a commissioner, supervised by a revenue board or financial commissioner. In
Great Britain, counties average 1000 square miles in extent. In India, the total number of Districts is about 238. They vary greatly in size and number of inhabitants. The average area is 8775 square miles, ranging from 6612 square miles in Madras to 1994 square miles in Oudh. The average population is 802,977 souls, similarly ranging from 1,508,219 in Madras to 161,597 in Burmah. In Bombay there are two revenue commissioners, between whom the superintendent of the collectorates are divided. These revenue commissioners correspond immediately with Government, and are also police commissioners of their divisions.

Madras, Bombay, and Bengal have each a Legislative Council, as well as a High Court of Judicature. These Councils, as well as the Legislative Council of the Governor-General, consist of executive members of Government, of two representatives of the British mercantile community, and two or three representatives of the natives, as extraordinary members. The United North-Western Provinces and Oudh have a High Court, and the Panjab a Chief Court. The Governor-General’s Council for making laws, legislates for all India in general, and for the provinces which have no legislatures of their own, in detail, these provinces being represented by officials. Every Act of the three subordinate councils must receive the sanction of the Governor-General before it can become law; and the Secretary of State for India may advise Her Majesty to veto any act of the Governor-General’s Council.

The following may be accepted as representing the portions of India governed directly by British officials, and those administered indirectly through native chiefs with subsidiary sovereign powers:—

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Square Miles</th>
<th>Population</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal</td>
<td>155,957</td>
<td>63,829,920</td>
<td>44</td>
</tr>
<tr>
<td>Assam</td>
<td>45,303</td>
<td>4,515,156</td>
<td>13</td>
</tr>
<tr>
<td>N. W. Provinces</td>
<td>81,748</td>
<td>25,449,187</td>
<td>247</td>
</tr>
<tr>
<td>Panjab</td>
<td>107,010</td>
<td>22,647,542</td>
<td>32</td>
</tr>
<tr>
<td>Oudh</td>
<td>24,213</td>
<td>11,407,655</td>
<td>12</td>
</tr>
<tr>
<td>Central Provinces</td>
<td>84,208</td>
<td>11,503,149</td>
<td>19</td>
</tr>
<tr>
<td>Bombay and Sind,</td>
<td>129,445</td>
<td>30,328,059</td>
<td>51</td>
</tr>
<tr>
<td>Berar</td>
<td>17,711</td>
<td>2,670,902</td>
<td>6</td>
</tr>
<tr>
<td>Coorg</td>
<td>1,572</td>
<td>178,263</td>
<td>21</td>
</tr>
<tr>
<td>Madras</td>
<td>149,333</td>
<td>30,583,151</td>
<td>21</td>
</tr>
<tr>
<td>British Burma</td>
<td>87,220</td>
<td>3,707,646</td>
<td>19</td>
</tr>
<tr>
<td>Ajmir and Miarwars,</td>
<td>2,711</td>
<td>438,878</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 902,500 217,296,248 234

In 1880-81, the Administration cost in India, £1,291,483, which included the salaries of the Governor-General, Governors, Councils, Secretaries, Political Officers, and Revenue Boards. The more eminent of the presidents of the Board of Control were, Viscount Castlereagh, the Earl of Minto, Robert Dundas, afterwards Lord Melville, George Canning, Earl of Ellenborough, Charles Grant, Sir John Cam Hobhouse, and Sir Charles Wood, afterwards Lord Halifax. The famed amongst Governors and Government-General have been, Warren Hastings, Lord Clive, Earl Cornwallis, Marquis Wellesley, Marquis of Hastings, John Adam, Lord William Bentinck, Sir Charles (Lord) Metcalfe, Marquis of Dalhousie, Earl Canning, and Sir John (Lord) Lawrence. Of the financial members of the Government of India may be named, James Wilson, Samuel Laing, W. N. Massey, and Sir Richard Temple. The presidents of mark in the Council of the Government of Fort St. George, were Lord Macartney (1781); Major-General Medows (1788 and 1790) at Bombay and Madras; Lieutenant-General Harris (1798); Lord Bentinck (1803); and Major-General Sir Thomas Munro (1820). Bombay has seen Mountstuart Elphinstone (1819), Sir John
Malcolm (1827), Sir George Clarke, and Lord Elphinstone (1856). Robert Lord Clive (1758 and 1765) distinguished himself alike as a soldier and in civil administration as Governor of Bengal; and since 1854, when Bengal was put under a Lieutenant-Governor, the most eminent have been, Sir George Campbell (1871), Sir Richard Temple (1874), and Sir Ashley Eden (1877-1882).

There were six Lieutenant-Governors of the Punjab in the nineteen years 1859 to 1877, amongst them Sir John (Lord) Lawrence and Sir Robert Montgomery (1859-1865). Between 1856 and 1876 there were seventeen Chief Commissioners of Oudh; and the distinguished Sir James Outram, Sir Henry M. Lawrence, Mr. (Sir) Charles Wingham, and Mr. (Sir) William Muir were amongst the number.

In the Central Provinces there were thirteen Chief Commissioners in eleven years, 1861-1872. Amongst others of the officers who distinguished themselves in civil and political administration, may be named Sir Bartle Frere in Sind, Sir John Peter Grant, Sir Henry Pottinger in Sind and Chinas, Sir Charles Edward Trevelyan, Sir Arthur Playre in Burma, Sir George Balfour in the military finance and control departments.

The appointments of governors, bishops, commanders-in-chief, judges, filled up by the British ministers, were highly paid, the Governor-General's salary being £25,000 annually, but did not carry any pension. It was customary, however, when pre-eminent services had been rendered, for the Directors to reward them in that manner. Amongst civilians who were thus honoured, may be named Warren Hastings, Marquis Wellesley, Marquis Dalhousie; and the following military officers had special pensions for distinguished Indian services:

<table>
<thead>
<tr>
<th>Name</th>
<th>Pension</th>
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<tbody>
<tr>
<td>Nott, Sir William, G.C.B.</td>
<td>£1000</td>
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<tr>
<td>Harding, Lt.-Gen. Viscount, G.C.B.</td>
<td>5000</td>
</tr>
<tr>
<td>Pollock, Major-Gen. Sir George, G.C.B.</td>
<td>1000</td>
</tr>
<tr>
<td>Wilton, Major-Gen. Sir Archibald, Bart, K.C.B.</td>
<td>1000</td>
</tr>
<tr>
<td>Campbell, Sir Colin, Lord Clyde</td>
<td>2000</td>
</tr>
<tr>
<td>Outram, Major-Gen. Sir James, Bart, G.C.B.</td>
<td>1000</td>
</tr>
<tr>
<td>Stewart, Gen. Sir Donald, G.C.B., C.I.E.</td>
<td>1000</td>
</tr>
<tr>
<td>Roberts, Major-Gen. Sir F. Sleigh, G.C.B.</td>
<td>1000</td>
</tr>
<tr>
<td>V.C., G.I.E.</td>
<td>1000</td>
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</table>

The East India Company was uniformly just and liberal-handed to its servants. The action of the British nation towards them has been fitful and uncertain. Lord Clive served the East India Company from 1744. He laid the territorial foundations of the British Indian empire, and returned to Britain in 1767. At first he was well received, but he was subsequently impeached before Parliament, and only escaped trial by his death in November 1774. Warren Hastings' service extended from 1750 till his final return to Britain in 1785. He, too, was well received by the King and Queen; but he, too, was impeached by Messrs. Burke, Fox, and Sheridan for alleged acts of oppression. The trial went on for seven years, and he was acquitted in February 1788. He lived till 1818. Shortly before his death he entered the House of Parliament to give evidence, and all the members rose from their seats to do honour to the aged man. Lord Clive had laid the territorial foundations of the British Indian empire in Bengal. Warren Hastings was the administrative organizer of the dominion, reorganized the Indian service, reformed every branch of the revenue collections, and created courts of justice. The Court of Directors allowed him £2000 a-year.

**Arms.—**The native rulers who preceded the British, and all the existing chieftaincies, have had strongholds on which they placed resistance; and Clive's defection for Artoot, the Bhitarpur resistance to Lord Lake, the Gurkha mountain campaign. Mulraj in his hold of Multan, all have indicated that the ways of the people are suitable for that mode of defensive warfare. The British, likewise, have formed fortresses at Calcutta, Madras, and Bombay; also strongholds at Delhi, Allahabad, and Secunderabad; and there are many dismantled forts in various parts of the country, all of which could be held against a sudden rush. But the British have hitherto largely trusted to their readiness to hold the open country. The composition and strength of the British Indian forces have, however, constantly been changed in organization and strength. From the first appearance of the British in India, their soldiers have consisted of European and native troops, the latter being wholly raised and maintained as a part of the Indian army. From 1754 till 1861, the European branch of the army of India has been composed partly of detachments of royal troops of Great Britain, and in part of Europeans specially raised for service in India as a part of the Indian army, both arms being maintained out of the revenues of India.

In 1755 the first British regiment, the 39th Foot, reached India. In 1794 the Indian armies numbered 70,000, including 13,500 Europeans. In 1808, at the end of the Mahratta war, Bengal and Madras had each 64,000, and Bombay 26,500; total, 154,500 soldiers. In 1844 there were 235,446 native soldiers. In 1857 a mutiny occurred of almost all the Bengal native army. At its outbreak, in May of that year, there were in India, as a nominal establishment—European soldiers, 45,000 of all ranks; sepoys, 244,000; semi-military police, 80,000. About 250,000 native troops arrayed themselves against the 45,000 British and about 20,000 native soldiers who stood firm. It was a contest for supremacy, and it was severe; but before the end of the year a Sikh army from the Punjab had increased the reliable native forces to 150,000, before July 1858 the British soldiers had increased to 80,000 of all arms, and before the middle of 1859 India was re-won. After that revolt the established strength was made to stand at about 66,000 Europeans and 120,000 natives of all ranks; and the year 1879-80 saw the respective numbers at 64,520 and 124,978.

| Artillery | 12,232 Europ. 932 Nat. |
| Cavalry | 4,129 | 15,548 |
| Infantry | 47,519 | 102,283 |
| Engineers and Sappers | 33,205 |

The armies of the princes and chiefs of India have always far exceeded those of the British, their numbers being about 300,000, fairly drilled and fairly disciplined. The table given in the London Times of 29th July 1879 shows the strength of the forces kept up by the various princes of India, with the population and revenue of the states furnishing these contingents, viz.:
In addition to the troops which the princes and chiefs retain for their own purposes, several of them subsidize parts of the British Indian army; and, in the year 1880-81, their tribute, chout, contributions for the pay of local corps and success fee amounted to £472,209.

It has been suggested that the troops of the princes should consist of their own subjects, restricted to the number required for their own territories, and that they should be kept at the highest state of discipline, and well armed, so as to be able to hold their own dominions against any foreign aggression, whilst the British attended to the general defence of India. Of the 7428 strength of the Hyderabad Contingent, more than half have been recruited in Hindustan. Nearly all the men in the Bhopal regiments belong to British territories; and recruits for the Nair Brigade are obtained from Tanjore, Madura, and Tinnevelly.

In 1882, the native non-commissioned officers, drummers, buglers, rank and file, serving in the British Indian army, had been drawn from the following provinces:

BENGAL Sappers and Miners, Artillery, Cavalry, and Infantry.
N.W. Frontier, beyond British territory, 705

Derajat, 93
Panjnad proper and Hazara, 4,775
Cis-Sutlej, including Independent States, 1,829
Dehlí territories, 578
N.W. Provinces, including Rohilkhand, 146
Oudh, 434
Nepal, 22
Central Provinces, 911
Lower Provinces, 3,414
Other countries, 203

10,500 312
1,615
613
15,516
4,996
4,241
6,929
9,104
4,836
648
1,801
369
16
50,419
11,977
8,680
2,790
860
1,857
1,890
2,912

N. W. Frontier, beyond British territory, 207

Derajat, 95
Panjnad proper and Hazara, 2,230
Cis-Sutlej, including Independent States, 17
Dehlí territories, 1,107
N.W. Provinces, including Rohilkhand, 1,001
Oudh, 1,915
Nepal, 2
Central Provinces, 419
Lower Provinces, 124
Assam, 12
Konkan, 10,662
Dekhan, 6,155
Gujerat, 792
Other countries, 25,651

HYDERABAD CONTINGENT, Artillery, Cavalry, and Infantry.
N.W. Provinces beyond British territory, 9

Derajat, 93
Panjnad proper and Hazara, 255
Dehlí territories, 383
N.W. Provinces and Rohilkhand, 911
Oudh, 2,244
Central Provinces, 58
Lower Provinces, 16
Dekhan, 3,414
Other countries, 203

14

1,615
7,496

13,957
1,615
 Wars.—The Natives of British India have hitherto been largely employed in the British Indian armies, because they have been considered equal to any troops that could be brought against them, and because of their comparative cheapness, being healthier, and receiving smaller pay. The following are the annual costs of an artillery, cavalry, and infantry soldier of the native army:—

<table>
<thead>
<tr>
<th>Bengal</th>
<th>Artillery</th>
<th>Rs. 401-13-9</th>
<th>Rs. 155-1-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madras</td>
<td></td>
<td>512-10-6</td>
<td>173-14-5</td>
</tr>
<tr>
<td>Bombay</td>
<td>Rs. 165-5-8</td>
<td>473-13-9</td>
<td>149-7-4</td>
</tr>
<tr>
<td>Punjab</td>
<td>169-5-14</td>
<td>397-6-6</td>
<td>141-2-6</td>
</tr>
<tr>
<td>Hyderabad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>158-14-11</td>
<td>476-14-5</td>
<td>162-5-7</td>
</tr>
<tr>
<td>Central India</td>
<td></td>
<td>371-13-1</td>
<td>137-2-8</td>
</tr>
<tr>
<td>Rajputana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency</td>
<td></td>
<td>385-10-10</td>
<td>140-9-2</td>
</tr>
<tr>
<td>Average yearly,</td>
<td></td>
<td>Rs. 164-13-11</td>
<td>Rs. 156-6-4</td>
</tr>
<tr>
<td>Monthly, 13-11-9</td>
<td></td>
<td>3610-3</td>
<td>13-6-6</td>
</tr>
</tbody>
</table>

1 Huts provided by the State.
2 Clothing, accoutrements, littering, horses, provided by the State.
3 Good conduct pay, good shooting, not allowed to Bombay Native Cavalry.
4 Do. including nations at Aden and Berma.

The military charges vary with the conditions of peace or war, but the following table of military expenditure of the three years before the mutiny and of the latest available years, will show the gross military charges during peace and war:—

<table>
<thead>
<tr>
<th>In India</th>
<th>At Home</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1854-55</td>
<td>9,504,406</td>
<td>11,261,229</td>
</tr>
<tr>
<td>1855-56</td>
<td>10,019,436</td>
<td>11,492,133</td>
</tr>
<tr>
<td>1856-57</td>
<td>11,013,121</td>
<td>12,700,152</td>
</tr>
<tr>
<td>1857-58</td>
<td>15,565,929</td>
<td>18,735,883</td>
</tr>
<tr>
<td>1858-59</td>
<td>21,680,945</td>
<td>24,499,504</td>
</tr>
<tr>
<td>1859-60</td>
<td>20,909,301</td>
<td>23,640,341</td>
</tr>
<tr>
<td>1864-70</td>
<td>11,757,363</td>
<td>15,015,773</td>
</tr>
<tr>
<td>1875-76</td>
<td>13,533,106</td>
<td>16,250,490</td>
</tr>
<tr>
<td>1876-77</td>
<td>15,841,917</td>
<td>18,792,112</td>
</tr>
<tr>
<td>1877-78</td>
<td>12,385,511</td>
<td>13,699,761</td>
</tr>
<tr>
<td>1878-79</td>
<td>15,109,555</td>
<td>17,629,458</td>
</tr>
<tr>
<td>1879-80</td>
<td>21,432,033</td>
<td>23,917,713</td>
</tr>
<tr>
<td>1880-81</td>
<td>21,911,394</td>
<td>24,385,392</td>
</tr>
<tr>
<td>1881-82</td>
<td>14,644,800</td>
<td>16,830,700</td>
</tr>
</tbody>
</table>

Difficulties are experienced in separating ordinary and war expenditure, but the total cost of the Afghan War, 1879-82 has been estimated at £21,511,000, namely, £17,551,000 for military operations, and £4,060,000 for frontier railways.

In their wars the East India Company had been almost continuously successful. A reverse was sustained by a brigade in Afghanistan in 1842, and many thousand soldiers and followers perished in retreat. But the most severe trial occurred in 1857 and 1858, in which years the Bengal native army revolted, and many of the Hindu and Mahomedan races rebelled. Much has been put forward as to the causes of that dissatisfaction. In the beginning of 1857 the number of British soldiers had fallen very low. The British regiments withdrawn from India for the operations against Russia had not been replaced in India, and the recruits to maintain the full strengths of the regiments remaining in India had not been supplied, and it has been supposed that the disaffected soldiery of the Bengal army took that opportunity to revolt; but a general impression has been that it had its suggestion in the losses during the Afghanistan and Punjab wars, though doubtless a great change had been effected in the temper of a naturally arrogant oriental race, who respect, almost worship, might, by introducing amongst them rules and regulations suitable only for an army drawn from nations advanced in civilisation.

The contest for supremacy was severe and long continued. In May 1857 there were on the establishment in India—European soldiers, 45,000 of all ranks, furnishing about 36,000 rank and file; native army, 244,000; semi-military police, 80,000; and about 250,000 sepoys arrayed themselves against 45,000 Europeans and about 60,000 reliable native soldiery. The latter, before the end of 1857, were increased to about 150,000, by the addition of a Sikh army from the Punjab, and before July 1858 there were over 80,000 British soldiers in India. The successive features of the revolt and re-establishment of authority were as under:—

Revolt commenced at Barrackpur by the 19th Ben. N.I., 26th Feb. 1857.
Outbreak of the native cavalry at Meerut, 10th May 1857.
Dehli massacre occurred 11th May 1857. At Ghazi-ud-Din Nuggur the mutineers were defeated on the 30th May 1857.
The Shahjahannpur massacre occurred 31st May 1857. 5th June a battle at Mutiny at Jhansi; on the 8th the massacre occurred.
Massacre at Cawnpur of the Fûttebgur fugitives, 12th June 1857.
Massacre at Gwalior occurred 14th June 1857.
Massacre of the British at Cawnpur by Nana Rao, 27th June 1857.
Massacre at Cawnpur, 15th July 1857, by Nana Rao, of British women and children.
20th August 1857—Dehli recaptured.
Lucknow entered 25th August 1857, by Generals Havelock and Outram.
Dehli assaulted 14th Sept. 1857.
The second relief of Lucknow effected by Sir Colin Campbell, 17th Nov. 1857.
Cawnpur relieved by Sir Colin Campbell, 28th Nov. 1857, and the Gwalior Contingent rested.
The battle of Nawabganj in Oudh, 14th June 1858.
Gwalior recaptured by Sir Hugh Rose, 25th June 1858.
10th April 1861—The Indian and British-European armies were amalgamated, and the native armies reorganized.

Since the suppression of the mutiny, the relative proportions of the European and native troops have been changed. The European and native forces in India were as under in the years—

European, Natives.

1859-60, 35,604 199,839
1858-59, 166,290 196,423
1842-43, 46,726 220,947
1856-57, 45,522 232,221
1851-52, 66,066 129,594
In 1857 there were on the establishment, or authorized strength, 6944 European and 8963 native artillery; 3136 European and 30,473 native cavalry. But since the revolt of the native army, the policy has been to augment the European arm, remove all native soldiers from the scientific corps, and reduce their numbers.

The composition and establishment of the Indian army in 1857, 1865, 1879–90, and 1881–82, were as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>1857</th>
<th>1865</th>
<th>1879-90</th>
<th>1881-82</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art.,</td>
<td>6,944</td>
<td>9,093</td>
<td>13,372</td>
<td>10,485</td>
</tr>
<tr>
<td>Ca.,</td>
<td>3,186</td>
<td>49,374</td>
<td>5,674</td>
<td>4,430</td>
</tr>
<tr>
<td>Inf.</td>
<td>823,254</td>
<td>185,047</td>
<td>94,365</td>
<td>94,250</td>
</tr>
<tr>
<td>Staff,</td>
<td>48</td>
<td>1,499</td>
<td>4,358</td>
<td>2,650</td>
</tr>
<tr>
<td>Vets.</td>
<td>1,115</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34,334</td>
<td>224,483</td>
<td>97,880</td>
<td>94,344</td>
</tr>
</tbody>
</table>

In 1796 the formation was tried of double battalions, and this continued till the early part of the 19th century.

In 1882 four cavalry and eighteen infantry regiments were reduced, and, excluding local troops, the establishment was fixed at 31 cavalry and 113 infantry regiments, with eight European officers to 550 natives of all ranks in the cavalry, and to 822 natives in the infantry.

Revenue.—Up to the year 1856 the increase of territory had been so continuous that any comparison of the revenue, expenditure, and debt, of preceding with those of subsequent years, would be un instructive, except as a matter of history. Since 1792–93, the Carnatic, the Ceded Districts, most of the Dekhan territory ruled over by the Peshwas, the greater part of the North-West Provinces, all the Panjub and Sind, the Central Provinces, part of Burma, Assam, Tenasserim, Orissa, Oudh, Satara, and other parts, have been added to British territory; and even since 1840, when the Panjub wars closed, about a hundred thousands of square miles of territory have fallen to the paramount power, with a population of over seventeen millions.

It may, however, be interesting from a historical point of view, to contrast the conditions of 1792–9, 1868–9, and 1881–2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Revenue</th>
<th>Gross Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1792–9</td>
<td>£2,225,638</td>
<td>£6,940,553</td>
</tr>
<tr>
<td>1868–9</td>
<td>51,657,688</td>
<td>54,431,688</td>
</tr>
<tr>
<td>1881–2</td>
<td>70,981,001</td>
<td>74,999,000</td>
</tr>
</tbody>
</table>

The following have been the amounts of revenues, charges, and debt since 1839–40:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Receipts</th>
<th>Total Charges</th>
<th>Debt.</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1839–40</td>
<td>£20,124,038</td>
<td>£22,228,011</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>1845–6</td>
<td>24,700,008</td>
<td>25,652,738</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>1849–50</td>
<td>27,522,344</td>
<td>29,999,988</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>1855–6</td>
<td>30,517,582</td>
<td>31,637,530</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>1859–60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1861–2</td>
<td>39,705,822</td>
<td>51,861,720</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>1865–6</td>
<td>50,901,611</td>
<td>56,382,601</td>
<td>101</td>
<td></td>
</tr>
</tbody>
</table>

The following will show that there have been great alterations in the Home Charges, owing to financial operations and changes in the rate of exchange:

<table>
<thead>
<tr>
<th>Year</th>
<th>In India. In Britain.</th>
<th>Year</th>
<th>In India. In Britain.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1839–40</td>
<td>£19,649,045</td>
<td>1849–50</td>
<td>£24,291,016</td>
</tr>
<tr>
<td>1845–6</td>
<td>£20,016,671</td>
<td>1854–6</td>
<td>£24,668,729</td>
</tr>
<tr>
<td>1859–60</td>
<td>£24,210,051</td>
<td>1864–5</td>
<td>£24,054,555</td>
</tr>
<tr>
<td>1866–7</td>
<td>£26,729,201</td>
<td>1878–9</td>
<td>£35,351,500</td>
</tr>
<tr>
<td>1879–80</td>
<td>£26,481,666</td>
<td>1881–2</td>
<td>£50,573,490</td>
</tr>
<tr>
<td>1880–1</td>
<td></td>
<td>1884–5</td>
<td>£50,245,760</td>
</tr>
<tr>
<td>1881–2</td>
<td></td>
<td>1885–6</td>
<td>£48,935,576</td>
</tr>
</tbody>
</table>

Land Tenure.—During all ages, the rulers of India have regarded the land as the property of the state, and the bulk of the public revenues has ever been obtained from it. In 1856 it furnished more than one-half of the total revenues of the East India Company. In 1861–65, during which other taxes were levied, out of a total of £4,652,897, the large revenue of £2,087,728 was obtained from the land. In 1789–79, when the ordinary revenue amounted to £58,624,372, that from the land was £22,330,586. During the 18 years ending 1778–79, the ordinary revenue has been increasing, other branches of revenue having improved faster than that of the land. In that period the land ranged between £10,570,147 in 1862–63 and £22,330,586 in 1878–79, but the total revenue ranged between £13,829,472 in 1861–62 and £58,624,372 in 1878–79.

There are three great forms of tenure on which the land is held, viz., the zamindari, the pattadari, and the ryotwari. The last-named prevails in Madras and Bombay, but in the North-West Provinces and in the Saugor and Nerbudda territories, the zamindari and pattadari tenures exist co-extensively. In Madras and Bombay, therefore, there is a joint ownership of the ryot cultivator and the Government.

Under native rulers, a fixed proportion of the gross produce was taken; but the British Indian Government deals with the surplus or net produce which the estate may yield after deducting the expenses of cultivation; and the directions to the revenue settlement officers provide that at least one-third of this net produce shall always be left to the cultivator as his profit. The native powers usually took at least a half of the produce, and not infrequently more; the British rulers have reduced the charge to an average of about 5 per cent.

The late James Mill, writing on this part of the revenue, remarked: 'As far as this source goes, the people of the country remain untaxed. The wants of Government are supplied without any drain either upon the produce of any man’s labour or the produce of any man’s capital.' Except the British, under the administrations of Lord Cornwallis and Lord Canning, during whose governments were introduced systems of permanent
settlements of portions of the country and a right to
purchase free holdings, every dynasty has kept
this source of revenue intact. Grants of the
royalties of the lands, in the form of jaghir, were
usual; but the joint-proprietorship in the soil has
remained in the hands of the communities and
descendants of the individuals who cleared it a
thousand years ago. Although Mahomedan
dynasties have been ruling large portions of India
for a thousand years, Mahomedans of Arab, Turk,
or Moghul descent, have few lands. Converts to
Mahomedanism from Indian races, and Pathan,
Brahui, and Baluch tribes, retain their proprietary
customs.

In Bengal, in 1793, Lord Cornwallis made a
permanent settlement with zamindars, a class of
middlemen whom he found collecting land re-
venues, by which these pay direct to Government
a sum equal to a little more than one-half what
they receive as rent. By that measure Government
cessated to have any direct participation in
the agricultural improvement of that part of the
country. Statesmen have deemed that arrange-
ment a grave error, which has lost to the State
several millions of revenue yearly; and there is
now much show of reason in the contention that
the landowners might reasonably be called to con-
tribute more largely than at present to the expenses
of the State. The land is a source of revenue on
which the State can, in all circumstances, con-
fidently rely, and than which none is more easily
collected or more willingly paid; and the most
recent orders permit a redemption only for the
land needed for dwelling-houses, factories, gardens,
plantations, and similar restricted purposes.

About 1839, a thirty years' lease was made
in the N.W. Provinces, and this has been followed
in the Punjab. It is estimated that in this mode
the assessment was about two-thirds of the
surplus, after deducting the expenses of cultiva-
tion, profits of stock, and wages of labour; and in
the revised settlements it was reduced to one-half
the yearly value.

In the Madras Presidency the zamindari tenure
exists in several localities, but principally in the
Northern Circars, since the settlement of 1802.
Another system, that of village-renters, is in
operation, in which the villagers stand in the
place of the zamindar. In the Madras ryotwar
system, the Government, as the joint landlord,
treats directly with the holder, who is regarded as
the proprietor so long as he pays the regulated
assessment. He can sub-let, sell, transfer, or
mortgage it. The assessment is fixed in money,
and does not vary from year to year, unless when
water is obtained from a Government source of
irrigation. An annual settlement is made, not to
reassess the land, but to determine upon how
much of his holding the ryot shall pay.

In Bombay the ryotwar system prevails, but
the assessment is open to revision every 30 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Rev.</th>
<th>Debt</th>
<th>Year</th>
<th>Gross Rev.</th>
<th>Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1819-25</td>
<td>16,396,290</td>
<td>30,315,331</td>
<td>1827-32</td>
<td>50,105,121</td>
<td>106,941,599</td>
</tr>
<tr>
<td>1820-21</td>
<td>21,392,241</td>
<td>35,010,451</td>
<td>1827-33</td>
<td>50,219,439</td>
<td>107,450,986</td>
</tr>
<tr>
<td>1830-31</td>
<td>22,019,310</td>
<td>36,899,147</td>
<td>1827-34</td>
<td>49,198,233</td>
<td>107,324,963</td>
</tr>
<tr>
<td>1840-41</td>
<td>20,351,073</td>
<td>31,233,496</td>
<td>1827-35</td>
<td>50,570,112</td>
<td>111,446,902</td>
</tr>
<tr>
<td>1850-51</td>
<td>37,653,360</td>
<td>49,314,347</td>
<td>1827-36</td>
<td>51,363,063</td>
<td>121,570,014</td>
</tr>
<tr>
<td>1860-61</td>
<td>42,728,661</td>
<td>62,058,688</td>
<td>1827-37</td>
<td>55,995,185</td>
<td>127,320,139</td>
</tr>
<tr>
<td>1870-71</td>
<td>48,351,783</td>
<td>69,583,151</td>
<td>1827-38</td>
<td>65,199,602</td>
<td>137,888,948</td>
</tr>
<tr>
<td>1880-81</td>
<td>50,501,061</td>
<td>74,684,669</td>
<td>1827-39</td>
<td>85,482,009</td>
<td>146,078,985</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Rev.</th>
<th>Debt</th>
<th>Year</th>
<th>Gross Rev.</th>
<th>Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890-91</td>
<td>104,437,274</td>
<td>120,819,912</td>
<td>1827-40</td>
<td>87,785,399</td>
<td>151,001,873</td>
</tr>
</tbody>
</table>

The whole or any part of his holding at pleasure.
Where, however, as in Bengal and the North-
Western Provinces, a landlord class intervenes
between the Government and the occupant of the
soil, great uncertainty as to the tenants' rights
prevails, and gross oppression is frequently
practised. The attention of the Indian Govern-
ment has been long directed to the subject. But
though there are certainly not less than seven
million peasants in Bengal with small holdings,
their troubles and grievances are borne with un-
broken silence and in unquestioning submission
to the law.

The North-Western Provinces and the Punjab
have practically one land system. In that part of
India, the village community has preserved its
integrity more completely than elsewhere. Gov-
ernment therefore recognises the village, and not
the zamindar's estate or the ryot's field.

Oudh, the Indian province most recently
acquired, has a peculiar land system, arising out
of its local history. The Oudh talukdars resemble
English landlords more closely even than do the
zamindars of Bengal.

How to provide revenue for legitimate State
expenditure is a constant subject of thought to the
rulers. The poverty of India makes it a country in
which it is a matter of extreme difficulty to
ascertain the necessary revenue. New taxes are not
easily found, and they are accepted with great unwilling-
ness. The country needs opening up by roads, rail-
roads, and navigation canals; improvements of
rivers and of channels, education and sanitation,
are urgently needed; and to accomplish these,
money has been obtained by loans. Up till the
years of the mutiny, the public debt was usually
about eighteen or twenty months of the amount
of the gross revenue. Since the mutiny, the
debt has been equal to twenty-five or twenty-six
months' revenue:

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Rev.</th>
<th>Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1812-13</td>
<td>16,396,290</td>
<td>30,315,331</td>
</tr>
<tr>
<td>1819-20</td>
<td>21,392,241</td>
<td>35,010,451</td>
</tr>
<tr>
<td>1820-21</td>
<td>22,019,310</td>
<td>36,899,147</td>
</tr>
<tr>
<td>1821-22</td>
<td>20,351,073</td>
<td>31,233,496</td>
</tr>
<tr>
<td>1831-32</td>
<td>37,653,360</td>
<td>49,314,347</td>
</tr>
<tr>
<td>1841-42</td>
<td>42,728,661</td>
<td>62,058,688</td>
</tr>
<tr>
<td>1851-52</td>
<td>48,351,783</td>
<td>69,583,151</td>
</tr>
<tr>
<td>1861-62</td>
<td>50,501,061</td>
<td>74,684,669</td>
</tr>
</tbody>
</table>

Of the amount raised for revenue, 24 millions in
no sense represent taxation, being derived partly
from opium, partly from the earnings of public
works, and the rest from the gross receipts of
departments, such as the post-office, which are
on the whole an expense to the state. It in no
case exceeds 7½ per cent. of the value of the
gross produce; in Madras it is little over 6 per
cent., and in the Punjab 5½ per cent.; while in
Bengal and the Central Provinces it sinks to
less than 4 per cent. The other items of taxation
bring up the percentage to 4s. per head of the
population.

Dividing it into classes, and appor-
tioning each tax among the classes who pay it,
it may be said generally that the landed class pay,
including land revenue, 5s. 6d. per head; the
labourers pay 7d. per head on salt, or, assum-
ing a family of three persons, 1s. 9d., equivalent
to about four days' wages of a man and his wife.
Artisans contribute 2s. 6d. per year, or say the earnings
of five working days; traders, 3s. 6d.
In 1878-79 the total gross revenue was £58,624,379.

**Land revenue, Tributes and contributions from Native States,** 2,929,380,556

**Forest timber and products, also sawn,** 605,433

**Opium,** 9,380,401

**Services of law, telegraph,** 426,694

**—post-office,** 911,506

**—railways,** 10,522

**Public works,** 571,076

**Canals, Irrigation,** 165,619

**Other sources,** 22,494,548

About £10,000,000 was raised by taxation, viz; 

**Capital tax in Burma,** £2,112,000

**Assessed taxes,** £960,990

**Customs,** 2,206,561

**Excise on spirits and drugs,** 2,613,549

**Provincial rates,** 2,638,835

**Stamps (Judicial),** 3,110,540

**Salt,** 6,941,120

In that year the total incidence of taxation on the 200,000,000 of population was under 2s. per head; adding the land revenue, the total burden was about 4s. per head.

The salt revenue is entirely an impost of the British Indian Government, and the quantities and the duties were as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
<th>Duty</th>
<th>Plantation, Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1868-69</td>
<td>£2,733,359</td>
<td>5,46,40,640</td>
<td></td>
</tr>
<tr>
<td>1869-70</td>
<td>£2,06,048,384</td>
<td>5,71,50,038</td>
<td></td>
</tr>
<tr>
<td>1870-71</td>
<td>£2,09,099,790</td>
<td>5,56,28,280</td>
<td></td>
</tr>
<tr>
<td>1871-72</td>
<td>£2,37,283,258</td>
<td>5,73,56,150</td>
<td></td>
</tr>
<tr>
<td>1872-73</td>
<td>£2,36,743,345</td>
<td>5,91,50,565</td>
<td></td>
</tr>
<tr>
<td>1873-74</td>
<td>£2,36,743,298</td>
<td>5,69,67,627</td>
<td></td>
</tr>
<tr>
<td>1874-75</td>
<td>£2,07,02,020</td>
<td>5,91,50,094</td>
<td></td>
</tr>
</tbody>
</table>

It is a tax which is recognised to press unequally on the means of the people, and there have been repeated modifications of it. In 1882-3, the salt duty was reduced to a uniform rate of 2s. per maund everywhere except Burma and the Trans-Indus districts of the Punjab, where the existing lower rates are maintained. This involved a reduction of duty amounting to 30 per cent. in Bengal, and to 20 per cent. elsewhere. The loss of revenue was estimated at £1,428,000, but this has not been the result. The chief blot on Indian taxation is that it falls too heavily on the poor, and leaves many of the wealthy classes wholly untouched. A rich person, for instance, with a couple of millions in the funds, pays literally no taxation but an infinitesimal charge on the salt which his family consume.

The revenue from opium has been as under:

<table>
<thead>
<tr>
<th>Year</th>
<th>Receipts</th>
<th>Charges</th>
<th>Year</th>
<th>Receipts</th>
<th>Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1861-62</td>
<td>£2,29,350,399</td>
<td>£21,495,456</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1862-63</td>
<td>£2,19,075,769</td>
<td>£1,586,278</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1863-64</td>
<td>£2,29,350,929</td>
<td>£2,308,403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1864-65</td>
<td>£2,41,345,405</td>
<td>£2,578,681</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1865-66</td>
<td>£2,31,284,294</td>
<td>£1,947,297</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1866-67</td>
<td>£2,087,809,413</td>
<td>£1,277,830,687</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(11 mo.)</td>
<td>£2,087,809,413</td>
<td>£1,277,830,687</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1867-68</td>
<td>£2,174,213,992</td>
<td>£1,764,234,936</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1868-69</td>
<td>£2,455,305,050</td>
<td>£1,720,111,322</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1869-70</td>
<td>£2,056,038,685</td>
<td>£1,298,608,685</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1870-71</td>
<td>£2,045,459,015</td>
<td>£2,014,425,895</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The opium manufactured in British territory is a Government monopoly; but about an equal quantity is prepared in Native States, on which a limited tax of 3d. per maund is levied. This produces a net sum of £6,000,000 to £7,000,000, and the Indian Government's share is the only real source of revenue which can be raised in India without inflicting some hardship and causing a great deal of discontent. It has been regarded by many persons in Britain as differing from spirits and other drugs, but there is no difference between them.

**Languages.**—The languages of British India have been investigated by many of the learned of Europe, and a fairly continuous series of inscriptions on rocks, on pillars, and on copper plates, enable us to trace back the Indian alphabets to the 3d century B.C. The Asoka inscriptions, 250 B.C., were in two characters. The northern variety, or Ariano-Pali, is recognised to be older than the south Indian variety, or Pali, is believed by some scholars to be of western origin, others holding it to be an independent Indian alphabet; and an attempt has been made by General Cunningham to trace its letters back to an indigenous system of hieroglyphics in prehistoric India.

Arabic is the only one of the Semitic tongues to any extent used, and even that only in the Koran, as the sacred book of the Mahomedans. Sanskrit is known to all the learned Brahmins of India, and is the language of their sacred texts. Neither Arabic nor Sanskrit is vernacular. But the Sanskritoid tongues, Hindi, Urdu, Bengali, Cutchi, Gujarati, Konkani, Marhatti, have many infused Arabic and Persian words, and the Urdu has grown out of the union of all of these. The Hindi abounds in Sanskrit words, and has many dialects. The tongues spoken in the whole of Upper India, including the Punjab, from the Himalayan to the Vindhyan range, may be said to be Hindi, as also the languages of Kanaon and Garhwal, all along the sub-Himalayan range as far as the Gogra river; the impure dialect of the Gurkas, the Brij-bhasa (or Baka, as it is pronounced on the Ganges), the Punjabi, Multani, Sind, Jatika, Herati, Marwari, and, it is said, Konkani; the Bengali is a form of Hindi, but so highly polished as to be classed as a distinct tongue; and Baluchi and Pushu have relations with the Sanskritoid tongues. At the close of the census of 1871, it was estimated that 41 millions were speaking Bengali, 4 millions Urya, 2 millions Assamese, 60 millions Hindi, and 40 millions (40,882,537) Urdu. These and their dialects comprise the languages of the Aryan race. Dr. Hunter (Imp. Gaz.) supposes the languages of the non-Aryan races to indicate that the earlier occupants of India belonged to three great stocks, which he designates the Tibeto-Burman, Kolarian, and Dravidian. He says of the Tibeto-Burman tribes, that in some prehistoric time they had dwelt in Central Asia, side by side with the fathers of the Mongolians and the Chinese; that they crossed over the Himalaya into India by the north-eastern passes, but have continued to cling to the skirts of the Himalaya and their north-eastern spurs; and several of the hill languages in Eastern Bengal still preserve Chinese and Mongolian terms. The Tibeto-Burman tongues prevail southwards through the Eastern Peninsula, till they become intermixed with the Mon Anam, and with the Siamese or Tai group, and finally meet the Malay races in the extreme south of the Malay Peninsula. The Tibeto-Burman tribes have but little amalgamated, some of them being still in a semi-savage state. The known languages and dialects in use amongst them are 468.
above a hundred, and only a few of them are written tongues. The principal are the Aka, Burmese, Cachari or Bodo, Dhimal, Garo, Gurung, Kanawari dialects, Khyeng, Kuki dialects, Lepcha, Manipuri, Mikir, Miri, Mishmi dialects, Murmi, Naga, Newar, Singpho, Tibetan or Bhutia, Tipura or Mrung.

The Kolarian, another non-Aryan race, are scattered in the north-eastern parts of Central India, and in parts of its Western Peninsula. They also are supposed to have entered India through the north-east pass of the Himalaya. The Santal, the largest of the Koi tribes, dwell in the extreme north and north-east of the table-land, where it slopes down into the Gangetic valley; the Kurku, another Kolarian tribe, inhabit a patch of country about 400 miles to the west, and the Santal and Kurku dialects are almost the same. The Savara, once a great Kolarian nation, mentioned by Ptolemy, are now a broken tribe of woodcutters, dwelling in the forests of the northern part of the Eastern Ghats. Other tribes with dialects of the Kolarian group, are the Mundari, Ho or Larka Kol, the Bhumij, the Korwa, Kharia, the Jang, the Kuri, the Kurku, and the Mehta. These mark distinct and isolated tribes, which have never within historic times held any large portion of the country.

The chief Dravidian languages are the Tamil, Telugu, Canarese, Malealam, and Tulu, with several uncultivated dialects of the Tamil and Canarese, viz. : Kudaga or Coorg, Toda, Badaga, Kota, several Gond dialects, also the Kandh or Kur, Singh or Dhangar, and Rajmahal or Maler, the Yerkalaka, Korawa, Tenadi, and other broken tribes.

Neither the time of the incoming of the Dravidian tribes nor the routes which they followed, are known. They now occupy much of the northern part and lowland of Ceylon; and nearly all the Western Peninsula, several of them in great nationalities. Mr. Hislop and Dr. Caldwell suppose that they entered India through the N.W. passes, and that some Dravidian and Kolarian tribes converged and crossed each other in Central India, ultimately taking up the positions which the Kol and the Gond hold in the mountainous tracts there,—the great bodies of the Dravidians, however, swerving to the south of the Peninsula, and into Ceylon. Forty-eight millions of people speak Dravidian tongues.

The census of 1871 showed the people speaking Telugu to be 21,610,000 souls in the Madras Presidency, besides whom the south-eastern portions of Hyderabad, westwards to Beder and Dangapura, have Telugu as their vernacular; and Teling colonies are in Mysore, about three millions more. Tamil is spoken in the Madras Presidency by 14,715,000, with colonies in Ceylon and the Straits, and in all the large cantonments of Mysore and Hyderabad.

The Canarese-speaking people of the Madras Presidency number 1,699,000; but the southern portion of the Bombay Presidency, 2,101,931, and the S.W. part of the Hyderabad Dominions, and most of Mysore, are Canarese, and their total number may be 53 millions. The Imp. Gazetteer says 9 millions; which seems an over-estimate.

Malealam is spoken by 2,324,000 in the Madras Presidency, and by about 1,902,393 in the Travancore State.

The Tuluva people are ceasing to speak Tulu, only 29,000 now using it, and 640,000 speak the Uriya and hill languages.

How languages and dialects become intermixed even at the present day, is shown by the variety of tongues spoken in the N.W. corner of the Peninsula, forming part of the Bombay Presidency. Maharri is spoken there by 7,751,497 persons; Gujarati by 3,103,311; Canarese by 2,101,931; Sinhi by 2,051,726; Hindustani by 871,421; Baluchi by 149,519; Marwari by 141,229; and Brahui by 24,620. Other eastern languages are represented by 5418 persons speaking Arabic, 684 Bengali, 65 Burmese, 31 Chinese, 26 Kashimir, 26 Kungi, 325 Malealam, 2065 Negro dialects, 13 Nepali, 23,966 Panjabi, 8198 Pushtu, 4250 Persian, 45,541 Goanese, 2 Singhalesse, 2 Urija, 7830 Tamil, 110,237 Telugu, 595 Tulu, and 263 Turkish. European languages are represented by 26,340 English, 2 Danes, 3 Dutch, 145 French, 322 Germans, 58 Greeks, 80 Italians, 24 Maltese, 4005 Portuguese.

Mr. E. L. Brandreth, in vol. x. of the Royal Asiatic Society's Journal for 1877, gives the following list of the Non-Aryan languages in India:—

**Dravidian.**

<table>
<thead>
<tr>
<th>Language</th>
<th>Gond dialects, viz.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil</td>
<td>Tuluva</td>
</tr>
<tr>
<td>Tamil, sch.</td>
<td>Canarese</td>
</tr>
<tr>
<td>Malealam</td>
<td>Telugu</td>
</tr>
<tr>
<td>(Canarese)</td>
<td>(Malealam)</td>
</tr>
<tr>
<td>(Badaga)</td>
<td>Thulung</td>
</tr>
<tr>
<td>(Talu)</td>
<td>Tippura or Mrung.</td>
</tr>
<tr>
<td>(Kudag or Coorg)</td>
<td>Toda</td>
</tr>
<tr>
<td>(Rajmahal or Maler)</td>
<td>Kota</td>
</tr>
<tr>
<td>(Korawa or Tenadi)</td>
<td>Kolarian</td>
</tr>
</tbody>
</table>

**Kolarian.**

| Language | Santali, Mundari, Ho or Larka Kol, Bhumij, Korwa, Kharia, Kuri, Kurku, Mehta, Savara. |

**Tibeto-Burman.**

1. (Cachari or Bodo.
2. (Meich.
3. (Hoijal.
4. (Garo.
5. (Pani Koch.
6. (Deori Chutia.
7. (Tippura or Mrung.
8. (Samba.
9. (Lhopa or Bhutani.
10. (Changlo.
11. (Twang.
12. (Gurung.
13. (Murmi.
14. (Thakaya.
15. (Newar.
16. (Pahari.
17. (Magar.
18. (Lepecha.
19. (Dophia.
20. (Miri.
21. (Abor.
22. (Bhotia or Lo.
23. (Tlaka.
24. (Aka.
25. (Mishmi dialects.
26. (Chulikata.
27. (Tuying or Diguar.
28. (Mujum.
29. (Dhimal.
30. (Kanaewari dialects.
31. (Milchan.
32. (Tibergad or Bumun.
33. (Sunbu.
34. (Kiri, with 17 dialects, viz. Baringya, Balalti, Chingtanganya, Chouraya, Dumi, Dungmali, Khaling, Kulungya, Lambichong, Lohorang, Nach-ching-Rodong, Run-chening-Sangpang, Thulungya, Wa-ling, Yakka.
35. (Limbu.
36. (Sunwar.
37. (Braun.
38. (Chepang.
39. (Vayn.
40. (Kusanda.
41. (Naga dialects.
42. (Namao or Japiouria.
43. (Banpora or Joboka.
44. (Mithan or Muthun.
45. (Tahlung.
46. (Maning.
47. (Naga dialects.
48. (Khari.
49. (Noyong.
50. (Tega.
51. (Lhoto.
52. (Angami.
53. (Rengma.
54. (Arom or Aromi.
55. (Kutchi.
56. (Liyang or Koreng.
57. (Marum.
58. (Kiri. xiv. (Singpho or Ka Kyan.
59. xvi. Burmine; Much of Chittagong and Rukhong of Arakan.)
Arabic, Persian, and Urdu are written in modifications of the same character; Sanskrit, Hindi, Marhatti, similarly; but Gujarati, Bengali, Kashmiri, or Canarese, Maleadom, Tamil, Telugu, Tulin, and Uriya have each their own writing character; and since the early part of the 19th century, propositions have been made to substitute for them all the Roman printed and Italian cursive characters, but the suggestion has not been carried out. Sir Erskine Perry, about the middle of the century, successfully advocated the introduction of the Arabic numerals in the official documents of the Madras and Bombay Presidencies.

In summing up this part of the subject, it is necessary to mention that since the middle of the 19th century every educated native of India aspires to an acquaintance with the English; and the public examinations for scholastic and collegiate honours show a comparative neglect of their respective vernacular tongues.

Literature.—The literature of India has marked features. In the north, the Indo-Aryan or Sanskrit language and literature was developed by the Brahmins. To them the Hindus are indebted for their sacred Vedic books, with their Sanhitas, Brahmanas, Sutras, and Upanishads, and for the later Puranas. The Sanskrit writers produced works of great beauty in epic, dramatic, lyrical, and ethno-didactic poetry; from early times, the science of language, philosophy, and astronomy, were highly cultivated by them. Medicine seems to have been an independent development. They advanced the arts of music, painting, sculpture, and architecture. Law and religious worship received great attention; and six darsanas or schools of philosophy grew up amongst them, and are still fully recognised.

During the 18th and 19th centuries, many of the learned of Europe and India engaged in the study of the Sanskrit writings; and Aufrecht, Ballantyne, Bhan-Daji, Buhler, Burnell, Burnouf, Colebrooke, Goldsticker, Hang, Kern, Lassen, Max Muller, Rajendra Lal, Roer, Rost, Roth, Schlegel, William Taylor, Weber, Westergaard, W. Williams, and H. H. Wilson have been prominent.

Until the middle of the 19th century, it was customary for Indian students of Sanskrit literature to commit the books to memory, and manuscripts older than the 11th century have not been found. The Vedas themselves detail the mythology and domestic customs of the East Aryans till their arrival in India. The Mahabharata, an epic by a Vyasa, describes a war between the Pandava and Kaurava branches of the Lunar race. Another epic, the Ramayana, by Valmiki, relates the exile of Rama, a Solar prince, and his expedition to the south to recover Sita, his wife, whom Ravana, a ruler of Ceylon, had carried off, and the recognition of his two sons, Kush and Lava. The Puranas relate to modern Hindoos. The Vishnu Purana is supposed to have been written about A.D. 1045, and the date of the Bhagavata Purana is unsettled. Kalidasa, the author of the Raghuvansha, the Komara Sambhava, the Megha Duta, and Sakuntala, was the father of the erotic lyric. Jayadeva, author of the Gita Govinda; the astronomical works of Varaha Mihira, Brahmagupta, and Brahmacharya; and the writings of the physicians Charaka and Susruta, also of Panini the grammarian, compose 300; and the stories of the Vrata Katha and the drama of the Toy Cart, the Mrishchakatki, and Nala and Damayanti, are known to all Europe. The Hindi vernacular, says Dr. Hunter, owes its development into a written language partly to the folk-songs of the peasantry and the war ballads of the Rajput court bards, but chiefly to the literary requirements of the Vaishnava faith. The three best known acts of their religious treaties are the voluminous works ascribed to Kabir (A.D. 1380-1400) and his followers, preserved in the Kabir Chaura at Benares; also the Grant, or scriptures of various Bhagats or Vaishnava religious founders, especially of Dudi in Rajputana, and of Nanak and succeeding gurus of the Sikhs; and the Bhaktamars, or 'Garland of the Faithful,' compiled by Nabaji about the fifteenth century, and popularized by Nanayans Das (1627-58), Krishna Das (1713). The Prem Sagar, one of the Vaishnava sacred love songs, relating the loves of Radha and Krishna, is prized throughout all Northern India. Chand, the Hindoos court bard of Prithwi Raja of Dehli, wrote the Prithwi Rasam, a ballad chronicle, one of the earliest poems in Hindustani.

But in the south of India the Tamil people, certainly from the earliest centuries of the Christian era, developed an independent literature. Some of their books, written by Pariahs, take a very high place in ethics, as the Tolkappayam; Kural of Tiruvalluvar, a Pariah; the five books of Anavaiyur, the Matron, also a Pariah; the Chintamini; and Nallun. The Rev. Dr. Bower says of Anavaiyur, She sang like Sappho; yet not of love, but of virtue.

The literature of foreign countries has also ever been largely available. Aryans, and Semites, and Turks, and Moghuls, brought with them the writings of their own nations, and, while dominant, contributed largely to the literature of the country. The Arab, Moghul, Turk, and Persian were adopted literary. Timur wrote his Institutes; the autobiography of Baber was written in Chaghatai Turki; Akbar spoke and wrote in Turki; and up to comparatively recent times, the Turk and Persian formed two distinct, often opposing, parties at Dehli. Sir Henry Elliot and Mr. Dowson's labours in writing a history of India, as told by its own historians, have made known many Arab authors. Persian, during the 18th and 19th centuries, was the court correspondence language of all Mahomedan and Hindu rulers; and since the latter years of the 18th century, the dominations of the Moghuls have given to India numerous works in English, and have made widely known the writings of preceding races. The scheme on which this Cyclopaedia has been planned requires separate notices of the chief authors, and their names will therefore be found in their respective places, but Sir William Jones, Mountstuart Elphinstone, Sir Henry Pottinger, and Sir John Malcolm are recognised to have led the way to history and travels. The better known of the Asian writers have been as under:—

All new books in India are registered under Act xxi of 1867, and the publications in 1878 were 4,913, and in 1879, 4,689, as under:—

1878, 1879.

Biography, 22 29    Religion, 150 129

Drama, 175 146    Science, 135 146

Fiction, 182 200    Natural, 114 53

History, 96 143    Travels and Voyages, 612 649

Language, 429 220    Ages, 2 4

Law, 213 185    Medicine, 213 185

Miscellaneous, 1042 1065    Viz. in English and European, 576 523

Philosophy, 43 90    Vernacular, 3148 508

Poetry, 604 691    Classics, 536 924

Patriotic, 7 8    Diglot, etc., 673 841

A few officers of the East India Company’s service—Gilchrist and Roebeck for Urdu, Brown and Morris for Telugu, and Molesworth for Marathi—have done much to purify the vernacular tongues. The Christian missionaries have prepared hundreds of works, suited both for schools and for general circulation, in the fifteen most prominent languages of India and in several of their dialects; they are the compilers of several dictionaries and grammars, and they have written important works on the native classics and the Hindu and Buddhist systems of philosophy. During the ten years from 1862, they issued 1,654,940 copies of the Scriptures, chiefly single, and 8,604,053 school-books and books for general circulation. During the ten years between 1862 and 1872, they issued 3,410 new works in thirty languages, and circulated 1,516,503 copies of books of Scripture, 2,754,000 school-books, and 8,750,129 Christian books and tracts. In 1870-71 two valuable works were brought to completion, the revision of the Bengali Bible, and the first
The Jews on the western coast (7626) are of little social influence.

The Parsees, another small body (69,476), are chiefly in the Bombay Presidency. They follow the modified Zoroastrianism which their ancestors in Persia had formed. They are wealthy and enterprising, are largely engaged in foreign trade, and are taking their share in all municipal and civil duties; but they have never served in the Indian army, nor aided, in arms, any of the Indian rulers who have protected them, and they have hampered themselves with some Brahmanical restrictions. There are Jews of fair and others of black skins, showing that at some former time they made converts, but at present neither they nor the Parsees proselytize; and the same may be said of the Jains and of the Buddhists of India; but Sir J. E. Tennent describes as violent the polemical literature of the Buddhists of Ceylon.

The Christians of British India proper, at the last census, were found to be 897,682. They are chiefly numerous amongst the non-Aryan races, particularly in Southern India and in Burma, 533,760 being in the Madras Presidency, 128,063 in Bombay, 84,219 in Burma, and 25,676 in Mysore. In 1875, in Travancore there were 468,518 Christians; in Cochin, 140,417; in Puducherry, 11,360. Christians of the Romish sect in French territory number 33,544, and in Portuguese territory 245,318, which makes 1,038,940 Christians for British India and the Native States. Almost all the Christian sects have missionaries from the Mediterranean to China and the Archipelago, zealous propagandists. The Romish clergy have been the more successful, though the effect of Dr. and Mrs. Mason's teaching amongst the Karen, and of Dr. Caldwell's amongst the Shanars, has been great. The Protestant missionaries have largely used their influence to promote secular education, and Hindus have widely taken advantage of the opportunities their schools have afforded, to acquire a knowledge of English; the Catholic missionaries from France and Italy having rather fostered the vernacular tongues.

The Sikh religiousists, 1,174,435 in number, are almost exclusively in the Panjab. They had their origin in the semi-Hindu semi-Mahomedan teachings of Nanak. In the early part of the 19th century they were a compact body, and zealous. They were almost exclusively converts from amongst the Jat, who have largely colonized the Panjab and the Indus valley, and have spread eastwards into the N.W. Provinces. Under the maharaja Ranjit Singh, in the early part of the 19th century, they became a truly formidable sect. Nanak preached the abolition of caste, the unity of the Godhead, and the obligation of leading a pure life. From Nanak, ten gurus are traced down to Govind Singh in 1708, with whom the succession stopped.

The Buddhists and Jains, in the 1871 census returns, numbered 2,832,851, and of these 2,447,831 were in Burma. But Chinese from Yunnan are immigrating in great numbers into that part of India, and 3,251,589 was the number returned as dwelling there in 1881.
with them into Burma, a knowledge of the moral philosophies of Confucius, of Lao-tze, and Mang-teze, the Mencius of European writers.

The Mahomedan in 1881 numbered in India 40,867,125. They are partly descendants of immigrants from Arabia, and of invading and immigrating races from Persia and Central Asia; but the ancestors of the bulk of those in Bengal (and in 1881 these were near twenty millions [19,553,831], with 1,104,601 in Assam) are recognised to have been of a Mongoloid family whom the Mahomedan conquerors found in that region. Their sacred book, the Koran, has been translated into Persian, Urdu, Tamil, Burmese, and Malay, but it is chiefly read in the original Arabic, and their haddes or traditions have almost equal authority with the Koran.

The political animosity which resulted in the death of Ali and his two sons, continues to separate these religious sects into the two great sects of Sunni and Shia, who, even in British India, barely restrain their animosity. It is a feud of 1300 years. The small Mahdavi sect are fanatical. The Ismaili in India are comparatively unimportant, and the recognition of sects to which the designation Wahabi has been given, are apt in their zeal to inflame political questions into their social life. They all distinguish their ethnic, or race, descent by the terms Syud, Shaikh, Pathan, and Moghul, as of Arab, Afghan, Persian, Moghul, and Turk origin respectively, and all the converts are classed as Shiahus. The Syuds, descendants of Mahomed and Ali, are not numerous, and are quiet-mannered men, and mostly Sunni. Many of the Jat and some Rajput clans, during imperial Moghul sway, adopted the Mosalman faith.

Hindu is a term ordinarily applied by Europeans to all the idol-worshippers of India, to all who are not Jews, Buddhists, Jains, Parsees, Christians, or Mahomedans. The people themselves restrict the term to their Sudra section, and distinguish by their caste names the higher caste Brahman, and the Rajput, Khatriya, and the Seth, Chettiars, Banya, Vasis, and servile classes. Some of the non-Aryan castes and some latter races are never called Hindu. Hindus are eminently followers of some part or other of the religious or philosophical doctrines which the Brahmanas teach regarding the chief deities and their incarnations, and to some extent are versed in the mythologic tales about Brahman, Vishnu, and Siva, one or other or all of whom, or their avatars or incarnations, Brahmanas of the post-Vedic times have come to regard as supreme. But their worship is largely directed to the wives of the deities, to heroes whom they have deified, to plants, to animals, to sculptured images, to shapeless pieces of wood or stone; also to the sun and moon and planets; and everywhere and amongst all classes, to spirits and snakes, and to the weapons or implements of their avocations; and their theological imaginations are as varied as their gods. Brahman has few shrines,—it is said only at Bithur; Siva only has one in the linga-shambala and Vishnu in the form of one or other of the avatars in which he is believed by them to have appeared on earth to save mankind, or to punish arrogance and vice. Saraswati, goddess of learning, the wife of Brahma, has escaped the oblivion into which her spouse has fallen. But Siva and his consort Parvati, and Vishnu, with Lakshmi his spouse, claim as worshippers the bulk of those whom Europeans call Hindus. In 1881, Hindus were returned as 139,343,820 in British India; but there was another body, 5,746,673, whose religion at the time of the census was not ascertained.

Castes.—The numbers of Hindu and their higher civilisation have secured for them a recognised superiority over the non-Aryan aborigines and over all fragmentary tribes. To these, Hindus apply the term m海外, which has the same significance as Gentile had to the Jew, as Barbarian had to the Greek, and as E has to the Chinese. But the whole of the idol-worshippers, alike Aryan and non-Aryan, are separated from each other into a multitude of sections, who neither eat together nor intermarry, but dwell apart in different sections of their towns. These sections, known to Europeans as castes, are designated by the people, Varna, colours, or Jat or Zat, race. Their Varna and Zat names indicate differences in race, or place of birth, or nationality, or avocation, or even simply of the customs they follow. The number of such separate castes in Bengal alone is not short of a thousand.

In Maharam Peshwa, Wilson enumerated 145 castes, 23 of whom were deemed unclean, and not permitted to dwell within the town walls. But, to Europeans, much of the action of the Hindu and caste purity seems strange. Ghi is a food article in use with every Hindu, and it is carried in great leather bottles; yet the bottle-maker is one of the unclean artisans. Many, perhaps most, of the servile races are broken up nations and tribes whom wars and revolutions in prehistoric times have reduced to their present standing. To Europeans it might even seem impossible, under these conditions, for society to exist; but they are held together by an ordinance of Menu, their lawgiver, who laid down the rule that every man is pure in his respective trade.

Prominent amongst the Hindu castes are the Brahmanas, though they, too, are separated into small sections by differences of religion, philosophy, and descent. Ages of intellectual culture have produced in them a race of recognised ability. For nearly 3000 years they have been in the ruling princes, all important executive and administrative; once only, and that in modern times, they attained to dominion under the title of Peshwa; but their power lasted barely about sixty years, and was destroyed in 1761, by their complete defeat at Panipat.

The Rajput is generally accepted as representing the ancient martial Khatriya. Clans of them hold villages in the N.W. Provinces and Oudh, where they were dominant till the 13th century; but they are still ruling in Rajputana and Gondwana, over aboriginal races, who instal their Rajput princes by making with their blood the tika mark of sovereignty.

The Vaisyas, a third caste, are at the present day admitted to embrace all the Hindu sections who are engaged in trade; but their physical appearance does not indicate the most diversified origin.

Sudra, the fourth class, includes all who are Hindus, other than the Brahman, the Khatriya, and the Vaisyas.

The Jat race, who followed and pushed the Rajputs farther into N.W. India, are eminently agricultural and pastoral; and, with the tall, robust Kat’hi, dominant in Kattyawar, are of a stock who still maintain many Scythic rites. There are two Jat sovereignties, Bhurtpur and Dholpur, and
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several powerful Jat chiefs in the N.W. parts of India. The Jat in the N.W., the Tamil, Teleng, and Canarese in the south, and the Karen on the frontiers of Burma, have given the most numerous converts to Hinduism, as nations.

All the Hinduized aborigines of the Kolarian and Dravidian stocks have been admitted into the Sunda section. The major part of the Canarese, the Mahbrat, and the Telugu speaking races who are engaged in agricultural occupations, are of this division.

Castes.—It might be thought that one Brahman, or Banya, or Kshatriya family might eat or intermarry with any other Brahman, Banya, or Kshatriya household, or that any one Kunbi, or Karuni, or Pariah, or Dher might eat with or obtain a wife from others of their own caste; but differences in their tribal or clan descent, or in their occupations, keep them apart. In the many languages current, the names of identical trades and avocations necessarily vary, and even that forms a sufficient reason to keep apart the people following them. The respective castes exercise strict supervision over their members. Fines and penances are imposed on parties who deviate from recognised rules,—even excluding them from their caste. In ancient times, neglect of religious rites seems to have been a reason for depriving a person of caste. Menu says (x. 43, 44) the following Kshatriya tribes have gradually sunk into the state of Vrishala, from the extinction of sacred rites, and from having no communication with Brahmanas:—Paudraka, Odra, Dravida, Kamboja, Yavana, Saka, Parada, Pahlava, China, Kirata, Darada, Khasa.

At the present day, the penalty of exclusion from caste is inflicted on Hindus who have sailed to Europe, notwithstanding that the mercantile Rajputs of Cutch have been trading for centuries on the east coast of Africa, and Hindus are met with westwards through Central Asia to Russia in Europe. Also, Java and Bali, in the Archipelago, were conquered by a Hindu dynasty, and Hinduism is still Hindu; the Teleng and Tamil soildiers of the Madras Presidency, and the Sikh and Hindu soldiers of the Bengal army, have conquered in Burma, China, Persia, Aden, Egypt, and Abyssinia.

A peculiar feature of the Brahmanical supremacy has been the servile position which they have enforced on the non-Hinduized aboriginal tribes, few of whom have, or only partially, adopted Brahmanism. This is not confined to the semi-barbarous forest and mountain tribes, whose long seclusion has superinduced timidity in intercourse with their fellow-men; but outside the walls of every village throughout British India are families of the Pariah, the Dher, the Mah, the Mang, the Ramul, the Koli, Chamar, the Bil, the Dhor, the Blur, the Dom, the Mhaor, the Mina, who, since two or three thousand years, have been retained in feudsl slavery, who have recognised in succession the Hindu, Buddhists, Mahomedans, and Christians as their masters, and have been doing all the servile work, but have nevertheless adhered to their own fetish forms of worship, uninfluenced by their masters' creeds. Many of them are intellectual. They are brave, truthful, docile, and gentle; but the religion of their village authorities has never commended itself to them. There are small, homeless, broken tribes wandering through the country, as the Bazigar, Doomar, Korawa, Kunjar, Nuth, Sosannah, Yeruka, of whom little is known. They almost all are predatory; and pitch their reed mat or grass huts in lone parts of the outskirts of towns.

Sacred Books.—Hindus arrange the whole of their sacred and learned works under eighteen heads, and speak of them as embracing eighteen kinds of knowledge, viz. the four Vedas, the four Upanishads, the six Puranas, and the four Vyagras.

The Vedas of the ancient Aryans, styled the Rig, the Yajur, the Sama, and Atharva, are acknowledged by nearly all Hindu and Jain sects. They consist of collections of hymns, containing a ritual, in the Sanskrit language, and are supposed to have been composed about fifteen centuries B.C. The Sanhita of the Rig Veda is the earliest record of the eastern Aryans extant. The Sama Veda is a reproduction of parts of the Rig Veda. The Upanishads are books containing the doctrine of the Vedas explained and enlarged.

The Puranas, literally the old books, are eighteen in number, are of different ages, between the 8th and 9th or 14th and 15th centuries A.D. They are written in the Sanskrit language, in simple sloci metre, and each treat of five subjects, viz. (1) the creation of the universe, (2) its progress and the renovation of worlds, (3) the genealogy of gods and heroes, (4) mythological chronology, and (5) heroic history, containing the achievements of demigods and heroes. They superseded the Vedas, and are the proper religious books of the modern Hindus; they are practically polytheistic, and yet essentially pantheistic.

The Hindu systems of philosophy are six in number. They grew out of the Upanishads, and are sometimes called the six Sastra, or bodies of learning, sometimes the Shad Darsanas, or six Demonstrations. They are, (1) the Nyaya, founded by Gautama, which corresponds to the Peripatetic school; (2) the Vaisheshika, by Kanada, corresponding to the Ionic; (3) the Sankhya of Kapila, corresponding to the Italic school; (4) the Yoga, founded by Patanjali, resembles the Stoic philosophy; (5) the Manichaeans of Jaimini corresponds to the Platonic; and (6) the Vedanta of Vyasa or Badarayana, is likewise a Platonic philosophy.

Their philosophical speculations as to the nature of the soul and its relation to the Supreme, are derived mostly from three great apostles of the Vedantist schools, who flourished in Southern India, viz. Sankaracharya in the 9th century, his follower Anandagiri, author of the Sankara Vijnaya; Ramanuja, a Vaishnava, in the 12th century, and Madhavacharya, a Saiva, a little later, in the 14th century; and their several views have separated them into believers in the Adwaita philosophy of Sankara, the Dwaita of Tirthachari, and the Visishta-dwaita of Ramanuja.

Charvaka founded the materialistic school of the Hindus; he was the Pyrrho and Epicurus of India. The Hindu mind, particularly in such as are of Aryan descent, is pre-consciously speculative, always ready to go after truths that lie in the region of philosophy or religion. While the Arab, Turk, Moghul, and Persian races have been largely historical in their writings, the Hindu mind has revelled in myths, in poetry, and the drama. Their writings are clothed with images; much in them is beautiful and sublime, but so defective in all that relates to their history, that the dates even of their most famed events, the eras in which their celebrated personages have lived, cannot be
more than guessed at. When, and by whom, their great epic the Mahabhārata and Ramayana, or their sacred Vedas and Purānas, were written, has not been determined. The age in which Krishna lived is only surmised, and although he is now worshipped as an avatar of Viṣṇu, the date of his apothecosis is only supposed to have been about the 5th century of the Christian era. Neither as to the origin of the Śaiva and Viṣṇuva culture have they any information on which the historian can definitely rely. Amos v. 26 gives more information about the era of Śiva than all that the Hindu books contain.

What can be traced of the history of the country since the 8th century, discloses continuous religious movements amongst the people. Devout men, in all grades of Hindu society, have drawn followers around them, forming new sects of greater or less importance. The tendency of all of these has been to enjoin faith in the Supreme; and all the great leaders have founded their views on a belief in the brotherhood of man and the abolition of caste restrictions, but each in succession has become as exclusive as any of the Viṣṇuva sects from which they were separated.

Modern Hindus barely recognize or even know several of the gods of the Vedic times. Indra, the Vedic god of the air and of the heavens, the king of the gods, compared with ancient times, is now seldom alluded to. Varuna, god of the waters, with Pavana, god of the wind, Kama, god of love, and Kartakeya, of war, are in similar neglect. Agni, god of fire, with Surya, the sun, Soma, the moon, Kuvera, god of wealth, and Yama, god of the infernal regions and judge of the dead, are better known. But the prominent deities in their invocations and worship are, Brahma the creating principle, Viṣṇu the preserving and Śiva the destroying principles. Each of these has corresponding female divinities, who are mythologically regarded as their wives, but metaphysically as the active powers which develop the principle represented by each of these divinities. The names of these energies or sakta are respectively, Saraswati, the goddess of learning and eloquence, who continues to be invoked by the learned; Lakshmi, the goddess of plenty, who is worshipped in all households; and Parvati, who is largely worshipped, and is known also as Devi, Bhawani, and Durga. Ganesha is invoked at the commencement of all undertakings, as the remover of difficulties, and as such he presides over the entrances to all edifices.

Śiva is entitled Eswara, lord, or Mahadeva, great god. He has many temples under various names, and his usual emblem relates to their physiological idea of the cosmos.

Many of the deities now worshipped—Balaji, Kandoba, Vithoba—have been local deities in pre-Hindu times, whom the Brahman missionaries admitted into their mythology as incarnations of Viṣṇu and Śiva. There are many saiva sects:

Aghori; Akasamukhi; Avadhuta; Brahmacari; Dandi and Dasnami; Gudara; Janganna; Jogi or Yogi; Kara Lingi; Naga; Nakhi; Paramhansa; Rukhara; Sanyasi; Sivachari or Srisiva; Sukhara; Ukkara; Urdha Bahur.

The more important of the vaishnava sects are:

Charan-Dasi; Radha-Dasi; Ramanuja or Sri-Sampada; Durgavallabhi; Dhun Panthi; Hari Chandchi; Sadasiva Panthi; Khaki; Madhav; Madhuchand or Brahma Sampradaya; Maluk Dasi; Mira Bai; Naga; Radha-Vallabbi; Ramanandil or Ramawat.

Sakta sects are:

Dakshina or Bhakta; Kan Chulyia; Vami or Vamanachi; Karni.

The Tantras are the Sakta sacred books.

Reformers.—From time to time Hindu reformers have appeared, and at the present day Hindu missionaries are actively extending their faith amongst the forest tribes. The more noteworthy have been Kumariya Bhatta, about the middle of the eighth century, followed by his disciple Sankaracharya, the great apostle of Saivism in the middle of the 8th century, and his historian Anandagiri; Jayadeva, author of the Gita Govinda, lived about the 12th century; Ramanuja, in the middle of the 12th century; his follower, Ramanand of Benares, about the end of the 14th century; Kabir, a follower of Ramanand, about the end of the 14th and beginning of the 15th centuries (1380–1420); Chaitanya, in the latter part of the 15th century; Valabhacharya, in the beginning of the 16th century.

The tendency of all Hindu reformers has been towards monotheism; and the Sa'dh or Sa'dhna, the Siva Naryani, and the Brahmo Sanjih have been the prominent and important theistic movements of the 19th century. The last originated with Dwarkanath Thore, and was followed up by Keshab Chandra Sen. Separations early occurred amongst them, but they may be characterized as distinctively monotheists in belief, and philosophical rationalists.

Looking at the ordinary everyday life of the people, it may be said that all classes worship the Graha-devata or village gods, and Giriha-devata or tutelary divinities; and demons, the cobra snake, the sun; the spirits of the dead are recognised by all,—spirits of their own ancestors, of other Asiatists and of Europeans, of British and French officers, and ladies of Great Britain, to all of whom sacrifices are made, with offerings of flowers or fruits, or alcoholic fluids. When a pestilence breaks out, the malignant deity whom the pestilence is believed to represent, is conveyed in a procession beyond the bounds of the village with music and banners. This is the Bolwan, and is often a cause of violent quarrel with the villages to which the pestilence has been conveyed.

Religious Mendicants.—Byragi, Gosain, Jogi, and Sanyasi amongst the Hindus, all the Buddhist priests and the Qalandar fakir amongst Mahommedans, are ascetic mendicants, as also are the Man Bhao friars and nuns, and some of the followers of Chaitanya.

Mother-worship is adhered to by all the non-Aryans of the south, in the form of the Ai of the Mahratta, and the Amma or Amman of the Tamil people. It is founded on the physiological idea of development from the female principle, which
they have incorporated into all their cosmogonies, and into their saiva religion, Barth, writing as to one form of mother-worship, says (p. 202) the Vedas have a cultus very similar to that of the Tirso Devi, or the three goddesses. In the Mahabharata they are the mothers of Shaka, the god of war, and appear in the inscriptions of the Chalukya and the Kadamba, and are up to 120 in number in different parts of the country.

Spiritual and astral and mother worship, in one form or other, are visible amongst all the Aryan and non-Aryan races in India. With the non-Aryan, malignant demons, bhuta, vetala, pai or pinchala, preta, yaksha, vidyadhara, rakshasha, receive attention; with the Aryan Hindus, it is the manes of ancestors that are worshipped, are brought back to the house to be again released, and have offerings presented to them periodically.

Snake and sun worship are adhered to by all castes and classes professing Hinduism. That of the sun has been continued from Vedic times, is a daily duty, and with special rites at the summer and winter solstice and at the spring and autumn equinox; that of the cobra snake also daily and periodically.

Batha is the name of the chief deity of the Cachari or Bata. He is represented by the Euphorbia plant, which is grown in the courtyard of every Cachari house. The Euphorbia is also worshipped by tribes in Orissa and in Chutia Nagpur. The Bengali people suppose the Euphorbia ligularia to be sacred to Manasa, the goddess of snakes, and it is worshipped on certain days of June to September.

The tulai plant, Ocimum sanctum, is sacred to Vishnu; and a small plant of it, grown in every vaishnava courtyard, is worshipped every morning by the women of the house. The leaves and flowers of other trees are offered to their deities, — the Phyllanthus emblica, the Aegle marmelos, and others to Siva, the Ficus religiosa, Melia azadirachta, and others to Vishnu. It is also to Vishnu that the Salagram is sacred, and worshipped daily in every vaishnava home, although it is only an ordinary fossil ammonite from the Ganad river. Muruni of the Nepalese holds the Portax jugas (antelope) as sacred, Muruni being their name for that animal. The Santal believe that a wild goose from the great ocean alighted at Ahiri Pipri, and there laid two eggs, from which issued the two first parents of the Santal race. A heron is the emblem of the Baori tribe, and must not be eaten by them; and the dog also is sacred to them. The Oojal Bill reverence a white ram, and will not eat any white animal. The Oran tribes are named after plants and animals, and these are tabooed to the tribes bearing their names.

The gurus, or spiritual chiefs, may be men of any caste; indeed, Mira Bai, a woman, was a guru in the 16th century, Sahaji Bai in the 18th century, and the Karta-biha of Bengal had a female head. Tiru Valluvar, author of the Kural, was a Pariah. The Valluvars are the priests or pujari of the Parahs. Avvaiyar, author of many ethical works, was a Pariah; Valmiki, author of the Ramayana, is said to have been a Koli; Vyasa, author of the Mahabharata and the Puranas, was the illegitimate child of a Brahman and a girl of the fisher caste; Sankaracharya, the great advocate, of the Saiva doctrine, is said to have been of humble origin, but has come to be regarded as an incarnation of Siva. Kabir, also, is revered by his followers as an incarnation of the deity, who style him Jnanim, the seer, the one who has knowledge. He is supposed to have been a real personage, and to have lived about A.D. 1449. He left no writings, but his sayings have been preserved in verse, in which he opposes Hindu superstitions, ridicules the Shastras and Puranas, rejects caste and all idolatry, and demands moral purity.

A Hindu prays to avert evil. A Mahomedan prayer is a meditation on the power and majesty, the wisdom and the mercy of God; the Christian idea of a filial relation on the part of the worshipper to the Being whom he worships, which enables him to lay all his wants before God as before a father, is almost wanting in Islam. The religious services of the prayer ritual of the Mahomedans may be conducted in their mosques or in their homes. In India, the Waz or sermon is rarely given.

A large part of the landed property of the country is in the hands of religious corporations, and the religious duty of feeding and giving alms to Brahmins is said to be at least as onerous a tax as the liability to tithe. One of the best-intentioned measures of the British Government was the transfer of the funds of Hindu and Mahomedan religious bodies from the exchequer of the state to the custody of trustees elected by the worshippers. This was about the middle of the 19th century; but nothing done by the Government is said to have been more profoundly unpopular. In native opinion, not only are endowments just, but the proper protector of them is the Government. Mr. Hunter even asserts that the deepest grievance of the Indian Musalmans was the compulsion put upon them to elect their own Kazi, or ecclesiastical registrar. They said that his appointment could only be validly made by the Government; and though it was true that the Government was of another faith, such a government was better for these purposes than none at all.

Much has been done by Christian missionaries of all denominations. Nothing is known of the martyred St. Thomas, whose supposed remains are shown in a cathedral in the Madras suburbs, nor is anything certain of the early days of the Cochins and Travancore Christians, who have Sassani or metal title-deeds of early centuries of this era; but the great St. Xavier effected much permanent good around the shores of these countries, and in later times, Dubois, Carey, Ward, Marshman, Rottier, Rhenius, Wilson, Duff, have continued his benevolent labours. The influences of Christianity, spiritual, educational, and social, have been felt far and wide. The downtrodden Shanar and Choga, and the despised Pariah and Pulliar, have been raised from their state of demoralization, while many of the objectionable practices that obtained among the higher castes have either entirely disappeared or been greatly mitigated.

Arts, Manufactures, and Trade.—The artisans of India have been famed from the earliest times for excellence in the decorative and ornamental arts. Sir George Birdwood believes that the secret of their continuous success lies in the fact that the arts of India are indissolubly bound up with the popular institutions of the country, and in the patience, perseverance, and
BRITISH INDIA.

Their skill in architecture, displayed in the grandeur of their designs, their fresco paintings, their work in metals for ornamental jewellery and domestic use, the beauty of their woven fabrics, both silk and mixed, as seen in their Kinshah, Hembroo, and Mushroom, and the taste displayed in their arrangement of colours, have won the admiration of all nations. Most of these will be found under the respective headings, and reference also may be made to the articles on architecture, armour, arts, Boder ware, Bombay work, brass, carving, carpets, colours, enamel, inlaying, jewellery, lace, sculpture, shawls, silk.

Since the advent of Europeans, with ways and habits different from orientals, and displacement of the wealthier princes, the high art of Indian workmen has suffered, while the yearly value of the trade in the raw and special products of the country, and in the cheaper manufactures of Europe, has increased. Western Asia and Northern Africa have traded with India from prehistoric times; the land routes have changed with the rise and fall of empires, but Povindah caravans still successfully fight their way from India through Central Asia. Since the early part of the 19th century, the sea-borne trade has increased twenty-fold. Reference may be made to the headings cotton, gunny, hides, jute, leather, opium, pottery, silk.

The production of some of the articles of older trade—raw silk, shawls, sugar—has decreased; but the exports to foreign countries by land and sea have increased beyond the most sanguine expectations—in 1879-80 to the value of £67,212,363. These consist of wheat, rice, and other food-grains, oil-seeds, hides and skins, fibres of coir, cotton, jute, and wool, cinchona, coffee, tea, tobacco, and opium, with indigo and other vegetable dyes, and coal for internal consumption.

On the other hand, importing to the value (1879-80) of £41,166,003, chiefly of manufactured articles. Of the exports, the value of the opium sent abroad was £14,324,146, and of raw cotton £11,145,453; while the imported cotton piece goods, twist, yarn, thread, etc., and of woollens, was valued at £19,699,056; £20,097,511.

The cramping effect of the sewer or transit duties on traffic was early recognised, and in the early part of the 19th century they were entirely abolished, and a watch has been kept over the action of the municipalities, in their levy of octorol duties, to prevent the reintroduction of the sewer in another form.

The growth which, of late years, has taken place in the foreign trade of India, is due in a large measure to the extension of railway communication. The quantity of merchandise, exclusive of minerals, conveyed by railways, increased from 2,633,687 tons in 1870, when the mileage was 4,775, to 9,319,421 tons in 1880, when 9,325 miles were open. In the same period, the value of exports increased from £55,336,186 to £74,517,357, and of imports from £34,469,119 to £50,278,575. Wheat and other raw products from the distant Punjab, a thousand miles from the sea, are successfully competing in Britain with the products of America. Coal is mined in Bengal by upwards of 60 collieries, the total output being not far short of 1,000,000 tons per annum. Dye-works, tanneries, soap-works, sugar refineries, silk-works, and paper mills are in operation; the Indian breweries turn out 2,000,000 gallons of beer every year. The success of cotton spinning and weaving mills in Bombay led to an extension of this industry in other parts of India, where there is an abundant population from whom to draw for labour, and who are also the consumers of the manufactured fabrics. The jute mills in Bengal have eclipsed the special industry of Dundee.—Dundee capital and Dundee skill having been transferred from the banks of the Tay to the banks of the Hooghly; and the trade in seeds and cereals in India is sufficient to take off any extra quantity of jute bagging that may be produced. Up to 1882 there had been 58 cotton mills established in India, for mule yarn, mule twist, cotton twist, twist and yarn. (St. Tab. Br. Ind., 1882), 44 of them in the Bombay Presidency, where the enterprising Blattain and Parsee have been the leading races in all mercantile transactions; six of the cotton mills are in Bengal, and three in Madras.

Nothing in the history of commercial progress is more healthy than the course of the trade of India, both foreign and coasting, since the mutiny of 1857. The foreign commerce—and it partly feeds the coasting trade—has more than doubled in value since 1855-1856. The figures show the annual averages for quinquennial periods of both merchandise and treasure:

<table>
<thead>
<tr>
<th>Years</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Merchandise</td>
<td>Treasure</td>
</tr>
<tr>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>1834-3-8-9</td>
<td>4,970,619</td>
<td>2,345,335</td>
</tr>
<tr>
<td>1840-4-3-4</td>
<td>7,691,428</td>
<td>2,726,164</td>
</tr>
<tr>
<td>1844-4-3-3</td>
<td>9,156,126</td>
<td>3,073,249</td>
</tr>
<tr>
<td>1849-5-3-4</td>
<td>11,085,385</td>
<td>4,792,802</td>
</tr>
<tr>
<td>1855-6-6</td>
<td>13,943,494</td>
<td>3,101,288</td>
</tr>
<tr>
<td>1856-6-5-4</td>
<td>15,577,392</td>
<td>3,175,150</td>
</tr>
<tr>
<td>1860-6-5-4</td>
<td>23,971,432</td>
<td>3,175,150</td>
</tr>
<tr>
<td>1864-6-5-3</td>
<td>31,896,885</td>
<td>3,717,775</td>
</tr>
<tr>
<td>1868-6-5-3</td>
<td>32,036,885</td>
<td>3,694,121</td>
</tr>
<tr>
<td>1872-6-5-3</td>
<td>37,363,835</td>
<td>3,585,019</td>
</tr>
<tr>
<td>1876-6-5-3</td>
<td>41,166,003</td>
<td>3,165,506</td>
</tr>
<tr>
<td>1880-8-8</td>
<td>58,117,766</td>
<td>3,897,214</td>
</tr>
</tbody>
</table>

Details of Foreign Trade, exported in 1880-81, £74,514,282.

<table>
<thead>
<tr>
<th>Articles</th>
<th>Quantities</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee</td>
<td>cwt.</td>
<td>370,714</td>
</tr>
<tr>
<td>Cotton, raw</td>
<td>cwt.</td>
<td>4,541,548</td>
</tr>
<tr>
<td>&quot; goods, twist, &amp; yarn</td>
<td>cwt.</td>
<td>116,870</td>
</tr>
<tr>
<td>Dyes—Indigo</td>
<td>cwt.</td>
<td>20,719,255</td>
</tr>
<tr>
<td>Rice not in husk</td>
<td>cwt.</td>
<td>3,750,973</td>
</tr>
<tr>
<td>Wheat &amp; other grains</td>
<td>cwt.</td>
<td>345,110</td>
</tr>
<tr>
<td>Gunns &amp; resins</td>
<td>cwt.</td>
<td>3,735,646</td>
</tr>
<tr>
<td>Hides &amp; skins</td>
<td>cwt.</td>
<td>3,924,080</td>
</tr>
<tr>
<td>Jute, raw</td>
<td>cwt.</td>
<td>5,869,815</td>
</tr>
<tr>
<td>Manufact. gunny bags, no.</td>
<td>28,327,227</td>
<td>57,517,802</td>
</tr>
<tr>
<td>Lec.</td>
<td>cwt.</td>
<td>80,394</td>
</tr>
<tr>
<td>Oils, &amp;c.</td>
<td>cwt.</td>
<td>5,323,297</td>
</tr>
<tr>
<td>&quot; Opium, chests, weighing (764,874)</td>
<td>cwt.</td>
<td>13,600,148</td>
</tr>
<tr>
<td>Provisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salt, &amp;c.</td>
<td>cwt.</td>
<td>330,005</td>
</tr>
<tr>
<td>Seeds, &amp;c.</td>
<td>cwt.</td>
<td>10,303,776</td>
</tr>
<tr>
<td>Silk, raw, &amp;c.</td>
<td>lbs.</td>
<td>1,500,006</td>
</tr>
<tr>
<td>&quot; manufactures</td>
<td>lbs.</td>
<td>250,256</td>
</tr>
<tr>
<td>Spices, &amp;c.</td>
<td>lbs.</td>
<td>17,671,388</td>
</tr>
<tr>
<td>Sugar, &amp;c.</td>
<td>cwt.</td>
<td>644,531</td>
</tr>
<tr>
<td>Tea</td>
<td>cwt.</td>
<td>46,915,599</td>
</tr>
<tr>
<td>Wood, raw, &amp;c.</td>
<td>lbs.</td>
<td>11,745,121</td>
</tr>
<tr>
<td>Wood</td>
<td>lbs.</td>
<td>545,535</td>
</tr>
<tr>
<td>Other articles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The growth of staples of export, during the twenty years since the mutiny, will be seen from the following instructive figures—

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1854-55</td>
<td>5,941,706</td>
<td>2,529,735</td>
<td>2,973,857</td>
<td>2,973,857</td>
<td>1,251,588</td>
<td>222,018</td>
<td>212,966</td>
<td>1,936,476</td>
<td>1,267,573</td>
<td>400,072</td>
</tr>
<tr>
<td>1856-57</td>
<td>5,941,706</td>
<td>2,529,735</td>
<td>2,973,857</td>
<td>2,973,857</td>
<td>1,251,588</td>
<td>222,018</td>
<td>212,966</td>
<td>1,936,476</td>
<td>1,267,573</td>
<td>400,072</td>
</tr>
<tr>
<td>1858-59</td>
<td>5,941,706</td>
<td>2,529,735</td>
<td>2,973,857</td>
<td>2,973,857</td>
<td>1,251,588</td>
<td>222,018</td>
<td>212,966</td>
<td>1,936,476</td>
<td>1,267,573</td>
<td>400,072</td>
</tr>
</tbody>
</table>

With the increasing imports and exports, the number and tonnage of the shipping engaged in the foreign trade has grown from 2189 vessels, aggregating 314,139 tons, entered and cleared in 1858-59, to 5083 ships of 555,220 tons in 1880-81. The size of the ships trading from Europe has been increased from 300 and 400 to 2000 and 3000 tons, but the trade to other foreign countries continues to be carried in small vessels, averaging 145 and 180 tons.

**Annual Average of Gold and Silver Imports and Exports.**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1834-5-8-9</td>
<td>2,240,640,765</td>
<td>3,693,237</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1836-7-8-9</td>
<td>2,309,735</td>
<td>3,693,237</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1838-9-10-11</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1840-1-2-3</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1842-3-4-5</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1844-5-6-7</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1846-7-8-9</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1848-9-10-11</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1850-1-2-3</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1852-3-4-5</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1854-5-6-7</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
<tr>
<td>1856-7-8-9</td>
<td>2,344,748</td>
<td>3,782,288</td>
<td>23,754,917</td>
<td>33,329,200</td>
</tr>
</tbody>
</table>

**Seasons.** In India generally there are three well-marked seasons, the hot, the cloudy, and the rainy. The cold season of the year corresponds with that of all northern latitudes, and lasts from the middle of December to the middle or end of February; and although it is only in the N.W. Provinces of Bengal or on the Neilgherry hills in the S., and occasionally on the table-lands of Central India, that the thermometer sinks below the freezing point, the dry winds which then blow over the plains and elevated tracts, cause a sensation of great cold. It is in this season that the thermometer has the greatest daily range, varying from 19° to 89°.

The hot season commences in March. By May the heat is intense everywhere but on the mountains. The rivers dry up, and the earth is scorched and fissured by the great heat. The country seems a desert; all nature is hushed; it is the stillness of the winter of the poles. This is succeeded by a few sultry days in the end of May, the forerunner of the rains of the S.W. monsoon; in June and July this monsoon has carried the rains to almost every part of India, reaching the different provinces according to their proximity to the southern oceans, or to the direction given by the mountains to the winds. The face of the country then becomes green with its natural vegetation and the crops of the cultivators, the rivers are all full, and particularly the great rivers flowing from the Himalayas. The valleys of Bengal, where in several places the ryots go to their fields on rafts. This monsoon is ushered in with great electric changes, and prevails till the end of September, when it disappears with thunder and lightning as it came; the occurrence of these electric phenomena marking the breaking up of the monsoon. The fall of rain, while this monsoon lasts, varies from 12 to 250 inches in the different provinces, but it is distributed to a greater or less extent over almost all India, the only part deprived of it being the Karnatic, where, so far N. as Ongole, only slight showers fall in July. The hot weather consequently continues in the Karnatic from April until November, when the winds change to the N.E., and bring the rains of that monsoon across the Bay of Bengal.

The N.E. monsoon rains, however, only last for six weeks or two months, and do not extend so far inland as those from the S.W. Indeed, at places in the Western Peninsula within a hundred miles of its Eastern Ghats, it is marked only by the occurrence of heavy showers. At Madras, on the Coromandel coast, the annual fall of rain is about 50 inches.

Besides these, in Northern India a well-marked season of winter rain also occurs, commencing about Christmas and extending to February.

The period and the amount of rain differ greatly in the several provinces of India. The fall is very heavy on the tracts offering a front to the S.W. monsoon, as on the Western Ghats, and on the tract between them and the sea, being as much as 70 to 100 inches at the sea level, and as much as 250 inches on the mountain face, particularly, along the Himalaya, Pen, and Arakan coasts, on the mountains of Assam, and along the foot and outer slopes of the Himalaya throughout its whole extent, reaching 100 inches or more.

The country may be classed generally into three regions,—the portion of India E. of the 80° meridian has a rainfall of more than 40 inches; the portion W. of the same meridian has less than 40 inches; and a third region, in which the fall
is less then 30 inches, includes almost the whole of the Panjub, a considerable part of the N.W. Provinces, a large part of Rajputana and Kattyanwar, as well as almost the whole plateau of the Dekhan and Mysore. In Sind, and in the southern portion of the Panjub and most western part of Rajputana, the rainfall is less than 15 inches, and is extremely small and irregular, and the country is either actually desert, or agriculture is only possible with the aid of artificial irrigation.

Wars have aggravated distress; but all Indian famines are caused by drought, and the districts most subject to droughts are the western and southern portions of the N.W. Provinces and that part of the Panjub territory which lies east of the Sutlej, also the western and northern states of Rajputana and of the central plateau which border on the N.W. Provinces; likewise the districts of Bombay above the Western Ghats, the western region of Hyderabad, all Mysore, and the districts of Madras above the Eastern Ghats, and those along the E. coast and at the extremity of the Peninsula. The region whose total rainfall is from 20 to 35 inches has frequently suffered from severe scarcity, and within it have occurred the great famines of 1837-38 in the N.W. Provinces, of 1868-69 in Rajputana, and of 1876-77 over nearly the whole of the Peninsula of Southern India. These were mainly due to the failure of the S.W. monsoon. The drought of 1855-56 and some of the earlier scarcities in the Madras Presidency arose from failures of the rain of the N.E. monsoon on the east coast, a failure which in that year extended into Western Bengal.

How varied are the amounts falling at different places, will be seen from the following list:

<table>
<thead>
<tr>
<th>Place</th>
<th>Inches Falling</th>
<th>Place</th>
<th>Inches Falling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kotri</td>
<td>2</td>
<td>Bellary</td>
<td>22</td>
</tr>
<tr>
<td>Soopa</td>
<td>5</td>
<td>Secunderabad</td>
<td>27</td>
</tr>
<tr>
<td>Multan</td>
<td>6</td>
<td>Honore</td>
<td>114</td>
</tr>
<tr>
<td>Sassur</td>
<td>6</td>
<td>Vingora</td>
<td>118</td>
</tr>
<tr>
<td>Indapore</td>
<td>7</td>
<td>Barjiling</td>
<td>130</td>
</tr>
<tr>
<td>Sirsa</td>
<td>12</td>
<td>Akyah</td>
<td>219</td>
</tr>
<tr>
<td>Lahore</td>
<td>15</td>
<td>Mahabaleswar</td>
<td>254</td>
</tr>
<tr>
<td>Jabalum</td>
<td>17</td>
<td>Malcompet</td>
<td>262</td>
</tr>
<tr>
<td>Coimbatore</td>
<td>21</td>
<td>Cherrapunji</td>
<td>524</td>
</tr>
</tbody>
</table>

In 1861 the rainfall at Cherrapunji was 805 inches, of which 366 fell in July; 559 and 615 inches also have been measured.

The main agricultural operations of the country correspond with the principal seasons of rain, and their relative importance is in a great degree dependent on the local distribution of the rainfall at the various seasons of the year. Where the natural rains have alone to be relied on, only one crop is obtainable; but with an abundant water supply from irrigating channels or tanks, two or even three crops are had, the three harvests being spring (arit), monsoon, and winter. The fluctuations of the total rainfall from year to year in all parts of the country are very considerable, and scarcely a year passes free from anxiety as to some part or other of India suffering from scarcity of food, or actual famine, caused by drought.

Famines.—However great may be the injuries from Indian rivers, the area affected by an inundation, though large according to European notions, is really insignificant compared with that ruined by an endless hot season. Even the tidal wave which swept over Sandip in 1876, and Saugar island in 1833, and again in 1864, filling the tanks with brackish water, and sweeping away human beings and cattle, with houses and chattels, in the space of three or four minutes, never produced such intense suffering or left such traces as the famines of Orissa, of the N.W. Provinces, and of the Madras Presidency. In Mysore the famine of 1876-77 is calculated to have caused a loss of population of 1,550,000, another estimate being 2,130,987.

Since 1769, with the exception of Burma, the most eastern parts of Bengal and Sind, hardly any part of India has escaped the visitation of severe famines, and out of considerable portions acute distress has recurrently been felt in other regions. Twenty-three famines and scarcities recorded up to 1880 in any part of India, the proportion is 24 years of bad seasons to 85 years of good, or about two bad to seven good; in each case, on an average, one-twelfth of the population of the whole country—that is, about 20,000,000—may be approximately taken as the portion affected, so that the result might be said to be equivalent to a famine or scarcity over the whole country once in 54 years. Of these calamities eight may be classed as immense famines, nine as famines, and four as severe scarcities. Omitting severe scarcities, there have been 17 famines affecting 20 years, and occurring at an average interval of five years. Of the eight greater famines, affecting 11 years, 5 have occurred in the 19th century, and have affected 292,000,000 of people, so that each on an average has been felt by 40,000,000, or one-sixth of the population of India. In Bengal, during the 110 years over which the records extend, four droughts only have occurred, of which two were very severe. Previous to the Orissa famine in 1866, Bengal had enjoyed complete immunity from famine for 81 years; and on this occasion, as well as in 1873-74, only the western parts of the province were affected. In the N.W. Provinces nine droughts are recorded, of which two were intense and three very serious. The two greatest famines in this part of the country, those of 1783 and 1837-8, were separated by an interval of 53 years; but there was a frequent and highly irregular occurrence of less important droughts. In Bombay nine seasons of drought appear, of which two were extreme; and in Madras there were eight such seasons, of which two were excessive. Excluding Bengal, the average interval between the several recorded droughts, great and small, in any one province, is about 11 to 12 years, and between those of the severest type about 50 years. The Government of India endeavors to be prepared for the occurrence of scarcity, in some degree of severity, and in some part of the country, as often as two years out of every nine; and great famines may be anticipated at average intervals of twelve years. Seasons of drought do not occur simultaneously in Southern and Northern India, though some tendency is shown for a bad year in the north immediately to follow a bad year in the south. On the assumption that no famine is likely to be worse than that of 1876-8, which affected a population of 36,000,000, the Famine Commissioners were of opinion that the largest number likely to be severely affected by famine at one time may be put at 30,000,000, of which 16 per cent., or 4 millions, would probably be in receipt of relief in the worst months, and about seven or eight per cent., or from two to two and a half millions, continuously for the space of a year. It was considered by them that a loss of
harvest amounting to less than 50 per cent. of a full crop will not produce famine; but where the whole out-turn of the year is diminished to 25 per cent., it may be taken as certain that intense famine will prevail; whilst an estimated failure of even a third of the year's out-turn will always demand the utmost vigilance and preparedness on the part of the authorities, as relief measures may at any moment become necessary.

British India grows more grain for food than the people require. The Famine Commissioners in their report state that the Madras Presidency, during the terrible visitation of 1876-78, was able to draw on the surpluses of Bengal to the extent of two million tons of food-grain, almost all rice, which was not an extension of a pre-existing trade, but the sudden creation of a new one. The same Commissioners estimated the aggregate surpluses of all the provinces, available in case of need for the supply of each other's deficiencies, and for foreign export, at five million tons in a year free from drought, a condition which rarely exists in all the provinces at once. The following is an estimate of the grains under culture:

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Percentage of Food-grain Area under—</th>
<th>Popn. eating Rice. Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wheat or Barley</td>
<td>Millet</td>
</tr>
<tr>
<td>Panjab</td>
<td>54</td>
<td>41</td>
</tr>
<tr>
<td>N.W. Provinces</td>
<td>57</td>
<td>34</td>
</tr>
<tr>
<td>Bengal and Assam</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td>Central Provinces</td>
<td>27</td>
<td>39</td>
</tr>
<tr>
<td>Berar</td>
<td>22</td>
<td>39</td>
</tr>
<tr>
<td>Bombay</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>Madras</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>Mysore</td>
<td>4</td>
<td>45</td>
</tr>
</tbody>
</table>

With augmenting means of intercommunication, it will daily become easier to deliver the food-grains used by man, but no amount of railway extension can possibly suffice to lay down in a famine district the forage needed by its cattle.

Political and Social Reforms.—Dr. Hunter has recorded the opinion that the modern history of the British in India, as benevolent administrators, may be said to begin with Lord William Bentinck. The inscription upon his statue at Calcutta, from the pen of Lord Macaulay, says: 'He abolished cruel rites; he effaced humiliating distinctions; he gave liberty to the expression of public opinion; his constant study was to elevate the intellectual and moral character of the nations committed to his charge.' His two most memorable acts are the abolition of sati, or widow-burning, and the suppression of the thugs.

Much has been done to promote civil and religious liberty. Up to 1882, about 1000 towns had been granted municipalities, a step towards self-government of the country generally. Liberty of conscience is assured to all classes. A Hindu can change his religion, and retain his property. A Hindu widow can re-marry. Courts of justice have been established, and appeals to the British throne permitted.

A code of criminal law has been introduced, and made applicable to all the people; and in civil law, the different races have had their own traditions applied to them.

In 1838, the British Government determined that a body of substantive law, criminal and civil, should be framed for India, and Mr. (afterwards Lord) Macaulay was appointed head of a commission for this purpose. A penal code was the first fruits of this. In 1853, a Legislative Council for all India was formed of Government officers; but in substitution of this, a supreme legislature was appointed in 1861 for all India, and from 1861 to 1871 a commission in London was engaged in preparing drafts of laws. Up to 1870 they submitted draft acts for civil and criminal procedure; succession, contract; evidence acts, negotiable securities, and transfer of property bills. A law of limitation has been passed.

The Presidencies of Madras and Bombay, and the Lieutenant-Governors of Bengal and of the North-Western Provinces, have each a High Court, supreme both in civil and criminal business, with an ultimate appeal to the Judicial Committee of the Privy Council in England. Of the minor provinces, the Punjab has a Chief Court, with three judges; the Central Provinces, Oudh and Mysore, have each a Judicial Commissioner, who sits alone; while in Assam and British Burma, the Chief Commissioner, or supreme executive officer, is also the highest judicial authority; and magistrates and judges, European and native, are in numbers in the districts, with Small Cause Courts in all the great towns.

The laws administered in the Indian courts consist mainly of the enactments of the Indian Legislative Councils (imperial and provincial), and of the bodies which preceded them; also statutes of the British Parliament which apply to India; likewise the Hindu and Mahomedan laws of inheritance, and their domestic law in causes affecting Hindus and Mahomedans; and the traditional customary law affecting particular castes and races.

The Hindu and Mahomedan codes of law are observed in all matters relating to marriage, inheritance, adoption, partition of property, testamentary disposition, management of religious institutions, and the like.

A system of police has been introduced throughout all British India, which has been largely imitated by Native States; and jails have been erected for criminals, in place of the mutilation, blindings, and other barbarous punishments. Hitherto, however, mortality in Indian jails has been far higher than that of the adult population.

Amongst the people, the annual death-rate has been 32.57 per 1000. In the native army, in 1877, it was 13.38 per 1000, and the mortality amongst the European troops was 12.71 per 1000, the lowest on record.

<table>
<thead>
<tr>
<th>Prisoners</th>
<th>1877</th>
<th>1878</th>
<th>1879</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convicts</td>
<td>75</td>
<td>73</td>
<td>76</td>
</tr>
<tr>
<td>Under trial</td>
<td>70</td>
<td>45</td>
<td>41</td>
</tr>
<tr>
<td>Civil</td>
<td>22</td>
<td>25</td>
<td>21</td>
</tr>
</tbody>
</table>

Total prisoners: 118,456, 135,227, 122,675

The police force in 1879 had 16,180 officers, and 126,189 men, armed in equal numbers with muskets or swords, or only batons.

The British have endeavoured to lighten the forms of the land tax, as they found it prevailing in the acquired provinces, and the ryotwari, the zamindari, and the village tenures now in force, have resulted from the changes made. The zamindari system resembles that of the estates of Great Britain. As before mentioned, it was introduced into Bengal by Lord Cornwallis in his Code of 1793; and by his permanently alienating districts for a rental far below the present value, there
has been lost to the general revenue millions yearly, while the cultivators have been rendered more dependent than in other parts of the dominion. How to remedy the error of 1793 is a constant thought to the rulers. Under Native rule, a simple order would have done it.

In the land laws enacted in 1859, the British Government have endeavoured to protect the cultivators of Bengal, by classing them into—

1. Tenants since 1793, whose rents the zamindars could not augment;
2. Tenants of twenty years’ standing, whose rents also could not be increased;
3. Tenants of twelve years’ holding, to whom occupancy rights were granted.

And, in 1873, a commission sat for further inquiry, and the twelve years’ tenancy was made into a joint proprietary.

Education.—The British Government has founded universities, with colleges, where classics, with the vernacular tongues, also the sciences, are taught. Under the princes of India, both Hindu and Mahomedan, the learned men had been training scholars, mostly private pupils, in all the branches of learning customary in the east, but there never had been more than one or two Mahomedan or Hindu collegiate institutions. Education has received a continuous attention from the British. Warren Hastings, in 1781, established in Calcutta a Madrasa for the Mahomedans; the Marquis Wellesley formed the College of Fort-William; and Lord Amherst, Sir Thomas Munro, and Lord William Bentinck aided in its advancement. In 1800 there were 71,435 colleges, technical, secondary, and primary schools, with 1,351,509 scholars. Of these institutions, 40,662 were aided by Government, and 14,286 unaided. The receipts were Rs. 1,82,07,188, and the expenditure Rs. 1,61,59,383.

The desire for education has been vastly stimulated by restricting admission into the employ of Government, to such as pass a successful examination. In Britain, any one may appear for the covenanted civil service or for a commissioned military appointment, but only those who attain the highest marks are accepted—about 16 per cent. Similarly, the great covenanted civil service of India is also open to all who are successful in a public examination; in all the services, age being the sole limit. In India, in the ten years 1871-1880, the results of the examinations in the lists of passed candidates were as under at the universities:

| University | Pass. | 1st Arts | Arts | M.A. | Law | M.L. | Med. | Civil Eng. | Arts | 1869 | 2402 | 2402 | 2402 | 2402 | 2402 |
|-----------|-------|----------|-----|------|-----|------|-----|-----------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Calcutta  | 9842  | 2402     | 2402| 2402 | 2402| 2402 | 2402| 2402      | 2402| 2402 | 2402 | 2402 | 2402 | 2402 | 2402 | 2402 |
| Madras   | 7106  | 1553     | 12  | 88   | 37  | 18   |     |           |     |      |      |      |      |      |      |      |
| Bombay   | 205   | 508      | 29  | 57   | 229 | 243  |     |           |     |      |      |      |      |      |      |      |

From the earliest arrival of Christian missionaries, especially in the south of India, parents of all creeds, Christian, Hindu, and Mahomedan, have sent children to their schools, though the education they impart is openly and avowedly founded on a Christian basis. Since the middle of the 19th century, universities, with medical, engineering, and other colleges, have been established at all the great centres of government, where the highest branches of western learning are taught; and by grants of money in aid of private efforts of missionary and educational bodies, the masses have been reached. In 1857 the pupils were 200,000. In 1877 they numbered 1,700,000. Museums have been founded at Madras, Calcutta, Bangalore, Allahabad, Bombay, Trivancore, and Nagpur; libraries have been formed in many of the cities and towns; model farms have been opened to instruct in agriculture. Agri-horticultural and botanical societies are aiding in the introduction of economic plants. Great efforts have been made to gather and husband the water supply; to protect the trees by means of a forest department; to discover the causes of cattle murrain, through the agency of the veterinary officers; and a meteorological department has been established to aid in spreading information as to possible droughts.

The general and history of the country during Buddhist, Hindu, and Mahomedan times, are being traced by the Asiatic societies, which were originated in India by the British in the 18th century. Liberal grants have been annually made for marine, topographical, and trigonometrical surveys, for cadastral field survey, for a geological survey, also for a meteorological department, and for geographical and archaeological research.

It is amongst the non-Aryan races that Christian missionaries and Government officers have been most successful in their efforts to impart a higher civilisation. Xavier converted to Christianity many of the fisher races of the Indian and Malaccan Peninsulas; Augustus Cleveland, a civil servant, did good amongst the races of the jungle Terai of Rajmahal; General Sir James Outram, while yet a young officer, was able to make an impression amongst the Bhils; Colonel Dixon, amongst the Mahr races; the Rev. Dr. Mason and Mrs. Mason, among the Karen; and Bishop Caldwell, amongst the Maravar and Shauar.

In ancient times the Hindus had a really scientific acquaintance with the practice of therapeutics and surgery. They appear to have acquired their knowledge and skill from dissection and other methods similar to that of modern Europe; and it is to the rigid imposition of the shackles of caste, forbidding contact with dead or morbid matter, that the decline of this science is to be attributed. But since the early part of the 19th century, the Brahmanical races of Bengal have again taken to the study of medicine.

Private and official correspondence have been largely facilitated by the British. A letter under a tol (180 grains) is carried from one end of India to another for half an anna, equal to 0.75 of a penny. In 1871 the letters, etc., sent through the post-office were 85,689,823. In 1880 the number rose to 132,977,644; but above one-third of all the letters were registered. Improved postal services, with the introduction of telegraphic communication, the opening of roads, railroads, and canals, and the construction of bridges, have done much to extend the range of commerce, and of these the influence of railroads and the Suez Canal has been marked. The Suez Canal is 100 miles long, and ships of many thousand tons burden pass through it.

In 1857 there were 274 miles of railway open. In 1876 there were 6832 miles, and at the commencement of 1881 there were 9619 miles of railway open to traffic, and 646 under construction. During the year 1881, 318 were opened to traffic, and the commencement of 1482 miles was sanctioned. The total capital outlay on railways to the end of 1883 will be £138,907,000,
BRITISH INDIA.

The cultivation of the Punjab has been largely extended in recent years. The construction of canals about 300 miles in length. The Sardak canal leads from the Sutlej, The Agra canal from the Jumna, the Son canal from the Son, and the Oressa canals from the Mahanadi.

In Bundelkhand, canals have been led from the rivers Betwa and Dassan.

The Lower Sutlej and Chenab canals are 19 in number, and 418 miles in aggregate length. The four Upper Sutlej canals have 47 miles of length.

The Indus canals, 19 in number, have an aggregate length of 577 miles. They are all drawn from the right bank of the river in the Dehra Ghazi Khan district.

In the Shalahpur district there are 18 inundation canals. In Sind are the Sakhar and Shahdadpur perennial canals, and 8 inundation canals, the Sind, Ghar, Eastern and Western Nara, Bigari, Mirtan, Thar, Fallali.

On the Bombay side are the Jumna in Kandesh, the Krishnala, and the Ahmadnagar canals.

Forests.—It had long been acknowledged by all writers that trees have a great influence on the humidity of a climate, but it was not until the middle of the 19th century that any regular care was taken of the forests of India. The subject was brought by the editor to the notice of the Madras Government, and the Directors of the E. I. Company ordered the appointment of conservators of forests, but Act vii. of 1856 was the first Forest Act passed by the Government of the country. The continuous denudation of extensive tracts in such fine districts as Midnapur, Bankura, Birbhum, and Bardwan, without any corresponding development of agriculture, is said to have perceptibly decreased the rainfall and the power of the soil to store water. The forest reserves in 1879-80 were 15,344 square miles, as under:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal</td>
<td>18,315</td>
<td>63,026</td>
<td>10,561</td>
<td>18,513,348</td>
</tr>
<tr>
<td>Assam</td>
<td>7,500</td>
<td>4,004,656</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N.W. Provinces</td>
<td>162,847</td>
<td>3,650</td>
<td>2,115</td>
<td>2,651,716</td>
</tr>
<tr>
<td>Coorg</td>
<td>8,795</td>
<td>8,795</td>
<td>8,795</td>
<td>8,795</td>
</tr>
<tr>
<td>Mysore</td>
<td>15,344</td>
<td>458</td>
<td>458</td>
<td>458</td>
</tr>
<tr>
<td>British Burma</td>
<td>1612</td>
<td>1,121</td>
<td>1,121</td>
<td>1,121</td>
</tr>
<tr>
<td>Berar</td>
<td>1,121</td>
<td>1,121</td>
<td>1,121</td>
<td>1,121</td>
</tr>
<tr>
<td>Total</td>
<td>47,978</td>
<td>162,847</td>
<td>35,482</td>
<td>33,100,778</td>
</tr>
</tbody>
</table>

In the ten years 1871 to 1880 the forest revenues amounted to £5,949,099, and the charges to £4,114,927. With every year the object has more and more been rather to preserve and restore than to profit by the sales. Indeed, the destruction has been so great in many places, that the state for many a year to come might expend all in replanting.

The coffee plant was not a gift of the British, though its cultivation has been much fostered. It is said to have been introduced into Mysore about the middle of the 17th century, by Bawa Budan, a Mahomedan fakir, and the cultivation extended into Ceylon, and, since the early part of the 19th century, largely into other parts of Mysore, Coorg, Travancore, and Cochin. In 1880 the number of plantations and plants and approximate yield were as under:
Cotton has been cultivated in India from pre-historic times; but in the early part of the 19th century, in the Peninsula, much outlay was incurred in efforts to improve the quality. In 1879-80 there were 10,708,031 acres under cotton cultivation, yielding 5,181,550 lbs. of cleaned cotton, or an average of 59 lbs. of cleaned cotton per acre. In the Central Provinces and in Mysore the yield was only 24 and 25 lbs. respectively; but in the Nizam's dominions, the Panjab, and British Burma, 68, 90, and 147 lbs. respectively were obtained.

Tea.—The introduction of tea-planting is wholly a British gift to India. The tea plant was discovered about the year 1825 growing wild in Assam, and it is now largely cultivated in several parts of British India.

<table>
<thead>
<tr>
<th>District</th>
<th>Plantations</th>
<th>Plants</th>
<th>Mature</th>
<th>Immature</th>
<th>Yield, lbs.</th>
<th>Average yield per acre</th>
<th>Mature Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>1,045</td>
<td>120,512</td>
<td>33,145</td>
<td></td>
<td>34,013,568</td>
<td>292</td>
<td></td>
</tr>
<tr>
<td>Bengal</td>
<td>274</td>
<td>27,341</td>
<td>11,464</td>
<td></td>
<td>6,572,481</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>N.W. Prov.</td>
<td>87</td>
<td>6,848</td>
<td>1,233</td>
<td></td>
<td>83,743,995</td>
<td>292</td>
<td></td>
</tr>
<tr>
<td>Panjab</td>
<td>1,195</td>
<td>4,816</td>
<td>2,790</td>
<td></td>
<td>802,995</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>Malaias</td>
<td>84</td>
<td>2,573</td>
<td>1,762</td>
<td></td>
<td>640,469</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>Brit Burma</td>
<td>6</td>
<td>25</td>
<td>134</td>
<td></td>
<td>16,120</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,691</td>
<td>102,244</td>
<td>39,354</td>
<td></td>
<td>42,805,376</td>
<td>292</td>
<td></td>
</tr>
</tbody>
</table>

Chinchona trees, another grand gift to India, were introduced in the middle of the 19th century (1860), by Mr. Clements Markham, C.B., who twice visited South America, and twice conveyed to India different species of chinchona, which he and his scientific assistants had obtained there. In 1880-81 the state of the plantations was as under:

<table>
<thead>
<tr>
<th>Acres, Plants, Cuttings, Seedlings</th>
<th>Sikkim</th>
<th>Burma</th>
<th>Neillberry</th>
<th>Mysore</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,382</td>
<td>5,207</td>
<td>64,438</td>
<td>677,355</td>
</tr>
</tbody>
</table>

The organic constituents of chinchona barks are quina, chinchona, aricina, quinida, quinia, chinconida, tannic acid, quinonic acid. The medicinal forms are quinina, quinidina, chinconine; chinconidine. Quinina is being steadily superseded in India by a chinchona farrugine manufactured in the country. It is now in general use in Government hospitals, and enters largely into private practice. Only 3964 lbs. of quinina were imported in 1880-81, as against 7409 lbs. in 1879-80.

Sati.—The efforts of the British to suppress barbarities and crimes have been continuous and successful. Animal sacrifices have decreased; slavery everywhere abolished, and devil-worship largely discouraged.

According to the Abbé Dubois (p. 198), a sati was extremely rare in the south of the Peninsula. During the rule of the Brahman Peshwas, they were of not unfrequent occurrence in the Mahratta territories; and, so late as the year 1855, on the death of Kurun Singh, raja of Ahmadnagar, his widow was forcibly made a sati, at midnight, in defiance of all the exertions of the Political Officer, Mr. Erskine, backed by a small body of troops, who were fired upon and their officer wounded. But now, sati, the voluntary, or at times forcible, immolation of the Hindu widow, has ceased; only rare instances occur of the samadh, or burying alive of lepers or others with incurable diseases; self-immolation beneath the wheels of the Jagannath car are rare; the ghat murders, at one time so common amongst the Hindus, are almost unheard of. Until the middle of the 19th century, human sacrifices occurred amongst the Kandh and the Gound; and instances do still occur, from time to time, amongst the semi-barbarous tribes on the north-eastern frontier, and even amongst fanatic Hindus of the saiva sect, but the criminals are readily detected and punished; the charkhu puja, or swinging festival, has been put down, though it has been rooted out, and dacoity is only heard of when scarcity prevails.

In the suppression of sati all the native princes have imitated the British.

In 1850 an Act was passed declaring that change of religion should not involve a loss of property or civil rights. In 1856 an Act legalized the remarriage of Hindu widows. In 1870 (Act viii. 18th March), infanticide was declared criminal.

All through the 19th century the British have striven to prevent infanticide. The sacrifice of children at Saugor was prohibited on the 20th August 1802, and the poisoning of infant girls has been largely checked, though still practised. The relative numbers of the sexes returned in the census of 1871 varied greatly. Excluding Rajputana, which did not furnish a sex return, generally, throughout India, there was an excess of males, in a population of 241,533,698, of 5,094,956. Considerably more than half of this disproportion appears on the face of the returns of the North-Western Provinces and the Punjab. In the North-Western Provinces, females were less than the males by 1,382,000, in a population of about 32½ millions; and in Oudh, in a population of nearly 11½ millions, the females were returned less by 314,000.

In the British districts of the Bombay Presidency, with about 14 millions of inhabitants, the females were 851,000 in excess; but in Sind and the Native States, with a population of 7 millions, the females were 218,000 fewer than the males. In Bengal the females, in a population of nearly 69 millions, were about 380,000 in excess. In Assam, in a population of something over 4½ millions, the females were less than the males by about 116,000. In Madras, with a population of nearly 31 millions, the females show a preponderance in numbers of 355,000. Several of the Rajput races have a disinclination to state the number of the female members of their families, and many are attracted to the great centres of trade, as to the presidency towns, or to new territories, as Assam or Burma; but infanticide and neglect of girls' healths are supposed to be the causes of these differences.

BRITTANT-PATTA. HIND. The record of a decision given by a panchayat.—Elliot.

BROA. HIND. Rhododendron arboreum.

BROACH. BHARNEH, or BAROACH, a populous commercial town on the right bank of the Nerbudda, 27 miles in direct distance from the bank. The Nerbudda is here two miles broad, and boats of 50 tons come up the channel. It gives its name to a district lying between lat. 21° 26' and 22° 17' N., and long. 72° 32' and 73° 11' E., with an area of 1458 sq. miles, and a population of 350,922 in 1872. The Hindus, 277,032 in number, are
BROADBILL. BROTHER.

divided into 142 distinct castes, and these again into numerous subdivisions, whose customs and modes of life are the same, but who are socially separate. The Mahomedans of the Borah (Vohara), Memon, and Khoja sects are numerous; and other conversions from Hinduism are the Molisilami (formerly Rajputs), Malik, Momina, and Shaikhdas, all but the Borah in a depressed condition. The cultivators are Borah, Kol, Kumbi, and Rajput; the last are a quiet agricultural race. The aboriginal races are Kol, Talavia, Talwada, and Bhil. Baroach town has 36,032 inhabitants. It has a Panjrapol, or hospital for animals. From ancient times it has been an important commercial site, known in the first century of the Christian era as Barugaza, a name said to be from the ege Bhrigu, who founded it, and named it Bhirupur. It has since been held by many dynasties, Rajput, Mahomedan, and, since November 1772, by the British. It was twice (1536, 1546) sacked by the Portuguese. Bombay has since attracted many of its people, and the Bhargao Brahmins claim descent from Bhrigu.—Imp. Gaz.

BROADBILL, birds of the genera psaromus and seriophilus and family cerylaimidae.

BROCADE, Kimkhab.

Brokade, ... DUT. Intalas; Kinxa, MALAY.
Brokal, ... Gen. Sandus.
Luppa; Kimkhab, HIND. Parsthesa, ... RUS.
Broceno, ... It. Brocado, Sp.

A fabric composed of satin, striped or purpled with gold or silver, manufactured at Surat, Benares, and Ahmadabad. The looms are very simple in their construction. The gold and silver pass through many hands before they are formed into thread. Brocades (Kimkhab), gold-woven scarves (dopatta), and silks are consigned from Benares, together with a kind of yellow silk shet called pitambar, and a dark-blue silk with white spots called band, also the silk sari or scarves, exclusively for women's wear, forming both a skirt and a scarf.—Faulkner, M'Culloch, Taylor.

BROCCOLI, a variety of the Brassica oleracea.

BROMELIACEAE, the pineapple tribe or bromel worts, a natural order of herbaceous plants, remarkable for the hardiness and dryness of their foliage. The pineapple, Ananas sativus, belongs to this; also the genera Bromelia, Billbergia, Pitcairnia, and Tillandsia.

BROMICOLLA ALEUTICA, a sea-weed of the Aleutian islands, used as food.

BRONONG. MALAY. Baskets.

BRONZE.

Stuck-good, ... DUT. Gangsa; gongsa, MALAY.
Stuckmetall, ... GER. Metal de Canones, ... Sp.
Bronzo, ... It.

An alloy of copper and tin much employed in the arts. See Alloys.

BRONZE LEATHER. Kimkhab, HIND.

BROOKE, Sir James, raja of Sarawak, was born in 1803 at Benares. At the age of sixteen he received a commission in the Bengal Infantry, and served in the first war against Burma, where he was severely wounded at the storming of a stockade. He lost his appointment by overstaying his home leave. On the death of his father, he succeeded to a handsome patrimony, and on the 27th of October 1838 his yacht 'The Royalist' quitied England for Sarawak. He found its ruler, Muda Hasan, engaged in the suppression of a rebellion, but with a few volleys from the European guns the insurgents surrendered, and Mr. Brooke was duly installed in the rank of raja of Sarawak, previously promised to him. The newly-acquired territory was swampy, and ill cultivated by the native Dyaks, who varied their occupations as tillers of the land by head-hunting excursions among neighbouring villages. He declared head-hunting a crime punishable by death to the offender, and he suppressed it and piracy. On revisiting Britain, the British Government recognised his position, ordered a man-of-war to take him to the seat of his new settlement, gave him the title of Governor of Labuan, with a salary of £1500 a year, with an extra £500 a year as a consular agent, and afforded him the services of a deputy governor, also on a good salary. He compiled a code of laws, declared trade to be free, all roads to be open, all property inviolable, instituted a current coinage, and rigorously suppressed head-hunting, and marauding expeditions gradually became extinct in the province. He died in 1868.

BROOME, Colonel Arthur, an officer of the Bengal Artillery, author of History of the Rise and Progress of the Bengal Artillery.

BROOK GROSS, Aristida setacea, Linn.

Bahis, ... Fr. Escobas; Brozzia Cepillos; Besen, ... GER. Escobillas, ... Sp.
Jaru, ... HIND. Todapam, ... TAM.
Scope, ... It. Chiparu, ... Tel.
Metiu, ... RUS.

Articles for sweeping floors, walls, ceilings, etc. They get the name of broom, because first made in Europe from the small branches of the plant of that name. In India they are made of the strong grasses which abound. That in Southern India is the torampum pillo, broom grass; but vullakamar, the erkoo, bamboo branches, the midrib of date and of coconut and of the Phoenix sylvestris leaves, are also used, as likewise are the Fibex negundo and Ferreola buxifolia.—Ains. Mat. Med. 145.

BROONGA MALAGUM. TAM. See Oil.

BROH, HIND. Ulmus campestris.

BROSIMUM ALICASTRUM. SWZ. The Jamaica bread-nut tree and the B. utile, Eendl., the cow tree of the Caraccas, were both introduced into the Calcutta Garden. They have a tenacious gummy milk.—Voigt, 29. See Cow Tree.

BROTHER.

Akh, ... ARAB. Fratillo, ... It.
Frere, ... Fr. Bradar, ... Pers.
Bruder, ... GER. Hermano, ... Sp.
Bhai, ... HIND. Tambi, ... TAM.

In eastern countries, this term is applied to relatives not so designated in Europe, as to cousins, also to persons of the same faith, or town, or country, or avocation. These last are supplemented by a class of friends, styled munh-badh, 'so-called brothers,' common throughout British India. This eastern use of the designation brother has caused difficulties to readers of the Christian Bible. Jude in connection with James, though called (Matthew xiii. 55) the 'brethren of Jesus,' were really his cousins, it being common with the Jews to call the first cousins brethren. They were the sons of Mary, the sister of the mother of Jesus, the wife of Cleophas. In Britannia, at the present day, if two cousins-german be married, the son of one
of these cousins will address the other as 'ma
tante,' my aunt; he is her neveu à la mode de
Bretagne. Amongst all the Mongoloid people of
Asia, the Dravida of Southern India, the na
tions of the Malay family, and among the aborigines
of America, the descendants of a common ancestor,
if they are of the same generation, give one another
the name of brother and sister.—Milner's Seven
Chiefs."

BROTHER-MAKING. With the ancient
Greeks, two persons would vow to each other per-
manent hospitality and protection for themselves
and their descendants,—the Greek ἵδινς. It is the
German Gast-freund. This is practised amongst
the Bedouins, who take an oath before one or two
witnesses. Amongst the Rajput races of India,
the women adopt a brother by the gift of a
bracelet. The intrinsic value of such pledge is
never looked to, nor is it necessary that it should
be costly, though it varies with the means and
rank of the donor, and may be of flock silk and
spangles, or of gold chains and gems. The accept-
ance of the pledge is by the katchil or corset, of
simple silk, or satin, or gold brocade and pearls.
Colonel Tod was the Rakhi-band-bhai of the three
queens of Udaipur, Bundi, and Kotah, as also of
Chand-Bai, the maiden sister of the Rana, and of
many ladies of the chiefmans of rank. Though
the bracelet may be sent by maids, it is only on
occasions of urgent necessity and danger. The
adopted brother may hazard his life in his adopted
sister's cause, and yet never receive a mite in
reward, for he cannot even see the fair object
who, as brother of her adoption, has constituted
him her defender.

Hindus take a vow of friendship and mutual
support with certain forms, and even in a com-
munity little remarkable for faith, it is infamous
to break this oath. Part of the ceremony is divid-
ing a bel or wood-apple (Feronia elephantum),
half of which is kept by each party, and from
this the compact is called Bel Bandhar.

Amongst the Oraon girls, sworn friendships or
sister-making occur, called 'Gut,' between two
They each say,—'Tu aar main gui jumbi; amren
phul lagabi.' Then each plucks flowers and
arranges them neatly in the other's hair; they
exchange necklaces, embrace, and give a joint
feast. When two Karen wish to become brothers,
one kills a fowl, cutting off its beak, and rub-
binding the blood on the front of the other's legs,
sticking on them some of the feathers. The
augury of the fowl's bones is then consulted,
and if favourable, the ceremony is repeated by
the other party. If the omens be still aus-
picious, they say, 'We will be brothers (doh),
we will grow old together, we will visit each
other.' Brotherhood amongst the Burmese is
termed doh, also thway thok, blood - drinker,
because they mix a few drops of blood from the
arms of the contracting parties with water, and
drink it. The following forms were observed,
near the eastern frontier of the Akyab district,
on the occasion of the reconciliation of two clans
or villages of the Chin (or Khyeng) tribe, named
Bainbah and Mantin, between whom a blood-feud
had previously existed. At the foot of a Young
Bin, supposed to be the residence of a 'Nat,' a
pot of rice was placed half-buried in the earth.
In the orifice of the pot some fresh leaves of the
tree were placed, and through them, into the
liquor, were thrust two pipes to suck with, a
gun, a spear, a dah, alligators' teeth, tiger's tusks,
and some bamboo sticks with notches, ears, and
splits of a mystic character. This being ready,
one of the oldest of the Tomgunim (hill chief)
present killed a small pig, extracted its heart,
and, filling the pot with water, commenced a harangue
invoking the 'Nat' to pour down his wrath
on the two Mantins and Bainbah, the contents of
the pot, and cause their destruction by any of
the ways indicated by the different articles thrust
into the pot, if they bore each other ill-will, and
did not remain friends thereforth and for ever.
This invocation being over, the Mantin took up
the pig's heart, and, pressing a drop of blood from it
into the liquor, the two men exchanged words,
and commenced sucking up the liquor, adding
more water. After them, two other representatives
of the two villages had a suck, and then the differ-
ent implements, etc. were removed, and all
the other Chins present began drinking (by
suction) out of the same pot, and another one
supplied for general use. Some war dances were
performed, and the Chins then cooked the pig,
ate, drank, and were merry. The khoun pats
were filled with fermented rice, to which water
was added as required. The oath thus administered
is said to be most binding on Chin Heart, once
taken, and Bin is the Burmese for tree. Nyoung includes a large number of
the feasts tribe. Nat is the Burmese word used to
translate the Indian Deva. Originally it denotes
a local divinity, often a Hamadryad. Khoun is a
kind of rice-beer made and used by the hill
tribes all over Burma.

Mr. Burns thus related the ceremony of brother-
making among the Kyans.—Singingdung sent on
board to request me to become his brother accord-
ing to Kyan fashion. The ceremony is called by
the Kyans Ber-biang, by the Burmese Bur-
sahibah. I landed with our nakodah, and, after
some preliminary talk to allow the crowd to
assemble, the affair commenced; we sat in the
verandah of a long house, surrounded by some
hundreds of men, women, and children, all look-
ing eagerly at the white stranger who was about
to enter their tribe. Stripping my left arm, the
Kyans took a small strip of wood, sharpened like a knife
blade, and, slightly piercing the skin, brought
blood to the surface, which he carefully scraped off;
then nakodah Gadore drew blood in the same way
from Singudung's right arm, the one next me, and
a small cigarette being produced, the blood on
the wooden blades was spread on the tobacco,—
scarcely spread, for the quantity was as small as
could be imagined. A chief then rose, and, walk-
ing to a sort of window, looked full upon the
river, and invoked the spirits of good and evil
to be witness of this tie of brotherhood; the
cigarette was then lighted, and each of us took
several puffs, and the ceremony was over.

In Hindu marriages, one of the necessary forms
is for the bridgegroom to place the bride's foot
successively on seven lines drawn on rice in a
platter. From this has been adopted the practice
of any two persons pledging mutual friendship by
taking seven steps, Saptapathi, together; and
the term Saptapatherum has come to signify
friendship.—Elphin. p. 193; Tod's Travels; Jour.
Indian Archipelago, v. No. 12; Forbes, 290. See Sabat.

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BROTO. Beng. A vow; a self-imposed devotional exercise.

BROUGHTON, GABRIEL, surgeon of the ship Hopewell, in 1636 was able to obtain thecession of Balasore to the East India Company. In that year he cured the daughter of the Emperor of India, who had been burned by her clothes taking fire, and in 1640 he successfully treated a lady of the emperor’s zenana. When asked to name his own reward, he replied that he wished nothing for himself, but begged that his countrymen might be allowed to have a maritime settlement in Bengal. Accordingly, in 1642, a land factory at Hugli, and a maritime settlement at Balasore, were formed. Balasore was at once fortified, and became the key to the position which the British have since acquired in India.—Imp. Gaz.


BROUSSONETIA PAPYRIFERA. Vent. 
Morus papyrifera, Linn. | Papyrus Japonica, Linn.
Killa, | CELEBES. | Gluga, | JAV.
Che, | CHIN. |

This is a shrub or small tree, with soft, brittle, woolly branches, and large hairy rough leaves, either heart-shaped and undivided, or cut into deep irregular lobes. It is a native of the isles of the Southern Ocean, as well as of China and of Japan, but has been introduced into the Indian gardens. In Tahiti or Otaheite, and other islands, they make tapa cloth of its bark; and it is said that the finest and whitest cloth and mantles worn by the principal people at Otaheite and in the Sandwich Islands were made of the bark, and this when dyed red takes a good colour. For the purposes of making cloth it is not allowed to become higher than about 12 feet, and about one inch in diameter. The bark, taken off in as long strips as possible, is steeped in water, scraped with a chank shell, and then macerated. In this state it is placed on a log of wood, and beaten with a mallet, three sides of which have longitudinal grooves, and the fourth a plain surface. Two strips of tapa are always beaten into one, with the view of strengthening the fibres, an operation increasing the width of the cloth at the expense of its length. Most of the cloth worn in the islands is pure white, being bleached in the sun; but printed tapa is also, though not so frequently, seen, whilst that used for curtains is always coloured. The chief dye employed is the juice of Aleurites triloba.

In Japan, they are said to cultivate this plant much as osiers are cultivated in Europe. There, for paper, the young shoots, being cut down in December, after the leaves have fallen, are then cut into good long pieces, and are boiled until the separation of the bark displays the naked wood, from which it is then easily separable with the aid of a longitudinal incision. In order to make paper, dried bark is soaked for a few hours in water, after which the outer cuticle and the internal cellular layer are scraped off. The stronger and finer pieces are separated from the weaker shoots, which are of inferior quality. The selected bark is boiled in a ley of wood-ashes till the fibres can be separated by a touch of the finger. The pulp so produced is then agitated in water till it resembles tuffs of tow. If not sufficiently washed, the paper will be coarse, but strong; if too much boiled, it will be weaker, but white. It is then beaten on a table, with batons of hard wood, into a pulp. Muclage obtained from boiled rice, or from a plant called orni, is added to the pulp. These three are stirred with a clean reed till reduced into a homogeneous liquor, and when of a due consistence are ready for conversion into sheets of paper.—Dr. Seeman, Viti; Voigt.

BROWN BEAR, Ursus isabellinus. The white bear, Ursus arctos; Syrian bear, U. Syriacus; Himalayan bear, U. Tibetanus; Japanese bear, U. Japonicus; Malay bear, Ursus Malayanus; Sloth bear, Ursus labiatus.

BROWN BUG or Sealy Bug, Lecanium coffee. BROWN HEMP, the commercial name given in Bombay to the fibres of the Hibiscus cannabinus. It is the Ambarce or Mesta-pat of Bengal, and the Palungoo of Madras, and is also known as Indian hemp and ‘hemp.’ See Ambare.

BROWN JAWARI. ANGLO-HIND. Sorghum vulgare, var.

BROWN RAT, Mus decumanus. B'ROUKHTON, the language of the Afghan people about Kabul, Kundahar, Shorawak, and Fishian. See Afghan; India; Dr. Pakistan.

BRUCE (JAMES), Author of Travels to Discover the Source of the Nile in 1768-73.

BRUCEA ANTIDYSENTERICA is considered by the Woodginos of Abyssinia a most valuable remedy in dysentery and severe cases of diarrhoea. The false angustura bark was long supposed to be the produce of this Brucea, and its active principle was accordingly named Bruceine. It is now, however, established that the false angustura bark is that of the Strychnos nux vomica, the Kuchila tree of Bengal.—O'Sh. p. 626.

BRUCEA SUMATRANA. Roxb. Fl. t. i. 449.

Gnus amarissimus, Linn. 

Ampadoo Barrowing, MAL. | Lissa Raja, AMBOTNA.

A plant of Assam, Cochinn-China, Sumatra, and Moluccas, and has been successfully grown in the Botanic Garden of Calcutta. The leaves are intensely bitter, and possess the same medicinal properties as the Brucea antidysenteria.—Christison, Dispensatory; Don, Gardener's Dictionary; Eng. Cyc. p. 671; Voigt, 185; O'Sh. p. 226.

BRUCHUS. Two species of this genus of insects attack the poppy seed when stored.

BRUCK, COMMODORE, Indian navy. His report on the Persian Gulf enumerates as articles of trade,—silk, dried fruits, guns, dates, horses, pearls, and spices, to the amount of 60 or 80 lakhs annually. In 1820 he commenced the survey of the Persian Gulf, followed by Captain Haines, I.N., and by Lieuts. Constable and Stiffe in 1860.

BRUGGH. HIND. Echinops niveus. 

BRUGPA. See Dalai Lama; Hung-Kiao; Tibet.

BRUGUEIRA PARIJFLORA. W. and A. 

Rhizophora parijflora, B. | R. cylindrica, Rzoth.
Pyu, Boung, | BURM. | Uravada, Varavada, Tel.

This mangrove grows in the Moluccas, Sumatra, Cochinn-China, the Malay Islands, in both the Indian Peninsulas, the Khassya mountains, Nepal, Orissa, Jellasore. It has small green and scented flowers. Berries dye black.—Voigt; Elliot, Fl. Audhraica.

BRUGUEIRA RHEEDI. L. Hert.

B. gymnorrhiza, Linn. | Rhizophora gymnorrh., L.
Kanka, | Beng. | Pyu, Soung, | BURM.
This species of mangrove is abundant all along the eastern coast of the Bay of Bengal, and it furnishes a hard and durable yellowish timber. The tree is easily distinguished from its associates, for it drops no roots from its branches, but the trunk is divided into numerous roots for half its height, like a small bamboo pavilion. It grows in Cochín-China, the Moluccas, Java, Ternseerim, Penang, the Sunderbuns, and in Malabar. Burmese apply the names Pyu and Sonrug to B. Rheedi, B. cripatula, and R. parviflora.—*Mason; Vogt, 47.*

*BRUH* of Sumatra, species of Macacus, Bruh putik, Bruh sepotong, and Bruh-selapi, are Macacus nemestrinus, *Lim.*

*BRUM BRUM.* HIND. Hedera helix.

*BRUMER ISLAND.* The mode of salutation or expression of friendship amongst these islanders consists in first touching the nose with the forefinger and thumb of one hand, and then pinching the skin on each side of the navel with the other, calling out at the same time, Magasúda! This habit resembles on one hand that of rubbing second day, and on the third day can fly strongly.

*BRUSH KANGAROO* is Macrops cereulce. The tail and loins are the best for food.

*BRUSH TURKES* of Australia, the Talegalla Lathami, are of the Megapodiidea family, all of which hatch their eggs by the natural heat arising in a mound about 4 feet high, which they construct of vegetable materials, earth and sand. The male bird closely watches the temperature of the mound. The young bird leaves the nest on the second day, and on the third day can fly strongly.

*BRYACEE,* the moss tribe of plants, comprising many Indian genera, calyperses, dicranum, didymodon, gymnodium, orthotrichum, schlotheimia, syrrhopodon, and zygodon.

*BRYONIA, sp., bryony.*

Tien-hwa-fen, CHIN. Tien-kwa, CHIN. Peh-yoh, —

Grows in Kwang-si, Honan, and other places in China.—*Smith.*

*BRYONIA LACINIosa.* *Lim.*

Mala, — BENG. Nehoe-maka, Maleal. Garga-nara, HIND. Linga donda, — TEL.

A creeper growing all over India.—*Roxb.*

*BRYONIA UMBELLATA.* *Wild.*

Gsw kaki, HIND. Mohkri, — HIND.

Not uncommon in the N.W. Himalaya at from 2500 to 7500 feet. The fruit is eaten, and on the Sutlej the root is said to be given for spermatorrhoea.—*Dr. J. L. Stewart,* M.D.

*BRYOPHYLLUM CALYCNUM.*

Yew kya pen pouk, — BURM.

This curious flowering plant, with a leaf like the house-leek, was introduced into India by Lady Clive from the Moluccas, and has been so naturalized on the Tenasserim coast, that it may be sometimes seen growing around old pagodas like wild plants. The leaves readily produce buds upon their margins, capable of propagating the plant when laid upon damp soil. This marginal production of leaf-buds has been considered analogous to the development of seed-buds (ovules), which in plants generally are also normally marginal, being developed upon the margin of specially modified leaves (carpels).—*Mason.*

*B'STAN-HGYUR* is a compilation in Tibetan of all sorts of literary works, about 3900 in number, in 225 volumes, written mostly by ancient Indian pandits and some learned Tibetans in the first centuries after the introduction of Buddhism into Tibet. The Rgyul portion is on religions rituals and ceremonies, and the Mdo part on science and literature.—*Csoma Krosi in As. Res.; Weber, 209.*

*BTSOD.* Tin. Madhier.

BUA or Buah. MALAY. Fruit. Bua angru, the grape; Bua dulima, pomegranate; Bua lontar, palmrya fruit; Bua minyak, olive oil; Bua nanka, jack-fruit; Bua pala, nutmeg, the Myristica moschata; Bua-rucom, Carissa spinarum; Bua-rucom (?), a plant of the same family, which reaches a height of thirty feet, and when covered with its branches of deep red-coloured fruit, it presents a beautiful appearance; the fruit is milky, has an agreeable flavour, and some resemblance to the Sawo fruit.

*BU-ALI-SINA, or Aviceena, a celebrated physician; his name was Abu Ali-ul-Husain, ibn Abul Ullah iba Sina, q.v.*

*BUBAK,* a small town in the Kurachee district, of 5703 inhabitants. The Mahomedan sections are Korichaki, Janot, and Machi.—*Imp. Gaz.*

*BUBALUS, H. Smith,* a genus of mammals of sub-family Bovine; the horns are large, attached to the highest line of the frontals, inclining upwards and backwards; ribs, 13 pairs.

*BUBALUS ARNI,* the wild buffalo.

Bos arni, Kerr. Shaw. B. bubalus, Blyth. Arna (male), Arni (fem.), — BUBALUS, var. B. bubalis, — HIND. Mun of. — BHAGUER,* — GORD. Mangi bhyus, —

The wild buffalo is found in Assam, in the swampy Terai at the foot of the hills from Bultan to Oudh, also in the plains of Lower Bengal as far west as Tirhub, but increasing in numbers to the eastwards, on the Brahmaputra and in the Bengal swamps. It also occurs here and there through the eastern portions of the table-land of Central India, from Midnapur to Raipur, and thence extending south nearly to the Godavery: a few are found in the north and north-east of Ceylon. They adhere to the most swampy sites, and never ascend the mountains. Length, 10½ feet and upwards from snout to root of tail; height at shoulder, 6½ feet; tail short. The horns are of two kinds, the one very long, nearly straight, well thrown back, var. Macoerucus of Hodgson, the other much shorter and well curved, more directed upwards, Spirocus, Hodg, the horn reaching in length. It lives in large herds; but in the rutting season in autumn the most lusty males lead off a few females and form small herds for the time. It gestates 10 months. The bull is of such power and vigour, as by its charge frequently to prostrate a well-sized elephant. They are uniformly in high condition, while the domestic buffalo is lean and angular.—*Jerdon, Mammals,* p. 308.
BUCKETLANDIA.

BUCHE-MARA.

BUCH-MARA. CAN. Calophyllum calabara. 
BUCHIANNA. See Simhilli.
BUCHLE. SIND. Acacia farnesiana.
BUBO, a genus of birds of the tribe Nocturnae, family Strigidae, order Raptore, or birds of prey. They are arranged in the sub-fam. Buboniue, viz. Nyctea, Bubo, Asio, Scops, Ketupa. Bubo maximus is the 'eagle owl' of Europe, Siberia, China, Asia Minor, Babylonia, Barbary, Himalaya? See Birds.
BUBUK, MALAY. Wormwood.
BUCINDE, a family of recent and fossil molluscs comprising many genera and sub-genera.
BUCHEPHALIA, a town built by Alexander, supposed to have been on the site now occupied by the town of Jhelum. It was named after his horse, which was killed in battle here. See Poras.
BUCEROTID, the hornbill family of birds, distinguished by the enormous size of their bills, and many with a casque or protuberance at the base of the bill on the culmen. The genera and species in S.E. Asia are—

B. lunatus, T. Java.
B. Tuckelli, Bligh, Bassam. 
B. hydrocorax, Linn., Moluccas.
B. galeatus, Audouc.
Hydrocisa coronata, Bod., Malabar.
H. aliobrostris, Shaw, Bengal.
H. affinis, Indian.
H. connexa, Tem., Malacca, Java.
H. Malayana, Tem., Malacca, Java.
H. nigrostris, Tem., Malacca, Java.
Meneclos bicornea, Seep., all India.
Teckas Gingelaisis, Shaw, Malabar, Ceylon.
Aceros Nilapalis, Hodgs, S.E. Himalaya.
Rhyticos ruficollis, T., Burma, Malacca.
R. sulfucollis, Bligh, Burma, Malacca.
R. pulchus, Latour, Brus, Burma, Malacca.
Callo cassidex, Bon.
C. sulcatu, Bon.
C. corrugatus, Bon.
Rhinoplax galeatus.
And others. —Jerdon, i. 248-50.

Buch. Beng. Zingiber zermamb; Duk., sweet flag, Acorus calamus.
BUCHANAKA. SANSK. Arachis hypogea.
BUCHEAN, DR. FRANCOIS, a medical officer of the East India Company, who afterwards added the surname of Hamilton. In 1800 and 1801, made a 'journey from Madras through the countries of Mysore, Canara, and Malabar,' under the orders of the Marquis of Wellesley, investigating the state of agriculture, arts, and commerce, and his report was printed. He introduced into his Commentary upon Rhode's Hortus Malabaricus, published in the Linnean Society's Transactions, vols. xii., xiv., and xv., descriptions of several new peninsular species. His writings are—An Account of Nepal, Edinburgh, 1819, 1 vol.; Travels through Mysore, Canara, and Malabar, Lond. 1807, 3 vols.; Geographical and Statistical Description of Dinapore, Calcutta, 1853, 1 vol.; Fishes of the Ganges, Edin. 1822; On a Map of Burma in the Journal. 
For his Mysore journey he set out on the 23d of April 1800, and completed it on the 6th July 1801. The first edition appeared in 1807. It is an almost unique encyclopaedia, and how one man, however indefatigable, could have produced, in so short a space of time, such a mass of reliable information about a country in which he was a stranger, is indeed astonishing. His survey of the north-eastern districts of Bengal, 1807-1813, are still in the India Office. Mr. Montgomery Martin, in 1838, printed them from three volumes of History, Antiquities, Topography of Eastern India.—Baist's Civil ; Imp. Gaz.
BUCHEANATI LATEPOLIA. Roxb. 
Buchengina spalata, Buch. I. (Spindlas elliptica, Robet.)
Piula spalata, Dr. BENG. Char, Dhan, PANJ, MUR. 
Chiellisi, Lumbo, ... 
Noa kool, Nuskul, CAN. 
Pia-Sal, ... 
Pai, char meunjhi, HIND. 
Charanji, Charoli, ... 

This is a straight-growing, handsome, large forest tree, with fragrant flowers, common for some distance west of the Jumna, in the lower hills. It grows in Ajmir, Panjab, and Garhwal. In the Bombay Presidency, is found more inland than in the coast jungles. In Canara and Sunda it is most frequent above the gaths, particularly north of Dandelle, and the wood is rather strong and tough, but seldom squaring above four inches, The tree abounds in Mysore and Cuddapah; in Cuttack is worked up generally into furniture, house doors, windows, presses, tables, etc. It requires to be polished, otherwise it stains of a burnt-sienna colour any cloth brought into contact with it. Brandis says that in Bruma it is a soft, light wood, and not used. The fruit, when ripe, in May is gathered, then soaked in water to soften the outer pulp, when it is washed and rubbed off by the hands; the little nut is then dried in the sun, and afterwards broken between a common chuckee or stone hand-mill, such as is used for grinding wheat; the kernels are then shifted and winnowed, and much used in native confectionery, roasted and eaten with milk, and considered a great delicacy. They abound in a straw-coloured, sweet-tasted and limpid oil, which is seldom extracted. Its bark is used by tanners. In Hindu poetry, its handsome white flower furnishes a simile for pretty eyes, and is held to be sacred to Vishnu.—Madras Exhibition ; Eng. Cyc.; Drs. Roxb., Gibson, Voigt, Brandis, Irvine, Mason; Cal. Cat. of 1862. Useful Plants; Flor. Andh.; Powell, p. 570; Mr. Thomson; Beddome. 
BUCHEBAN, VaRIMATTA, the Kaichnar of Chutia Nnau, a tree with hard, whitish yellow timber.—Cal. Cat. Ex. 1862.
Buchgoti, a Rajput tribe in Junpur and Gorakpur, formerly notorious for turbulence; part of them became Mahomedans prior to Sikaner Lodi's rule. The Bilk-huria, the Rajvar, the Rajkumar, are offshoots from the Buchgoti.—Elliot.

BUCK. HIND. Fleabane; Canna sp.
BUCKHAN. See Clothing.
BUCKINGHAM, JAMES SILK, editor of a newspaper in Calcutta. He urged freedom for the press, but was ultimately deported from India, and travelled in Western Asia. He published his travels.

BUCKLANDIA POPULNEA. R. Brown, a beautiful evergreen of the Sikkim Himalaya. One seen by Dr. Hooker had a trunk 211 feet in girth, and was unbranched for forty feet. Ferns and the beautiful air-plant Caelogyne Wallichi,
BUCKLAT-UL-MALIK.

with other orchids, grew on its branches, while 
clematis and Saintonria clung to the trunk. Its 
wood is brown, and not valuable as timber. It is 
also interesting in a physiological point of view, 
from the woolly fibre being studded with these 
curiously microscopic discs so characteristic of pines, 
and which, when occurring on fossil wood, are 
considered conclusive as to the natural family to which 
such woods belong. The whole natural order to 
which Bucklandia belongs, possesses this character, 
as well as several species of Magnoliaceaee found 
in India, Australia, Borneo, and South America. B. 
populnea, R. Brown, is a large tree of the Khassya 
mountains from Cherrapunji to Sarureem. Flowers small and greenish.—Hooker, Journ. ii. p. 
185; Voigt, 53.

BUCKLAT-ul-MALIK. Arab. Fumaria officinale, funitary. Bucklat-ul-Mubarak, Por-
tulaca quadrifida.

BUCKTHORN or Rhamnaceae order of plants, 
comprising the genera, zizyphus, berhenia, 
sageretia, ventiliago, rhamnus, scutia, hovenia, 
colubrina, vitmannia, and gosmania. The dried 
red crushed drupes, both of rhamnus and zizyphus, 
are sold in the shops of China, under the name of 
Tsai-pi and Xao. That part of the Southwold 
province of Chinese rhamnus, is purgative and 
diuretic. The kernels of R. sopheria are 
separate. The bark of a species of rhamnus is 
brought from Cheh-kiang, and is used to form a 
beautiful green dye.—Smith.

BUCKUM. Hind. Pterocarpus santalinus.

BUCKWHEAT, Fagopyrum, sp.

Phulan, ... Chenab. | Trao, Rijo, ... LADAKH.
Darau, ... | Bapu Drawdo, ... PANJ.
Kiau-meh, ... | Tataraca, Gyryka, ... POL.
Suh, ... | Obal, Phapara, ... RAVI.
Dc Sarrasim, Dc Noir, Fr. | Kata, Kata trao, ... MARFREE.
Buchweizen, ... | Greta, ... TEL.
Heide Korn, ... | Trigo, Trigo Negro, ... ESP.
Grano Saraceno, | Og, Ulgo, Phapar, ... SUT.
Faggina, Fraima, | Bras, Bres, Karma bres, ... HIND.
Tumba, Kata, KASHEM. | Tsabri, ... TIB.

Fagopyrum emarginatum, Meeza, and F. escu-
 lentum, Manch, both known as buckweat, are 
cultivated abundantly in Central Asia and the 
Himalaya, at about 6000 feet on the Jhelum, 
5500 feet on the Chenab, and on the Ravi 
8000 to 9000. Dr. Thomson saw it at 13,000 
feet in Zanskar, and Drs. Stewart and Caley at 
13,000 and 14,000 feet in Ladakh. Beers are more 
found of this than when growing than of any other food; 
the leaves are much used in Lahul as a pot-herb. 
In the hills, the buckweat grain is considered 
inferior to millet, but much is taken to the plains, 
where it is used by the Hindus on their 'barr or 
fast days, it being then 'phalahar,' or lawful. 
In the neighbourhood of Hankow in China, the crop of 
F. esculentum is much depended on; its small 
grain is very sweet and oily, and makes very 
nourishing food and pastry. The crop is cut 
before the frost. It is believed to be a native of 
Central Asia, and is supposed to have been first 
brought to Europe in the early part of the twelfth 
century, at the time of the crusades for the recovery 
of Syria from the Saracens. The fruit of the S. 
species, in America, 30 to 60. Bushels per acre are not 
unfrequently produced. The quantity of seed 
sown is 5 to 8 pecks the acre.—Simmonds, p. 259; 
Dr. J. L. Stewart; M’Culloch; Smith, p. 44.

BUD. Pers., Hind. Existence. Bud-0-bash, 

BUDDHA.

BUD. Hind. Mahacocchate pectinata.

BUDA or Buhl. In Hindu astronomy, the 
planet Mercury. Buhla, Budh, Wednesday.

BUDADI GUMADI. Tel. Benincasa coelosera.

BUDADA or Badaga, a race on the Neigherry 
hills, known as Baduga or Burgiers; they speak 
an ancient dialect of the Canarese. See Badaga.

BUDAMA PANDU. Tel. Bryonia, sp.; 

Cucumis, sp.

BUDA-MARA. Tel. Grewia salvifolia, Heyne.

BUDAMI. Hind. Terminalia catappa.

BUD-ANAR, of Kangra. Marlea begonifolia.

BUDAON or Budda, an ancient city on the 
bank of the river Sat, in the N.W. Provinces of 
India, in lat. 28° 2' 30" N., and long. 79° 9' 45" 
E. The Budon district is bounded on the west 
by the Ganges, has an area of 2004 square miles, 
and a population of 953,458. Besides Hindu castes, 
the Ahir graziers on the Bhur tract are 81,522; 
Chamar landless cultivators, 133,528; Kayasth, 
9726; Kurmi, 6143. The Bantu, ostensibly beg-
gars, are a predatory thriving tribe moving in 
gangs; the Hubarah, also in thieving gangs. 
The Sansa are vagrants professing Mahomedanism; 
they cross over from the Doab and steal children. 
The district was Ahir a territory; from the 11th to 
the 19th century it was under the Mahomedan 
dynasties of Dehli and Oudh, and since 1801 it 
passed to the British.—Imp. Gaz.

BUDAR. Hind. Picea Webbiana.

BUDARENI. Tel. Capparis divaricata.

BUDARI. Can. Antilope Arabica, El.; Gazella 
Bennetti, Jordan.

BUDDA BASARA. Tel. Physalis Peruviana, 
L.; also Cardiospermum halicacabum. Both have 
bladdery capsules.

BUDDAH MANJI, also Manjiharam, a village 
deity of the Santal; a stone buried in the centre of 
the village in an open shed. The shed is 
called Budhhath. See Ho; Santal.

BUDDA-NEI. Tel. Careya arborea.

BUD-DRA-RA-NA. Bum. Cann Indica.

BUDDA TUMMA. Tel. Acacia Roxburghii.

BUDDERI. SANSK. Ziziphus jujuba.

BUDHIA. This title is usually employed to 
designate the eminent religious teacher, from whose 
doctrines have sprung up the forms of the Budh-
ist religion which are found prevailing in Ceylon, 
Nepal, Tibet, Tartary, Mongolia, Burma, Siam, 
Anam, Cambodia, China, Japan, Formose, and 
Corea. Its votaries, it is supposed, outnumber those 
of all other creeds, except the Christian. The Rev. 
Mr. Hardy quotes a German estimate of the Bud-
ghists at 369 millions; Major Cunningham has 222 
and, even 500 millions have been estimated.

Buddha in Sanskrit means wisdom, supreme 
intelligence, and the words of nearly similar 
sound are mere varieties, in different parts of 
the East Indies, in orthography and pronunciation. 
The Chinese having no B or D in their alphabet, and 
their language being monosyllabic, they have 
father softened this term into Fo, Fo-o, or Fo-
Hi; they also call him Sa-ka, a variation of 
Saky, his brother.

Taking the term in the simple sense of a religious 
teacher, it is generally admitted that there had 
been several Buddha prior to the advent of 
Sakya Sihna, to whom the term is now restricted 
by the people of Europe. Sakya Sihna declares 
he was the twenty-fifth Buddha, and says of 
another, 'Bhagava Metteyo is yet to come.'
Colonel Tod is of opinion (i. p. 90) that there had been four distinguished Buddha or wise men, teachers in India of a monotheism which they brought from Central Asia, with their science and the arrow or nail-headed written character. The first Buddha he considers was Budh, the parent of the Lunar race, b.c. 2250. The second (twenty-second of the Jains), Naimnath, b.c. 1120. The third (twenty-third of the Jains), Parswanath, b.c. 650. The fourth (twenty-fourth of the Jains), Mahavira, b.c. 533.

Sakya Sruha was born in the 5th or 6th century b.c., at Kapilavastu, in the Gorakhpur district, in the reign of Bimbisara, the fifth of the Sisunaga dynasty of Magadha or Behar. He was the only son of raja Suddhodana, the chief of a tribe called Sakya, whose country lay among the spurs of the Himalaya, along the banks of the Rohini, or modern Kohana. Suddhodana was indeed one of the last representatives of the pure Aryan or Solar dynasties who held sway in Ayo- diya, the modern Oudh, and were deposed by the Lunar dynasties of the mixed Aryan and Turanian races, and reduced to mere chieftains of tribes, who still maintained a precarious independence under the protecting shadows of the Himilaya. The Rohini divided the Sakya from the Koliyan on the opposite bank, and in times of famine the river was often the object of fighting between them. But during the rule of Suddhodana there was peace between the clans on either side of the Rohini, and Suddhodana had married two of the daughters of the Koliyan chief. Both continued childless, until, in her 45th year, the elder sister professed the mendicant's life, and with her, the prince Gautama Siddhartha. Buddhist legends describe the great rejoicing at the unexpected event; that Buddhas from afar came to worship the new-born babe, and aver that his incarnation was voluntary, and his conception immaculate.

At 19 years old he was married to his cousin Yasodhara, the daughter of the Koliyan raja; and in the Pali scriptures we hear nothing more of him, until in his 29th year it is related that, one day, driving beyond his pleasure-grounds, he met an old man, and on another a paralytic, and again one suffering from the pest, and after that a corpse. These sights stirred the prince to new thoughts. About this time Yasodhara gave birth to a son, her only child. On hearing of it, Gautama only said, 'This is another strong tie I have to break.' That evening the nautch girls came as usual to dance before him, but he paid no attention to them, and gradually fell asleep. On waking again at midnight, and seeing them lying about in the ante-room in inelegant postures, an overpowering loathing filled his soul, and he called at once to his charioteer, Channa, to get ready for his departure. He then went to Yasodhara's room, hoping to embrace his new-born boy while she slept, but, fearing that should she awake he would be moved from his resolution, he tore himself from the threshold of her door; and on the night of the full moon of the month of July, b.c. 594, the young Rajput prince went forth into the forests of Magadha, resolved never to return to his father's house, and to his wife and child, until he could come back to them as a teacher. This, in the Buddhist scriptures, is styled 'The Great Renunciation of Gautama Buddha.' He first went to Rajagriha, the capital of Magadha, the residence of king Bimbisara, where he attached himself to a Brahman named Alara, and afterwards to another named Adraka, by whom he was initiated into all the mysteries of the Hindu religion and philosophy. But not being satisfied, he retired to the jungle of Uruvela, on the north of the Vindhya range, where for six years, attended by five faithful disciples, he gave himself up to the severest asceticism, till his fame filled the whole of Malwa, or Central India, 'like the sound of a great bell hung in the canopy of the skies.' At last one day he fainted from extreme exhaustion, when, recovering, and seeing the folly of such useless self-denial, he thenceforward began to take food regularly, on which his five disciples deserted him and went to Benares. On the very day that they left him, he wandered forth, meditating painfully on their desertion just at the time when he most needed human sympathy, until at last he came to a village on the banks of the Nairanjara, where Sujata, the daughter of one of the villagers, compassionately brought him food as he sat under the Bodhi tree, Uro stigma religio sum, or sacred fig-tree. He was greatly moved by the compassion of Sujata, and sat meditating under the tree through all the day and all the following night. First he was strongly tempted to give up his missionary life, and return to wife and child, wealth and power, but as the sun set the religious side of his great nature triumphed. His mind was made up to the belief that penances, self-tortures, and sacrifices were not the way of life and peace, but a pure heart; and that the only freedom from doubt and heresy was through overcoming impurity, envy, and hatred. The first encumbrance that must be conquered is sensuality, and the last, self-righteousness; and the crown of purity, faith, and justice, without which all these are no more than self-righteousness, is 'universal charity.' As these truths flashed on his mind, he felt that he had become the Buddha, the Enlightened One, and he arose to proclaim his new-found joy to all the world around him. He first sought out his old teachers, Alara and Adraka, but they were dead. Then he went to his former five disciples at Uruvela, who were now living in the Deer Forest at Benares. As he approached, they determined not to receive him, but Gautama was a man of commanding presence and noble countenance, and had a rich, deep, thrilling voice, and as he drew near and addressed them, all their self-righteous resolutions failed, and in the end they followed him as their true teacher and master. Another of his converts in the Deer Forest was a rich young man named Yasa, who came to him by night out of fear of his resolutions, and afterwards succeeded in bringing many of his friends and companions into the new religion. He then returned to Uruvela, where he converted three fire-worshippers, one of whom was called Kasypa, and other hermits who were living there, accompanied by whom he proceeded again to the court of king Bimbisara at Magadha. There great numbers joined him, including Sariputta and Moggallana, who afterwards became famous leaders of the new religion. At last, after seven years' absence, Buddha started for Kapilavastu. He entered the city with his mendicant's bowl in his hand, begging through the streets. The old raja Suddhodana was scandalized; but Gautama replied, 'My father, the customs of the Diarna (Law, or
Kingdom, of righteousness) are good, both for this world and the world which is to come. My father, when a man has found a treasure, it is his duty to offer the most precious of the jewels to his father first. Do not delay, let me share with you the treasure I have found.' Yasodhara did not go forth to welcome him. 'I will wait and see,' she said; 'perhaps I am still of some value in his eyes; he may ask for me, and I can better welcome him here.' Gautama, who had not seen her since the night of his renunciation, noticed her absence, and observing that doubtless the princess, knowing that a reclusion could not be touched by a woman, had kept away, added, 'She may exit and stand by the wayside under a tree. Unwilling sorrow be allowed to take its course, her heart will break.' Then he went in to Yasodhara, who, when she saw him whom she had known as a prince standing before her as a yellow-robed hermit, and though she knew it before, for the first time then realized the impassable gulf between them, she fell upon him, and held him by the feet and wept bitterly. Buddha praised her great virtue, and, when she afterwards entered into the new religion, she became the head of the first Buddhist nunery of female recluses. For 45 years Gautama prosecuted his mission in Hindu- sthan, attended by his cousin Ananda. He also converted another cousin, Devadatta, who, in envy, incited king Ajatasatru, who had suc- ceeded king Bimbisara in Magadha, against him. But in the end Ajatasatru was also converted. The common people, whose levelling instincts rebelled against the hereditary priesthood and crushing caste system of the Brahmans, joined him in multitudes. He died at the age of 80, B.C. 543. He was journeying towards Kasina- gara, 80 miles east of Kapilavastu, and had rested in a grove at Pawa, presented to the new society by a goldsmith named Chunda. Chunda here prepared for him a meal of rice and pork, of which he ate incautiously, and was soon afterwards taken ill. Finding that Chunda was likely to be reproached for his mortal fit of indigestion, he quietly remarked to Ananda, 'After I am gone, tell Chunda he will receive in a future birth a very great reward; for, having eaten of his pork, I am about to pass into Nirvana. These are the gifts which will be blest above all others, namely, Sujata's gift before I attained wisdom under the Bodhi tree, and this gift of Chunda before I enter into the rest of Nirvana.' Afterwards, observing Ananda weeping, he said, 'O Ananda, do not weep. This body of ours contains within itself the powers which renew its strength for a time, but also the seed of its destruction. Is there anything put together which shall not dissolve?' Then, turning to his disciples, he said, 'When I am passed away, and am no longer with you, do not think the Buddha has left you, and is not still in your midst. You have my words, my explanations, my laws, the Buddha has not left you.' And again, 'Beloved disciples, if you love my memory, love one another.' And after another pause he said, 'Beloved, that which causes life causes also decay and death. Never forget this. I called you to tell you this.' These were the last words of Gautama Buddha, as he stretched himself out and died under the great sal tree, the Shoren robusta, at Kasinagara. His body was burnt with great reverence by the local rajas of Malwa, and his charred bones were distributed over the whole country, and in after times gave rise to the stupas, tope, or relic mounds which have been discovered in so many parts of India, from the valley of the Kabul river to the banks of the Kistna. For gradually the new religion grew mightily. The Sisunaga dynasty, which reigned at Magadha from B.C. 691 to B.C. 325, was followed by the Maurya dynasty, which reigned to B.C. 118. It is the most brilliant and best known of all the dynasties of ancient India. In the anarchy which followed the invasion by Alexander the Great, B.C. 330 (Heracl) to 326, the last of the Sisunagas was murdered in revenge by a learned Brahman named Chandragupta, who was born as a prince, and established the Maurya dynasty, established Buddhism as the state religion in India, B.C. 250. He was the first to raise stone architecture in India, the art of which was probably derived through the Greek invasion. He engraved his edicts on rocks and on pillars; and the Sanchi tope, and the tope of Bharhut, are probably remains of the 84,000 tope or stupas he is said to have erected in honour of Gautama Buddha and his most distinguished first disciples. Only eight of these mounds were shrines of actual relics of Sakya Muni himself, and these are distingulished by the name of dhagobas,—being derived from dhatu, a relic, and garbha, the womb,—that is, a relic-shrine.' The legends relate that on his attaining perfect knowledge while resting under the pipal tree near Gaya, he celebrated the event with the stanzas :

'Through various transmigrations
Have I passed, (without discovering)
The builder I seek of the abode (of the passions).
Painful are repeated births !
O house builder ! I have seen (thee).
No house shalt thou again build me ;
Thy rafters are broken,
Thy ridge-pole is shattered ;
My mind is freed (from outward objects),
I have attained the extinction of desires.'

According to tradition, a likeness of this great reformer was carved in sandal-wood from the life, and this became the model for such representations as exist. He appears in them as a smiling, smooth-faced, feminine-looking person, with long hair parted like a woman's, and formed into a knot at the top of the head. In early Buddhist belief, however, statues were not erected to him. There are none belonging to the eastern caves, nor any found at Buddha Gaya, Bharhut, or Sanchi. There are none erected as early as the Christian era. His statue in the facade at Karli and in the western caves are insertions of the 4th or 5th centuries, or later.

Before the end of his career, he saw his principles zealously and successfully promulgated by his Brahman disciples, Sariputra, Mahalaya, Ananda, and Kasappa, as well as by the Vaisya Katyayan, and the Sudra Upali. At his death in B.C. 543, his doctrines had been firmly established, and eager claims were preferred by kings and rulers for relics of their teacher. His ashes were distributed amongst eight cities, and the charcoal from the funeral pile was given to a ninth; but the spread of his influence is more clearly shown by the mention of the numerous cities where he lived and preached. Amongst these are Champ

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and Rajagriha on the east, Sravasti and Kausambi on the west. In the short space of forty-five years, this wonderful man succeeded in establishing his doctrines over the fairest districts of the Ganges, from the neighbourhood of Agra and Cawnpur to the Delta. This success was perhaps as much due to the corrupt state of Brahmanism, as to the greater purity and more practical wisdom of his own system. His success was also partly due to the political admission of women. To most of them the words of Buddha preached comfort in this life, and hope in the next.

To the young widow, the neglected wife, and the cast-off mistress, the Buddhist teachers offered an honourable career as nuns. Instead of the daily indignities to which they were subjected by grasping relatives, treacherous husbands, and faithless lords, the most miserable of the sex could now share, although still in a humble way, with the general respect accorded to all who had taken the vows. The Bhikshuni were indebted to Ananda's intercession with Sakya for their admission into the ranks of the Buddhist community, and (Cosima's Analysis of the Dulva, Res. As. Soc. Bengal, xx. p. 90; also Fo-kwe-ki, chap. xvi. p. 101), in token of their gratitude, the Pi-khieu-ni, or Bhikshuni, at Mathura, paid their devotions chiefly to the statue of Anan (Ananda), because he had besought Buddha that he would grant to women the liberty of embracing ascetic life. The observances required from the nuns are given in note 23, chap. xvi. of the Fo-kwe-ki. Though thus enrolled, their position was still humble. The female ascetic, even of a hundred years of age, was bound to respect a monk even in the first year of his ordination.

Sakya has become a saint in the Roman Catholic Church, under the name of St. Josaphat.

In Burma, his statues or images appear in Buddhist temples, sometimes seated cross-legged, in the attitude of teaching, sometimes resting on his right side supporting his head on his right hand. He is represented in those of India seated on the Sinhasana, or lion's throne, at first alone, but, under the Mahayana heresy, with other beings near, often with standing figures holding fly-flags; or seated on a throne, the corners of which are upheld by two lions, with his feet on a lotus blossom, and his hands in front of his breast, the little finger of his left hand held between the thumb and forefinger of the right. This is the attitude of teaching, and is known as Dharma Chakra Mudra. Buddha and the Jaina Tirthankaras are also represented squatting with their legs doubled under them, and the hands laid one on the other over the feet, with the palms turned upwards. This is the reflective or meditative attitude, Jnan Mudra or Dhyan Mudra. A third attitude is called Vajrasana, also Bhumisparsa Mudra, when the left hand lies on the upturned soles of the feet, and the right, resting over the knee, points to the earth. He is also figured standing, with the right hand upheld in the attitude of blessing, or with the alms-bowl of the Bhikshu or mendicant. Also resting on his right side, with his head to the north, the attitude he took at his death.

Sakya Sinha, according to Tibetan books, died near the town of Kusula in Kamrup, beneath the shade of two sal trees on the southern bank of the Brahmaputra river, then called Hiranyo. The Pali books of Burma and Ceylon say B.C. 544; General Cunningham has B.C. 478, at the age of 80. In the middle of the 19th century, Professor Kern of Leyden, in a dissertation on Buddha, gives B.C. 388 as the date of his death; and Professor Weber, in the Literisches Central Blatt of 1874, adopted the view taken by Professor Kern. Mr. Fergusson gives as under the dates of events:—

Buddha born at Kapilavasta, B.C. 560.

" became an ascetic, 381.

" died, 481.

First Buddhist council, 247 B.C.

Second Buddhist council, held in the 10th year of the reign of Kala Varidham, 283.

Alexander's invasion of India, 327.

Philip made satrap, 227 B.C.

Alexander left Patala after the rains, 230.

Philip murdered by mercenaries, 229.

Alexander's death, 227.

Purus allowed to retain the Panjab, 227.

Seleucus obtains Babylon, 321.

Chandragupta founds the Maurya dynasty, 321.

Bindusara succeeds, and rules 29 years, 246.

Bindusara's death, 228.

Asoka's conversion, 276.

Asoka's coronation, 263.

Asoka converted to Buddhism, 259.

Mahendra, son of Asoka, ordained a Buddhist, 258.

Third Buddhist council, held in his 17th year, 246.

Mahendra sent to Ceylon in his 18th year, 245.

Death of Asoka's queen, Asandhi Mitra, 230.

Asoka became an ascetic in the 331 year after his conversion, 227.

Death of Asoka in the 38th year of his reign, 223.

Suvasas, successor, 225.

Dasaratha, 215.

Sangata, Bandupalita, 200.

Indrapalita, Salanka, 185.

Somasarana, 185.

Sasadhara, 185.

Vrijadratha, 150.

He is known to the various races by various names and titles. He was called Sakya and Sakya Sinha from his clan; Sādhu-dani, as the son of Suddodana; and from his mother Maya-Devi he got the name of Maya-Devi-Suta; Gautama was from his got or ancestral descent, and hence the Burmese Gaudama; Arka-Bandhu, or Kinsman of the Sun, from his descent as a Kshatriya of the Solar Line; Bhagava or Bhagavat, meaning saintly; Sakya Muni, or Sakya the hermit; Tathā-gata, he who has gone away; Sramana, the priest; Mahā-Sramana, the great priest. He is the Buddas and the Sarmanes of the Greeks; the Mercurius Mayas of the Roman Horace; Bud or Wud of the pagan Arabs; Toth of the Egyptians; Woden of the Scandinavians. His clan name of Sakya became the Xu-Ka of the Chinese and Japanese, and the Shakhout of Tonquin; and the Chinese, having no b or d in their monosyllabic language, style him Po, Fo-e, Fo-Hi, and Fo-to; in Tibet he is Pot or Po-ti; also in Siam, Chom-dan-das, Sungs-gyas, and Somme-no-Kodam.—Ferg. and Berg. Cave Temples of India, 24, 178.

BUDDHA-PRIYA, the compiler of the Rupasiddhi, the oldest Pali grammar, now lost. It was compiled from the more ancient work of Kaichhyayana.

BUDDHA-SARA. Sansk. The essence of the Buddha philosophy.

BUDDH GAYA or Budh Gaya, a village, lat. 24° 41' 45'' N., long. 85° 24' E., about 6 miles from the town of Gaya in Bengal. Sakya Muni, in the 6th century B.C., resided here for four years under a pipal tree (Urostigma religiosus), sitting
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with his legs crossed in mental abstraction. That celebrated tree, the Bodhi-drum, or tree of wisdom, still exists, but in a very decayed state. The rajasthan, or palace, was the residence of the Buddhist king Asoka and his successors on the throne of Magadha. In front of the tree are the ruins of an ancient Buddhist temple, restored A.D. 1958-1960 by a Buddhist ruler, but only the mazaric shrines remain. It is largely visited by pilgrims, who deposit their offerings at the foot of the pipal tree. One inscription on a stone in Sankrit, dated Samvat 1005 (A.D. 948), is said by Dr. Wilkins to import the temple of Buddha at Buddh Gaya was built by Amara Deva, the author of the Amara Kosh; but it may mean restored, as it was seen before Amara Deva's time by Fa hian (v. p. 189). Another Pali inscription, of date 1305, in Baranasee, says the chaitya or temple was first built by Asoka, 218 years after Buddha, or B.C. 325; often restored, and finally restored by the Burmese Emveys, A.D. 1306-1309 (v. p. 157). The vaulted cavern or Nagarjuna has other inscriptions, all short, and in every variety of the Deva Nagari. — Beng. As. Soc. Journ. vi. p. 671; Tr. of a Hindu; Ferguson's Buddhist Architectural Remains; Hardy's Eastern Monachism, p. 434; Buddhagaya, the Hermitage of Sakyu Mani, by Rennadrala Mahat. L. I. in Sinhalese. —BUDDHISM. Sansk. Perfect knowledge, the acquirement of which, with the Buddhists, frees from further transmigrations.

BUDDHISM is a religion which had its origin in the teaching of Sakyu Sinha. In the year 281, the population of the world was estimated at 1,500,000,000, of whom 470,000,000 were supposed to be Buddhists. Some circumstances, of which we are uninformed, must have prepared these regions for the reception of his ascetic doctrines. From its rise in the 6th century B.C., it gradually spread from the valley of the Ganges over the whole of India; it extended into Kabul, into Bamiyan in ancient Bactria, a district of Persia under Darius; traces of it early appear through Mongolia and Tibet; it was introduced into China by 500 Kashmirian missionaries in A.D. 65; through Hindustan it extended into the Peninsula and to Ceylon, into Nepal, Burma, Assam, Siam, Cochin China, the islands of Formosa and Japan; and, except in India, where it arose, and in Kabul, Bactria, Bamiyan, and Kashmir, it still flourishes in the countries named, and in Sikkim, Ladakh, Zanskar, Dras, Suru, Purik, Spiti, Nubra, Rong, Janskar, Hanle, and Rupshu. Buddhist made a start in the time of king Asoka, and religious Buddhist counsellors assembled at Pataliputra with Asoka. After nine months' consultation, they sent out nine teachers, viz. one to Kashmir and Peshawur, a second to the country of the Nahrinda, a third to Mewar and Burd, a fourth to Northern Sind, a fifth to the Mahatta country, a sixth to the Greek province of Kabul, Arachosia, a seventh to the country of the Himalaya, the eighth to Avn or Siam, that is, the 'golden land,' the aurea regio or the aurea chersonesus, and the ninth to Laina or Ceylon.

It is known that Buddhism was introduced at the court of Mughals, the emperors of China, in A.D. 65; into Java in A.D. 24 to 57; into Koali (Corea) in A.D. 372; into Po-tsi, in Corea, in A.D. 384; into Tibet, under Hla-ta To-ri, in A.D. 407; into Sin lo or Sinra (in Corea), A.D. 528; in 552 into Japan; and in 632, under Srong dzam gampu, Buddhism was introduced into Tibet generally.

About 450 A.D., missionaries from Ceylon permanently established their religion in Burma. The Burmese, however, allege that just after the Patao council, B.C. 297 and 244, missionaries came to Tun-ton, between the Sitong and Salwin estuaries.

In Turkestan, Buddhism was still prevailing in A.D. 1419, in the cities of Turfan and Kamin, while Shah Rukh's ambassadors passed through; and Tagalaq Timur was the first Mahomedan sovereign of Kashgar of the lineage of Chengiz. There are now many Buddhist priests at the capital of Khotan; but Mahomedanism had been extensively prevalent in East Turkestan for centuries prior to its conquest by the Chinese in A.D. 1757, and the Buddhist priests and temples may have been since introduced.

In the first 500 years there were several assemblies of its eminent men, to discuss its condition and prospects. At the council held B.C. 543, when 500 of Buddha's discipes were assembled in a cave near Raja-grh, to gather together his sayings, they criticized the lessons of their master, in three great divisions — (1) the words of Buddha (his discipes; (2) his code of discipline; and (3) his discourses to the people. There are the three collections, Pitaka, or baskets of Buddha's teaching; and Sangiti, the word for a Buddhist council, means literally a singing together.

Even before the decease of Sakyu Sinha, however, schisms had arisen amongst his followers. Ananda had been with him from the first, and to him Buddha had referred his discipes as the depository of what he himself had said. Nevertheless, so rapidly had the views of Buddha been departed from, that Ananda was excluded from the deliberations of the first Buddhist council as an unbeliever, and only re-admitted when he had submitted to their views (Bunsen, God in Hist. i. 341). A century afterwards, B.C. 443, 381? in the reign of Kala Yrhdhana, a second council of 700 was held at Vaisali, to settle disputes between the more and the less strict followers of Buddhism; it condemned a system of Ten Indulgences which had grown up, but it led to the separation of the Buddhists into two hostile parties, who afterwards split into 18 sects (Imp. Gaz. p. 248). Eighteen heresies are deplored in the Mahawanso, within two centuries of Sakyu's death; and four distinct sects, each rejoicing in the name of Buddhists, are still to be traced amongst the remnants of his followers. Not reckoning the doctrines cherished among the Jaina of Gujerat and Rajputana, its mysteries, as administered by the Lamas of Tibet, are distinct from the metaphysical abstractions propounded by the monks of Nepal, or the philosophies of the Burmans. Its observances in Japan have undergone a still more striking alteration from their vicinity to the Sintu sect; and in China they have been similarly modified in their contact with the rationalism of Lao-tse, and the social demonology or spirit-worship of the Confucians (Ten. Ceyl. p. 527).

The third council, B.C. 246, was assembled by Asoka, and the fourth and last council was held under King Kanishka, and it was at this fourth council that Nagarjuna introduced the Mahayana doctrine. — Ferri.; Imp. Gaz. Both
these rulers made Buddhism a state religion. Asoka had inscriptions recorded on rocks and columns, enjoying its doctrines, and some of these still remain. His son Mahendra, B.C. 243, carried to Ceylon Asoka's version of the Buddhist scriptures in the Magadhi language. He took with him a band of missionaries; and soon after, his sister, the princess Sanghamitta, who had entered the order, followed with a company of nuns. In the inscriptions, Buddhism appears as a system of pure abstract morality, no trace being exhibited of the worship either of Buddha himself, or of the serpent or tree. Kanishka, of Kashmir and N.W. India, about A.D. 10–40, but his sway extended to both sides of the Himalaya, from Yarkand and Khokand to Agra and Sind. The assembly convoked by him consisted of 700 members. They drew up their commentaries on the Buddhist faith, which supplied in part materials for the Tibetan or Northern Canon.

The prominent sects are known as the Hinayana and Mahayana, the Lesser Vehicle and the Greater Vehicle. The original puritans belong to the Hinayana. They practised morality, with a few simple ceremonial observances. The Mahayana school was founded by the 13th patriarch, Nagarjuna, a native of Berar, about 500 or 400 years after Buddha. It taught an abstract mystical theology, in which Buddha was pushed into the background by female personifications of Dharma or the Fruita Parmatha, and other goddesses, by Jnanat Maka Buddhās, or forms of the senses (Ferg. and Burg. Caves Temples of India, 182). The Mahayana includes many later corruptions or developments of the faith, as originally embodied by Asoka in the Lesser Vehicle or Canon of the southern Buddhists, B.C. 244. The Buddhist Canon of China is a branch of the Greater Vehicle, and was arranged between A.D. 67 and 1285. It includes 1440 distinct works, comprising 5586 books; and the Buddhism of China and Japan is a grossly idolatrous religious system.

Kanishka and his council became in some degree to the northern or Tibeto-Chinese Buddhists what Asoka and his Patna council (244 B.C.) had been to Buddhists of Ceylon and the south. But the ultimate divergence between the canons is great, both as to the historical aspects of Buddha's life and as to his teaching.—Imp. Gaz.

The rails of the dagobas at Buddha Gaya, Bharhut, with the eastern caves, give a complete history of Buddhism as it existed in India during the Mauryan dynasty (B.C. 325 to 188). At Sanchi and the western caves is given a complete representation of the character it assumed from the 1st century before the Christian era till the third or fourth of it. At Amravati and the N.W. monasteries in Feshawar, are shown the modifications introduced before and during the 4th century; and from Ajanta and later caves are to be traced its history till it became almost Jain, and then altogether faded away.—Pergusson, p. 206.

The gateway of the Sanchi tope belong to the first half of the 1st century of the Christian era, and, though subsequent to the Naga revelation, the sculptures scarcely indicate its existence. Buddha does not appear on the Sanchi sculptures as an object of worship. The serpent is there, but rare. The dagoba, or depository of the relics of saints, is there, as also are the tree, the wheel, and other emblems, and, on the whole, the sculptures on the Sanchi tope may illustrate the Hinayana school of Buddhism, at the period when other doctrines were about to be introduced.

The Amravati sculptures, again, belong to a period 300 years later than that of Sanchi, and in them the new school of Mahayana Buddhism may be studied. In these, Buddha is an object of worship, but the serpent is his co-equal. The dagoba, tree, and wheel are reverenced, and the sculptures contain all the legends of the later books, though, in a purer form. Hindus, Dasyus, and other men, women, and animals, especially monkeys, appear in the sculptures worshipping the serpent and other gods. The serpents are all divine, five and seven headed; and representations are numerous of the Naga angelic orders,—the female Naga with one serpent only springing from the back, the male Naga with three. In the Amravati sculptures are tonsured priests, and other signs of a clerical order segregated from the laity, and of an established ritual. Sanchi is illustrative of the Hinayana Buddhist philosophy, 500 years before the oldest Buddhist book; and Amravati illustrates the Mahayana philosophy 600 years after its promulgation.

The frescoes of the caves of Ajunta illustrate a period 300 years later than the Amravati tope, and belong to the time immediately preceding the decline of Buddhism in India. In No. 19 chaitya cave, Ajunta, he is the object of worship, and occupies a position in front of the dagoba itself, surmounted by the triple umbrella. A pure theism has become changed into an overwhelming idolatry.—Pergusson, p. 124.

Seemingly the symbols or idols first sculptured were the chakra, or wheel of the law, the Bodhi Tree, and the daghoba (Dhatugarbha), a cupola-shaped structure intended to contain relics, and which, in the ancient sanctuaries, occupies exactly the place of the altar in churches of the Romish and episcopal forms. About the 4th century it was replaced generally by images of Buddha, and representations of him have been found on the coins of Kanishka, and his images were worshipped in the domed chaitya.—Barth, p. 129.

In Tibet Buddhism, relics-worship is not expressed either in their architecture or their religious forms. But it is a nation of priests; their monasteries are innumerable, some with 2000 or 3000 lamas; and, according to M. Huc, up to 15,000, at Sera, near Lhasa, where are long streets of cells, mostly surrounding courtyards, generally with a shrine or altar in its centre. That of Bouddha La is where the Delai Lama resides, outside of Lhasa. In its centre is a four-storied building, with a dome covered with plates of gold.—Pergusson, p. 312.

Buddhism prevailed in different parts of India partially for 1800 years. During this long period, Buddhism was swept from many provinces by great revivals of the Brahmanical creeds, generally brought about by migrations of Brahmans from Northern India, under whose teachings, and often with violence, Buddhism in British India became extinct. It had, however, triumphed throughout India from the time of Asoka, B.C. 255, up till the 5th century A.D., trampling upon the whole ceremonial of Brahmanism, with all its sacrifices, penances, and castes, and asserting the
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paramount necessity for purity of mind and body, and a more elevated moral rule. Sacrifices of all kinds were especially excluded from the Buddhist ritual, the offerings of flowers to Buddhas being alone permitted. In A.D. 400, when Fa Hien visited India, Buddhism was still the dominant religion, but the Vaishnava sect were already rising into consequence. In the middle of the 7th century, although the pilgrim Hiuen Thang found numerous temples of the Saiva sect, whose doctrines had been embraced by Iskandar Gagh and the greater part of Pataliputra, yet Buddhism was still the prevailing religion of the people. But the faith of Sakya was evidently on the decline; and though it lingered about the holy cities of Benares and Gaya for two or three centuries later, it was no longer the honoured religion of kings and princes, protected by the strong arm of power, but the persecuted heresy of a weaker party, who were forced to hide their images under ground, and were ultimately expelled from their monasteries by fire. In 1835, Major Cunningham excavated numerous Buddhist images at Sarnath, near Benares, all of which had evidently been purposely hidden under ground. He found quantities of ashes also, and there could be no doubt that the buildings had been destroyed by fire; and Major Kittoo, who subsequently made further excavations, was of the same opinion. General Cunningham also dug up a colossal statue of Sakya in the Kosamba Kuti temple at Sravasti.

It was about the year A.D. 800 that there were the great Brahmanical revival, which has prevailed in India up to the present day, but Buddhism left its influence: the great sacrifices of antiquity have never been revived; the Homas and Piyassa, or ghi and food sacrifices, are exclusively offered by the Vaishnava sectarians, even by most of the Saiva; and the sacrificing of buffaloes, goats, and fowls is chiefly practised amongst the uneducated Sudra and non-Aryan races, to Durga, Kali, or the earth, under the form of the various local deities. The Vaishnava, who look for the coming of a tenth avatar, had been inclined to regard Sakya as the prophesied incarnation; but when Buddhism was seated on the throne of Magadha, and the old Vaishnava sect was persecuted, they fell away from Buddhism, and have ever since been apart, even more tender of animal life than any Buddhist, but in other doctrines dissimilar.

Amongst the Singhalesse Buddhists, the term Buddha is understood to indicate beings who appear in the world at intervals, and are able to teach men the way to attain nirvana (Hardy), and they recognise Anomadasssa as a Buddha prior to Gautama.—Hardy, p. 433.

In Ceylon, this faith has not been subjected to much persecution. In the 16th century, the Tamil invaders made every effort to destroy the Buddhist books; but the priests subsequently sent a mission to Siam, and properly ordained priests were imported from Amarapura in Burma. By the 18th century, Buddhism had regained its ascendency. In the 19th century, the priests have been actively diffusing a knowledge of their creed. They have printing presses, from which tracts, pamphlets, and serials issue in great numbers. They present some new arguments and inferences; but the defiant and blasphemous expressions which they contain against the sacred name of Jehovah, are probably the most awful ever framed in human language. In Ceylon, on Adam's Peak, is a footprint which has been the object of pilgrimage for ages, which Buddhists ascribe to Buddha, but Mahomedans to Adam. There are models of feet in different parts of the island.—Yule, ii. 359, 368. The tooth of Buddha, Dalada, SINGH., Dahata Dhata, HIND., is greatly reverenced. There are, in Ceylon, statues of Buddha of great height. One near Mehtintal is 70 feet high, and one of Gautama Kaja at Carcula is 38 feet. At Anurapura, in Ceylon, are several Buddhist dagobas or dagobhas, the heights of which vary. They were built at from n.c. 367 to A.D. 276. A shoot from the pipal tree at Buddha Gaya, known as the Bo Tree, has been cherished at Anurapura for twenty centuries; and in the courtyard of every vihara and temple of Ceylon, pipal trees are preserved as objects of veneration. A system of caste was introduced by king Vijiao amongst the Ceylon Buddhists, which still prevails there, though directly opposed to Buddhist doctrines, and not existing in any similar form in other Buddhist countries.

Buddhism has been examined by Prinsep, Hodgson, A. Cunningham, Yule, Caoma Korosi, Rajendra Lala, Sykes, and Bird in India; by Pallas, Schmidt, Burnouf, Muller, Bunsen, Barth, Fergusson, St. Hilaire, Benfey, E. Edkins, Stanisla Julien, Lassen, Abel Remusat, Tenent, Wilson, and Wassiljew of Europe; by Turnour, Gogerly, and Spence Hardy of Ceylon; by Phayre, Mason, Lowe, Bigandet, and Bastian of Burma; and by Logan of China, and there has been much discussion as to the nature of the doctrines which Sakya preached. There is no doubt that he was an ascetic, for he left his wife and family, and preached and inculcated asceticism; and however greatly his followers may now vary in their belief, it is a fundamental doctrine with all of them, that existence is an evil, for birth originates sorrow, pain, decay, and death. Whether he believed in a Supreme Being is questioned. Mr. Hodgson describes his belief as 'monastic asceticism in morals, and philosophical scepticism in religion.' Bunsen considers that Sakya, the ascetic, of all founders of religions, at once stands the nearest to, and the farthest from, Jesus of Nazareth, the Christ. The farthest, inasmuch as he renounces in despair the actual world which Jesus purposes to raise to Godlike purity; but the nearest, by virtue of the width and humanity of his conceptions of God, and the wide diffusion which they have obtained. But this view was not held by many of his own day, who styled him An-Iswara, the loriless one, meaning that he taught an absolutely atheistic nihilism; and Burnouf considered the doctrine of Buddha to be atheistic and materialistic in his teaching that existence is a burden, and that annihilation is the highest happiness which the soul can strive after. Barth says (p. 110) Buddha's doctrine is absolutely atheistic. The great truth of the Fatherhood of God is lacking in Buddha's teaching. According to Bunsen (God inINST. p. 345), his creed introduced or revived civilization, and softened manners amongst millions. At present the Buddhists are in two great sects, those of the Mahayana, and those of the Hinayana. The Mahayana is represented in the literature of the northern Buddhists of Tibet, Nepal, China, and Japan; and the Hinayana in that of Ceylon, Burma, Siam,
and Cambodia, and Anam? The Buddhism of Mongolia is an offshoot from Tibet, and that of Corea, Japan, and Cochinchina is from China. In China and Mongolia, according to M.M. Huc and Gasoin, there are the Buddhists, who acknowledge an Adi-Buddha, or eternal Buddha, whom they consider to be God over all.—**Yule**, i. 242.

Sakyu Muni disconntenuised the philosophic views of the Brahmanas, but did not deny the authority of the Vedas. But he was not followed in this by subsequent professing Buddhists.—**T.**

Three marches from Jeyapore, on the road to Delhi, the town of Babra has one of the edicts of Asoka on a block of stone or rock on a hill, in old Pali, and of date B.C. 309. It is in the oldest Lat character. It differs somewhat in style and language from the pillar and rock edicts. The subject is the Buddhist commandment, forbidding the sacrifice of four-footed animals. The Vedas are alluded to, but though not named, are conveyed as 'true and false in their doctrine, and not to be obeyed.' The scriptures of the Muni (which must be the Vedas) are spoken of as directing blood-offerings and the sacrifice of animals. Priests and priestesses, religious men and religious women, amongst the Buddhists, are commanded to obey the edict, and bear it in their hearts (vol. ix. p. 617).

The sacred canon of the Buddhists now extant is called the Tripitaka, i.e. the three baskets. The first basket contains all that has reference to Vinaya, or morality or discipline; the second contains the Sutra, or discourses of Buddha; the third, Abhidharma, includes all works treating of dogmatic philosophy or metaphysics. The first and second each contain five separate works. The second is generally known by the name of Dharma, or law; and it has become usual to apply to the third basket, which contains seven separate works, the term Abhidharma or by-law. The Sutras are ascribed to Sakyu Muni; they consist of ethical and philosophical dialogues by Sakyu; and a writer in the Calculata Review states they make mention of the gods Narayan, Jounardhan, Shib, Braham, Petomah, Borun (Vorn), and Songkar. Other names are Kabir, Sokr or Vasob, and Vissoo Kormo.—**Cat. Rec.**

Professor Max Muller, in 1881, translated the Dhammapada, a collection of verses; the Sutta Nipata, a collection of discourses, was translated by V. Fransboi; and Rhys Davids issued the Buddhist Sutras.

Buddhist writings have been preserved in two comparatively original redactions, but neither of the two types of dialects, the primitive language of their creed. The Buddhists of Nepal, Tibet, and China have their books in Sanskrit, or have translations immediately from the Sanskrit. The Sanskrit writings were made known about 1840, by Mr. B. H. Hodgson.

The literature of the Buddhists of Ceylon, Burma, and Siam, is in Pali; and the Dipavansan contains a history of Buddhism in that island, which breaks off with the death of Mahasena, A.D. 302. The Mahavansa was compiled by Mahawana, who lived about A.D. 500; it has been brought down to the 18th century by successive writers, and was translated by the Honourable G. Turnour of the Ceylon Civil Service.

Their relative age and authority is not yet decided, though that of the Pali has been known since the 5th century by the commentators of Buddha ghosa.

Analyses of this literature have been made in Spence Hardy's Eastern Monachism; Childers's Pali Dictionary; Rhys David's Buddhism; B. H. Hodgson's Memoirs in Asiatic Researches and the reprint of his Collected Essays, Csona of Koros in Bengal As. Soc. Journal and Asiatic Researches.

The Chinese collection has been described in Beal's Buddhist Tripitaka as it is known in China and Japan, and W. Wassiljew's Der Buddhismus.

Up to the present time, all that has been found of the Abhidharma is in extracts and fragments.

Some of the Sutras have been translated by E. Burnouf, Max Muller, and Cecil Bendlall, and in the Journal of the R. As. Society. The Vinaya Pitakam in the Pali has been published by H. Oldenberg, the Mahavagga in 1879, and the Cullavagga in 1881.—**Barth. Rel. of India**.

Mahendra, son of Asoka, is supposed to have brought the Aththa-katta, ancient commentaries in Pali, to Ceylon, and to have translated them into Singhalese, which Buddha ghosa, about A.D. 430, re-translated into Pali. According to another account, the doctrines were first reduced to writing by the Ceylon priests during the reign of king Vartagnami, 88-76 B.C., and by a synod assembled 10-40 A.D., by the Turushka king Kanishka. For the former the language used was the vernacular, from which in the 5th century it was translated into Pali; for the latter, Sanskrit.

The Buddhist religious works of Tibet brought to notice by Alexander Csona de Koros, are the Tanjur, which consists in its different editions of 100, 102, and 108 folio volumes, and comprises 1050 distinct works. The Tanjur consists of 225 volumes, each weighing from 4 to 5 lbs., in the edition of Pekin; but editions have also been published at Lhasa, and other places. Of these, De Koros gave an analysis in the 20th volume of the Asiatic Researches, and died soon after.

In the Tibetan creed, the doctrine of transmigration is shown, and final absorption into Buddha, as the reward of a virtuous life. It therefore follows that Buddha, with the Tibetans, is the divine Being who created all, and to whom all return, and that for the good there is no separate existence in a future world. There has been some misapprehension regarding the Buddhhas and Budhhaswats of the Tibetans, the regeneration of the Grand Lama being considered as an exceptional ease of a Buddha returning amongst mankind. Mr. Hodgson (pp. 107, 138) truly calls the Lamas of Tibet, 'Archantes;' but he believes 'that a very gross superstition has wormed the just notion of the character to its own use,' and so created the 'immortal mortals, or present palpable divinities of Tibet.' In the Nouv. Jour. Asiat. t. xiv. p. 408, ii., Fra Orazio says that 'Lama sempre sara coll istessa anima del medesimo Ciang-c'ib, oppure in altri corp.' Remusat was not aware of this fact when he stated, 'Les Lamos du Tibet se considérent euxmêmes comme autant de divinités (Boudhhas) incarnées pour le salut des hommes.' But the explanation which Major Cunningham received in Ladakh, which is the same as that obtained by Fra Orazio in Lassa, is simple and convincing. The Grand Lama is only a regenerated Budhhaswata, who refrains from
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accepting Buddhahood, that he may continue to be born again and again for the benefit of mankind. For a Buddha cannot possibly be regenerated, and hence the famous epithets of Sattagatha, 'thus gone,' and Sugata, 'well gone,' or 'gone forever.' The valley of Le or Ladakh proper, Zanskar, Hemahas or Dras, Sura, Purik, Spiti, Nubra, Janske, and Rong, are all Buddhists (The \textit{Bhia Topes}, by Major Cunningham, pp. 1-67).

In Tibet, the Buddhist practical creed is thus briefly stated by Csona de Koros:—1st. To take refuge only with Buddh. 2d. To form in the mind the resolution to aim at the highest degree of perfection, and so to be united with the Supreme Intelligence. 3d. To humble oneself before Buddh, and to adore him. 4th. To make offerings of things pleasing to the six senses. 5th. To glorify Buddh by music, and by hymns, and by praise of his person, doctrine, and love of mankind, of his perfections or attributes, and of his acts for the benefit of animated beings. 6th. To confess one's sins with a contrite heart, to ask forgiveness of them, and to repent truly, with a resolution not to commit such afterwards. 7th. To rejoice in the moral merit and perfection of animated beings, and to wish that they may obtain beatitude. 8th. To pray and exhort existing holy men to turn the wheel of religion, that the world may long benefit by their teaching (Prinsep's \textit{Tibet}, Tartary, and Mongolia, p. 167).

One of the established points in Tibetan Buddhism is the belief in metempsychosis, or the migration of the souls of animated beings; and the Tibetans believe in six forms in which a living being may be re-born, viz. lha, Tin.; deva, Sans.; spirits or gods; ni, or mother earth, or evil spirits; jowo, or jholangs, brute beasts; yidaga, imaginary monsters; and inmates of nyalba, or narakas, or hells.

To cease to exist is the prevailing hope with all Buddhists. The Buddhist longing for annihilation is an exaggeration of the craving for rest which has been felt by many races, and by the followers of many creeds. The universal cry of the overworked and suffering children of men has ever been that of the lotus-enters:

There is no joy but calm.

The universal refrain of humanity is one implying trouble, anxiety, and never-ceasing toil, and its aspiration is that of repose. A holiday is a cessation of labour; and the highest hope of many Christians has ever been, to reach that bourne where the wicked cease from troubling, and the weary are at rest. Nirvana is as a blown-out candle. It is essentially in theory a non-active faith—a faith of negatives. Their ten commandments, according to Max Muller, are:—Do not kill; do not steal; do not commit adultery; do not lie; do not get intoxicated; abstain from unsuitable words; abstain from public spectacles; abstain from excess in dress; do not have a large bed; do not receive silver or gold. Ten obligations or precepts, dass sil, are repeated when a Burmese enters a kyaung as a novice (Fyfece, ii. 192).

In carrying out the ascetic views of Sakya Muni, pious Buddhists of all these countries, both men and women, have, from the first enunciation of his doctrines, been accustomed to withdraw from public life into monasteries and convents. We have distinct evidence of the existence of institutions of this kind established at dates long antecedent to the Christian era. They were in the form of vilara, or cells and caves, or buildings erected for the convenience of those who sought so to spiritualize themselves by separation from the world. Only the ruins of such buildings exist in peninsular India, but in Tibet and Tartary they still are like those left by the Indian Brahmanis or Lamas, ten and twenty centuries anterior to the present, and varying very little from what is reported of the monasteries of the earlier Christians; there are also, according to M. Hile, both to Koon-boom and in Tibet, the types of devotees who practised penances, and sat as pillars, like Siva and Saktis. To a Burmese Buddha lad, for a period, must enter a monastery.

Pythagorean institutions are described as very monastic in their character, in that respect resembling closely the vilara of the Buddhists of India. The doctrines of Pythagoras were widely spread over Greece, over Italy and Asia Minor, for centuries after his decease, and under the name of Mithnach the teachings of Buddha had also a wide extension (Prinsep's \textit{Tibet}, pp. 140, 161).

To a Buddhist ascetic, continence is essential to purity, but even contact is unlawful. Nevertheless convenants for women are very characteristically Buddhist institutions; they existed in the Burman empire till of late years, and are still to be met with in Nepal, Tibet, and China (Tog Cart, p. 142).

\textit{Burm.}—Dr. Mason says the philosophy of Buddhism, in Burma, is the religion of Buddhism. To be a Buddhist is to believe in the philosophy of Being. The Burmese Buddhist, in Burma, exercises the power of law, and all things are unreal, and on it all their philosophy is based. Some Buddhists recognise idols, a few wholly reject the worship of idols; but these are equally Buddhists, who believe that true happiness is not found in any state of body or mind; that existence is a calamity; and that the only desirable object is the extinction of being, or nirvana, where there is deliverance from ideas and consciousness.

To be a pious Buddhist is to remain unaffected by surrounding objects, to deny oneself of everything beyond the bare necessities of life, and to cry out, day and night, all things are transitory, productive of unhappiness, and unreal. A change of heart and implicit faith are essentials of salvation. Burmese Buddhists believe in good and evil spirits, and in the scheme of transmigration, and, for the good, final absorption; and the Burmese Buddhist prays that he may, in his transmigrations, meet with a Buddha to convert him to humble position in Burmese Buddhism, and she longs to become a man in her next transmigration. Their views as to the desirableness for release from this life are evincive in modes painful to European feelings. The Rev. Mr. Marks, when in Moumein, had a sick pupil whom he went to see. On entering the house, and inquiring for the lad, the mother in a glad manner repeated he was well, and jauntily led to another room, where he was pained to find the young boy lying dead, and still more pained by the mother continuing to repeat that he was well.

In Burma, in some temples, four past terrestrial Buddhas occupy the four sides of the temples (Yule, \textit{Cathay}, i. 242).

In Burma, there is a great belief in spirits, both good and bad,—amongst others, the nat and the
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In umbrellas, theness. At Soolay not individual or monastery, a" movement of the mind and the objects of faith. They condemned the lax practices of this degenerate age, such as priests wearing sandals, carrying umbrellas, and visiting religious theatrical shows.

At the bottom of their reforms, insignificant as they appear, there was doubtless much puritan earnestness. They called themselves "Soolay Gande," meaning the great spirit to whom the pagoda in the centre of Rangoon is dedicated. The Buddhists of Burma are liberal almsgivers; but the act of making the offering is the final individual merit, and the utilization of the gift is not regarded.

In Burma, the Buddhist priesthood is open to every orthodox believer. All that it enjoins is a life of purity, temperance, and truth. The h'poongeey is the priest. Every Burman boy becomes a pious똥 and during the most receptive years of his life, remains under the discipline and control of the village h'poongeey, to whom the family authority is temporarily delegated. He is housed, clothed, and fed in the kyung or monastery, and the parents are put to no trouble or expense throughout the whole period of his tuition. The h'poongeey is the master. As a rule, he is strict and peremptory, yet sufficiently attentive to the moral and physical well-being of his pupils as to earn their continuous attachment and esteem. His teaching has a strong religious tinge, but it teaches discipline, diligence, and habits of punctual attendance. The h'poongeey have ceased to be propagandists, and have undertaken the work of national instruction, and have all the elementary education in their tuition.

Tibet.—The Buddhist priests or Lamas of Tibet, Mongolia, and Manchuria acknowledge the Grand Lama of Tibet as their spiritual head. He is the spiritual and political ruler of Tibet, and is subordinate to the Emperor of China only. The Lama are chosen from all classes of society; and in Mongolia, when there are two or three sons in a family, one of them must be dedicated to the service of Lamaism. They reside in monasteries, and are celibates, shave their heads, and wear a yellow robe. Their religious services resemble those of the Christian cathedrals. A human thigh-bone is hollowed out, and made into a musical pipe. The Lamas in the towns of Lama-nian and Ye-hole are about 10,000 in number. Many of them are wanderers on the vast plains of Mongolia. The Lama temples are very imposing (Gray, p. 134).

Siam.—Between the Buddhists of Siam and Ceylon there has been much intercourse, and it is probable that almost identical doctrines are held in the two countries. During the efforts made by the Buddhist monks of Ceylon in the defence of their religion, and in their attacks on Christianity and on Jehovah, the king of Siam and one of the native chiefs of Kandy contributed largely towards the publication of the numerous tracts, pamphlets, and serials that were sent forth from the Buddhist printing presses of Ceylon. When Siam was visited by Sir John Bowring, a king was reigning, who in early life, when a late king had usurped the throne, had withdrawn from political squabbles to the safety and sanctity of the religious profession, and was residing in a Buddhist temple, whence he was brought forth to occupy the throne, after the seclusion of a quarter of a century. In Cambodia.—It is stated by a writer in the Journal of the Indian Archipelago (No. xi. Nov. 1852, p. 606), that in Cambodia, Buddha is not regarded as the first cause, the creator of all things; but there prevails amongst them a pantheism, in which all nature is deified, but above all they place Buddha, and worship him daily.

Laos.—Similarly, for instance, De Carne relates (p. 113) that Buddhists of Laos offer parts of their bodies at the image of Buddha, in the pagoda at Phnom in Upper Laos. The interpreter to the French mission made an offering of his forefinger up to the half of the upper joint. It was chopped off with a chopper by the attendants of the pagoda.

In China, monks try themselves with great severity. Buddhism has never taken a high place amongst the philosophies and religions of the country, though recognised as a state religion from A.D. 65, under the emperor Ming-ti. Buddhist missionaries had entered China in the third century before Christ. A missionary is mentioned in the Chinese annals, in the year 271 B.C.; and about the year 120 B.C., a Chinese general, after rebelling the barbarous tribes north of the desert of Gobi, brought back as a trophy a golden statue of Buddha (Miller's Lectures, p. 139).

There was much intercourse between the Buddhists of India and China for some centuries after the introduction of Buddhism into China; but in the 10th century, after A.D. 975, the religious visitors to China became greatly more numerous. Chinese pilgrims also had passed years in India studying their religion, and they wrote narratives of their travels. Of these, there have been published the travels of Fa Hian, A.D. 399-414; of Hiwen Tsang, A.D. 628-645; and of Hoi Singh, who set out A.D. 518. A later traveller, Khi-Nie, who journeyed A.D. 964-976, was sent by the emperor of China, at the head of 300 monks, to seek relics of Buddha, and to collect palm books. Such pilgrimages continue; and Colonel Yule met men at Hardwar who had crossed the Himalaya from Mal-Chin, to visit the holy flame at Jawalakshmi in the Panjab (Yule, ii. 411). The Chinese Buddhist invocation is, Oh me to Fo! Oh me to Fo! In China and Mongolia, according to MM. Hue and Gabet, theistic Buddhists acknowledge an Ahi-Buddha, or eternal Buddha, whom they consider to be God over all. In Ceylon and Indo-Chinese countries there is no such belief (Yule, i. 242). Chinese Buddhists are in different sects or schools, on account of different points of doctrine or matters of philosophy. But though the religion is one of the recognised State creeds, Buddhists are not allowed to hold office.

Amongst the Japanese, the religion of Buddha and the Sintu religion have equal precedence. Their Buddhist priests use the Chinese language in their worship, except in their poetry, which is in Japanese. Bishop Smith of Victoria says there were in Japan, at his visit, eight sects or orders of Buddhist priests,—Tendai, Shinmogon, Zen, Oobaku, Jiodo, Hokki, Ikko,—whose priests are allowed to marry, and Nichiren. Shiu, Shu, or Ju is placed after the proper name, designating each

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Buddhist architectural remains are the only vestiges of the prevalence in British India of the doctrines taught by Sakyamuni and his disciples, but they afford valuable illustrations of the alterations introduced into that great teacher's doctrines. It is known that the final disappearance of Buddhism from continental and peninsular India was violent—their priests were slain and their temples burned—and there can be no doubt that the Brahmanical priesthood were the immediate actors in the scenes, but whether these were of the Vaishnava or Saiva sect there is no information. The Buddhist remains now existing may be divided into four distinct classes: First, cave temples, containing topees, sculptures, paintings, and numerous inscriptions. Second, viharas or monasteries. Third, inscriptions on rocks and pillars. Fourth, topees, or religious edifices.

The vihara or monasteries are of two kinds: First, cave viharas, of which several magnificent specimens have been published by Mr. Ferguson; and second, structural viharas, of which some specimens still remain at Sanchi, but in a very ruinous condition.

(a) The cave vihara consists of (1) natural caverns slightly improved by art. These are the most ancient, and are found appropriated to religious purposes in Behar and Cuttack. The next kind have (2) a verandah opening behind

sect. At Dyboots, in Japan, is a bronze figure of Buddha, 53 feet high.

The Loo-Choo islands Buddhism is less perfect than that of the Japanese.

The Korean Buddhists and Buddhism were made known to Mexico by Chinese priests in the 5th century A.D., and had followers in that country until the 13th century, when the conquering Aztecs put an end to it.

Perhaps no religion equals the Buddhist in its injunctions as to tenderness for animal life; yet the Chinese, amongst whom are many Buddhists, and the Burmese, all of whom are Buddhists, are, as races, amongst the least merciful of mankind; are cruel, revengeful, and remorseless shedders of the blood of their fellow-man. The Burman Buddhist will not kill a quadruped animal for food, but he eats with readiness all animals that have died of disease, or that have been killed by others; and fish and the shrimp tribe, which their rivers and seas produce, are eaten in quantities greater than by any other known race.

Much of the costume of Buddhist priests and of the ritual has a similarity to those of Christians of the Romish and Greek forms; and De Guignes, D.C. Gama, Clavijo, Anthony Jenkinson, all notice statements regarding the Greek Church, the Chinese, and the Burmans, indicative of a belief in the identity of the form of worship. When Dr. Richardson and Captain MacLeod, in their exploration of the countries east of Burma, fell in with Chinese traders, these generally claimed them as of their own religion. In the Chinese temples are a number of images not unlike the Christian representations of Mary and of some of the saints. lamps and wax lights are on the Buddhist altars, the Buddhist priests are robed in the sacred vestments called pluvials in Christian ritual books, processions of suppliants occur as with Christians, and chanting is in a style almost exactly like the Gregorian chants of Christian churches. Early Christian missionaries to China believed these to have been introduced among them by the devil clumsily imitating holy things, and grasping at the honours due to God (Yule, ii. 551).

In India, Buddhist caves exist in Kattyawar, in a hill near Setana; in another near Khadia, south of Junagarh; at Hinglaj near Pattnan, between the villages of Khaditi Khan and Khamardand, in the Bardas; in the Salenal hill, North Bhakra; at Mewaria in the hill of Kakanda; at Diveawar in the hill of Mandaya, near Chotila; at Devagarhi, near the village of Bhardi, south of Palayd; at Bhogarh, N.E. of Jassan; in the Jogi near Kanamata village; in the Poliana hill; and at Dwarka. There are Buddhist caves also in Orissa.

The caves of Junnar, Bhaja, Bedesa, Talaua hill, Sanchi, are remarkably Decorative of figure sculpture or imagery. In that respect they are best with Ajanta, Ellora, Karla, the second and last few caves at Nasik, and many in Salsete. At Ajanta and other places are images of Buddha, in the sanctuaries and on the façades. They are entirely absent at Bhaja, and in the older and middle series of about ten caves at Nasik, and at Junnar. The Talua Lena group of caves in a hill about 1½ miles west from Junnar, are so named because one of them has been appropriated to Talua Devi by the modern Brahmins.

Nädana indicates twelve conditions of existence, viz. ignorance, karmam or acts, consciousness, individuality, sensibility, objects of sense, sensation, desire or thirst, clinging to existence, birth, old age, and death.

The Buddhist triad or tri-ratna (three jewels) consist of Buddha, Dharma, and Sangha.

The Buddhist wheel is a prominent object in the Buddhist sculptures of India. It is supposed to be an emblem of the perpetual succession and eternity of matter; and it has served likewise another purpose in the corruptions of Buddhism. Prayers were poured on it by the priests, who then put the wheel into rapid rotation. Each turn had the efficacy of an oral repetition; and the faster it revolved, the more rapidly was the devotee approaching the ultimate bliss of nirvana.

Buddha-Pusaka is a Buddhist salutation. It means worshipper of Buddha. Upasaka is another salutation.—Prof. Max Muller's Lectures, p. 139, and Chief Sec. Yule's Researches in Buddhism, p. 23. Poasan's God in History, i. pp. 341, 211; Wheeler's History of India, p. 150; Tenent's Ceylon, i. pp. 343, 527, ii. p. 614; Tenent's Christianity in Ceylon, pp. 206, 207, 264; Hardy's Eastern Monachism; Calcutta Review; Frazier's Magazine, June 1868; Rangoon Times; Saturday Review; Bengal As. Soc. Journ.; Journ. Ind. Arch.; Browing's Siam, i. p. 50; Prinsep's Antiquities, by Thomas, p. 150; Prinsep's Tibet, Tartary, and Mongolia, pp. 140, 162; Coleman's Mythology, p. 205; Rev. W. Taylor's Catalogue Raisonne; Toy Cart, p. 142; Cunningham's History of the Sikhs, p. 23; Cunningham's Bhilsa Topes, pp. 1-67; Colonel Henry Yule's Embassy; Yule's Ceylon and the Way thither; Perry's Bird's-eye View of India, p. 53; Huc's Recollections of a Journey, p. 106; The Rev. J. T. Jones in Journ. Ind. Arch. No. 9, vii., Tod's Rajasthan; American Expedition; Mr. B. Hodgson; De Carne; Bishop Smith; Colonel Pyle; Barth's Religion and Customs of India; Bishop Bigandet; Ferguson's Rock-cut Temples of India; Ferguson and Burgess, Cave Temples of India; Hunter's Imp. Gaz.
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into cells for the abode of priests, as in Cuttack and in the oldest vihara at Ajanta. The third (3) has an arch and hall supported on pillars. The most splendid of these are at Ajanta; though the Dherwara at Ellora is also fine, and there are some good specimens at Salsette and Junnar.

(i) Buddhist chaitya caves form the second class. These are the temples or churches of the series, and one or more of them is attached to every set of caves in Western India, though none exist on the eastern side. Unlike the vihara, all these caves have the same plan and arrangement. All consist of an external porch or music gallery, an internal gallery over the entrance, a central aisle, which may be called a nave, roofed by a plain waggan vault, and a semi-dome terminating the nave, under the centre of which always stands a daghopa or chaitya. In the oldest temples, the daghopa consists of a plain central drum, surmounted by a hemispherical dome crowned by a tee, which supported the umbrella of state, of wood or stone. These two classes comprehend all the Buddhist caves in India.

The third class of religious architectural remains in India consists of Brahmanical caves, properly so called. The finest specimens are at Ellora and Elephant, though some good ones exist also on the island of Salsette and at Mahabalisur. In form many of them are copies of, and a good deal resemble, the Buddhist vihara. But they have not been appropriated from the Buddhists, as the arrangement of the pillars and position of the sanctuary are different. They are never surrounded by cells, as all viharas are, and their walls are invariably covered or meant to be covered with scantily and variously decorated by paintings, except the sanctuary. The subjects of the sculpture of course always set the question at rest.

The fourth class consists of rock-cut models of structural Brahmanical temples. To this class belong the far-famed Kailas at Ellora; the Saivite temple at Dhnmar, and the Raths at Mahabalisur. The last are cut out of isolated blocks of granite, but the rest stand in pits. The Indra Subba group at Ellora should perhaps form a fifth, but whether they are Brahmanical or Jaina is undecided.

The fifth or true Jaina caves occur at Khandagiri in Cuttack and in the southern parts of India, but are few and insignificant. In the rock of Gwalior fort, there are cut in the rock a number of rude colossal Jaina figures some 30 to 40 feet high; all the viharas are almost as invariably decorated by paintings, except the sanctuary. The subjects of the sculpture of course always set the question at rest.

The Behar caves are in the neighbourhood of Rajagriha. The Milkmaid's cave and Brahman Girl's cave have inscriptions in the Lath character. They date about 200 B.C., and are the most ancient caves of India. The Nagarjuna cave and Haft Khanah or Satghar group are situated in the southern arm of the hill, at some little distance from the Brahman Girl and Milkmaid's cave. Another group is the neighbouring Karn Chapa and Lomas Rishi caves.

The caves of Udyagiri and Khandagiri hills, about 20 miles from Cuttack and five from Boban Esbarr, are next in antiquity to those of Behar. They are built on the hills of Udyagiri and Khandagiri; the former are Buddhists and the older, the latter probably Jaina. Many of the inscriptions are in the Lath character, and this gives their age as anterior to the Christian era. The frieze sculpture in the Ganesghopa is superior to any in India, and resembles that of the Sanchi tope at Bhisala. In it there are no gods, no figures of different sizes, nor any extravagance. In the Buddhist caves here, there are no figures of Budhha, nor any images. In a Jaina cave near, on Khandagiri, the 24 thirtankara with their female energies are sculptured.

The Ajanta are the most complete series of Buddhist caves in India, without any mixture of Brahmanism, and contain types of all the rest. They are in a ravine or narrow valley in the ghat south of the Tapti.

At Daun, in a ravine or small valley in the ghat on the north side of the valley of the Tapti, are three ancient Buddhist caves.

The Karli caves are close to the high road from Poona to Bombay, about half-way down on the right-hand side of the valley as you proceed towards the sea. They are not so extensive as those of Ajanta, but they are purely Buddhist. The largest and most splendid chaitya cave temple in India which could be selected for reproduction by art, is the principal excavation at Karli, and it is also interesting as the oldest Indian work of the kind known to exist. Karli has numerous inscriptions in the caves in the Pall language.

The Salsette or Kenheri caves, in the island of Salsette, are purely Buddhist, but inferior to those of Ajanta or Karli. They are excavated in a hill in the midst of an immense tract of forest country, and Mr. Ferguson supposes their date to be about the 9th or 10th century of the Christian era.

Dhnmar, about 40 miles S.E. from Nommhe, but close to Chumdivass, contains Buddhist caves, with a Brahmanical rock temple behind. Those of Dhnmar, like the caves of Ellora, contain a strong admixture of Brahmanism.

The Ellora caves are excavated in a porphyritic greenstone, and are largely Brahmanical. They are in the face of the mountain overlooking the valley of the Godavery, close to Roza, the burial-place of Dowlatabad, and where Aurangzeb, Alamgir I., is interred.

Those of Elephant are entirely Brahmanical, though perhaps of the same age as those of Ellora. The caves of Elephant overlook the harbour of Bombay. They are cut in a harder rock than those at Ellora. These caves are in the island of Gharpuri, called by Europeans Elephant, an island in Bombay harbour. Among the hundreds of figures there sculptured, every principal deity is found. Buddha is evidently, from his size and situation, a principal personage there.

Mahabalisur, or the Seven Pagodas, between Covelong and Sadras, south of Madras, has been described by Dr. Babbington in vol. ii. Trans. R. A. S., p. 258; and by Messrs. Chambers and Goldingham in A. R. vol. i. p. 145, and v. p. 63; and by Mr. Charles Gubins in Bengal As. Soc. Journal. The Mahabalisur caves are entirely Brahmanical, and have been excavated after all the other series were formed (Ferguson's Rock-cut Temples of India).

The inscriptions of King Asoka consist of edicts and proclamations. King Asoka carved his edicts on the rocks at Dhauli in Cuttack, also at Girmar in Gujerat, at Kapuragiri, near Pesh-
war, and on pillars erected in different parts of the country. In the thirteenth edict of the rock-cut inscriptions, he mentions having, about B.C. 265, formed treaties of alliance with Tholeng Philadelphos, Antiochus Theos, Antigonus Gonatas, Magas of Cyrene, and Alexander, the king of Epirus and Macedonia, mentioned by Justin, for the protection or aid of his co-religionists in their dominions. They have been deciphered successively by J. Prissep, Norris, Dowson; and elucidated by the works of Burnouf, Lassen, Wilson, Kern, Buhler, General A. Cunningham, Corpus Inscriptionum, and E. Senart in Journal Asiatique.

BUDGEROW. ANGLO-HIND. A boat in use on the Ganges. See Boat.

BUDH, in Hindu astronomy, the planet Mercury, and Hindus deem it fortunate to be born under this planet. Budh presides over Wednesday, Budhwar, dies Mercurii. In one of the zodiacs, he is represented seated on a carpet, holding in his hand a sceptre and a lotus; in another he is shown riding on an eagle; and elsewhere he is described as sitting in a car drawn by lions. In the West, he is called Mercurius.

BUDH, an ancestor of a branch of the great Hindu people of a time prior to authentic history. He is traced by them up to Brahma, from whom he descends through Atri, Samudra, Chandra, or Soma, and Vrishiipati. Budh is said to have married Ila, daughter of Ikshwaku; and the descendants of this union were, in succession, Pururava, Ayu or You, Nohas or Nohus, and Yayat. Ayu or You is claimed by the Tartar and Chinese genealogists as their great progenitor; and from Yayat sprang three great lines, the Yadu, Puru, and Oora or Oorvasa, from each of whom came many dynasties ruling on the Indus, in Hindustan, Assam, Ava, and China. The great Hya was a branch of the Yadu; and five members of it formed Panchalika or Panchaldeesa, and the seed of Bajaswa occupied all the countries on the Indus. Of the three lines, the Yadu, Puru, and Oora, the Yadu became the most illustrious. The descendants of Budh and Ila, who were known as the Chandravansa, Somavansa, or Induvansa, all of these meaning the Lunar race; but the fame of the Yadu eclipsed the prior designations, and throughout India the Lunar race came to be styled Yaduvansa. The Yadu held territories in Hindustan about Allahabad, but seemingly in small republican states, some of which were staked and lost at play. The relatives then fought for dominion, for eighteen days, on the field of Kur Khet. There was no battle of armies, but a series of single combats, with treacherous, cruel surprises, during which nearly all the Yadu fell, and at the close, several of those remaining emigrated, amongst whom Krishna was one. The story is told in the Mahabharata. After the combats, the Yadu seem to have left the Ganges, and to have been expelled to Darwica, to have crossed the Indus, passed Zabalistan, and was founded on a bank, but to have swept back on the Indus into Gujerat and the Indian desert, from which they expelled the Langha, Johya, Mohila, etc., and founded successfully Tannote, Derrawal, and Jeyshmir. They are now known as the Bhatti of Jeyshmir, the Jharjiah of Cutch Bhoj, the tribes occupying Kerrockwe and Subhburgh on the Chambal, and the Sumoteca on the Chambal. The great Tuar tribe are also said to have have of Yadu origin. The Hya also was a branch of the Yadu, some of whom formed Panchalika or Panchaldeesa, and the seed of Bajaswa that one time occupied all the countries on the Indus. The Bhatti and Jhariaj thus trace their descent from Budh and Krishna, and they may be said to occupy the Indian desert from the Sutlej to the ocean. Budh seems to have been the first emigrant from Saka-wipa or Scythia, into Hindustan, viz. about B.C. 2100. Between Budh and Krishna was a period of 1200 years. But his descendants had defied Budh; and in Hindu mythology he is described as the son of Soma or Chandra or Indu, the moon, by Rohini. The date of the apothecosis of Budh is not known. Prior to the deification of Krishna, Budh was worshipped by all the Yadu as the great ancestor (Pitrismara) of the Lunar race. The principal shrine of Budh was at Dwariacs, where he still receives adoration as Budha Trivikrama. But by the deification of Krishna, whose emblem was the eagle, Krishna's mysteries were embodied in a simpler worship, of which he is the symbol of Bal, or the shining one, in the nath, and of the moon as that of Budh, seem to have co-existed, and an amalgamation had occurred, as the serpent was made to twine round the lingam, as at the shrine of Eklinga. Colonel Tod is of opinion that the original worship of Budh was monotheistic, and that prior to the rise of Vishnuswam, the three idolatrons classes of Hindustan were the adorers of Surya and the descendants of Budh, who preserved the serpent sign of their race, and Krishna's followers, who adopted the eagle. There seem to have been 56 clans of the Indu, who were distinguished by names of animals,—lakh, the serpent; aswa, the horse; sasnu, the hare; lorni or nomri, the fox, etc. etc. Tod's Rajasthan, i. pp. 533-536.

BUDHA-BASARA. SANSK. Budha-kakara, Tel. Cardioesperum halacabum. Popular superstition asserts that by eating its seeds, the understanding is enlightened, and memory rendered more acute.—Ell. Fl. Ind. Asia.

BUDHIA DAS, father of Upatissi, who built hospitals for cripples, for pregnant women, for the blind and diseased.

BUDHIA GANGLA, also Burha Gang, the old bed of the Ganges, from which the stream has shifted. It is traceable below Hastinapur, and also below Saron and Kumpil. The change of bed seems to have occurred since the time of Akbar.—Elliot.

BUDHIA GHOSHA or Budha.Ghosa, a Brahman, a native of Buddha Gaya, who became a convert to Buddhism. He lived in the early part of the 5th century A.D., nearly 1000 years after Sakya Muni (ob. B.C. 543). He went to Ceylon A.D. 450, and there compiled his great work, the Visuddhi Magga, or Path of Holiness, a cyclopaedia of Buddhist doctrine. He was subsequently employed by the Pali, to Pali, in Pali, to the other languages, which had been handed down in Singhalese, by Mahendra, son of Asoka, is supposed to have brought the Attha Katta, ancient commentaries in Pali, to Ceylon, and to have translated them into Singhalese, which Budha Ghosa, about A.D. 450, re-translated into Pali. His great eloquence obtained for him his titular name, meaning Voice of Buddha.—Hardy's Eastern Monachism.
BUDHA GUPTA.

BUDHA GUPTA, a king who governed the country between the Jumna and the Narbada, about the eighth century.

BUDHI-ASHTAMI. Sansk. A Hindu holiday, from Budha, Mercury, and Ashtami, the eighth lunar day.

BUDHAYANA, a Hindu philosopher, who lived in Ilavratu, the country which surrounds Sumeru. He taught that God alone is unchangeable. He is said to have been the author of a law treatise, and to have arranged some parts of the Vedas into chapters.—Warid, iv. p. 30.

BUDH'S BEGGING POT, the Kaogal-i-Ali, is a circular bowl, 4 feet wide and 2 feet deep in the centre; the sides are 4 inches thick. It is of black porphyry. It is in a corner of the enclosure of the tomb of Sultan Wais, at Kandahar.

BUDHWAR, Wednesday, sacred to Budh, and named after him. Amongst Hindus it is a day propitious to any new undertaking.

BUDI. Hind. Among Hindus, the period of the month from full to new moon, called the dark half of the month.—Elliot.

BUDI-BUDAKI. Can. A class of religious mendicants in Mysore.

BUDIDE. Tel. Ashes.

Budide Chatla, Heliotropium coronandulianum. Budide Gummadi, Benincasa cerfera, Sar, referring to the white powder covering the fruit. Budide Fanni, a fee for permission to bury a corpse.

BUDIL. Hind. Picea Wobhiana, P. Pindrow.

BUDKES. Hind. Cordisal Gauviana.

BUDLA, or Buddali. KARN. A leather bottle.

BUDLEYUN. Greek. The moon of the Abanians and Googal of India, names of Bidlium, also of the Comiphrina Madagascarensis tree.

BUDRANJA BOYA. Hind. A small species of Melissa, found about Ajmir, where it is considered heating, and is used to cleanse the blood; one seer sells for two rupees.—Gen. Med. Top.

BUDRI. Beng. Zizyphus jujuba.

BUDSHUK. Hind. Ephedra Gerardiana.

BUDU. Hind. Viscum attenutum.

BUDUMURU. Tel. Sponia orientalis, Planck.

BUFF. Peau passées en buffles, Fr. Bufalo; Cujo di peau de buffle; Bufal, ... Ir. Buffelhante.

A kind of leather prepared from the skins of thick-hided animals, buffaloes, oxen, and the deer tribe.—M'Culloch; Faulkner.

BUFFALO.

Bubalus Buffaloes, Blum. | Bos bubalus, Briss.

Blains (male), ... | Hind. Karbo; Karbon, Malay.

Mhains (female), ... | Moonding, ... Sundan.

The buffalo inhabits Tibet, but is domesticated in India, the Indian Archipelago, and southern Europe. It is the only indigenous ruminant of Ceylon. They are frequently albino, with pink eyes. The finest of the domesticated buffaloes of India are reared in the Hyderabad Dominions, west of Nirmul. Some naturalists are inclined to the opinion that there are two species. They are large, ungainly-looking animals, with great horns; but a domesticated breed, to the west of Nirmul, are of enormous size, almost like small elephants, and give a great quantity of milk. They are kept as milk kine, but are also employed as beasts of burden and draft; also to carry sacks on their backs, to plough with, to drag carts.

They have little or no hair, and their hides look like polished leather. They require to be in a moist climate, or to be immersed in water daily. They love to wallow in water or slily mud, and often roll themselves to get a coating of it. A large male buffalo is more than a match for a tiger. It has large flat horns, some curved and some long (spirocerus and macrourus). Its ribs are large, flat, and white. It is the buffalo, baffle, and buffel of the French and Germans. In the Himalayagotte country, in Ceylon, the villagers are much annoyed by the wild ones, that mingle with the tame when sent out to the woods to pasture, and it constantly happens that the herd, placing himself at the head of the tame herd, resists the attempts of the owners to drive them homewards at sunset. Being an animal to which water birds are accustomed, the Singhalese train the buffalo to sport, and, concealed behind the animal, browsing listlessly along, they guide it by ropes attached to its horns, and thus creep undiscovered within shot of the flock. In the northern parts of India, they are similarly trained to assist the sportsman in approaching deer. One of these sporting buffaloes sells for a considerable sum. Between 1851 and 1855, Liverpool imported from India, annually, about 30,000 of its hides and 600 tons of horns. The male buffalo is frequently sacrificed by non-Aryan races, sometimes in considerable numbers; and only in 1859, the Government of Madras ordered the magistrate of the Krishna Division to forbid the cruel rite of Annamavur, wherein bullocks are impaled alive to appease the goddess Devi, and avert cholera. On that occasion, in a small village, from twelve to twenty-four bullocks were sacrificed, as also several hundred sheep, and the heads of the sacrificed buffaloes were carried in procession on the heads of the men. There are two generally recognised wild species of buffaloes in Africa,—the Cape buffalo (B. caffer), and the short-horned buffalo (Bos brachyceros).—Bikmore, Travels; Stat. of Commerce; Tennent’s Ceylon.

BUFFALO THORN, Acacia latroonum.

BUFFONIA, a section of the 2d sub-class of reptiles, Batrachia, and order Batrachia salientia. The section Buffonia includes the families Rhinodermatidae and Bufonidae. Duro scabra, the Bengal and Java toad, abounds in the marshes of the Lachen valley, adjoining Tibet. This is a remarkable instance of wide geographical distribution for a batrachian, which is common at the level of the sea under the tropics.—Hooker, Jour.

BUG, an insect belonging to the family Hemiptera, several genera of which occur in India. Amongst others are Cantu ocellatus, Leptoscelis marginalis, Callidea Stockerius, etc. etc. Of the aquatic species, the gigantic Belostoma Indicum attains a size of nearly three inches. Some of them are most attractive in colour; a green one is often seen on leaves, and is quite inoffensive if un molested, but if irritated exhales an offensive odour.—Tennent’s Ceylon.

BUG. Insects known as coffee bugs have, in recent years, occasioned anxiety and losses to the coffee planters. In Ceylon, the first regularly worked estate was opened in 1825, but the bug became so prevalent, that some of them in large quantities till 1845, when, however, it began to spread with such rapidity, that in 1847 a very general alarm was taken by the planters, about the same time.
that the potato, vine, and olive diseases began to create alarm in Europe. The coffee bug seems, however, to be indigenous in Ceylon, for the white bug has been found on orange, guava, and other trees, as also on beet-root and other vegetables, and the brown bug attacks the guava, hibiscus, ixora, justicia, and orange trees—indeed, every plant and tree, and even the weeds, on a coffee estate, particularly such as are in gardens.

When a coffee tree is attacked by the bug, it is deprived of its sap and its nourishment, whilst the fruit, which never fails to attend on the bug, prevents restoration by closing the stomates through which the tree breathes and respirates. Bug, Mr. Nietner tells us, existed on the estates to an incalculable extent; none were believed to be quite free from it. Whole estates are seen black with bugs, i.e. with the fungus; and he asks, 'Am I wrong in saying that if there was no bug in Ceylon, it would at a rough guess produce 50,000 cwt. of coffee more than it actually does?'

The value of this quantity on the spot being about £125,000, this sum represents the aggregate of the annual loss by bug sustained by the Ceylon planters.

Mr. Nietner's observations had been more particularly confined to the group of districts around Peacock Hill, but his list of the enemies of the coffee tree holds good in general for the entire coffee region of Ceylon. He tells us, however, that the brown and white bug and the black and white grub are the only universal and important enemies of the coffee tree, and that the destruction caused by arbines, limacodes, zeuzera, phymatea, strachia, and the coffee rat, appear to be of a more local and occasional nature, and are therefore of less importance. There are three pests which are chief,—the white bug, the brown bug, and the black bug.

The appearance and disappearance of the coffee bug, he tells us, is most capricious. It comes and goes,—now rapidly spreading over a whole estate, now confining itself to a single tree amongst thousands; here leaving an estate in the course of a twelvemonth, there remaining permanently. Sometimes spreading over a whole estate, sometimes attacking a single field, then leaving it for another and another. But the white bug prefers dry, and the brown, damp localities, the latter being found more plentiful in close ravines and amongst heavy rotted timbers than on open hillsides, and it is probably to this predilection that the shifting of the insect is attributable. The bug of course seeks out the softest and most sheltered parts of the tree, the young shoots, the under sides of the leaves, and the clusters of berries. The injury done by the white bug seems more severe than that from the brown, but, not being so plentiful as the latter, it is of less general importance. The white bug is especially fond of congregating amongst the clusters of berries, which drop off from the injury they receive, and trees often lose their entire crop in this manner. The injury produced by the brown bug is the weakening of the tree, and is thus more general, but the crop does not drop off altogether nor so suddenly. With white bugs on an estate, the crop can hardly be estimated; with brown bugs it can.

The White or Mealy Bug is the Pseudococcus adonidum. The male insect is of a dirty brownish colour, and slightly hairy. It is very minute (very much smaller than the female, only about half a line long), and resembles certain small Ephemerdidae or May-flies. The female is oval, brownish-purple, covered with a white mealy powder, which forms a stiff fringe at the margin and at the extremity of the abdomen two setae. The larvae and pupae are active, and move about. The insects, in all stages of development, are found in Ceylon all the year round, chiefly in dry and hot localities, on the branches of trees, and on the roots to one foot under ground. Mr. Nietner says the近年 is very common in the interior of the conservatories of Europe. It is preyed upon by the scymnus rotundatus, a minute beetle of the ladybird tribe, of the size of a pin's head, black and pubescent; also, the yellow-coloured and common eucyrus Nietneri and the black-coloured scarce chartococcus musciformis, two minute hymenoptera (wasps), only ½" long, and the minute whithsal mite, acarus tracheolus. Of the members of this family of insects, the coccide, some, as the cochinical and lac insects, are of great economical importance, but others, as the sugar-cane blight of the mauritius, the spilidiotus, and the coffee bug, are excessively baneful to the gardener and agriculturist.

The male of the Brown or Sealy Bug, Lecanium coffeae, is of a clear light pinkish-brown colour, slightly hairy, and very pretty. It is more delicate than the male pseudococcus. The females when young are yellowish, marked with grey or light brown, and with the males as light brown, with a dark margin. It affects cold, damp, and close localities 3000 feet in height, and the propagation, as in the white bug, is continuous. The brown bug is much infected with parasites, amongst which the most common are eight minute hymenoptera (wasps) with brilliant colours; but a mite, the acarus tracheolus, and the larva of the chilocorus circumdatus, a kind of ladybird, also feed on the bug. In the larva state, the male and female brown bug are not distinguishable. The number of eggs produced by a female brown bug is about 700. Those of the white bug are not so numerous, but their propagation in Ceylon is continuous throughout the year, and this explains their great abundance compared with cold countries, where the produce is one generation of young annually. The brown bug, particularly the full-grown female, is dreadfully infested with parasites, which thus greatly help the planter. Indeed, it is a question whether coffee-planting could be carried on without their aid in the destruction of the bug.

The Black Bug is Lecanium nigrum, but the female only is known. In colour it is from yellowish-grey to deep brown, and almost black in age, and of a shield-like shape. It occurs alone, but also intermixed with the brown bug, but it is much less abundant, and therefore not demanding the planter's attention. Its occupation of a coffee or any other tree gives rise to the appearance of a glutinous saccharine substance, which has received the name of honey-dew. This is either a secretion of the bug, or the extravasated sap which flows from the wounded tree, or probably a combination of both. A fungus, or two fungi, the synalchium nietneri and triplosporum gardneri, seem to depend on this for vegetation, as the honey-dew and the fungus disappear with the bug.

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Another bug, the Strachia geometrica, of a yellowish colour, but marked with grey and orange on the upper side, was found at Badulla. It feeds upon the juice of the young berries, three per cent. or more of which were said to have suffered from it. It is allied to the green or fistful bug; but though it may occasionally cause destruction, there is no fear of it ever becoming a serious nuisance.

One of the Aphidæ, Aphis coffeeæ, the coffee louse, is found in small communities, on the young shoots and on the under side of the leaves of the coconut tree, but the injuries it occasions are insignificant.

Several caterpillars, the Aloe lacteina, the Orgya Ceylanica, Euprocis virguteula, the Trichia exigua, Naressa conspersa, the Limacodes gecisa, and a species of Drepana, are found on the coffee trees, but they do not cause much injury. Another caterpillar, however, though fortunately not abundant, the Zeuzera coffeeæ, destroys many trees, both young and old, by eating out the heart. It resembles the caterpillar of the goat-moth of England, and is as thick as a goose quill. It generally enters the tree 6" or 12" from the ground, ascending upwards. The sickly drooping of the tree marks its presence.

Black Grub.—The larva of the moth called Agrostis conter, is very destructive black grub. This pest is about an inch long, and is most abundant from August to October. The caterpillar lives in the ground, but comes out at night to feed, and is very common and injurious. They attack not only coffee trees, but all sorts of vegetables and flowers, and are very destructive to gardens and in the field, as they eat everything that is artificially raised, despising grass and weeds. They generally appear only on certain fields, and will not go over an estate. The insect is not confined to Ceylon; its ravages are well known in India, at the Cape of Good Hope, and in Europe, where it injures the grain and beet-root crops. In Ceylon it only attacks young coffee trees, gnawing off the bark round the stem just above the ground. Where the trees are very small, they are bitten right off, and the tops sometimes partially dragged under the ground, where the grubs may easily be discovered and dislodged. The damage which they inflict on plantations may be estimated, when it is mentioned that Mr. Nietner lost through them in one season, in certain fields, as many as 25 per cent. of the young trees he had put down.

The larva of a little moth, the Galleriomorpha lichenoides, and three caterpillars of the Boarmia leucostigmaticæ, B. Ceylanica, and Empithecæ coffearia, are found on coffee trees and other plants from September to December.

The larva of the Gracillaria coiffoliiæ mires the coffee leaves; it is very common, but of no importance to the planter.

The ravages of the large, well-known, beautiful locust, the Phyllophaga punctata, with its scarlet abdomen and yellow and bronze above, are not continuous in the coffee tree, but are occasionally very annoying. A swarm settled on a field of one-year-old coffee and gnawed the bark off the stems, causing them to throw out many shoots, and permanently disfigured five per cent. of the trees. They do not touch the Illuk grass, Sascharum Konigii, Retz, but seem only to attack cultivated plants and trees. At Tangalle they destroyed tobacco plantations, and at Matullee in Kandy the native grain crops were injured by these locusts. The larvae and pupæ are as destructive as the perfect insects; but this seems, fortunately, the only species of locust that does any real injury in Ceylon, and this injury is in importance not to be compared with that done by other species in other countries.

White Grub.—Under this name are included the larvae of various Melolonthæ, the cockchafers of Ceylon, which do much harm to coffee plantations, young and old, by eating the roots of the trees. Mr. J. L. Gordon of Rambodde considers the white grub to be by far the greatest enemy of the coffee trees which the planter has to contend with, as he never knew a single tree recover after their attack; and he adds that they had destroyed, at Rambodde, in two years, between eight and ten thousand fine old coffee trees. Mr. Gordon used to dig up the soil at the foot of the trees, and take out such grubs as he could find.

Weevils.—The family of the weevils is one of the most extensive amongst the beetles; and in Ceylon, as in Europe, many of its members do much injury to agricultural produce. Mr. Nietner had seen nearly the whole sweet potato (Bataca dulcis) crop of the Negombo district destroyed by one of them, the Cyclus supercinnam. The common rice weevil Sitophylus oryzae, is another instance; and one of the coconut tree destroyers of the Ceylon low country, the Sphenophorus planipennis, belongs also to this family. The Arhines destructor, a beautiful green weevil, Mr. Nietner had not found do any injury to coffee trees; but Mr. J. Rose of Maturattée, writing to him, says, 'The mischief they do is plentiful, and if they were as plentiful as the bug, they would be the planter's worst enemies.' Five or six acres were completely covered with them, and they consumed almost every leaf. Year after year they appeared upon the same place. One year they appeared upon a neighbouring estate in great force, and ran over at least forty acres. The same thing occurred on three other estates.

The Acarna coffee, or coffee mite, is so small as to be hardly perceptible to the naked eye. It is closely allied to the red spider of the hothouses of Europe. Nearly all the year round, but chiefly from November to April, it feeds on the upper side of the coffee leaves, giving them a brownish sunburnt appearance. Individual trees suffer from its attacks, but the aggregate damage from it is not great.

The coffee rat of Ceylon, the Colunda Elliotti, occasionally commits much damage, seemingly to get the bark, for they do not seem to eat the berries. With their long sharp incisors they bite off with great smoothness the smaller and younger branches, generally an inch from the stem; and should the plants be quite young, just taken from the nursery, they bite them right off a few inches from the ground, and carry them, as if they were eggs, to the nests in hollow trees. They appear irregularly at intervals from the jungles, and there is hardly an estate that does not now and then receive a visit from them. The natives of Ceylon say that their food in the jungles is a species of Strobilanthus, called Nil in Singhalese, and that the rats only issue from their forest residence and attack the coffee estates when their forest food fails.
The injuries from other animals are not serious. A squirrel, the Sciurus Layardi, which eats the coffee berries, is common on estates; the pulp alone is digestible, and the coffee beans are dropped on logs of wood and on the ground. Jackals and monkeys occasionally do the same; this is called parchment coffee. A deer will now and then come from the forest and nibble the tops of the young trees.

Mantis tricolor, Nieter, the Mantis of the coffee tree, is green, lower wings reddish, with large blackish spot at the posterior margin. The female is 1 inch long, with 1/2 inch of an expanse of wings. The male is considerably smaller. The eggs are deposited upon coffee leaves, in cocoon-like masses of 1/2 of an inch in length, but drawn out further at each end. As to the remedies to all these plagues, Mr. Nieter tells us that several means of checking the extension of the bug have been proposed and tried. Amongst these, the introduction of the red ant; but their bites are so fierce and painful, that the coolies refuse to go amongst the trees while the ants are there. Rubbing off the bug by hand has been tried, but it can only be attempted upon young trees without crop; Mr. Nieter, although allowing that an immense quantity of bug is thus destroyed, is opposed to the idea of opinion that the effect is but trifling. He thinks that the application of tar to the roots is a good suggestion, although he is obliged to admit that hitherto no important results have been achieved by it. He adds that high cultivation seems to have the effect of throwing it off. But as the bug seems to depend on locality, Mr. Nieter does not look for any beneficial result so long as the physical aspect is unchanged. He thinks that if the open, warm, airy pattenas were cultivated, which the experiments on a large scale, tried at Passalawa, show that they can be, the brown bug, which is the great destroyer, would not find the conditions favourable to its existence; or perhaps, if estates as a rule were made smaller than they generally are, if the reduction in acreage were counterbalanced by a higher system of cultivation, universally carried out, the bug would not be so numerous as it now is (Mr. Nieter). In the Peninsula of India, borer is a name given to the larva of certain coccinopterous beetles, which injure coffee trees. There are two, the white and red borer, and the chief of these is the Xylotrechus quadripes of Chevalot. The large and rapid introduction of coffee-growing into Ceylon and India has shown that the plant is liable to be attacked by many enemies, and ignorance of that has been the cause of much loss. Coffee trees in Coorg have also been injured by the rot, a disease resulting from improper pruning. The rot attacks and decays the centre of the stem. In Coorg, when the tree is attacked by the borer, the leaves become yellow and droop. The insects are generally about the diameter of a small quill, are always confined to the wood, and never enter the bark until the larva has done its work, passed through the pupa stage, and is about to escape in the form of a beetle. The eggs are deposited by the females near the root of the tree, and the pupa borers tunnel up the heart of the plant.—Nieter; Dr. Bidie on Coffee Planting. See Coffee.

BUG of Miana. See Argas.

BUGGLECONDA, a steep basaltic hill rising about 1200 feet above the plain near Innamoola, in the Guntur collectorate of the Madras Presidency, and remarkable for the frequent earthquakes which occur at it. No crater has been observed, but it has three peaks, the central one being the highest. The name, meaning the charcoal hill, has been given to it from the black colour of its rocks. About the year 1800 earthquakes occurred several times in some months; large stones rolled from the hill to the plains. Heynrichs (Tracts, pp. 108-117) the Chicota hill has frequent earthquakes, and that the Ongole hill seemed to affect the compass.

BUGYLEE-PHYOO. Bum. Clecordon vicosum, Vent.

BUGIO, in Japan, a civil officer who exercises controlling powers over collectors, interpreters, and other inferior officers. See Japan.

BUGIS or Bugi, a bold, self-reliant, maritime people of Celebes, of which they occupy the northern part, and are known, in consequence, as Macassar men. The Bugis, originally from the same stock as the Malay, are superior to all other natives of the Archipelago in their spirit of adventure. They are a brave, active, haughty, fierce, and vigorous race. They love justice, and are faithful to their bonds, but seldom forgive injuries. In the name of Macassars, they form the flower of the coastal troops in the Dutch service. Macassar was the most notorious place in the Eastern Archipelago for the Bugis people to run amok. On the average, one or two occurred in the month. It was in fact the national mode of committing suicide amongst the natives of Celebes, and was therefore the fashionable mode of escaping difficulties. Ten or twenty persons were sometimes killed and wounded at one of the amok. Stabbing and killing at all he meets, the amok runner is at last overpowered, and dies in all the excitement of battle. It is a delirious intoxication, a temporary madness, absorbing every thought and action (Wallace, i. p. 171). Although they bear some personal resemblance to the Malas, arising probably from a common origin, in every quality but courage they are essentially different. Exposed to the same temptations, and most skilful and adventurous navigators, they have never adopted the ancient of piracy, but abhor and resist it, and defend themselves against the Malay prahuns with the most heroic and desperate valour whenever they are attacked, proceeding, if overpowered, to blow up their vessels rather than submit. The poorness of these hardy islanders is as impatient of a blow as a European gentleman; and it is permitted to any one to avenge an affront by the death of the person who offers it. A more than Spartan training is bestowed on children. The males at the age of five or six are removed from their parents, lest they should be made effeminate by indulgence, and they are not restored to their family until they are of an age to marry. They are the Phoenicians of the Indian Archipelago; and there is not a coast, from the northern shores of the Australian continent to the Malay Peninsula, where their ships are not habitually seen. They leave their country in the beginning of the eastern monsoon on a trading voyage, and proceed westward until they reach Singapore. With vessels of peculiar build, of from forty to fifty tons burden, they conduct almost the whole carrying trade of the
Archipelago. They own at least 1000 ships, the outward cargoes consisting of cotton cloths, gold dust, edible birds' nests, tortoise-shell, trepang or sea-slugs for Chinese epicures, scented woods, coffee, and rice; and in spite of the jealous and restrictive policy of the Dutch, they have greatly contributed to diffuse British manufactures throughout the islands of the eastern seas.

In the beginning of the western monsoon, they go in great numbers to the Aru islands, which is the principal rendezvous for the people of Ceram, Goram, the Ki islands, Tenimer, Bahia, and the adjacent coast of New Guinea, a distance from Macassar of upwards of 1000 miles. They carry English calicoes, cotton goods of their own manufacture, Chinese gongs, and arrack; and the return cargoes are tortoise-shell, mother-of-pearl shell, pearls, birds of paradise, and trepang, the Malay term for all the kinds of holothuriae or sea-cucumbers. Of trepang alone about 14,000 pikuls are yearly shipped from Macassar, of a value of 600,000 dollars, or £150,000. It is estimated that the annual value of goods carried by the Bugis to the Aru islands from Macassar alone is 80,000 dollars, or 200,000 guilders; and of those taken to the Aru group from other places, 20,000 dollars, or 50,000 guilders. Bugis are subdivided into many national units; however, by the common use of similar language and similar institutions. There is but one of their tribes distinguished for maritime enterprise and commercial spirit, the Wajo or Tu-wajo people. Their original site is in the interior of Celebes, on the northern banks of an extensive fresh-water lake, 24 miles in breadth, from which a river issues, to fall into the Gulf of Boni. Their voyages extend from Siam to N. Guinea, and from Manilla to Acheen. They are the great carriers of the Archipelago. In the year 1829 they had 786 trading prahus. Amongst the Bugis traders to the east, Kilwara is their metropolis. It is a mere sandbank, lying between Ceram Lant and Kissa, and offers good anchorage in both monsoons. Horses are bought at Gorontoro in Celebes.—Quarterly Review, No. 222, p. 502; Bidmore, 101; Oriental Herald, viii, p. 140.

BUGLAR. A tree of Churia Nagpur; its bark, powdered, is used as a substitute for glue.

BUGLI. HIND. Spirea Lindleyana.

BUGO, of the Philippines, Chavica scribou, Miq.

BUGRA. HIND. Gynandropsis peptaphylla.

BUGRI. HIND. Cleome ruta.

BUGTI, a wild Baluch tribe on the western bank of the Indus, near Shikarpur, in the hills east of Lehlat. They are one of the great Rhind tribes. Some of them are serving in the Punjab cavalry, and many were in the Sind service. They are subject to the khans of Kalat. The Bugti and Marrar occupy the mountain district which extends eastward to the south of Sind and Kutchi.

BUG-TRORA. MAHR. Tecoma undulata.

BUHRA. BENG. Terminalia rubra.

BURI. BENG. Compsis myxa, C. latifolia, Terminalia bellerica, T. Moluccana.

BUHOW, a tribe lying south of Kashmir, little reclaimed from barbarism.

BUI, HIND, seemingly from Bham, land, uncultivated land. The name of several plants,—the Crotalaria buria; Agathotes, sp.; Francea curcus; Ballota limbata; Plectranthus rugosus; Ærura bovi; Panderia pilosa.

Bui Champa, Kæmpferia rotunda.

Bui-Choti, Anabasis muliflora.

Bui Madarin, Achillea millifolium, Artemisia Indica, Artem. vestita, Wal.

Bui-Mung, and Bui-Singh, Arachis hypogea.

Bui Aonlah, Phyllanthus niruri.

Bui Kaviti, Feronia elephantum.

BUILDING MATERIALS. In the Peninsula of India, all the most ancient buildings are of stone, while the edifices of the past five hundred years, comprising some of the most stupendous piles, are of brick. The great religious institutions of Sri Saim in Cuddapah, at Conjeeveram, Chellambaram, Srinangan, the temples at Tanjore, Gangondaram, and Tribhuvanam, the ruins at Bijanagan, Bijapur, Gogi, and Kulekura, the pagoda at Leepichi in the Bellary, and that at Tarpatri in the Cuddapah district, monuments of ancient Hindu and Mahomedan art, are of stone. Those connected with architecture, sculpture, and painting, called into being by the exigencies of religion, always the best stimulus to works of design, have suffered more from sectarian zeal than the ravages of time, and they are widely scattered over the length and breadth of the land. Sculptured stones, fortifications, temples, and works of irrigation are found in every direction, and not only impart a knowledge of the state of science and civilization at various periods, but throw a valuable light on other subjects of inquiry. The recent advent of the British nation into India, the efforts needed to obtain a standing-place, and the duty devolving on them of introducing useful public works, have all hitherto prevented them from engaging in ornamental architecture. The cupola of the Presbyterian church at Madras, built by Colonel de Hauland, is good, and there are a few ornamental buildings in Calcutta and Bombay. But works such as the Ganges Canal, the Southern Coast Canals, already extending almost from the Brahmaputra and the Ganges to the western coast, the great dams across the Godavery and the Kistna, the tunnelling of the Ganges and Indus, the roads everywhere, from Cape Comorin to Tibet, the railroads with their stupendous bridges, and the irrigation canals, already in vastness and in public usefulness, surpass all that Aryan, Hindu, Buddhist, Pathan, Moghol, or Arab rulers had done during their previous 3000 years of occupation. The Moghul dynasties of India, besides palaces and tombs, porticos and mosques, left a few useful sarai and bridges, but many of these were erected by private persons.

In the northern part of the Peninsula, from the Central Provinces to the Godavery, is a great greenstone area, the trap flowing over and covering sedimentary rocks; and in the east, in the province of Hyderabad, is a vast Plutonic outburst of granite. On the south of this granite and volcanic rock there had been an estuary, extending from north of Madras to the Kistna, and from the Bank of Bengal to the western coast of Penman; in the source of the Godavari and Malabar, and it is now filled with distorted, broken, upraised limestone, blue slate, and sandstones, from near Curcumbarry, through Tarpuri, Cuddapah, Kurnool, to Kaladgi and Belgam. To the south of that narrow gulf is the great granite tract of Bellary and Mysore, succeeded further south, about Trichinopoly and Madura, with other.
BUILDING MATERIALS.

limestone beds, both fossiliferous and non-fossiliferous; and from these volcanic, metamorphic, and aqueous-formed rocks, building stones are drawn.

Laterite rock is a clay iron ore peculiar to India; it is widely diffused, and has been largely used in India. The Arcade Inquisition at Goa is built of it; also St. Mary's Church, Madras, and the old fortress at Mahéca.

Trap-Tuffa, sometimes white, sometimes greenish or purple, resembles laterite in the quality of being easily cut when raised, afterwards hardening on exposure to the air. It is used as a building stone, and suited well for basins, troughs, and conduits; it is not very extensively employed.

Littoral Concrete is invariably found close by the sea-shore, and is so named from its resemblance to the artificial stone formed by the cementation of sand, gravel, or other coarse material, by lime or mortar. It is composed of the material prevailing on the shores,—of shells, sand, gravel, and pebbles,—and varies in its character with the rocks in the neighbourhood, being micaceous towards Cochin and Tellicherry, from the quantity of sand and other nodules from the granite and gneiss; gravelly to the north of Bombay; and around it, composed almost entirely of fragments of shells. Along the shores of Sind, Arabia, and the Red Sea, though the material composing it is abundant in a position similar to that in which it exists on the Malabar coast, but it is nowhere cemented into stone. Even in Bombay the cementation is far from invariable. The principal quarries are at Vem, about twenty miles to the north of Bombay, where the shore is sheltered by a vast dyke of basalt, formerly submerged.

The sand is first removed, and the rock is smoothed on the surface. A space about twelve feet each way is next divided into slabs one foot square, the grooves between them being cut with a light, flat-pointed, single-bladed pick. These are raised successively by a tool something between an adze and a mattock, a single stroke of which is in general sufficient for the detachment of each from its bed. The blocks thus cut out and raised being laid aside, the bed is once more smoothed, and the operation resumed, till the pit reaches the depth of six or eight feet. This variety of building material is brought in vast quantities to Bombay, where a large portion of the native houses are built of it. It is not very strong, but, with the admirable cement employed, it makes a good and economical wall.

In the Dekhan, the most massive structures are raised and carved on trap with delicacy and correctness. The favourite material for the over-ground Mahomedan tombstone is basalt, and, after many hundred years, the Arabic letters, carved in relief, are as sharp as on the day they were first cut. The vaults and domes of tombs and temples are commonly bored with iron from top to bottom; and in many cases, instead of scaffolding, the structure is surrounded with a rough wall, ten or twenty feet off, the interval between being filled up with earth; a long inclined plane serves for raising the stones. A magnificent structure of this sort, the tomb of one of the Gwallor princes, has stood half-finished near Poona since the early part of the 19th century, and here native architecture may be seen in perfection in all stages of advancement.

The only other building material at the Bombay Presidency consists of a fine-grained variety of nummulite, like Bath oolite, called, from the name of the place whence it comes, Porebunder stone. All over India, bricks, laterite, and clay are largely used; in the Mauritius, stone and slabs of coral rock. In many parts of Bengal, wattle-work is in use for houses.

Since Indian railroads were commenced, with their great spanning bridges, the rocks of all their neighbourhoods have been largely utilized; and buildings formed of the greenstones, granites, limestones, clayslates, laterite, and flagstones are everywhere to be seen. Throughout the great volcanic district of the Dekhan, the various kinds of greenstone are largely used. On the blue slate formation, along the valleys of the Kistna and Tumbudra, and on the compact limestone formation on each side of these rivers, houses have ever been formed from these materials; but the favourite rock for ornamental purposes in the Buddhist and Hindu temples of peninsular India, is the dark basaltic greenstone, often, from its high polish, called black marble. In an ancient underground temple at Bijapur this basalt is alone employed. The Brahmanical and Buddhist caves of Ellora and Ajanta, and the smaller caves at Mominabad, are excavated out of the greenstone and greenstone amygdaloid. At Ellora they are about twenty in number, in the face of the mountain, almost scarped as it falls into the valley of the Godavery; a similar number are at Ajanta, in a ravine near the scarped ghats overlooking Kandes. Those on the Iravadi near Prapat look on the river. In Madras and Calcutta, and in Indian towns generally, brick is the ordinary building material. In the whole of Burma and the Tenasserim Provinces, the houses are on posts, and built of wooden planks with shingled roofs.

Of the rocks of aqueous origin, the sandstones, slates, and limestones, the whole of the valley of the Kistna, and great parts of the valleys of its affluents, the Gutpurba, Malpurba, Bhima, Tunga, Bhudra, and Tumbudra, and much of the valley of the Godavery and of the valleys of its northern affluents, have limestone, clayslate, and sandstone rocks, and the houses and more extensive buildings are all built of these. The compact limestone of Kurnool, westward to the Bhima, is an excellent building material.

The whole of the Kymore range in Shahabad is described as of mountain limestone, which also shows itself in the valley of the river Son; so far at least as Mungeswar peak in Mirzapur: and it crops up at Rhotas, forming a sloping base to the precipitous sandstone rock. Below the mountain limestone is one of a plush grey colour, mixed with occasional crystals of calc spar; this, like the Kurnool stone, is admirably suited for lithography. Below the latter, in Kymore, is a limestone of a hard, tenacious, almost indestructible composition, admirably suited for building.

The sandstones of the Kymore range have a high commercial value at Chumar and Mirzapur, being used as flagstones and for ornamental purposes, the proximity of the Ganges affording an easy river carriage; otherwise they are the worst and most destructible description of stone in the range. The millstones of Chynepore, Sussaram, and Tilouthoo (perhaps also Akbarpur), are famous, but must always be dear in a distant
market, for want of river carriage. The Sone causeway and the Koylwan railway bridge are built of the dense sandstone of Sussaram; little quantities are found in the higher portions of the range towards Rihotias. The best stone, while easily workable, is almost as hard as granite, and may be had in any colour, with crystalline, blue, grey and all shades to a dark red.

Flexible sandstone is found at Ulwar, Jhend, and Jubulpur.

At the Panjab Exhibition held at Lahore, there was a good collection of building materials from Sahi Balaghgar in the Dehli district, including the red, the spotted, and the light-coloured sandstone so much used in the large buildings of Upper Hindustan; and from the same place were polished blocks of white marble, and a pretty dappled grey marble, called Narnaul marble, from the Hissar district. From the Kangra district there was sent grey limestone, sandstone of two sorts, both good for building, and granite. Some nice workable sandstone sent from Madhopore must come from the hills above that place. From Kashmir there was sent black marble, and some polished slabs of serpentine, which is found at Tashgna in Little Tibet. The Salt Range, Jhelum, and Shaipur districts possess good building stones, sandstone, and calcareous sandstone; from Jhelum were specimens of marble which might become useful for building, with gypsum or alabaster of the same hills. See Architecture.


He accepted employ under the Government of India at Allahabad, but became ill, and returned to Caledula, where he died. He was one of the most distinguished students of physical science in India, and one of the veterans of the Indian press.—Dr. Buist's Catalogue.

BUJI BABBAR. HIND. Eriophorum comosum.

BUJ. HIND. Ores erosis lanceolosa.

BUJOOR. BENG. Corypha elata.

BUJIRA. HIND. Ceyome ruta.

BUJRA. HIND. Ceorni, commodious, but generally cumbrous and sluggish boats, having more pretensions to comfort than speed, used for journeys up the Ganges. See Boat.

BUK or Buka. BENG. Agati grandiflora.

BUK. HIND. Land recovered by the recession of a river. Bukar, land left by a river, but rendered useless by a covering of sand.

BUKALAMUN. ARAB. Chameleon.

BUKAN. HIND. Eclipta erecta, Lippia nodiflora.

BUKAYUN. PERS. Melia sempervirens.

BUKBUR. ARAB. Fruit of Cassis fistula.

BUKCHI. HIND. Conzyza anthemitica.

BUKEPHAL. A city built on the scene of Alexander's battle with Porus. Strabo says it was on the left bank, where Alexander had crossed; Plutarch says it was near the Hydaspes, where Bucephalus, Alexander's horse, which was killed here, was buried; Arrian, Diodorus, Curtius, and Justin say it was opposite to Nikãa. According as we follow Strabo or Arrian, it was at Dilawar or at Jalalpur, each of them 6 miles from Mong, the battlefield of Nikãa.—Cunningham, p. 177.

BUKHARA, the capital of a khanate in Central Asia, the chief point of Central Asiatic trade. Its name has been supposed to be derived from Vihara, a Buddhist monastery, but Mahomedan authors say that Bokhur meant Majma-i-ilm, i.e. a place for the collection of knowledge, that is, a college or school. Turks pronounce the word Bukhara, while the Persians say Bokhur.—Vernberg, Bokhara, p. 14.

BUKHARIA, also called Little Bukharia, also Eastern Turkestan, bounded on the north by Mongolia, on the east by the Shami or Kobi desert, on the west by Kokhand and Badakshan, and on the south by the Tsung Lung or Kora-konran range of hills, which separates Little Bukharia from Little Tibet. The inhabitants of Little Bukharia speak Turki, and profess the Mahomedan religion. The Uigour Hoei-hou, called simply Hoé-hœi, under the Mongol dynasty of Yuan, were Mahomeds, and this name is applied by the Chinese to all those of the same religion. The inhabitants of the towns of Little Bukharia are in part descendants of the ancient Uigour or Hoéi-hou, and consequently Turk; in part Sart or Bokharians, who are scattered as merchants all over Central Asia, and who are Turks. There are many of them at Pekin, Hoang-ou-fou, Canton, and other commercial cities of China. Their mother tongue is Persian; but they also speak the oriental Turki, which is the general language of Turkestan, and the most diffused in Little Bukharia. The Uigour writing character was the original source of those still used by the Mongol and Manchu, and was itself almost certainly derived from the old Syriac character through the Nestorians. The modern Tartar characters are written (and, it is presumed, read) in vertical lines from top to bottom of the page, the lines succeeding each other from left to right. What Uigour meant with Mongol authors is doubt-
BUKH.

...ful, but the people and language so called by the western Asians were Turk. Captain Valkkanoff speaks of the language now in use at Kishgar as being Ugour, but it is not clear whether he means that this term is known to the natives.—Russoans in Central Asia, p. 67; Yule, Cathay, i. p. 206; Timkovski's Journey to Pekin, i. pp. 6, 675-79.

BUJ, the Karen priest and physician.

BUKHUR, ARAB. Incense or immigration.

BUKHL. Arranged.

BUKHT, ARAB. Incense or immigration.

BUKHU, the Jind, a locality in the Malacca district occupied by the Jangk race.

BUKIYAN, an industrious cultivating tribe of Mahomedans in the Multan division of the Punjab. They were Chauhan Rajputs, and about the 16th century became converts to Islam.

BUKKAPU. Tel. Casalpinia sappan.

BUKKAR-ul-WASH. ARAB. The wild cow.

BUKKUR, a fortified island in the Indus river. It is in the centre of the stream, nearly opposite the town of Rori; and on the western bank is a part of the Indus. Bukkur is in lat. 27° 42' 45" N., and long. 68° 56' 30" E. It is the limestone rock 2400 feet long, 900 broad, and 25 in height. On its north is the holy islet of Khaja Khizr or Jind Pir, and on its south is that of Sadi Bela. It has been held successively by the 14th century by the Summa Rajputs, the Dehli, Kahi, and Talpur, and Talpur rulers, and was ceded to the British in 1856.—Barton; Postans; Imp. Gaz. See Bakkar.

BUL. SANSK. Force, strength; pronounced Bal, also Bil.—Ell.

Bul-Arati, a name of India as the destroyer of the giants.

Bul-Bhog. HIND. Taking forcible possession of property; from Bul, force, and Bhog, wealth.

Bul-Kut, rent taken in advance.—Elliot, Glossary. See Bal.

BUJA. BENG. Parition tortuosum.

BUJAHUR, HIND., also Buladur, from bulana, to call; a village servant in Allahabad district serving as a guide or messenger.—Ell.

BULAK, said by Niebuhr (p. 63) to be the Lapolos of the ancient Greeks. Bulak has been for centuries the river port of Cairo, although originally a mile distant from it, and it has now become incorporated with that city. The Museum of Egyptian Antiquities, a magnificent collection, entirely unrivalled of its kind, was established at Boulaq by Ismail, Khedive of Egypt.

BULANDSHAHR, a town often called Baran, in the N.W. Provinces, on the west side of the Kali Nadi. It gives its name to a district in the Doab between the Ganges and the Jumna, between lat. 28° 3' 30" and 28° 42' 45" N., and long. 77° 20' and 78° 31' 45" E.; area, 1910 square miles, and population, 936,667. It is said to have formed part of the great Pandava kingdom ruled over from Hastinapur, a city which was cut away by the Ganges. Bulandshahr was approached by Mahmud A.D. 1018, and its people embraced Mahomedanism. A.D. 1193, Kutub ud Din captured it from the Door raja by the treachery of his cousin Ajaypal, who accepted Mahomedanism, and whose descendants still hold lands there. Rajputs since, for a time, occupied the district, expelling the Meo. It has been under the Dehi and Mahratta rule, and in 1808 became British territory. During the mutiny the Gujar and others held the district from the 21st May to the 4th October. The people are Hindus, Rajputs, Mahomedans, with Chamar, 146,149; Jat, 56,453; Lodha, 51,513; Gujar, 48,786; Khakrob, 29,501. Coins of Alexander the Great and of the Indo-Bactrian kings are being found at Baran to the present day.

BULAQ. HIND. A jewel worn in the septum cartilaginum of the nose.

BULAT. BENG. Phaselus mungo, Linn.

BULAT-WIEL. SINGH. Chovica seribbo.

BULBASSI, a Kurd race, composed of—1. Kabaz, the reigning family; 2. Manoos; 3. Mansoo; 4. Piran; 5. Ramook; 6. Sinn and Taafah, who together make one tribe. They are all predatory. The chiefs of tribes are called Muzzin. The price of blood among the Bulbassi is 22 oxen; but it may be made up in other effects, to which often a nominal value is attached, more than twice the real amount, when the affair is to be compounded amicably. The crimes punished with death are adultery, seduction, and such like. The Bulbassi are endogamous. They have courtship among them, and carrying off a girl by the lover is common. When a chief dies, if his eldest son is incapable, the best of the brothers succeeds. In their own country the Bulbassi do not willingly acknowledge any superior, either Turkish or Persian, but when they descend into the regions of Karatchoo they pay a tribute of sheep to the Bey. Most of the principal people among them possess a complete suit of mail. For curing wounds they sew the wounded man in the skin of a bullock fresh stripped off the animal, leaving only his head out.—Rich, Kuristan, i. p. 133.

BULBUL. PERS. A term employed among the various Mahomedan nations of Southern Asia, to designate birds belonging to several generic divisions of a natural family. The Persian bulbul is a species of true nightingale; it is the Luscinia major (or Sylvia philomela of Temminck), and is known as the Bulbul-i-bostan in India, where it is frequently imported as a cage-bird. In Persia it is often called the Bulbul-i-hazar dastan, the bulbul of a thousand notes; and its genus, Luscinia, is very closely allied to the small thrushes of America. The Persians delight to speak of this favourite song-bird, which Moore has made widely known:

'There's a bower of roses by Bendemeer's stream,
And the nightingale sings round it all the day long:
In the time of my childhood 'twas a sweet dream.
To sit in the roses and hear the birds' song.
That bower and its music I never forget;
But oft, when alone in the bloom of the year,
I think, Is the nightingale singing there yet?
Are the roses still bright by the calm Bendemeer?'

It is migratory there, making its appearance with the roses in April, and disappearing with the rose at the end of summer. According to Zakary bin Mahomed-al-Kaswini, the Persians say the bulbul has a passion for the rose, and laments and cries when he sees it pulled. The English nightingale, Luscinia philomela (Philomela luscinia), is migratory through Europe, N. Africa, and Asia Minor, but is not known in India or Persia. Indeed, there is no true nightingale, wild, in British India; but the shama, Cisticola marmoratus, undoubtedly the finest song-bird of British India, is not unfrequently designated the

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Indian nightingale. It is common to India and the Malay countries; and there is a second species (C. luzoniensis) in the Philippines, and a third (C. erythropus) in Africa. The esteemed Indian songster is the merle tricolor de longue queue of Levallaint (Oiseaux d'Afrique, pl. 114). We may remark that the Orocetes cinclorhynchus is also termed shama in the Madras Presidency. The bulbul of Southern India is not uncommonly seen in the hill-trails, the term being applied to the Bulbul-l-i-gul-dum, Hamatornis eacer, which is a common cage-bird, and, like quails and cockers, trained to fight; and when pitted against an antagonist, it will sink from exhaustion rather than release its hold. The Hurasini bulbul, also called the Shah bulbul, is of another sub-family, the Myagrinæ, and is known also as the Paradise fly-catcher. It is of a chestnut colour for many months, but becomes white in the breeding season. It is a very graceful bird, with very long tail feathers, and it is a pretty sight to see it flying from tree to tree. How the birds prevent the long tail feathers from becoming entangled in the thorny trees, is very curious. In Ceylon, the chestnut bulbul is called the fire thief, and the white bird the cotton thief. Its cheerful notes, Yelling bulbul, and its movements in flight graceful. Mr. Layard has often watched them, when seeking their insect prey, turn suddenly on their perch and whisk their long tails with a jerk over the bough, as if to protect the feathers from injury.

In the Madras Presidency, the three-coloured thrush, Geocichla cyanota, is sometimes called a bulbul; and the hill bulbul of Matheran is the Otocompsa jocosæ. It has crimson ear-tufts.


—Jordan, Birds of India; Layard's Nat. Hist. of Ceylon; Cal. Rev. See Birds.

BULBUL CHASM. PEWS. Literally, bulbul eye. A pattern produced in weaving.

BULCHA, a pass in Kamaon, in lat. 30° 28' N. and long. 88° 14' E., over a high ridge, extending E. and W.

BULDANA. BULD. HIND, Horned cattle. Buldena, a cowherd.—Fili.

BUL-DAN. Amongst the ancient Hindus, the sacrifice of a bull to Balnath, the lord Bal, the sun. Balnath was the deity worshipped by the Saura races in Gujerat, and was identical with the Syrian Bal. That ancient sacrifice has long ceased. Four altars were erected for offering the flesh to the four gods, Lakshmi-Narayana, Uma-Maheswar, Brinda, and Ananta. The nine planets, and Pritru, or the earth, with her ten guardian deities, were worshipped. Five Vilwa, five Khudiru, fire Pulashu, and five Udmurbun posts had to be erected, and a bull was tied to each post. Clarified butter was burnt on the altar, and pieces of the flesh of the slaughtered animals placed thereon. Another description says that a covered altar had to be prepared. Sixteen posts had to be erected of various woods; a golden image of a man, and an iron one of a goat, with golden images of Vishnu and Lakshmi, a silver one of Siva, with a golden bull, and a silver one of Garuda, the eagle, were placed upon the altar. Animals, as goats, sheep, etc., were tied to the posts; and to one post, made of the wood of the mimosa, was to be tied the human victim. Fire was to be kindled by means of a burning-glass. The sacrificing priest, hota, strewn the grass called d'hul, or immortal, round the sacred fire. Then followed the burnt sacrifice to the ten guardian deities of the earth,—to the nine planets and the Hindu triad, to each of whom clarified butter was poured on the sacred fire one thousand times. Another burnt-sacrifice, to the 64 inferior gods, followed, which was succeeded by the sacrifice and offering of all the other animals tied to the posts. The human sacrifice concluded, and the sacrificing priest offered pieces of the flesh of the victim to each god as he circumambulated the altar.

At the present day the bull is often desired by Hindus to the gods, on the 11th day of mourning or a near death as a live. In this manner, marriage ceremonies are performed, called brikhotsarg, or abandoning of a bull. Brik means a bull, and also the zodiacal sign Taurus. The brikhotsarg marriage ceremony is performed in the name of the bull, after which the animal is set free to roam; and in some Hindu towns of India these devoted cattle infest the streets and roads, and are very numerous and very troublesome. In several Mahatta towns they were often let loose. In Benares they are still in numbers; and whatever they may do or wherever they may lie down, they may be patted, spoken to, or even shot at, but never struck. They are called Bijar, Saur, Brahman bull. A similar marriage ceremony is performed with a well and orchard.—Ward on the Religion of the Hindus, ii. p. 289; Elliot, 260. See Bantotsarg; Bull; Jalotsarg.

BULDANA, a small walled town on a plateau in the Berar Assigned Territories. It is the chief town of a district of 2807 square miles, and a population of 404,042 souls, three-fourths Hindus, composed of several plateaux, with small fertile valleys intervening. Since 1318 it has been under Mahomedan rulers; but prior to that a Jaina dynasty seems to have held sway, and remains of their temples are to be seen at Deolghat, on the Penganth, at Mehkar, at Sindkhed, Pimpalgaon, and at Lona. Besides the Mahomedans, in 1867—
BULL.

BULDEO, in Vrij, is a shrine of Buldeo, who is supposed to be the Hercules of the east and west, his club ploughshare, and his covering in bull skin. The complex of Buldeo is depicted white, and that of Krishna black or azure. See Baldeo.

BUL-DHOON, the valley of Sockeytmuni in the Kohistan of Jullundur, but also called Kangra Bhawan, also Pallam Pattiar. Natives of the Bul-dhoon and Kulu have sallow complexities, and seem of the same race as the natives of Bushair. The men are tall and strong, but few of them are handsome. Many of the young women are pretty, but at the age of 20 or 25 they become coarse and stout. It was the practice for the women, gaily dressed, to assemble and greet a stranger with songs as he entered each village, for which honour he was expected to give a rupee to each knot. The men and women dress almost similarly.—Masson's Journeys.

BULESUR, a subdivision of the Gujar race.

BULGAR. Hind. Boletus ignarius.

BULGARIAN. The wild people who dwelt or wandered in the plains of Russia, Lithuania, and Poland, in the age of Justinian, being reduced under the two great families of the Bulgar and Selavonian. Those of the former nation, who touched the Euxine Sea and the Maeotis, derived from the Huns their name or descent. The evidence of language attests the descent of the Bulgarian from the original stock of the Selavonian, or more properly Slavonian race; and the kindred bands of Servian, Bosnian, Rascian, Croatian, Wallachian, etc., followed the standard or example of the leading tribe. The first king of Bulgaria, in its present extent, was in a.d. 640, and their empire continued until 1017, when they were ruled by a lieutenant of the Greek empire.—Chatfield's Hindustan, p. 289.

BULGHAR, a town in Russia, where Russian leather is made; also Russian leather, corrupted into Bulkhali or Bhukhalh. In Persia, a kind of bottle, to hold nearly three quarts, is made of bulghar, to be used by horsemen travelling. It has a wooden stopper, and hams from the saddle or girth, and swings under the horse. It is called matalhrah or mellarah.—Ouseley's Travels, i. p. 247; Fraser's Khorasan, p. 69.

BULL. Beng., Hind. Sterculia urena, Rozb.

BULJ-A-WANLU. Tel. A Sudra race of Telingana. See Balja.

BULKOKRA. Beng. Adalia castancarpa.

BULL.


The bull has always held a prominent place in the religious systems of Asia. The sacred bull of the Assyrians, the Apis of the Egyptians, and the bull Nandi of the Hindus, are evidently identical types. The golden calf of the Israelites will not be forgotten. And for the use of the figure of the bull as a sacred ornament by the Jews, the brazen sea in the temple of Solomon may be cited (1 Kings vii. 25; 2 Chron. iv. 4, 5; and Jeremiah iii. 20). In Assyria, Baal, or the supreme deity, was worshipped under the form of a bull or heifer, as may be inferred from Tobit i. 5: 'Now all the tribes which together revolted, and the house of my father Naphthali, sacrificed unto the heifer Baal;' but the reading is doubtful.

In the English Scriptures, the word 'bull' is the translation of several Hebrew words, e.g. a cow, a heifer, a bullock, a calf, a heifer, a bull; abhira, tor. A calf was in Hebrew ogel, in Arabic, ajel. Jeremiah xxxiv. 18 and 19 tells of a sacrificial rite of splitting a calf in two, and men passing between the parts; and bull-worship is noted in 1 Kings xii. 28, 29, 30, the images being of gold. In ancient Western Asia, Bal and the brazen calf were specially worshipped on the fifteenth of the month (see 1 Kings xii. 32); and at present, in India, the sacred day of Bal-Eswar, with his Vahan bull Nandi, is the amovaas, the moonless fifteenth day of the month. The bull was offered to Mithras by the Persians; and, opposed as it now appears to Hindu faith, he formerly bled on the altar of the sun-god, on which not only the Bullian offering of the bull was made, but human sacrifices.—Layard, Nineveh, ii. pp. 474-5. See Bul-dan.

Apis, the sacred bull of Egypt, was chosen by the priests of Memphis for its black and white spots; and Mnevis, the sacred bull of Helipolis, had nearly the same marks; but the Hebrews, in preparing their water of purification, were ordered (in Numbers xix. 2) to kill a red heifer without a spot. Amongst the Egyptians, the solemnities at the burial of Apis were entirely Bacchic. The priests did not wear the nebris or deer skin, but they wore the panther skin, and carried thyrsus staves. The brazen calf mentioned in Scripture as an object of worship by the Hebrews, is still worshipped by Hindus in India, frequently of brass, but oftener of stone. Some of the Hindu images of the bull are of colossal size. One, supposed to be the largest in the south of India, is to be seen at the Charmandi hill in Mysore. It is carved out of a solid rock at the side of the hill, and is approached by ascending 600 stone steps. There is also a magnificent temple of Siva at Mayore, with a great bull in front. Siva, under the name of Mahadeva or Esvarra, is the tutelary divinity of the Rajputs in Mewar; and, from the early annals of the dynasty, he appears to have been, with his consort Isani, the sole object of the Gehlot Rajput's adoration. Esvarra is there adored under the epithet of Ekinga, and is either worshipped in his monolithic symbol, or as Esvarra Chao-mukhi, the quadriform divinity, represented by a bust with four faces. The sacred bull Nandi has his altar attached to all the shrines of Esvarra in India, as was that of Mneves or Apis to those of the Egyptian Osiris. Nandi has occasionally his separate shrines, and there is one in the valley of Udaipur which has the reputation of being oracular as regards the seasons. The bull was the steed of Eswara, and carried him in battle; he is often represented upon it, with his consort Isa, at full speed. To Cleonymus, to every herd of cattle there is a sacred bull, who is supposed to exert an influence over the prosperity of the flocks; his horns are ornamented with tufts of feathers, and
frequently with small bells, and he invariably leads the great herd to pasture. On starting in the early morning from the cattle kraal, the natives address the bull, telling him 'to watch over the herd'; to keep the cows from straying, and to lead them to the sweetest pastures, so that they shall give abundance of milk,' etc.—Bunsen, 1. p. 432; Tod's Rajasthan, i. pp. 222, 514; Tennent's Ceylon; Vossius de Idololatry; Bryant, Analysis; Hancorrelle, Recherches sur les Arts de la Grèce; Ouseley's Travels, i. 280; Ward's View, ii. 143. See Bal-dan.

BUNN, John. Terminalia bellerica. SANSK., Pavonia odorata.

BULLA, the polo game of the Dard.

BULLAIN-LENA. HIND. A ceremony amongst Mahomedan and Hindu women in India, in which the woman sweeps her hands down from the head to the feet, and then raises them to her own head, supposed to take off the other's evils on herself.


BURLUSHES, Typhaeae.

Jono, . . . . Fr. | Pan, . . . . . . . . . . SIND.
Goma, . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Tr. | Junco, . . . . . . . . . . . . . . . . . . . . SIND.

Burlishes, so conspicuous in the marshes of Europe, extend to similar situations in most parts of India. The leaves are in some parts of Europe employed in making mats and winter coverings for plants, as well as for stuffing chairs, putting between the staves of barrels. The leaves of putera and riri (Typha elephantina and T. angustifolia) are employed in making mats in North-West India. In Sind the former is called pun, and its leaves employed for making mats and baskets. The pollen, like that of Lycopus, is inflammable, and used as a substitute for it in Europe. It is also collected in Sind, and there called booree. Elephants are fond of T. elephantina. It is a valuable sand-binding plant, and it is tied into bundles as a swimming float.—Royl. Fl. Pl. p. 35.

BULSUN. A Native State, originally a foudary of Sirmoor, but a separate summons was granted to it in September 1815. Its tribute payment is Rs. 1080. Its chief is of Rajput origin. Thakur Jograj was created a rani in 1858, for services rendered during the mutiny. The revenue of the state is Rs. 6000, and the population 4892.

BULTI extends from the confines of Ladakh westward to the great bend of the Indus. It has Dras and Hasora on its south, and the Koun Lun or Mustagh on the north. The bed of the Indus at Tolit is 7500 feet; at Iskardo, the capital, 7000; at Rondhu, 6200; and at the great bend, about 5000.—H. f. et T. 224, 225.

BUL TUL, or Shur-jil, a pass leading to Kashmir, in lat. 34° 10' N., long. 78° 10' E. The crest is 10,800 feet.

BULUH. MALAY. A bamboo. Buluh perindu, the primitive bamboo, also called Buluh-ribat, the storm-bamboo. In the forests of the Malay Peninsula, Sumatra, and Java, the natives make holes in the forest bamboo, and plantain squares issue when the wind blows. It is a sort of Aeloa pipe. See Bamboo.

BULUN. SINDI. The water hog, a porpoise in the rivers Indus, Ganges, Irawadi.

BULUNG. JAV. Pilocaria candida, Nees Eucnema spinosa; Agar-agar; Garcillaria tenax.

BULTUG TAGH is that part of the Koun Lun chain which is east of Sunarccd and south of Khoobul. Bul Tagh means the cloud mountain; but the Koun Lun chain is also called the Belur Tagh, which, according to Cunningham, is synonymous with the Balti mountain. Other names for the chain are Mustagh, Kararakam, Hind Kush, and Taung Lung or Onion mountains, from the prevalence on it of a species of Alitum. It continues for the Pamir range west of Yarkand. The Koun Lun chain is not less elevated than the Himalaya, and is covered throughout a great part of its length with perpetual snow. Its axis has not been crossed by any traveller, but has been reached by Dr. Thomson, who visited the Kararakam pass, elevated 18,300 feet. In the Western Tibet, the axis of the chain is in general distant about 150 miles from the Himalaya, and the country between the two consists of a complication of ranges of lofty and rugged mountains, separated from one another by stormy valleys, which at the higher parts of the courses of the rivers expand at intervals into alluvial plains.—H. f. et Th.

BUMAY-ZA. BURM. Albizzia stipulata.

BUMBA, a race inhabiting the hills westward from Kashmir to the Indus.

BUM BUKLEISR. See Hot Springs.

BUMBUL. HIND. Rubus biflorus.

BUMEE. SINGH. Tetranthera Roxburghii.

BUMMALO, a small fish, salted and dried, also called Bombay duck, but found on all the coasts of Southern Asia. See Bombay Duck.

BUMELE, name of a Rajput tribe on the eastern parts of the Central Doab.—Ell.

BUN or Boon. ARAB. Coffee, coffee berries.

BUNA of Kaghan. Albizzia odoratissima.

BUNA. HIND. Edwardsia mollis, Platanus orientalis.

BUNAFUR, a tribe of Yadubansi Rajputs in Oudh. Allimabad, Benares, Gurra Mundia, and Bundelkhand.—Ell.

BUNHOOAY. BURM. Careya arborea.

BUNCHONG BULU, a red dye-wood of the Celebes.

BUNCOGA. SINGH. Urostigma Mysorensis.

BUND. HIND., PERS. (Bund.) A slip of an account. Band-bheli, also Band-phantah, a statement of a village account; an embankment, a dam.—Ell.

BUND, Boond. HIND. A dark blue silk with many spots, largely made at Benares. Bundummi, a kind of stiff waxed spotted silk.

BUNDA. HIND. A sort of earring (pandela) or a ring used by ear-borers.

BUNDAISH, or Original Creation, a sacred book of the Parsees; it is in the Pehlevi. It gives the Parsee cosmogony; and one version was written about A.D. 880.

BUNDALA, or Boondala, an agricultural race in the Maiker district.

BUNDARE, a Kandh village in the Madras district of Visagapatam. Until 1849, three human beings were here annually sacrificed, two to the
sun in the east and west of the village, and one in the centre. The head was left attached to the sacrificial post till devoured by birds.—Imp. Gaz.

BUNDELA, a tribe who claim to be Rajputs. They give a name to the province of Bundelkhand (corruptly Bunceulcund). They are descended from the Garhwar of Kantit and Khairagarh, and first settled in Bundelkhand in the 13th or 14th century. There are few genuine Bundelas in the British portion of the province, except in the pargana of Panwar. The province of Bundelkhand is a mountainous hilly tract of country lying between lat. 23° 52' to 26° 26' N., and long. 77° 53' to 81° 39' E., between the rivers Jumna and the Chambal on the N. and N.W., the Jumulpur and Sauqar divisions on the south, and Rewa and Baghelcund and the Mirzapur hills on the S. and E. Within these bounds are five British districts; it encloses the three Treaty States of Orcha or Tehri, Datia, and Samthar, and the states of 26 chiefs who have sannud or Ikrrnamah from the British Government. Iron and copper are obtained, and diamonds from Panna. It seems to have been occupied successively by Gonds and Rajputs; and to the latter are due the forts of Ajyegarh and Kalinjar, the temples at Kajuraka and Mahoba, and the Hamirpur irrigation works. A vast portion of Bundelkhand is hilly and unproductive, forming the northern slope of the Vindhaya, and the province of Bundelkhand has, in the past three centuries, been fifteen times desolated by famine. The Bundela became dominant in the 14th century. Towards the middle of the 18th century, the aid of the Mahattas was called in against the Dehli forces. On the fall of the Peshwa in 1818, all his sovereign rights were ceded to the British. Under the Bundelkhand Agency are Sohawal, Jignee, Ajyegarh, Baonee, Beronda, Bijswar, Chikrak, Chutterpore, Dutia, Kotee, Myhere, Nagode, Orcha, Punna, Rewa, and Sumpthur. Of the principal states, Gwalior, Indore, Bhopal, Dhar, Dewas, Bhopal, and Jowra are under Mahomedan rulers, and the rest Mahatta. The petty states hold under the immediate guarantee of the British Government, but have feudal relations with one or other of the larger states, and occasionally with more than one.—Imp. Gaz.; Treaties, etc., iv. p. 195.

BUNDELI, or Bandar. Pers. A sea-port; prefixed to many sea-ports along the coasts of the Arabian Sea. Shah-Bunder is a harbour-master, a governor; the British sailors' market boat is the Bunder boat.

BUNDER ABBAS, formerly called Gambroon, in lat. 27° 10' N., at the entrance of the Persian Gulf, is 5 miles north of Kishm island. It is in the south of the province of Kirman, and is about eighteen days' march from the town of Kirman.—Horsburgh.

BUNDESH, a religious book of the Parsee Zoroastrians. See Bandahish.

BUNDI, a tributary state in Rajputana, lying between lat. 24° 58' and 25° 55' N., and long. 75° 23' and 76° 30' E. Population in 1875 was 224,000, paying a tribute of one lath of rupees. The ruling family belong to the Hara tribe of Rajputs. Omoha Raja gave most efficient assistance to Colonel Monson's army in its retreat before Holkar; he died in 1804, after a rule of upwards of fifty years, and was succeeded by his infant son, Bishen Singh. During the Mahatta supremacy, this state suffered much at the hands of Sindia and Holkar, who virtually assumed the management of the revenues. The territory of Bundi was so situated as to be of great importance during the war in 1817 in cutting off the flight of the Pindari. Maha Rao Bishen Singh early accepted the British alliance, and a treaty was concluded with him on 10th February 1818. By this, the tribute paid to Holkar and the lands in Bundi held by Holkar were relinquished to the raja, who engaged to pay to the British Government the share of tribute he had hitherto paid to Sindia. In its earlier fortunes, this state became so connected with the imperial court of Dehli, that, like Jeyapore, the princes adopted several court customs. The Purthau, or premier, was entitled Diwan and Moossahib; and he had the entire management of the territory and finances. The Foujdar or Killadar is the governor of the castle, the Maire de Palais, who at Bundi is never a Rajput, but some Dha-bhae or foster-brother identified with the family, who likewise heads the feudal quotas or the mercenaries, and has lands assigned for their support. The Bakhshi controls generally all accounts; the Rassala those of the household expenditure. Bundi has a beautiful palace. During the mutiny and rebellion of 1857, the raja fled forward. Its military force is 700 horse, 1750 infantry, and 80 guns.—Todd's Rajasthan, ii. p. 504; Treaties, Engagements, and Sounds, iv. p. 63.

BUNDI. HIND. A kind of sweetmeat, in grains or drops. Bund, a drop.

BUND-i-Kaisar, a dyke or bund near the town of Shuster in Southern Persia, thrown across the river Keren. Sir Henry Rawlinson says that it was constructed by Ardeshir Babekan or his son Shaipur; and the canal constructed is called Nahr-i-Dariyan, which waters the fields to the south in the Mianab.—De Bode.

BUNDU MALLIJI. Tel. Jassuminium sambac, At. BUNER, a democratic State between Afghanistan and India, N.W. from Peshawur, beyond the Juddoo country on the north-west. It is a rugged country, extending from the lower range of the Hindoo Kooeh downwards to hills which command the Chumla valley and the central plain of Yosufzai. On its western frontier, again, lies the Swat territory. The Buner people could muster a force of some thousands. They have generally abstained from molesting British subjects. Near them are the Swat, Rankai, and Lower Osman Khel tribes, the two latter being subordinate to the former.

BUNGA, PUKHTO. Ransom.

BUNGA, a temple of the Akali sect of the Sikhs.

BUNGA-BUAPALA. MALAY. Also Bunga pala, nace. Bunga Chanki, also Bunga-lawang, clove; Caryophillus aromaticus. Bunga pukul ampat, Mirabilis jalapa. Bunga chappa, Blumea balsamifera.

BUNGARI. HIND. Vangueria spinosa.

BUNGAROO, Tel. Gold.

BUNGARUS CÆRULEUS, B. tropidonotus, B. Ceylonicus, are three poisonous serpents of Burma and Ceylon, of the family Elapidae. B. caeruleus occurs in most parts of India and in Burma; B. fasciatus, common in Burma, is rare on the eastern coast of the Peninsula; B. semifasciata occurs in China. These snakes are from 4 to 6 feet long.
BUNGA SURSON. Hind. Siapis junea.

BUNGA SURSON. Hind. Corchorus olloritus.

BUNGKA, Hind., also called Kutooa, an aquatic beetle which eats rice plants. It is said to make a leaf boat, which it paddles from plant to plant.—Ell.

BUNGAL. Hind. Bungalow, a one-storeyed house.

BUNG-MAI-ZA. BURN. Inga bijemina, Willde.

BUNGOMA, ? Emyda granaon.

BUNGRAH. Hind. Acorus calamus aromaticus.

BUNGREE. Hind. Glass bracelets.

BUNG-TA-LAI. CHIN.

Tung-tai-hai. . . CHIN. Yang-kwo, . . . CHIN.

Ta-hai-tsz, . . . " Boa-tai pai jin, . . . "

Pung-ta-rai, . . . "

A tree of Siian; its fruit makes good jelly.—Smith, p. 44.

BUNGUSH, a Pathan tribe who inhabit the enclosed plain of Meranzai, and also the Kurum valley within the Afghan limits. In the Kohat district, the principal tribe is the Bungush. They can muster 15,000 fighting men, and are fairly good soldiers. In 1851 they petitioned the British to include them in Kohat. This request was acceded to. They offered to guard the Kothul; and while arrangements were progressing, the Gullee Afridi suddenly attacked the Bungush people on the Kothul, and seized that post. Several Bungush chiefs were killed in the encounter, and Major Coke, who was present, was slightly wounded. Upon this check, the Bungush people obtained the alliance of two small though warlike tribes, named Buzotz and Sipah. These were independent, and dwelt in the hills near the pass.

BUNI. Hind. A muslin made at Dacca.

BUNJI, the Thug designation of a victim.

BUNJ. ARAK. Hyoscyamus sniper.

BUNJAR or Banjar. Hind. Waste land, land lying fallow; also indifferent soil.

BUNJIN. Hind. A weed which grows in the kharif crops; much sought after by fakirs who practise alchemy.—Elliott. Qt. ban jain, Wild Man.

BUNKITA BARRING, obtained from an undescribed plant in Borneo, produces a dark purple or black dye.

BUNNAS, a river which rises in a cluster of summits in the Aravalli range, lat. 24° 47' N., long. 73° 28' E., south-west into Runn of Cutch by several small channels. Length, 180 miles. About 17,000 square miles drained.

BUNNI. Hind. Payment in kind; hence Bunnihaar, a ploughman paid in kind.

BUNNI, a timber of Julundur; resembles the 'Ban,' except that it is smaller, and the wood is of a white colour, but it is applied to the same purposes as the 'Ban.'—Comr. Julie.

BUNNU, a district in the Derajat division of the Panjab, situated S.W. of the Kala or Salt Range, with its centre in lat. 22° 40' N., and long. 70° 30' E. Its population, 288,000. The Bunnu valley is south of and is accessible by the Sirduk and the Koonh-i-gao passes. The lands are chiefly rich and fertile, intersected by the Kuram, and irrigated by water-cuts. The only uncultivated portion is the 'thul,' or pasture ground at the base of the hills. During the winter months the Waziris pasture their flocks and herds, and erect patriarchal huts of skins with wooden framework. In the summer months they retire to the cool mountain heights, taking their cattle and dwellings with them. The Bunnuchi are mixed races, who dwell in walled villages. They are undersized and sallow-skinned. They are quiet, orderly, and not in troublous matters, but immortal, capable of reckless perjury and deliberate assassination. They cultivate with some industry. Iron is imported in quantities from the Waziri hills, and is worked up at Kalabagh into agricultural implements, caldrons, cooking utensils, grates and fire-irons, ladles, pugs, locks, horse-shoes and chains. The Waziri bring it down on bullocks and mules chiefly through the Kurum pass to the Bunnu fair, where it is bought up by carriers from Kalabagh. The trade in use in Bunnu, called in Fushu 'erm,' is very peculiar. Tobacco is imported in large quantities from the Waziri hills. Much cattle is brought to the Bunnu fair from Dour and the Waziri hills; also numbers of goats and sheep. The Doomba is much prized, and is reared in the district as well as beyond the border.—Records of the Govt. of India. No. 11.

BUNNUR, an Afghan tribe adjoining the Peshawur district.

BUN-OTSURG. Hind. Also written Ban-otsarg, from Ban, a forest, Ootsarg, abandoning. A Hindu marriage ceremony performed in honour of a newly planted orchard, without which it is not proper to partake of its fruit. A man holding a Saligramma personates the bridegroom. Another, holding the sacred tulsi, personates the bride. After a homa or fire sacrifice, the officiating Brahman puts the usual questions to the couple. The bride then makes three circuits of a spot in the orchard, moving from the south to the west, followed by the bridegroom holding an end of the personating bride's garment. The bridegroom then takes precedence, and circumambulates similarly.—Elliott.

BUNSEN, KARL CHRISTIAN, born 1791, at Corbach in Waldeck. He was the son of a soldier; was long employed in Italy and England as ambassador; and was the author of Egypt's Place in Universal History; Description of Rome; Hippolytus and his Times; Signs of the Times; Church of the Future; God in History.—Fraser's Magazine, June 1868.

BUNT are the chief people in Canara.—C. 134.

BUNT. HIND. Smut balls, or pepper brand. The fungus which occasions this disease, Uredo caries, Dec., U. fontida, Bauer, has hitherto been met with only in the grains of wheat, when its presence is readily recognised by the peculiarly disgusting odour of the infected ear. When this disease prevails, it greatly deteriorates the value of the sample; and from imparting its disgusting odour to the flour, makes it less fit for bread.—Russell.

BUNT. Hind. Uptide pulse of Cicer arietinum.

BUNTA-JAMUDU. Tel. The Euphorbia antiquorum.

BUNTAKI. HIND. Solanum melongena.

BUNTING. Several species of these birds occur in India. The grey-capped bunting is Emberiza caniceps. The black-throated bunting is E. cicoles. The grey-capped bunting is E. Stewarti.

BUNTARIA, a class of wood-rangers in the northern parts of Gorakhpur. They are now cultivators.—Ell.

BUNUCH. BENG. Morinda exserta, Roeb.

BUNUGA-GASS. S1NGH. Urostigma myso- rense, Mig.
BURAYA.

BUNUN. HIND. Fragaria vesca.

BUNYA-BUNYA, a tree, Araucaria Bidwellii, of Australia, with cones as large as a child’s head. It grows from 100 to 150 feet high, with a remarkably stout trunk, which scarcely tapers for one-half of its height from the base. The unripe seed is greedily eaten raw by the natives at all times, and when ripe, roasted and pounded into cakes. Each tribe of aborigines has its own group of trees; and of these each family has a certain number allotted, which pass from generation to generation, and is the only hereditary property which any of the aborigines are known to possess.—Mr. Bidwell; Dr. Bemat, Australasia.

BUZU. See Bom-za.

BUPLEURUM MARGINATUM. Wall. Kali Zewari, HIND. [Zira, Sipal, HIND.]

This and allied species are abundant in many parts of the Punjab Himalaya from 2500 to 11,500 feet. In Kanawar the root is stated to be eaten raw, and the seeds to be exported as Zira.—J. L. Stewart, M.D. See Carum.

BUPLEURUM OCTORADIATUM. Smith. Tex-hu, CHIN. [Tai-hu, CHIN.]

This plant is said to grow in Yen-nan-fu and in Shen-si, its root is employed in thoracic and abdominal inflammations.—Smith, p. 45.

BUPRESTIS, a genus of beetles with bright wing-covers, largely used in the arts. See Beetles; Coleoptera; Insects.

BUQ. PERS. A goat’s horn. Buq-i-Hamam, the horn summoning to the bath.

BUQR-EED, or Eed oos Zoha, held on the 9th day of the twelfth month Bag-ree. On this occasion, Mahomedans of India proceed to the Eed-gah in great state, when the kohboh is placed in the name of the ruling sovereign.

BUR, also Buri or Boratu. SIND. The pollen of the Typha elephantina, Roxzh, made up with water into cakes, and much eaten. It is inflam- mable like that of Lycopus, and is used as a substitute for it in SIND.—Royce, p. 35.

BUR, a wandering tribe in the N.W. Provinces.

BUR. HIND. Tamarix orientalis, Oreoesseris lanuginosa, Cymbopogon iver,vancusca.

BUR, Buri, Burha, Budha. HIND. Old. Many towns, rivers, etc., are so designated.

BURA. HIND. Chopped straw.

BURA-AL. HIND. Morinda citrifolia.

BURA-BUHOARI. BEN. Cordia latifolia.

BURABUR hills are isolated rocks of sienitic granite rising abruptly from the plain about 15 miles north of the city of Gaya, by the left bank of the Phulgo or Mahnandi. The highest is called Burabur, also Sidheswar, from a temple to Mahadeva that once crowned its heights. The next in height is the Kowa Dol, which is near a mile to the south-west. A third is called Nagar-juni, and is the easternmost of the great cluster. A fourth, and the smallest, called Durhawut, is at the northern extremity; others also have names, but the above alone contain objects of notice. The Kowa Dol is an almost entirely bare rock, having nearly a perpendicular scarp on its northern face, and sloping at an angle of 45° more or less on the opposite or southern side; east and west, it is disjointed and inaccessible; huge stratified masses are piled one over the other, decreasing in length at each end. The whole is surrounded by single blocks like pillars, the centre one of which towers above the rest, and is conical. It is said that formerly there was a huge block balanced on the top of this cone, which, from its being moved by birds alighting on it, obtained the name of Kowa Dol, or crow-moved, or the crow swing; about the eighteenth century, this rock block fell down to where it may still be seen. The caves of Burabur are both in number,—four in one hill, three in another; but the name Satgarha, commonly understood to mean seven chambers, is applied to two only.

In the hollow or recess on the east side are the remains of a once splendid Buddhist temple, of which many pillars are still standing; also a gigantic figure of Buddha seated. The Sinhasan or throne is very handsome: there are the usual supporters, the Sinha or lions rampant, trampling on elephants couchant, and ridden by amazons armed with shields and swords. 60 or 80 figures are rudely cut in the huge detached masses of rock at the foot of the hill. There is one block hewn into the shape of a small temple, with niches and images on the four sides. First niche, from proper right, male figure erect with a spear; 2d, female figure, Pulnavati or Maya devi; 3d, Buddha seated; 4th, Mahadeva and Parvati, the latter only called Gouri Sunkur. Parvati seated on Mahadeva’s knee, with the bull Nandi at his feet, and the Sinha or lion at her side; 5th, male figure erect with four arms; 6th, male figure carried on the shoulders of another; 7th, the Lingam and Yoni; 8th, male half figure, Aruna? 9th, Mahadeva and Parvati repeated; 10th, male figure erect holding a lotus in each hand, probably Surya; 11th, Ganesha; 12th, female figure with four arms, attended by Nandi and Sinha; 13th, male figure standing on a prostrate figure. After these, nine niches have what appears to be Durga slaying Mahesh-Asur with her trident; she has one foot on the buffalo’s neck, and holds it by the hind leg. This subject is repeated on many detached rocks. The Linga is of as frequent occurrence. There is one very large four-faced Linga, called the Chounwari Mahadeva, such as may be seen in the caves of Ellora; it is of common occurrence in this district. The inscriptions are in Palli, the old Pali character.—Capt. Kittoe, Beng. As. Soc. Jo., clxxviii., 1847.

BURA-GHOOLI. HIND. Villasria Indica.

BURAD. HIND. Filings, raspings, chips.

BURAGA. Tel. The gum and wood obtained from Bombax Malabaricum.

BURA-JANWAR. HIND. The hog; literally, bad beast.

BURAK and Sarmu rivers run in valleys of the Assam chain. The Naga, Mikir, Cachari, Garo, and Kasya are the five races in whose possession chiefly are the broad highlands of that chain, extending from the N.E. near the head of the Kynduayn and Namrup, on one side along the valley of the Brahmaputra to its southern bend round the western extremity of the chain, and on the other side south-westernly along the valley of the Burak and Sarmu.

BURAK, steel on which Mahomed rode to the seven heavens. The angel Gabriel seated him on it.

BURAT. HIND. Assignment. ABAR, the night of record, a Mahomedan ritual.

BURATY or Pulati, a Mongol nomade tribe near the Biakal lake.

BURAYA. HIND. Rucervus durvancelli.
BURIAL.

BURIAL sp. but Symplocos in author of Notes on the Bedouins, 1831, and W. habis; also of Travels in Arabia, 1829, and Travels in Syria, 1822. He visited Mecca a.d. 1814, under the name Shaikh Ibrahim. He is buried near Cairo, in the large cemetery outside the Bab-un-Naâr.—Plutarch; Burton's Pilgrimage to Mecca, i. p. 186.

BURDA is one of the five northern districts of Kattyawars; buried hills end in the south in the Alak range and in the Oahum.

BURDEH. Arab. A thick stripped woolen stuff, in use by the Arabs as a cloak or blanket. Akhda-burdeh is a grey or brown, and Almar-burdeh a red one. That of Mahomed was 7½ feet long and 4½ feet broad.

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BURDEWAL, a lofty tower in Jaganath, about 180 feet in height and about 28 feet square inside, in which the idol and his brother and sister Subahdra are lodged. See Jaganath.

BURDÍ, a wild Baluch tribe on the western banks of the Indus, near Shikarpur.

BURDU GUMADU. Tel. Cucurbita hispida. BURDUR. —? a tree of Cuttack, an excellent wood for carriage poles, shafts, and wheels, and in all mechanics' work; sp. gr. 1:00.—Cat. Cat. Ex. 1862.

BURENDA, also written Borenda, properly Bruang, a pass in the Himalaya, in lat. 31° 23' N., long. 79° 12' E.; the length of the crest is 50 paces, and the crest is 15,171 feet above the level of the sea. The most elevated part is a narrow glen, very steep. The pass leads from Kunwarar through the outer Himalaya, and is the easiest and most frequented in the neighbourhood. It is open for seven or eight months; during the rainy season almost all the snow dissolves.

BURGEE, a Hindu race in Woon.

BURGH. HIND. Phytolacca decandra. BURGHÉR, in Ceylon, is applicable only to white persons of pure Dutch descent, of whom there are now but very few in Ceylon; but the nature of the caste, by courtesy, been given to all those who in India are styled Indo-Britons, Eurasians, East Indians, Anglo-Indians, or more commonly 'half castes,' namely, the descendants of Europeans by native women. In the Maluccas, also, the term is applied to the Christian descendants of the Dutch. The Amboya burghers, who usually crowd the jetty spending their time in angling for small fish, will refuse to carry even a light burden; but this kind of manual labour is the peculiar province of slaves, and the Vrij Burghers, poor enough as they usually are, but priding themselves in professing the same religion with the Europeans, will not lower themselves by performing a description of labour which even Chinese and free Mahomedans would disdain.

BURGHÉR, a name given by Europeans to the Baluga or Marves race on the Neighhury Hills.

BURGUNDY PITCH is a product probably of the Abies excelsa; it is of light yellow colour, often adulterated with dammar or ganda baroza.

BURHA or Budha. HIND. Lit an old man; in the Kamaon Himalaya, the superintendent or headman of a village, or of a set of villages. The term is equivalent to Kumin, Syana, and Thokdar, and is chiefly used in the eastern parganas of Kamaon. The tenure connected with it is called Burha Chari and Kumin Chari.

BURGA GANGA, an old bed of the Ganges, traceable below Hastinapur, and Soron and Kampil.

BURHAL. HIND. A light yellowish-coloured wood, not strong; plentiful in the Santal jungles. Used for doors, venetians, furniture, etc., by the natives.—Cat. Engineer's Journal, 1860.

BURHAPATRA, BURDETTO. BURDEH. BURDA.

BURHANPUR, town in lat. 21° 18' N., and long. 76° 16' 20' E., is on the N. bank of the river Tapti, and distant 41 miles S. by W. from Khambat, the headquarters of Nimer. Population in 1872 was 29,206. It was founded about a.d. 1400 by Nasir Khan, the first independent prince of the Faruki dynasty of Kandesh, and called by him after the famous Shaikh, Burhan-ud-Din of Dowlatabad. It was held by eleven princes of this dynasty for two hundred years, till a.d. 1600, when the kingdom of the Faruki was annexed by the emperor Akbar. In 1614, Sir Thomas Roe, ambassador from James I. of England to the Great Moghul, describes his visit here to Prince Parviz, son of Jahangir. Tavernier passed through Burhanpur (or, as he wrote it, Brampourt) in 1641, and again in 1658. It was plundered in a.d. 1685, by the Marhattas. It was taken by General Wellesley on the 13th October 1803.

BURHAPATRA, a pargana in the Gonda district, in Uttar Pradesh, 727 square miles or 49,688 acres, and population in 1865 was 20,451. The Ahir and Chamar are the most numerous castes. The aboriginal Bhar here are following a kind of Kumeri cultivation, wandering from jungle to jungle.

BURHA PENN, a deity of the Kandh race.

BURHEL, Ovis nauraha. See Bovide.

BURHOLIA, HIND., a branch of the Bhrigubansi Rajputs settled at Burhoul, near Benares.—Ell.

BURI or Buli, a Philippine palm; probably Corypha gebanga, the gabang of the Malays and Javanese. The Philippine islanders from the leaves make mats, from the sap both sugar and a distilled spirit, from the pith a sago, from the seeds rosaries, and the spines, boiled in water, yield a thread from which a coarse cloth is woven, called sycopang.—Crawford, Dict. p. 276.

BURI. HIND. Vitis Indica; Symplocos spicata.

BURIAL CUSTOMS. In the south and east of Asia, the modes of disposing of their dead are almost as varied as are the races themselves. It has been remarked that the mode of disposing of the dead has from the earliest times been symbolical of the opinions as to the worth of the deceased while he was amongst them, or indicative of their views as to the future condition of the departed. In general there has been little display over the remains of women; but whether with men or women, the prevailing habit has been to convey the remains to some quiet resting-place with a decorous solemnity, and there erect some lasting memorial over them. With some races, however, even to the present day, the departure of a friend or relative is regarded joyfully, and the procession to the place of final disposal is quite joyous; while other races even cast out their dead, and allow the remains to be treated with indignity. But the anxiety of the generality of nations has been to perpetuate the memory of the departed; and everywhere are to be seen sepulchral monuments raised with that object. Many of these exist from prehistoric times, and often form the sole remaining history of the races who erected them. At the present day, monuments erected
with brick or stone, and in the form of pillars or upright or horizontal slabs of stone, or cupsulas, or domes, or sarcophagi, beneath which the remains are laid, are usual modes of marking the deceased's resting-place. But in more primitive times, the cairn or heap of stones, the monolith, the cromlech, the circle, the heaped-up barrow of the Celtic tribes, the tumulus, as the Romans called it, were usually resorted to, and many of these are to be seen in the south and east of Asia.

The cairn was formed of stones gathered from the vicinity, and set round about the resting-place of the dead and piled over them; and this is all that is given to the Mahomedan pilgrim who falls in the desert. The monolith or single stone was usually placed perpendicularly near the spot. The cromlech, consisting of two, three, or more upright stones, with a flat stone placed over them, formed a sepulchral chamber, and was the earliest approach to the cupula or dome. The circle, or enclosure of upright stones set singly at varying spaces apart, are found surrounding the cromlech or cairn. The barrow, or tumulus, often raised to a considerable height, and covering a large area, is the most noble, and has been the most enduring; and with these the bodies of the departed were not interred in graves sunk below the surface, but were placed on the surface of the ground, and then the earth was heaped up. The barrows, many of which have been opened, are found sometimes to contain skeletons, in other cases urns only, while occasionally both urns and skeletons, or urns and ashes, appear together. The urns are often found to contain burnt bones and relics; but in the earliest barrows are war weapons, such as stone hatchets and hammers, celts of the same material, both arrow-heads and spear-heads of flint, with beads of various substances, and torques and armlets of gold or bronze. Somewhat later, the celts and weapons are of bronze, and the sword is found to have been broken, indicative that the warrior's race had been run. The ornaments remain the same, and coins are found.

The methods adopted for the disposal of the dead from the most ancient times have been interment, burning, embalming, launching into rivers, and exposure. Of all these the first seems to have been the most general and primitive. Cremation is undoubtedly very ancient, for king Saul was burnt, and his bones afterwards buried; and Asa was burnt in the bed which he made for himself, filled with sweet odours and various kinds of spices. In Egypt the practice of embalming obtained from their earliest history, but the practice was confined to that country, and arose from its people holding it unlawful to expose the remains to fire or animals, or to place them beneath the earth. The vast catacombs still remaining on the banks of the Nile were the common receptacle for the general population who could not afford a separate tomb.

Over the ruins at Nimrud, Mr. Layard discovered ancient tombs, of a race unknown, and of which he could not assign any date. Many of the vases, necklaces, and ornaments obtained there have a resemblance to those of the Egyptian tombs. Two or three purely Assyrian cylinders were also discovered in the tombs. Mr. Layard considers that the mode of burial which is there evidenced, more nearly resembles that adopted by the early Persians. Cyrus and Darius were buried in sarcophagi in troughs. The Egyptian alabaster πνεκά, or tub, in which Darius was buried, is mentioned by Theophrastus. The Assyrians, like the early Persians, may have buried their dead entire, and preserved the bodies in honey or wax (Herod. lib. i. c. 140, Arian de Bello, Alex. Theop. de Lapid. c. xxv). According to Eliaen, when Xerxes opened the tomb of Belus, he found the body in a coffin filled nearly to the brim with oil. Mr. Layard infers that these tombs belonged to an intermediate people or race who occupied Assyria after the building of the most ancient palaces, and before the foundation of the most recent.

In British India, and in all the south and east of Asia, interment, cremation, and exposure are all practised by one or other of the races occupying it. In Java, in the Archipelago, seems to have been people from the funeral cairns of the same race, and these people have three modes of disposing of the body of a deceased person. By fire, termed obong; by water, termed larung; or by exposing it upright against a tree in a forest, where it is left to decay, termed setra. When the body of a chief or person of consequence is burnt, it is usual to preserve the ashes, and to deposit them in a chandi or tomb.

The Ninevites, in all their various monuments, have left us no trace of their ideas concerning the dead, while the sepulchral urns obtained in Babylonia contain the remains of the dead, with jars and utensils for food and water made of baked clay, and with remains of date stones, the head of the dead reverently laid on a sun-dried brick as a pillow. Amongst the urns found on the plain of Buxireh each had a pointed end, and at its mouth a bowl or basin without bottom; not united to the main part by means of agglutination, but very closely fitted, and supported in its place by the general bed of earth. These urns lay horizontally, not parallel with each other, but on a straight line, and in the direction of east and west. In one urn was a quantity of sand, with the bones of a full-grown person, completely filled, and very heavy. The skull was placed about the middle or widest part, not in the basin, which contained only sand. Of this urn the greatest circumference was 2 feet 9 inches, its length 3 feet 4 inches, including the bowl or basin, which separately was nearly 8 inches. The urns, made of clay, are about 1-3d of an inch thick, and solid at the pointed end, but the bowls without bottoms. The insides had evidently been coated with some bituminous substance; but the urns nowhere exhibited inscriptions nor any other mark by which their degrees of antiquity might be ascertained. The sepulchral urns of the Chaldaens were of clay, some of them shaped like a dish cover, the head being placed on a pillow of sun-dried brick, and jars and utensils for food and water. There were also jar coffins, and they seem to have been interred in artificial mounds.

Their ancient tombs, rare in Assyria and Upper Babylonia, are chiefly in Chaldea proper; and the Rev. G. Rawlinson (i. 107) suggests that the dead may have been conveyed to the sacred land of Chaldea, similarly as the Persians even now send their dead to Karbila and Meshid Ali, and as the Hindus from remote India send the bones, or the entire bodies, to the Ganges at
BURIAL CUSTOMS.

Benares. There, Chagla or Challakada, near Sookagar, is an abyss said to have been made by the chariot wheel of Bhagirath. The place is a great Golgotha, where the dead and dying are brought from a great way off to be burnt and consigned to the Ganges. The deceased is seldom conveys by any of his relations, unless from a short distance. Poor people generally send forward their dead for incineration in charge of bearers, who never betray the trust reposed in them.

The Romans generally burned, but they sometimes buried their dead; and children who died in infancy were interred in the immediate neighborhood of their former homes. Their sepulchral urns, with the ashes of the dead, were commonly buried about two feet below the surface, and their memorial stones were often inscribed. They used the sarcoephagus, or massive stone-coffin, and also the tumulus or barrow. They bore their dead with much lamentation to the funeral pile, on which, after being lighted, they cast the robes and arms of the deceased, as well as the slaughtered bodies of their favourite animals.

The ancient Greeks, in laying out their dead, always placed an obulus or Greek coin in the mouth, to pay Charon's fare across the rivers Styx and Achelon, and a cake made of flour and honey to appease Cerberus. Amongst them men cut off their hair when they attained the age of puberty, and dedicated it to some deity. These is said to have repaired to Delphi to perform this ceremony, and to have consecrated his shorn locks to Apollo. After this it was again allowed to grow long, and only cut off as a sign of mourning. Thus at the funeral of Patroclus (IIiad, xxiii.) the friends of Achilles cut off their hair, and

'On the corse their scattered locks they throw.'

In some parts of Greece, however, it was customary to wear the hair short, and to allow it (Cassandr. 973) to grow long when in mourning.

'Neglected hair shall now luxurious grow,
And by its length their bitter passion show.'

In Luristan, the female relatives, on the death of their male relatives, cut off their hair, and hang the locks around the tomb. The young women and young men of the island of Delos cut off a lock of hair before marriage, and place it near the tomb of the virgins from the Hyperboreans.

Barrows or mounds of earth have been largely used by the nations of Central Asia, from the Mediterranean to the Pacific Ocean, both in ancient times and now. The king of Ai, slain by Joshua (Josh. vii. 26, viii. 29), was placed at the entrance of the city, and over his body was raised a great heap of stones. Herodotus mentions that the barrow of Alyattes, king of Lydia, was 1300 feet broad, and nearly a mile in circumference, and it has been identified by modern travellers. Barrows were the favourite memorial of the Teutonic race, some of them very large; but the Saxons used also cists or stone coffins. The custom of raising tumuli over the remains of the mighty dead, seems to have been prevalent in the Central Asiatic region from the most ancient times and been taken into Scandinavia. Ezekiel, xxvii. 27, describes the practice of slaying persons and interring them with their dead chief. Herodotus also describes the barrow burial of the Scythians; and to the present day, in the region of the Kar Karella, and in many other parts of the steppe occupied by the Kirghiz, are to be seen numerous tumuli of great size. Herodotus tells us that when a king died, his corpse, embalmed and covered with wax, was conveyed in a chariot in solemn state to the place of sepulture; a large quadrangular pit was dug; in this they placed the royal corpse on a mattress of straw; on each side of this they planted spears, and covered it with wood, and roofed it over with hurdles of willow. In the remaining part of the pit they interred one of the late king's women, strangled for the purpose, together with his cupbearer, his cook, his groom, his minister, his courier, his horses, as well as some articles of every kind, including several goblets of gold, that he might be supposed to need in his journey to the other world. This done, the people eagerly contended with each other in the work of heaping over the whole a mound of earth as vast as possible. The proceedings did not here terminate; for the year following, fifty of the late king's confidential attendants, and fifty of his horses, were slain, and placed, the men on the horses, around his sepulchre.—Melp. 71, 72. When Chengiz Khan died, his remains were covered with a lofty mound, and extensive forests were planted to exclude the footsteps of man. Colonel Tod tells us that the tumulus, the cairn, or the pillar, are still raised over the Rajput who falls in battle; and throughout Rajwara sacrificial monuments are found, on which are seen, carved in relief, the warrior on his steed, armed at all points; his faithful wife (sati) beside him, denoting a sacrifice; and the sun and moon on either side, emblematic of the dying fame.—Tod's Rajasthan, i. p. 74. In Saurashtra, also amidst the Cadi, Comani, Balla, and others of Scythian descent, numbers of palia or joojar (sacrificial pillars) are conspicuous under the walls of every town, in lines, irregular groups, and circles. On each is displayed in rude relief the warrior, with the manner of his death, lance in hand, generally on horseback, though sometimes in his car; and on the coast the pirates of Buddha are depicted boarding from the shores.

In the Punjab, near Bambian, in Afghanistan, and near Kabul, the sepulchral monuments remaining of ancient times are topses. They consist of a mound, on which is erected a cupula, supported by walls of masonry, more or less in a Grecian style of architecture. One near Manikya is 80 feet high and 320 feet in circumference. In its centre were found vessels of gold, silver, and copper, with coins of Rome and the Bactrian Greeks. In a chamber 60 feet deep was a copper box containing animal remains. It is one of many topses or stupas.

Many cairns are found in different parts of Southern India, and, prior to the stupas or topses, this seems to have been a common mode of covering the dead. Indeed, as Colonel Cunningham marks, the tope is only a cairn regularly built. On the Neilgherry hills are found remains of cairns, cromlechs, kistvaens, and circles of upright loose stones, which are nearly identical with those found in Europe in the ancient seats of the Celts. In these cairns are found vases, cinerary urns, and other vessels of glazed pottery, which sometimes contain human bones, more or less charred, and mixed with ashes; sometimes a little
animal charcoal alone. They are met with in various districts in the Presidency of Bombay, in almost every part of the Dekhan and peninsular India, from Nagpur to Madura, in immense numbers on the Anamally hills, a range on the south side of the great Coimbatore gap, which forms the commencement and northern face of the Southern Ghats, those on the Anamally being of a more advanced order and a better condition than the Neighgerry tombs. Similar remains are found in Circassia and Russia, and circles of stones surrounding ancient graves are found on the south Arabian coast and in the Somali country in Africa. Major Congreve directed much attention to those on the Neighgerry Hills; and Captain Meadows Taylor discovered and examined a large number of these remains at Rajaun Kooloor, in Surpurr, and also at Sivari, near Firozabad, on the Bhima, and devoted much attention to the comparison of them with similar remains found in England. He calls them Scytho-Celtic or Scytho-Druuidical. Neither the hill people, the Toda and Kurubas, nor any Hindu, knows anything about the race to which these sepulchral remains belonged; and neither in Sanskrit literature nor in that of the Dravidian languages is there any tradition on the subject. The Tamul people generally call these cairns Pandu-kuri. Kuri means a pit or grave, and Pandu may refer to the Pandu or Pandava brothers, to whom so much of Hindu mythology relates. The race who raised these cairns were probably dwellers in the country prior to the advent of the present Dravidian occupants, and were expelled by or ultimately became absorbed in the latter; or they may have been a nomad shepherd race, who had wandered into India after it was peopled and settled, and then wandered out again, or became absorbed amongst the people of the country. But the remarkable fact connected with the people whose religious rites and usages of sepulture gave rise to these cairns, is that they have everywhere disappeared from Southern India, and not even a tradition of their existence survives.

In the centre of peninsular India, around Hyderabad, in the Dekhan, and at Bolanur, and at Secunderabad, there are many burial-places of that race, of whose existence nothing is known; and about 20 miles S.E. of Secunderabad is one great resting-place of the dead, a vast burial-ground extending over miles, which must have been the place of interment of a huge number of people, or used through many centuries. The mode of interment in all these has been to select a large stone, beneath which a winding tunnel or way had been excavated; and the remains of bones and urns, with weapons, are found deposited in a central cavity, a circle of large loose stones being drawn around, the circumference of some of these circles being between one and two hundred yards. The people whose tombs are thus represented were undoubtedly nomades dwelling in tents, for not far off are the remains of a great nomade city, consisting solely of walls, within which the tents must have been erected, for no stone nor earth heap nor mound remains within the same enclosure to indicate the former existence within of any building. The remains found within these cairns also leave the impression that, as with the barrow burials, the wives and servants were slain and interred along with the chief person; and the Hindu and Rajput practice of suttée (ato) would therefore seem to be merely a continuation of the ancient Scythic sepulchral rite of immolating the favourite wife, the servant, and the horse to accompany their master and serve him in the next world.

The Christian treatment of the dead is various; and in Europe, to this day, the indifference, not to say levity, of the Italians, in all relating to their dead, contrasts strangely with the tenderness and sentiment of the Germans, both Romanist and Protestant, as displayed in their cemeteries. In Naples, where are two cemeteries, with a pit for each day of the year, the humbler dead are stripped, and after a priest has read prayers over the bodies, they are all thrown into a hole by the cemetery assistants, amidst oaths and jocularity and laughter. The richer dead are stripped, placed in dry sand to be shrivelled up, and when dry they are dressed in their usual clothes, ticketed, and placed in a glass case. The German, for his part, the other hand, conveniently dispose of their dead, and preserve in neatness the grounds and tombs of their cemetery, which they call Gott's Aker, God's field, but after a few years the ground is re-ploughed to be refilled.

In Ceylon, formerly, after burning the bodies of the deceased kings of Kandy, their ashes were carried by a man in a black mask to the Mahawelli Ganga, where he embarked in a canoe. At the deepest part of the river he clove the vase with a sword, scattered the ashes on the stream, and, plunging headlong after them, dived, arose near the opposite bank, whence he fled to the forest, and was presumed to be never more seen. The canoe was allowed to drift away, the horse and elephants that accompanied the procession were set at liberty in the woods, and the women who had strewed rice over the remains were transported across the river and forbidden to return.

Several of the Hindu customs resemble practices mentioned in the Old Testament, as Jeremiah iv. 6: 'Now the lamentation men lamented for them, nor cut themselves.' For the Hindus, on the death of a relation, express their grief by loud lamentations, and not unfrequently, in an agony of grief, bruise themselves with whatever they can lay hold of. Ezekiel xlv. 25: 'They shall come at no dead person to defile themselves,' and touching the dead defiles a Hindu, who must bathe to become clean again. Job xxvii. 19: 'The rich man shall lie down, but shall not be gathered,' i.e., his soul shall be left in a wandering state; and Hindus believe that persons for whom funeral rites have not been performed, wander as ghosts and find no rest. Jeremiah xxxiv. 5: 'So shall they burn their dead, their sorrows for thee.' Scented wood and other odiferous substances are placed upon the funeral pile of a rich Hindu, and burnt with the body. Matthew ii. 18: 'Rachel weeping for her children, and would not be comforted, because they are not.' The lamentations of a Hindu mother over her child are very loud and piercing; it is, indeed, almost impossible to conceive of a scene more truly heartrending than that of a whole town of such mothers wailing over their massacred children.

In Roma there was there a voice heard, lamentation, and weeping, and great mourning.

Rajendra Lal Mitra, writing on the funeral ceremonies of the ancient Hindus, says the first ceremony was the removal of the dead from the
house to the burning ground, and this was done on a cart, drawn by two bullocks, or by aged slaves. The procession was headed by the eldest of the party, and included an old black cow. The animal was sacrificed at the burning ground, and its fat, flesh, and organs were placed on the corpse, which was subsequently enveloped in the raw hide of the animal. The wife of the dead was made to lie by the corpse, and was thence removed by a younger brother, a fellow-disciple, or a servant of the dead, who offered to marry her. The ceremony of burying the bones was performed on the 3d, 5th, or 7th day; and on the 10th day the mourners assembled together, and, after certain oblations, offerings, and prayers, raised a circle of stones, and then retired to the house of the chief mourner to feast on kid's flesh and barley.

As a rule now, the dead of Vaishnava Hindus are burned. As death draws near, a lamp is lit at the bed-head, and a 'homa' sacrifice performed with camphor and coconut; and as life dies out, the five elements of the cow are dropped into the mouth of the moribund from a tuli leaf. Within two or three hours the body is lifted, and this is done early, as none of the household nor any of the neighbours can partake of food until the remains be disposed of. The pile of wood or cow-dung cakes used is about two feet high, and on it are placed some tuli leaves, a little sandalwood, and the deceased is laid with his feet to the north. When laid on the pile, a cloth is placed over the face, and raw rice is placed on it over the mouth. The heir of the deceased places a charred bit of sandal-wood or a tuli branch at each corner of the pile, and a Vityan sets fire to the mat, using fire taken from the sacred fire lit at the bedside of the dying man. On the following day the heir and friends visit the pile, remove the skull and the bones, on which he and all with him pour water and wash them,—wash them with the siki, anoint them with oil and honey, and clean them with milk, and place them all on plantain leaves anointed with butter. A young coconut shoot is then placed on the skull, and the whole put into an unburned earthen pot, and taken or sent to a river—7th day—and the person who conveyed it returning to the temple, where he pronounces aloud the deceased's name, and adds, 'Pray for him.' Often they are sent to a holy river, even to the Ganges at Benares. The men relatives shave. The hair of the Brahman widow's head is shaved. The body is not always carried through the doorway of the house. If it be an inauspicious day, or if the house door be so placed that the courtyard has to be crossed, then the remains are carried through an opening broken in the wall. Captain Butler, writing of the Hindus of Assam (Travels, p. 228), says if a man die inside a house, no Hindu can eat in it afterwards, or reside in it, as it has become impure; it is generally pulled down and burned, and a new house erected on the same spot. All Assamese, who are carried by the current are brought out to die in the open air on the bare ground, that building may be preserved, and also to ensure the happier liberation of the spirit from the body. The remains of Hindus are unclothed for the last rites.

Children under eight years of age and unmarried girls are buried, as also are all who die of smallpox, as the belief is that this ailment is a manifestation of the presence of the goddess Ammun, Mariatha, Mariammam, or Kali, and the anger of the goddess would revert on the family if burned. The dead from cholera are similarly buried.

In the mode of disposing of the dead, the wish expressed by the deceased is attended to. Vedantists all bury; also all the Gosi, all the Lingaat or Vira Saiva, the five artisan castes, the Kansala, goldsmith, carpenter, ironsmith, brazier, and stone-cutter, all the Byragi and Sanshanks, and the guests of the sects, the Pandarams, and the Kashi, likewise all the non-Aryan races and tribes not admitted into Hinduism. The dead of the Vedantist sect, and those of the Lingaat and artisans, are placed seated, the last in a grave five feet square, with a ledge on the south.

As the artisan's life becomes extinct, the body is made to assume the attitude to be preserved in the procession and in the grave. It is placed against a wall, the legs are crossed underneath in the usual sitting attitude, and the head is fastened to a nail driven into the wall, and so retained till rigidity ensue. They are borne to the grave in a car, on the shoulders of relatives or friends. On reaching the burial-place, the Oodwan reads prayers, and the body is seated on the side ledge with its face looking northwards; salt and ashes of cow-dung are placed on the head.

Amongst the Aryan Hindus, the great bulk believe in spirits and worship them; their worship of ancestors, 'piti,' is continuous; they also believe in demons and evil spirits; transmigration through clean and unclean animals is a point of faith, and a great majority regard the soul as an emanation from the Deity, and look to re-absorption and annihilation as the point of attainment for the good. Many of these are Buddhist views.

Hindus of Sind are not allowed to die in bed, otherwise one of the males of the family who has attended upon the deceased becomes in a state of impurity, and must visit some well-known place of pilgrimage, as the Dhara Tirth, the Narayan-Sar in Kutch, etc. When near death, the sick person is placed on a spot smeared with cow-dung (Chanko, Lepan, or Foto), and when in the last agony, the five sacred elements are poured into the dying person's mouth.

The Mahomedan, when about to die, has his spirit calmed by the 'Yasin' chapter of the Koran being read to him, and is either washed (Ghassal) at his own house, or taken, within a few hours, to a Ghassalkhana, especially built for the purpose, near the cemetery, and where men or women washers perform the duty, and then put on burial clothes and apply camphor and antimony. The body is conveyed in a box with much solemnity, with wreaths of flowers and perfumes laid over the covering; the coffin is carried on men's shoulders, and from time to time is heard the Tyeb part of the Mahomedan creed: 'There is no deity but God, and Mahomed is the prophet of God;' and on reaching the grave, funeral service is read, consisting of the four portions of their deity (Takbeer), and a blessing (Dua) is asked, which all present repeat. After the Fatih, the body is lifted from the coffin and gently lowered into the grave, laid with the head to the north and feet to the south, and turned on its side with the face towards Mecca. Each person then takes a little earth, and, repeating the words in chap. 112 of the Koran, 'We created you of earth and
we return to earth, and we shall raise you out of the earth on the day of resurrection," he puts the earth gently into the grave. The body is then protected with wood and covered in. The Fattha is again repeated, and again at the door of the cemetery, and at this juncture two angels, Moonkir and Nikir, approach the dead, make him sit up, and inquire who his God and prophet are, and what his religion is. If he has been a good man, his pleasures are satisfied, and odours from paradise are diffused around the departed; but if bad, he is bewildered, and these angels torture him. They believe that the dead continue in a conscious state, and dogs and horses or other polluting animals are not allowed within the cemetery; women, also, do not enter, lest the repose of the dead be disturbed. Mahomedans do not speak of a person as dead,—they say he has passed away, has taken his departure; and the living all believe in, and hope for, resurrection in a future state: 'They who believe and do that which is right, shall enjoy blessedness, and partake of a happy resurrection. . . . Paradise. . . . is watered by rivers; its food is perpetual, and its shade also; this shall be the reward of those who fear God' (Koran, ch. xiii.). 'Therein are rivers of uncorruptible water; the rivers of milk, the taste whereof changeth not; and rivers of wine pleasant unto those who drink; and rivers of clarified honey; and therein shall they have plenty of all kinds of fruits, and pardon from their Lord' (ch. xlvii.). 'There shall be gardens with shady trees; with fountains flowing, couches of silk interwoven with gold; beauteous damsels with black eyes lying on green cushions, and beautiful carpets, fruits, palm trees and pomegranates' (ch. lv.)

The monuments over Mahomedan tombs have usually been of earth, or of unbaked brick; but every material, and of the most enduring kind, is employed, and the names are sometimes engraved on the tombstones. The tombstone of a man is distinguished by a raised part in the centre, and that of a woman by a depression. In Turkey, a pillar with the carved figure of a turban distingushes the grave of a man. The prevalent form in India of Mahomedan tombstones of the rich is a dark or black tombstone, with verses of the Koran engraved on it, and covered by a cupola. Some of these domes are very magnificent. Those of the Adal of Phul dynasty at Bijapur and Gogi have attracted much attention, as also have those of the Bahmani dynasty at Bulbulagama and Kutub Shahi dynasty at Golconda. The cupolas at Roza where Aurangzeb is buried have not any display, and that of Aurangzeb is the least ostentations. His daughter's tomb at Aurangabad is large, and many of the tombs at Delhi and Agra are great structures. That of Mumtaz Begum, known as the Taj Mahal, is particularly remarkable. Reformers amongst the Mahomedans consider that unbaked brick or earth should alone be used.

The Christian doctrine that man, in all that he can do of good, is still without merit, is not shared in by any of the Mahomedan, Buddhist, or Hindu sects, who all consider that a personal merit is gained by their good doing; and a Mahomedan passing a funeral of a Mahomedan, turns with it a short way, and lends his shoulder to convey the body to the grave, to bring a merit on himself.

The Parsee or Zoroastrian race are to be found scattered from Hong-Kong in the east to Great Britain in the west, a small but intellectual remnant of the once great Median nation. A considerable body of them dwell in Bombay, in Gujerat, and the western towns of India. Their sick are never allowed to expire on a bed. When the moment of passing away is near, the sick person is removed to the ground, and bathed and washed. The reasons alleged for his removal are various; but the one ordinarily accepted amongst them is that a dead body is an unclean thing, necessitating that all who touch it shall destroy their clothes, and whatever is touched by it must be destroyed. For these reasons, the dead, in Bombay, are carried by a class of Parsees called 'Nessus salar,'—Nessus meaning unclean (Najis, Pers.). These men, clothed in white, carry the remains to the Dokhma, or tower of silence, and lay the body on its raised upper floor. The Dokhma is without any roof covering; is open to the sky, so that birds of prey, vultures, kites, have the freest approach. The raised floor has a deep well, surrounded by a raised platform, with channels converging to a well. The corpse is laid on a partition of the platform, and the decomposing matters flow along the channels into the well. When the well is full, the bones are removed and buried outside the Dokhma. The fire-priests are paid to pray for the dead, monthly, for a year, and throughout the first anniversary of the demise. After the demise, and before the removal of the body, a dog is brought near to gaze on the departed. This is the 'Sag-did' or dog-gaze, and, by one account, is said to be had recourse to with the object of ascertaining, from the dog's movements, the state of the soul of the departed; by another account, it is practised from the belief that the dog is a naturally chaste animal, and the view of the chaste dog falling on the dead will expedite the translation of the soul to heaven across the Chigvan bridge. See Bridge.

The non-Aryan and non-Hindu races of British India are estimated at about 20 million souls, but, except the great Gond nation, and the Kol, the Bihil, and the southern Shanars, most of them are in small tribes, and many are occupying forests and mountain fastnesses, or are dwelling on the outskirts of towns. They in general bury their dead.

The Sourah of the hill ranges of the Circars, mostly those hills near Chicaene, near Kalahanda, and southwards as far as Bradachellum, bury their dead with their weapons.

The Chenchwarc race, farther south, in the forests of the Nalla-Mallai, bury their dead and sometimes burn, and, like the Tartar races, they carry the deceased's weapons to the grave.

The Kuki race of Assam, up to the middle of the 19th century, continued to make inroads on the plains, not for plunder, but to secure heads, and they have been known to carry off fifty heads in a night. On the death of a chief, the body is smoke-dried, and kept for two months with the family. If a raja fall in battle, they immediately proceed on a head-hunting expedition, and bring in the heads of those they kill, hold feastsings and dancings, and, after cutting the heads into pieces, send a portion to each village. This is considered in the light of a sacrifice to the manes of the deceased.

The Khansya hill race, 4000 to 6000 feet above
BURIAL CUSTOMS.

the level of the sea, inter their dead on the un-
dulay eminences of the country. These are
dotted with groups of huge unpainted squared
pillars and tabular slabs, supported on three or
four rude piers. Menhir are there; one of them
was seen 50 feet out of the ground, 6 feet broad,
and 24 feet thick, and in front of each is a dolmen
or cromlech of proportionately gigantic pieces of
rock.

In Tibet there are four modes of disposing of
the dead, viz. incineration, throwing into the
rivers and lakes, exposure on the summits,
and cutting the dead bodies and giving them
to the dogs to eat, which is the most flattering
of all. The dogs of the environs devour the poor,
but for the rich there are establishments with dogs

In Tibet, the sovereign Lamas are deposited
entire in shrines prepared for their remains, which
are ever afterwards regarded as sacred, and visited
with religious awe. The bodies of the inferior
Lamas are usually burnt, and their ashes preserved
in little metallic idols, to which places are assigned
in their sacred cabinets. Ordinary persons are
treated with less ceremony. Some are carried to
lofty eminences, where they are left to be devoured
by ravens, kites, and other carnivorous animals.
But they also have places surrounded by walls
where the dead are placed.

*Mongols* sometimes bury their dead; often
they leave them exposed in their coffins, or cover them
with stones, paying regard to the sign under which
the deceased was born, his age, the day and hour
of his death, which determine the mode in which
he is to be interred. For this purpose they con-
sult some books, which are explained to them by
the Lamas. Sometimes they burn the corpse, or
leave it exposed to the birds and wild beasts.
Children who die suddenly are left by their
parents on the road.—Tůmkow's *Pekin*, ii. p. 312.

In Spiti, in the N.W. Himalaya, when a person
dies, the body is sometimes buried, or burnt, or
thrown into the river, or cut into small pieces and
burnt. Admonitions are made over the body to the
departed spirit, such as, 'Do not trouble yourself,
you cannot enter it (meaning the dead body); in
summer it quickly becomes corrupt, in winter it
freezes and is too cold for you.'

Amongst the Buddhist Burmese, whose religion
teaches them to look on death as a release from
the cares and troubles of the world, as a possible
cessation of transmigrations and the longed-for
arrival of annihilation, the cremation of the remains
of friends, relatives, and teachers, is not seasons
of grief; the spectators are often able to look on
with joy. The Rev. Mr. Marks went to see a sick
pupil, whose mother met him at the door.
To Mr. Marks' inquiry as to her child's state, she
replied, 'He is well, he is well,' and skipping, half
joyfully, half hysterically, before him, led him to
an inner room, where the pupil lay dead, but the
bereaved mother, full of faith, was still able to
say, 'He is well.' The remains of holy men, the
phoungye, are not soon removed. Their bodies
are placed in honey, sometimes for a year or more.
One at a phoungye house in Kommendine, adjoining
the Vivian, which was kept in honey for a year, and then removed.

In the process of embalming, the body is placed in honey for
a few weeks, the intestines are then removed, and
replaced by spices, and the body is encased in a
sheathing of wax, which is coated with lac, and
this gilded with gold-leaf. The body is then left
to dry on a staging, under a white umbrella, and
finally the coffin is placed on a model of a kneeling
elephant, made of wood and paper. On the day
appointed for the funeral of the priest, a great
crowd assembled, and, with two ropes attached to
the car, one part of the multitude pulled it towards
the place of cremation, another pulled against
them, and, with shouting and laughter, drumming
and uproar, the remains at length reached the
burning place and were burned. Looking quietly
at the opposing multitudes, their antagonism seemed
a representation of some ancient idea of good and
bad spirits as fighting for the dead. But the object
of this struggling to draw the car onwards and to
retard it is unknown.

In September 1870, the remains of the queen-
mother of Burma were burned between the inner
and outer walls of the palace, to the north of the
main entrance. A large space was enclosed by a
fence or yazamat, in the centre of which the
burning took place. Inside and outside of this,
numerous temporary sheds were run up for the
princes, queens, ministers, etc. Above, where
the fire was to be placed, a lofty structure
of bamboo was erected; this was covered
with white cloth. The body of the late queen-
mother was laid out in state in one of the pavilions
to the south side of the palace, the gardens being
for the time open to all. The troops were under
arms in the great square and other parts of the palace
open to the public, a large space in front of the
enclosure being kept clear for the king and his
retinue. About 10 A.M., the first of the procession
accompanying the coffin appeared at the inner
gate of the palace, and slowly marched towards
the pyre, all taking up their respective positions
with order and regularity. Save the troops, all
taking part were in white; but the numerous
muffled palanquins, gold umbrellas, together with
the splendid bier, with the white umbrellas joined
to the green coats, red and gilt headpieces of the
troops, with the numerous elephants, gaudily
trapped, placed here and there, made the scene
barbarously splendid. Following or preceding
the bier were the princes and princesses, the
queens with the Pakan Meng, the late king. He and
the first queen, whose mother the deceased was,
waked in front of the bier. About a quarter to
eleven the great inner gates were again thrown
open for the exit of the king and retinue. The
king was seated in a large gilded palanquin,
borne on the shoulders of some 40 or 50 men,
and was accompanied by four of his daughters
and one son, all young. He, like all the others,
was dressed entirely in white. Advancing up to
about ten yards from the front of the enclosure,
the palanquin was halted, the retinue and guards
filing off right and left, and forming a large hollow
square. Prayers were said by several phoungye,
the king gave directions as to the exact minute at
which the cremation was to commence, the bearers
turned round, the procession was re-formed, and
moved inside the great gates, which were again
partially closed, while drums, tom-toms, and
cymbals were beaten, and trumpets (?) sounded.

The retinue, the princes, Pakan Meng, etc. etc.
returned to the palace, shortly after the cremation
was completed, in the same order as they came out. The coffin was
overlaid with gold to the extent of 75 viss, which was afterwards distributed among the priests; or to be applied to the building of a pagoda. Charcoal was employed at the burning of the body, and was kept at a red heat by numerous bellows placed all round. The whole of the body with the exception of a small part of the back of the skull was reduced to ashes, or at least consumed on the fire. This small piece, little bigger than a rupee, was placed in a gold cup closed by a lid studded with rubies, while the remains of the charcoal and ashes were placed in earthenware vessels to be carried to the river. The gold cup was confided to an official, who took his place in the hearse. Having arrived at the river bank, those deputies for the purpose entered two gilded boats lashed together, but a little apart, which were rowed out into the centre of the stream. Here a halt was made. The bearer of the gold cup, with it rolled up in his putzoe, jumped into the water, and while he was underneath let it go. At the same time the jars of ashes had their contents poured into the stream, the man was picked up, and there was an end of the ceremony.

On the death of a Burmese, the body is washed, the two thumbs are tied together, a piece of gold or silver money is put in the mouth, as Kadoakah or ferry toll, and after a day or two placed in a coffin. The body is then taken to the burying-ground, halting from time to time to sing and dance, keeping time to the song. The tsandala or grave diggers place the coffin on the funeral pile. Persons dying of cholera, smallpox, and the young under 15 years of age are buried; 7 days after the funeral, the lep-bya or soul of the deceased is released from the house by the house Nat.

Karen relatives, after burying the body, collect the bones, and, at an annual festival, the bones of all who have died are carried and interred in a consecrated Agoi Tongh or hill of bones.

In Siam, the poor are buried or exposed to beasts of prey; if above the lowest class, the deceased, after the bowels have been extracted, is laid in a wooden coffin, externally heaved and gilt, and this is placed for some days on a high table. In the meantime the priests light up tapers, burn perfumes under the coffin, and chant funeral hymns at night. A procession of relatives and friends dressed in white and covered with white veils follow the corpse. Beside it are borne figures of various animals or singularly-shaped monsters carved out of bamboo, and the accompanying talapoons exclaim, ‘We must all die, we are all mortal.’ The mourners attest their sorrow by their tears, and often hire women for the express purpose. The body is then taken from the coffin and placed naked on the pile, which is set fire to, and the remains are scorched. The body is then replaced in the coffin and deposited under one of the pyramids erected about the temple. Graves are held sacred among the Siamese, and their violation is considered a heinous offence. They refuse the honour of burning to persons killed by accident, by lightning, to the still-born, to those who die in childbirth or from smallpox, and to suicides. The remains of such are either thrown into the water, or exposed to beasts of prey.

With the Chinese, when life has departed, the dead body is arrayed in robes of state, or in most costly apparel; ablutions are not performed, nor any unnecessary handling of the body suffered. White is the sign of mourning. The Chinese worship the spirits of the dead, and, amongst that nation, the desire to have a good coffin is universal. Many purchase for themselves that last tenement, and keep it by them, and it is usually substantial, of metal or wood. In Burma, where many Chinese are settled, the best block of teak is selected, and the upper portion being cut off to form a lid, the block is hallowed and ornamented. These may be seen in Moulmein in every carpenter’s shop.

In China, the coffin-makers’ shops have a very gay instead of a lugubrious appearance, as the coffins are usually painted red, or some equally bright colour, and the more expensive ones are decorated profusely with gilding; these coffins are placed on shelves one above the other, and the prices vary from one dollar up to four or five hundred. The funeral customs of China vary in the different districts. In Fo-Kien, the body is placed in a coffin soon after death, a fan is placed in the hand, a piece of silver in the mouth, and an opening is sometimes made in the roof for the spirit to effect its exit. The tombs are on the hillsides, where lucky spots are chosen by geomancers. Paper images of clothes, horses, and other luxuries are cast into the grave, and a sacrifice of cooked provisions is offered on the day of the funeral. Every year, in the month of April, the whole population enters into the tomb, the company of ancestors, sacrifice at the tombs of their relatives, weeping near the graves, and burning fictitious paper money, making offerings of meat, fruit, cakes. Sackcloth is the material for mourning.

Most of the Chinese cemeteries have a sacrificial temple, to which are attached extensive suites of rooms for the reception of the coffins of the richer members, pending transmission to their native districts, for Chinamen prize the privilege of being interred near their forefathers. The Chinese coffin is of good wood, and ponderous. The lid is morticed on, and carefully closed, all joints cemented so as to prevent all entrance or exit of air. Only a small aperture is drilled through the lid over the face, so as to allow the entrance or exit of the spirit at its option. Sometimes a humble family will keep the coffin for many months in their house till able to purchase a tomb, but the very poor are buried in mass within enclosed buildings. The rite of respectful burial is however so revered, that burial clubs exist in all the large cities. The monumental tombs are small raised truncated cylinders. The tombs of opulent Chinese are decorated with statues of men and horses. They run into excess in mourning for the death of near relations. Every part of the ceremonial is exactly regulated; even the period, manner, and degree of the mourners’ grief being duly prescribed. The corpse being dressed in warm clothes, and deposited in a substantial coffin, is kept for several days above ground, whilst the survivors express their measured grief by gesture, dishevelled hair, sackcloth, and mournful silence. When a lucky spot has been selected for the grave, the corpse is consigned to the earth. Building a tomb in the form of a horse-shoe, they inscribe thereon the name of the deceased, erect a tablet to his memory in the hall of his ancestors, and repair annually to the grave, in order to prostrate themselves before the mummies.
BURMA.

Comparative Grammar; The Koran; Madras Journal of Literature and Science; Timkovski’s Journey to Pekin, ii. p. 212; Burton’s Scinde; Butler’s Travels; Forbes, 277; Rawlinson.

BURIGOPAN.  Beng. Dipteracanthus decius.

BURI MAE.  Hind. Tamarix Indica.

BURJ.  Pers. A bastion, a fort. Buruj, the plural, is applied to the signs of the zodiac, in order, as Masudi says, to mark the position of the stars with reference to these fixed objects. The word burj is widely diffused. In Gothic Bairgan, and Saxon Beorgan, to fortify; Thracian Bria, a city (Strabo, viii.); German Burg, a city; and English Borough, Burgh, and Burty, so frequently the affix of the names of towns. All places in Britain that in the old time had the name of Bouroughs, were places one way or other fenced or fortified. The Greek Purg-oas is evidently the same word, signifying a tower, and hence applied also to a dice-box.—Mitteret in pyrgum tales (Hor. Sat. ii. 7, 17). It enters commonly into the name of fortified towns,—one in Myisia (Anabasis, vii. 8, 8); in Thrace (Herod. vii. 112).—Eliot, Supplemental Glossary; Restitution of Decayed Intelligence, ch. vii.


BURJA.  Tel. Hymenocytium excelsum.

BURKA.  Arab. A veil, a woman’s face veil; also a door curtain, and the curtain which is suspended over the entrance of the Kaba.

BURKUK, Khubani, Mishmish, Bakur-Khanee, Hind., vars. of Armeniaca vulgaris; the apicot.

BURMA, as now known to Europe, was formerly the site of four kingdoms, viz. Arakan, Tha-hun, Martaban, and Pegu. It is still subject to two dominions, being partly a British province and partly under a Burmese ruler, the two portions being designated respectively British Burma and Independent Burma.

British Burma comprises territories conquered in the two wars of 1824–26 and 1852–55. The features of the country are of a varied character. The Yoma mountains and the Tenasserim range stand prominently to the view. On the Arakan coast is the Naf estuary; and there also are the Mru and Koladvyn or Arakan rivers. In the Pegu district are the Irawadi, the Hlaing or Rangoon rivers, the Pegu, Sittang, and Bihlen; in Tenasserim the Salwin and the river of Tavoy.

The British portion consists of the long strip of land lying between lat. 9° 55’ and 20° 50’ N., and long. 92° and 99° E., an area of 88,556 square miles, with a population in 1881 of 3,707,646. Arakan.—Males, 384,045; females, 257,963; total, 562,008, against a total of 484,363 in 1872, thus showing an increase of 77,645, or 16 per cent. Pegu.—Males, 1,249,346; females, 1,081,061; total, 2,330,407, against as 1,602,658 in 1872, or an increase of 688,349, or 42° 2 per cent. Tenasserim.—Males, 431,270; females, 380,548; total, 811,818, as against 600,727 in 1872, or an increase of 211,091, or 34° per cent. The totals for the entire province are—males, 1,984,661; females, 1,719,572; total, 3,707,606, as against 2,747,148 in 1872, showing an increase of 957,085, or 34° 8 per cent. Rangoon in 1872 contained a population of 98,745; it now contains 132,004, showing an increase of 33,259, or 36° 6 per cent. In 1872 the population of Moulmein was returned at 46,472.
In 1881 it was returned at 53,080, an increase of 14 per cent.

A treaty is said to have been entered into in 1757 between the Indian and Burmese Governments, and in 1755 Captain Michael Synes was sent as envoy to Ava; but from 1797 disputes regarding Arakan began, and fugitives into Chittagong were in 1780 dismembered from the British. On this Colonel Synes returned to Rangoon, where he was not treated with ordinary civility by the governor, and he left for Bengal in January 1803. After this, Captain Canning was sent on several occasions, the latter in 1809. On the first he was treated discourteously, but on the second with civility. In 1811 the Arakanese rebelled, and invaded Burmese territory; and in 1811 Captain Canning was again sent to mediate. Subsequently to that year the Burmese officers in Arakan more than once made demands for the surrender of Arakanese refugees, and even made pretensions to the sovereignty of Bengal as far as the city of Murshidabad, as territory pertaining to the kingdom of Arakan. In 1819 they interfered in Assam, and in 1824 they invaded Cachar. War was declared against Burma on the 5th March 1824, and, after two campaigns under Sir A. Campbell, a treaty of peace was signed at Yandabo on the 24th April 1825, on occasion parts of Assam, Arakan, and Tenasserim were ceded to the British. Subsequently, in 1851, in consequence of the Burmese refusing redress to a British shipowner whom they had injured at Rangoon, war was again declared, and was conducted successfully by General Godwin. Rangoon fell to a combined naval and military force on the 14th April 1852, and when peace was declared, all Pegu and Arakan were retained by the British.

British Burma may be geographically divided into five portions, viz., (1) Arakan, stretching from the Naf estuary, which separates the province from Chittagong, to Cape Negrais, and consisting of a comparatively narrow strip of country between the sea and a high mountain chain; (2) Pegu, the valley of the Irawadi, which, divided from the Sittang valley by the Pegu Yoma range, unites with it in its southern portion; to the northward is the chain of hills which forms the watershed between the Sittang and the Salwin rivers, and on the west the Anouk-pek-toung-nyeung, literally, the high western range of mountains, sometimes called the Arakan Yoma range; (3) the valley of the Salwin; and (4) Tenasserim, a narrow strip, like Arakan, reaching down to the Pakhan stream in 9° 2' N. lat., and separated from Siam by a lofty chain of hills running from north to south nearly parallel to the coast, at a distance of from 30 to 40 miles inland, but approaching nearer to the sea at its southern extremity; (5) The numerous islands off the Tenasserim coast, known as the Mergui Archipelago.

For administrative functions it is arranged as the Commissionerships of Arakan, Pegu, and Tenasserim, all under a Chief Commissioner since the 31st January 1862. The principal towns are — Rangoon, Mon, Mawlamyine, Prome, Basay, Akyab, Henzada, and Tavoy, with the military cantonments of Thayat-nyo and Toungoo. Some of the districts have a very scanty population; in 1872 only 6 to the square mile in the Mergui and Salwin districts, 7 in that of Ramree, 10, 14, 15, and 16 in those of Tavoy, Toungoo, Sanyaw, and Amherst respectively, and in Myan Onug, the most populous, 115. Of the entire population, 2,447,831 were of the Buddhist religion, 99,816 Mahomedans, 62,299 Christians, and 36,658 Hindus.

The country has long been known to the people of India as one of the Savarna Bhumis, which Europeans render the Golden Chersonese, and applied to the delta of the Irawadi. The Irawadi and Sitang valleys unite towards their mouth to form an extensive plain, stretching from Cape Negrais to Martaban. It is annually inundated, but is the most productive part of the whole province, and a canal connects the Pegu and Sitang rivers. The Irawadi is navigable for river steamers as far as Bhamo, 600 miles from the coast. The Hlaing or Rangoon river rises close to Prome, and, when passing Rangoon, it is joined by the Pegu and the Pu-zwon-doung rivers coming from the N.E. and the E. The two latter rivers rise close together in the Yoma range, about 58 miles above the town of Pegu, and they communicate by several channels with the principal delta branch of the Irawadi. The Salwin is a great river, but, owing to numerous rapids and rocks, it is navigable only by small boats 100 miles from its two mouths. Between Talifu and Mon, 600 miles due north of its mouth, it flows a rolling current in a shingle bed 140 yards wide. The Sitang river rises far north of British territory, and in the dry season is with difficulty navigated by any boats. Below Shwe-gyeng it receives the river of that name, and finally disembogues into the Gulf of Martaban.

The more prominent and dominant races have been the Mya-gna or Burmese, the Ra-kheng or Arakanese, and the Mon, Mun, or Taleng. The native name, Ma-ran-ma, Man-ma, whence the softened modern M'yan-ma, M'ya-ma, is the source of the European corruption Burma. The Arakan people are of the same race as the Burmese, and the territory was long under the Burmese rule. In the 16th century, Arakanese dominion extended to Chittagong and the Megna river, and the 17th century saw several adventurers from Europe. Sebastian Gonzares established himself at Sandiva (Sawdweep), and was for years a terror to the country, till crushed with the help of the Dutch. The Ramana or Ramanji territory was held by the Mon, Mun, or Taleng, whose districts were Tha-htun, Pegu, and Martaban. It was founded several hundred years B.C. by emigrants from Coromandel. Tha-htun is now ten miles from the sea-shore. It was the Soba Empire of Ptolemy. Pegu city was founded by emigrants from Tha-htun, A.D. 573, and Martaban three years later.

In Arakan and in the basin of the Irawadi are other tribes of the same stock with the Burman, and their languages are in their present form so much akin to it, that they may be almost considered as forming, with Burman, dialects of one tongue. The Burman is monosyllabic, and has no letter corresponding to f or v, and no hissing s. The Burmese language is spoken in Arakan, in the valleys of the Irawadi and Sitang, and in Tenasserim to the south of Tavoy.

The Burman people occupy the lower part of the basin of the Irawadi above Pegu, with the southern parts of the upper basin and the valley
the river beyond, as far as Ba-no. They are also found in the delta, but their progress there has been comparatively recent, and the prior inhabitants still form the greater majority.

Burma has the Tai or Shan on the east, the Malay on the south, Hindu and Mahomedan races on the west, and the Tartar and Chinese on the north. Within these boundaries are many tribes, with several synonyms, but nearly all may be referred to four great families,—the Mon or Talaiung, the Burman, the Karen, and the Shan.

A. Mon.

B. Burman, viz. Burman, Bakhui, Mug, Ksyanan, Tounguere, Tavoyer, Yau or Yo, Yebain, Pyu, Kado, Danu.

C. Karen—

a. Sgau tribes, viz. Sgau, Manu-nga-pha, Paku, We-ua.


c. Pwo tribes, viz. Pwo, Shong, Ka or Kay, Ta-ru or Ku-ta, Mo-pha, Ha-shwee, Toung-thu, Kyhin.

d. Shan Karen, viz. Yen or Yelm, Yen-seik, Ying-baw, Pandung, Toung-yo, Black Karen.

e. Miscellaneous tribes, viz. Ka-khyen or Kay-ku, Ka-mi or Ku-mi, Kyau, Kun, Sak, Mru, Shendu, Selung.

D. Shan Tribes, viz. Shan or Tai, Lao or Lau, Po or Wa, Paloung or Palco, and Phwon or Mwoon.

There are numerous Shan states far to the north-east, but they generally owe fealty to the Burmese monarch.

Burmans march on the north with rude tribes of their own family, collectively termed Singpho, who occupy the Upper Irawaddy. On the extreme north, the linguistic boundaries of the Singpho are unknown.

Lau, a wild tribe only known under the generic Lau, termed Kha-nung, occupy the mountains to the north-east of the Kham-ti, apparently in the upper part of the Mi-li or Nan-Kiu. They are interspersed between the Kham-ti and the Meng-fan, the latter appearing to belong to the Tibetan family (Singpho-Kham-pa). The Kha-nung may form a link between the Kham-pa and the Singpho or Burman families.

Shendu, Shindu or Shandu, occupy all the country watered by the Koladyn and Mee, as far down as the Sulla Kheoung, but north of the Sulla Kheoung they are not tributary to the British.

Kham villages are spread from below the Sulla Kheoung to Teinway; their villages are few, and they also pay no tribute to the British.

Kumi or Khiwa-mi occupy all the country watered by the Koladyn as far down as the Koladyn Thannah, also both banks of the Mee and Samee Kheoung, and both banks of the Pee and the Yeo as far as Khoong-choo, east and northeast of Koladyn, and the country watered by the Pee and Yeo west of the Koladyn. Mru villages are from Koladyn Thannah as far as Ralla, and eastward to Mahamone and Old Arakan south-east, and both banks of Myoo from Rasonong northwards. They do not exclusively occupy the whole of that tract of country, their villages being interspersed with those of the Arakannese: they are, correctly speaking, wild people rather than hill-people. Some families live with the Kumi on the lower part of the Mee and Pee streams, and also on the Yeo. They also inhabit the hills on both banks of the Myoo river in the western part of the district from Rasonong northwards to Sugarloaf hill. In this extreme north-west part of the district, there are some wild people called Mroony, living among the Mru, but there is no appreciable difference in their manners, customs, and appearance, from those of the Mru.

The Mroony live on the upper basin of the Mayu, and towards the hill frontier of Chittagong, are a colony imported from the Bodo country by the kings of Arakan, at the period when their conquests extended far up Eastern Bengal.

Kyen occupy the whole of the large hilly tract of country east of the river Semru, in fact, all the hills east of the district, and dividing it from Independent Burma and Khyouk Phyoo. They are the most numerous of the hill tribes. Some of their nearer villages pay tribute, but those more remote are independent. All the Kyen women tattoo their faces.

Anoe is a small hill tribe of four villages, living on the Paroon Kheoung, a little above Tulukmee. They differ little from the Kumi. All the tribes have separate clans, at constant warfare with each other.

Burma, Siam, and Tonkin received their first culture from India, along with Buddhism; and their ancient buildings all bear the stamp of Indian origin and Indian taste of a post-Christian age. Siam has in recent times added Chinese methods of improvement to the Indian ones, and Tonkin owes mainly from China.

About five-sixths of the population are Buddhists, the remainder Christians, Mahomedans, Hindus. Every Buddhist Burmese must once in his life enter a kyoung or monastery, even if only for a few days, as a monk. The procession to the monastery is gay, and he there undertakes the ten negation commandments, not to kill or steal or indulge in unlawful passion, nor speak falsely, nor drink intoxicating liquors, nor eat after midday, dance, sing, or play instrument, paint the face, stand in high places, or touch gold or silver.

The Burmese are of the Himayana sect of the followers of Buddha, whom they call Godama, and they have great figures of Godama in every pagoda. They believe in the presence of a spirit ’La’ in every animal, plant, or thing, and they adhere to a Lent, Wa, from the full moon (watao) of July to that of (tha-ding-ynot) October, and they have a rosary of 108 beads. The Leipa-lya, literally ‘butterfly,’ is the soul, the psyche of the Greeks, the life, the perceptive principle. They have spirits of kinds called Nat, and demons called Beloo; have witch-finders; and believe in astrology, the evil eye, and philtres.

Every Mon village has a Nat; and a Burmese king dying is said to ascend to the Nat village (Nat yna-than-thee). With all the dead, a piece of gold is put into the mouth as ferry toll, ka-do-ak. The great Shin-Dagong-Pa-yah pagoda was erected B.C. 585. Its height is 372 feet.

Besides the Wa or Lent, their religious annual festivals are the Ko-daw-la, or Beg-pardoun day; the Ta-wa-dein-tha, relating to the life of Buddha; and the Water Festival, Shin-oopa-ga, when little saucer-shaped lamps are consigned to the river at night. Their favourite religious story is the Way-than-da-ra, on the former existence of Buddha. Their everyday amusements are the poopy drama, the puppet or marionettes, 2 to 3 feet high, music,
boat, and horse racing, football, boxing, wrestling, gambling, cock-fighting. The country is wealthy, and their aversion to regular labour is extreme. Notwithstanding this, the total trade in 1870 amounted to £10,263,000, increased in 1880 to £22,222,000. The incidence of taxation on the population of 3,736,771 is Rs. 63 per head. So little is this felt, that every family in Burma on the average spends £12 yearly on jewellery and imported luxuries. Bullion to the extent of a million and a half annually is absorbed in the province, in addition to the great amount spent in charity and amusements.

Their courting time is after 9 p.m., and is called Loo-byo-tay, thee-achyrin, the time for young men to go about. Polygamy is legal, but is only practised by the wealthy. Living as man and wife, or eating out of the same dish, is a legal marriage. The bridegroom provides a dower. The king has four legitimate wives. Few women have had education. They can hold property, and can divorce themselves from their husbands. The Burman woman’s lower garment, Ta-mien, is a narrow cloth of various colours of a pleasing contrast, which descends generally from the waist or from below the arm to the feet. It is made to overlap, and in front is tucked in, but it is so narrow that as the wearer walks the thigh is more or less shown at each step. Women transact the most important business. The filagree work necklace ‘Bayet’ is a great ornament with the Burmese women. As in Buddhist countries, Burmese women are more nearly the companions and not the slaves of the men. But the Tibeto-Burmans and the cognate Indonic tribes permit great licence to both sexes prior to marriage, when chastity is not required.

The Burmese tattoo themselves, and, after certain Turks, are perhaps the most civilised men and women who do so. They tattoo their bodies with figures of lions, tigers, beloo or demons, and dragons, also red squares, cabalistic signs or words on their breasts, arms, or backs. The Burmese, Mon, or Ta-laiung also tattoo from below the navel to below the knee; the Shan from the navel to the ankle. The Karen-ns have a rising sun on their back as a mark of manhood. The Kyen tattoo the whole of the face of their women. The inflammation is severe, and death occasionally follows the operations.

The Burmese have no surname. Their single name is prefixed with Mung, meaning brother, or Nga, Koh, and Poh. They and the Karen have the custom of brother-making, called by them Doh, also Thway-thouk. In salutation, the Burmese bend the head three times to the ground, but the Karen, the Shan, and wild tribes of Arakan snuff their relatives. Burmese are skilled workers in metals. A bell at Mengoong is 12 feet high. At Amarapura is a sitting figure of Gaudama, 12 feet high. It was formerly the tutelary saint of Arakan, and was carried off A.D. 1784 by the king of Burma. Amongst the Karen, the Kyee-zoe, a large one-headed metal drum, is the standard of wealth. They use as bellows the double-formed forcing air-pump of the Malays. Ha-pet, or plucked to a profusion from the leaves of the Eleodendron Perseaum, forms a part of every Burman ceremony. They brew a rice beer called ‘koung.’

The Karen races continue the destructive form of temporary clearings for cultivation, called Young-ya, meaning hill clearing or hill garden. Rats, at long intervals of 40 or 50 years, invade the Karen lands in myriads, crossing streams, so that the water is black with them, and devouring every edible thing. From 1870 to 1874 the hill country east of the Sitang was devastated by them, and Government expended £10,000 in relieving the Karens.

The adult dead are burned; those under 15, also such as have died of cholera or small-pox, are buried. Leip-byu, or spirit or soul of the deceased, is believed to dwell in the house until released on the seventh day from the house by the house Nat. The Karen, after cremation, and at an annual festival, collect the unburnt bones, and carry them to the consecrated Ayo-toung, or hill of bones. This is a practice of other tribes.

Independent Burma has the British districts of Assam, Arakan, and Pegu, with the Tipera and Manipur states on the N. and W. and S., with Chinese territory and the Shan states on the E. It extends from lat. 18° 30’ to 28° 15’ N., and from long. 93° 2’ to 100° 40’ E., and its area has been estimated at 192,000 square miles; this includes the tributary Shan states. Its rivers are the Irrawaddy, Kyemyin-daw, which unites in lat. 21° 50’ N., the Sittang or Pongla-laung (Pongloun), the Salwin, and the Myit-nge. Crawford estimated its population to 22 at the square mile, which would give about 3,000,000; Colonel Yule’s estimate in 1855 was 1,200,000; Count Bethlen in 1874, excluding the Shan tribes, reduced it to 700,000; Dr. Hunter in the Imperial Gazetteer, including the Shan, supposed the number to be 4,000,000.

The Burmese seem to have been an intruding race, conquering from north to south, and the boundaries of their kingdom have greatly varied. On their first advance from Arakan, they appear to have conquered the northern part of the ancient kingdom of the Mon, for their capital was for 395 years at Prome. In the era of their greatest stability and prosperity, their capital was at Pagan (probably the place of that name above Ava), from the second to the middle of the 14th century. It was founded in A.D. 1283, and was the 15th century a.d. that they succeeded in annexing Pegu. But in the middle of the 18th the Mon threw off the yoke, and in their turn subjugated all Burma for a short period. The Burma capital had moved up the river from Prome to Pegu, from Pegu to Panya, from Panya to Ava, from Ava to Amarapura, and thence, in 1822, to Mandalay, where it now is.

In the Burmese chronological table translated in Crawford’s Embassy, are the following events:

B.C.

691 Sacred Epoch.—The grand epoch established by An-ja-na, the grandfather of Gautama.

628 Gautama born; 603 began to reign.

589 Gautama became a Buddha.

544 Gautama died, and obtained Nibhan (immortality).

543 1 The sacred epoch established by king Ajatasat.

94 450 The communications of Gautama reduced to writing in Ceylon.

A.D.

76 1 The Prome epoch established by king Sumundi.

639 1 The Vulgar epoch established by Poppa Chan-ra-han.

1364 726 Uch-cha-na-praung, in Chitkang. But this year Sa-tong-bya founded
Angwa (Ava), and began to reign; and Chikhaing and Panya were de-
denied.

1732 1114 Alauung b’hura (Alompra) began to reign at Mut-chho-bo (Monchabo).

1781 1143 His cousin Paang - ka-chha, commonly called Mang-mang, son of U-pa-ra-
ja at Ava, succeeded the same year by his uncle Pa-de-mang, or Man-ta-
ri-kri, son of Alauung-b’hura, and found-
er of Ama-ra-pura.

1822 1184 Ava re-built and made the capital.

Independent Burma is ruled by a king, with a chief council, the Hlut-dan, composed of four
Meng-gyi, four At-ween-wun, and four Wan-da-lay.

Burmans differ from the Anamese in being stouter and
darker, and in the head being Daya-Poly-
nesian or Turanian oval, and not obtusely ovoid.
The head varies greatly, and the coarser forms
show a tendency to the Binua contraction of the
forehead, rendering the lateral expansion of the
forehead very marked. The normal or non-
Indianized Burman head appears in many respects
in a much smaller square, the jaws and eyebrow,
and Polynesian. This softened Turanian type is
decidedly allied to the oblong square and oval
Chinese type, and not to the ovoid and orbicular
type of the Tibetan, some of the Himalaya-
ganetic, the Angho, and the Celebesian tribes.
The Burmans on the west more often resemble
the handsome Asiatic tribes found in Borneo,
some parts of East Indies, and Polynesia.

Burmans and Malays are somewhat stouter than
the Siamese, the average height being probably
about 5 feet 2 inches.

The royal family have customs partly Scythic,
partly Aryan. They claim descent from the Solar
king of Kapilavastu (which was the capital of Sud-
dodana), and one of the royal titles is ‘Ne dwet
bhu-yeng,’ sun-descended monarch. A peacock is
borne on the royal standard, and the figures of
a peacock and a hare are painted on the king’s
throne. The Aebit thiek or Water Litation
is offered on the accession of a new sovereign.

In the royal family, the custom is continued of
marriage between brothers. Sir and sisters, and
the king’s eldest daughter remains unmarried.

Burma has a rich soil, producing in abundance
cereals, millets, pulses, and oil-seeds, valuable
timbers, fibres, cotton, indigo, catechu,
lae, caoutchouc, tea, coffee, tobacco, mustard,
sugars from the cane, palmry, betel, yam, sweet
potato, and the potato. A tea plant also, supposed
to be the Elaeodendron Persicum, which furnishes
the chief ingredient in the Hla-pet or pickled
tea. Amongst its mineral products may be named
silver, gold, silver, tin, lead, antimony, copper,
bismuth. Quaries of marble are worked near
Amatapura. Coal has been discovered in the Ira-
wadi. Ruby mines are very productive; sapphires
occur, and garnets; earth-oil is largely obtained
from wells. A bisoxide of tin occurs in abun-
cdance in the streams of the Tavoy and Mergui
districts. Lignite, bead stone, but they have
been found to fine away. Once-washed stream
tin yields 70 per cent., and twice-washed 75 per
cent., of pure metal. The mercantile products
are rice, timber, silk, lacquer ware; and the
people are famed for their gold and silver work,
and for their wood-carving; rice, of which the
yearly product is a million tons, employs,
with other articles of produce, 1,200,000 tons of
shipping, of which 1,000,000 tons are British.
Of teak wood, 150,000 tons are exported in the
year,—86,000 tons to India, and 64,000 tons to
Europe, chiefly to Britain. The approximate
value of the whole is £1,000,000 sterling. Rice
cultivation is chiefly in the valleys and the delta.
The amount of the rainfall varies greatly,—in
Prome about 43 inches, and at Sandoway
280 inches.

Cautchouc trees are abundant in the Bhamo
and Mogoung districts, estimated at nearly half
a million. The galena of Bandwex and Tonghoo
mountains is highly argenteous; precious ser-
pentine also occurs, and the gems of Capelan
(Kyat Pen) are famed. The larger wild animals
are, elephants, rhinoceros, unicorn and bicornis,
hog, tiger, leopard, bear, deer, bovide, por-
poises.—Forbes’ Burmah; Mason’s Burmah; Cra-
ford; Yule’s Embassy; Oldham in do., p. 335;
Prinsep’s Antiquities; Peschel; Aitchison’s Treasures;
Bishop Bigandet; Imp. Gaz.

BURMA.

BURNS.

BURNELL, A. C., of the Madras civil service,
who devoted much labour to the elucidation
of the history of ancient India; an eminent Sanskrit
scholar, a voluminous writer on Hindu law and
Sanskrit literature. The Strasburg University
honoured him with the title of Doctor.

BURNS. Three brothers of this name served
together in India. Sir Alexander Burns wrote
Travels in Bokhara and History of Cabul, at
which place, along with their youngest brother
Charles, he fell on the 2d November 1841. They
were natives of Montrose in Scotland, sons of
James Burns, provost of the town, and relatives
of the poet Burns.

Sir Alexander entered the Bombay army in
1822; travelled from Bombay through Sind, the
BURNOUF, EUGENE.

Panjub, and Bokhara to the Caspian Sea, returning by the Persian Gulf, betwixt 1831 and 1833; was despatched on a mission to Kabul in 1837; Assistant to the Envoy from 1838 to 1842; Author of Notice of Hospital for Animals at Surat, Jl. 1. p. 96; On the Colossal Images in Baman, Ml. As. Trans. 1853, ii. p. 563; Travels into Bokhara, London, 3 vols.; On the Infantilc Incidence in Cutch, Lond. A. S. Trans. 1834, i. p. 193; Cabool, 1837 and 1838, Lond. 1842, 1 vol.; Notice of Siud, Lond. G. S. Trans. 1837, vii. p. 2; Observations on the Maritime Communications of India, as carried on by the Natives, ibid. 1836, vi. p. 2; On the Ruins of Puttan Sonmath, Lond. A. S. Trans. v. p. 104; Account of the Reg Rawan; On the Descendants of Alexander in the Valley of the Oxus; On a Fair for the Indus Trade; On Herat and the Surrounding Countries; Coal Localities near the Indus; Navigation of the Indus; On the State of Turkostan. He also wrote articles on Commerce in Sind and Afghanistan; On the Persian Faction in Kabul; On the Political Power of the Sikhs; On the Political State of Kabul in 1837; On Russia in Central Asia; On the Siah Posh; On the Wool of Kabul and Bokhara. A memoir of his life appeared in the Bombay Times, December 1841, As. Jl. 1842. James Burns, K.H., the elder brother, a medical officer of the Bombay Army, author of A Visit to the Court of Sind.—Dr. Buist's Narrative of Afghanistan, Bombay, 1843.

BURNOUF, EUGENE, a learned native of France, who devoted much of his life to oriental investigations. As a Sanskrit scholar, in 1840-47 he edited and translated part of the Bhagavata Purana. He published in 1844 his Introduction à l'Histoire du Budhisme. He died in 1851. He was Professor of Sanskrit in the College de France in 1826, in conjunction with Lassen. He wrote the Essai sur le Pali. He did for Zend and Achaemenian Persian what Jacob Grimm had done for the Teutonic languages. His labours have been continued by Lassen, Hang, Spiegel, Jasti, and others. He published a memoir on the eunuch inscriptions of Hamadan.—Oriental Linguistic Studies, p. 176; Sayce, i. p. 52.

BURNUS, Art., also written Burnoo, a hooded cloak, generally made of white woollen stuff, and mostly worn by the people of northern Africa.

BURO. BENG. In Hindi, Bara, large.

Buro-bel, Jasminum plumum.
Buro-bet, Calanusa fasciculatus.
Buro-buhooari, Cordia latifolia.
Buro-chali, Guatteria suberosa.
Buro-chi-coneula, Cympus iris.
Buro-chuna, Vicia sativa.
Buro-elachi, Annonum graia paradisi.
Buro-gach, Ficus religiosa.
Buro-goebosti, Mariscus cereus.
Buro-hulkusa, Leucas cephalotes.
Buro-jalgantee, Punicum setigerum.
Buro-jhauji, Utricularia stellaris.
Buro-jovan, Psychotria ajowan.
Buro-jubanee, Trichitis miliaris.
Buro-kanoor, Cinnum toxicarium.
Buro-keru, Euphorbia hirta.
Buro-keshuriya, Hymenochete grossa.
Buro-keshuti, Adenosetum biocarpum.
Buro-koshimi, Marsiscus rostochiensis.
Buro-kooindo, Jasminum arborescens.
Buro-kookoor-chita, Tetranthera monopetala.
Buro-kulpa, Trichodesma Zeylanicum.
Buro-kung, Abutilon gravoless.
Buro kut, Sagittaria obtusifolia.
BURSINOPETALUM ARBOREUM.

of tcamahaca, are afforded by plants of this tribe.

BURSINOPETALUM ARBOREUM, Wight, var. macrophyllum. A large tree of the forests of the Central Provinces of Ceylon, growing at an elevation of 4000 to 7000 feet. B. tetradrum, Wight, is another large tree of Ceylon.—Thu. Zeyl. p. 42.

BURZAL. HIND. The leaves of Bertera Konigi, used medicinally.

BURTON, R. F., an officer of the Bombay army, in which he rose to the rank of captain, one of the most valued linguists of his day. In 1843, under the name of Haji Abdullah, he visited Medina and Mecca. He led an expedition into Central Africa, and discovered Lake Tanganyika. He visited the Mororns at the Salt Lake. He entered the civil service of Great Britain, and was successively consul of Damascus, at British Guiana, at Cape Coast, and at Trieste. He went on a mission to the king of Dahomey. He made an examination of the land of Midian. He wrote—Goa and the Blue Mountains; Description of Sind, or the Unhappy Valley; Sind and the Races that inhabit the Valley of the Indus; Journey to Mecca; Travels in the Somali Country; The City of the Saints; The Nile Basin; Aboekuta, Zanzibar; Unexylored Syria; The Highlands of Brazil; Battlefields of Paraguay; Ultima Thule; Two Trips to Gorilla Land: Mission to Dahomey.

BURU, a large island in the Eastern Archipelago, being about 200 miles in circumference. The bulk of the inhabitants are a comparatively fair people, very closely resembling the natives of Ambonya, and the only tribe that is likely to be Papuan, is a small community which resides in the neighbourhood of a mountain lake near the centre of the island. This lake was visited by parties from the garrison in 1669, and again in 1710, and their observations are recorded at some length by Valentyn, in his Beschryvinge Van Oost India.—Earl's Papuans, p. 185.

BURUCH. SINGH. Chloroxylon Swietenia. BURUD. MAIRE. A caste whose occupation is mat-making, some times enumerated among the village servants.

BURUGA. Tel. Eriodendron anfractusum. BURUNG. MALAY. Any bird.

BURUNGE. DEXI. Siphonanthus indica; HIND., Quercus flexuosa.

BURUT are distinguished from the Kalmuk only by their language. The Mongol, the Kal- muk, and the Burut are a very phlegmatic, good- humoured people; they have all accepted Buddhism, but practise many shaman rites.

BURYA. PERS. Mats.

BURZAL. HIND. Betula bhojputra.

BURZUD. PERS. Galbanum.

BUSA-KARELLA. HIND. Monomorica char- antia.

BUSHAN, of Upper Chenab, Salix alba.

BUSHA, a town in the Himalaya, with horses, yaks, sheep, provisions, etc. The people, half nomadic Tartars, inhabit caves fitted up like houses in the cold season, and dwell in tents during the rest of the year. The height of Bushan is 9290.—Rep. Proceed. Mag. Sura. India, p. 3.

BUSHIRE or Abu-Shahir, in lat. 29° 0' 15" N., and long. 50° 51' 30" E., a port on the coast of the Persian province of Fars, 295 miles W.S.W. of Shiraz. It is situated at the N. extremity of a low sandy peninsula, about 11 miles long and 3/4 broad. It has a population of about 12,000 souls. Treaties were made with the king of Persia in 1763 and 1841, and the British have a Resident there. The value of the trade amounts to about a million sterling. Its population are mixed Arabs and Persians, with about 100 Armenian merchants. The tribes around Bushire are the bravest on the Persian seaboard, and opposed the British in the war with Persia in 1856. It was captured by the British on the 10th December 1856. Bushire is probably the result of the siting up of a still more ancient harbour about 6 miles from it, where bricks with cuneiform inscriptions are found. The coast of the plain near Bushire many cases have been taken, formed of ill-baked clay, and filled with seeds of the tulah plant or mallows, which soon decay when affected by the fresh air. Earthen urns, containing the remains of human bodies, are said to abound on the plain of Bushire.

—MacGregor, pp. 80-102; Ouseley's Travels, i. p. 216; Treaties, vii. 99, 137.

BUSH-KURD district is looked upon by the natives as a part of the Kohistan, and the Kurds who inhabit it are never spoken of by the term Makrani, or people of Makran; but it is south of the Kohistan, and unquestionably in Makran. It is one uninterrupted and rugged mass of mountains, that afford pasturage for the cattle of the Kurd Baluchi, who depend on the lower countries for grain and other supplies. These people are a tribe of Kurds that have advanced out of Luristan.

—Pottinger's Travels, pp. 305-6.

BUSV QUALI. LOWA. HIND. Quails of the genus Perdicula.

BUSI. TEL. Vitex arborea.

BUSSAHIR or Bashahr, a hill state in the upper course of the Sutlej river, recognised 6th November 1815, at the close of the Nepal war, and in 1862 granted the right of adoption. The inhabitants suffer from goitre, but not so much as in the valleys of the Pabur and Tons; the people in the higher valleys do not suffer so much as those in low situations. The natives of Bushahir, Sookeyt Mundee, and Kooloo have sallow complexion, and seem all of the same race.

BUSSI KHEI, a tribe on the N.W. borders of British India. The Afridi lie between Peshawur and Kohat; they are fierce, factious, and strong, and, with the Bugburgh, the Jewaki, Bari, Bussi Khel, and Busti Khel, as also the Sipah and Buzooti, are more or less independent.

BUSSO. JAP. A Buddhist priest or talaparn.

BUSSY, an eminent commander of the French in India, from a.d. 1751. He threw all his influence in support of the Nizam of the Dakhhan, was present at the battle of Ambur, which the French gained and Anwar-ul-Din fell, and he attacked Gingee successfully. He was attached to Muzzaffar Jung, but after his death he appointed Salabat Jung to be subahdar of the Dakhhan, and accompanied him to Aurangabad. He subsequently defeated the Peshwa, and was able to obtain for Dupleix the title of Nawab of the Carnatic. He subsequently obtained the cession of four provinces near Aurangabad, then of the four Circars. He was afterwards dismissed the Hydroabat service. He then returned to the Dakhhan, and joined Lally at Arcot, and was taken prisoner at the battle of Wandiwash.—Malleson, French in India.

BUSTAR, a district and dependency in Central
BUSTARD.

India, surrounded by the Teling in the south, Khond and Mari Gound on the east, and Hindus to the north. It lies westward of the state of Jeyapore, and has the Goslavry for its southern boundary. In length it is about 170 miles, and in breadth about 120, with an area of 18,000 square miles. It is a country of plains and plateaux, lofty mountains and fertile valleys, rivers and forests, with a population of about 200,000.

The raja claims to be a Rajput, and the family adds Singh to their name. The chief town is Jugtlupur. Till past the middle of the 19th century, human sacrifices to Decteshwari Devi were of frequent occurrence, and at certain festivals as many as a thousand sheep and buffaloes would be sacrificed to two goddesses. The races consist of the hunting and fishing Tungara or Parja, who will eat anything, from beef and mutton down to rats and snakes. The Gudera, who subsist by cultivation chiefly, seem much given to dancing and amusement. On holidays, men and women join in dancing to the music of a fife and drum. A ring is formed by all joining hands; the company circles round and round, relieved now and then by mighty hopes to the centre or back. This finished, a man steps forward, sings out one or other sex, and banters her about her ugliness, and so forth, and the woman retorts. The Sowderl deal extensively in mahwa arrack. The Maria are numerous; inhabit the densest jungles, avoid all contact with strangers, and are so timid that they flee to the hills on the least alarm. They are strong and agile, very expert in the use of the bow, and are a cheerful, light-hearted race. The women tattoo themselves from head to foot. The clothing of the Maria decreases in quantity in direct proportion to the increase of the distance of their abodes from civilisation. They are very inquisitive, sharp observers, apt to learn, and remarkable for their truthfulness and honesty. The savage race in the Beila hills have leaf sapons.

BUSTARD. European and Indian bustard.

Beet-miaka, CAN. Tel. Ositarde, Osarade, Houtar, Bistars, Fr. Trapp, Trappe, Trapp, Traps, gans, GER. Ackentrappe, A. Der Grosse Trappe, A.

It is the Otis tarsis, the great bustard of Europe, to which the English name bustard is usually given; but in the classifications of zoologists the family Otididae has three genera, the Houtbara, Eupololitis, and Syphoetides, some species of the last being usually termed florikin.

Eupololitis Edwardsi, gray. Indian bustard. Otis nigriceps, Vig. [Otis lucionensis, Vieill.]

Tokdar, Burra, HIND. Gurrayin of Hurriana. Sohan Guggah, Bati myaka, TEL.

This noble bird is 45 to 5 feet long, and extend 8 feet. It weighs 26 to 28 lbs. It is not known in Bengal, Behar, or the Malabar coast, but seeks the open grassy plains of India. It is becoming very scarce in the cultivated country, but is said to be still abundant in Nalaputana. Their usual food are insects, but they eat reptiles and fruits. They are polygamous, and at the breeding season the male struts about on some eminence, puffing out the feathers of the neck and throat.

O. lucionensis of China may be a distinct species.

Other species are E. mbara, Rappell; E. Ludwigi, Rapp.; E. Cafrara, Light; E. Denhami, Children; E. Arabs, L.; and E. Kori, Burchell. A species very closely allied to E. Ewardisi is the Otis Australia, Gray, the wild turkey of Australia.

Houbara Macqueenni, Gray, Houbara bustard. Otis marmorata, Gray.

Dugdoor, AFGH. Tilbor, HIND. Hurriana florikin, ENG. Obhara, W. PAS.

This bird has a beautifully crested head, is 25 to 30 inches long, and extended is 4 feet. It weighs 44 to 54 lbs. It is supposed that both the male and the female assumes white plumage in the breeding season. It is found throughout the plains of the Punjab and Upper Sind, where it is much hawked with the cherrug falcon, Falco sacer. It also occurs from Delhi to Afghanistan, in Mesopotamia, in Europe, and England. It occasionally baffles the hawk by ejecting on it a horribly stinking fluid, which bemears and soils the hawk's plumage. Houbara undulata occurs in N. Africa and Arabia, and visits Spain.

Syphoetides Bengalensis, Gmelin.


The Bengal florik in is about 24 to 27 inches long, and 44 to 47 inches extended. In the breeding dress of the male, the whole head, which is crested, also the neck, breast, and lower parts, with the thigh coverts, are deep glossy black. It is found from Lower Bengal to all along the foot of the Himalaya. The sexes live apart, at no great distance from each other. They eat insects and sprouts of plants. It is shy and wary.

Syphoetides auritus, Latham, lesser florikin.

Otas fulva, Sykes.

Khar tit of Bhils. Likh, HIND. Kan-noul, CAN. Tan-mohr, MAHR. Charas, charaz, DUKH. Warragol Koli, TAM. Chulla charas, Nila-nilmili, TEL.

The Canarese, Mahbratta, and Telugu names mean ground peafowl. In breeding plumage, the male, in head, neck, ear-tufts, medial wing covers, and the whole lower plumage, is deep glossy black; the thighs are white. It is 18 or 19 inches long, and weighs 16 or 18 oz. Dr. Jordon considers the black and common grey florik in to be identical, but in the plumage of different seasons; it is found throughout India, from the Himalaya to the south. It eats insects and beetles. It is hawked by the bax, the laggar, the shahin, and wokhab.

Otis tetra, L., the Tetrax campestris, the small bustard of Europe, is said to have been found in the Peshawur valley, and occurs in Central and Western Asia and North Africa.

The following are bustards of Africa, some of which spread into Arabia, viz. O. riaid, Shaw; O. curruccens, Vieill.; O. scolopacea, Tenon; O. afris, L.; O. afroies, S.; O. Seuagelensis, Vieill.; O. melagonaster, Rapp.

The Australian bustard is the O. Australis; in the pairing season, the courtship dancing of the male is extremely singular.—Ainslie, Mat. Med.; Eng. Cynec. Jerven, Birds. See Birds.

BUSTI KHELI, an Afghan tribe. See Bussi.

BUT, a manner of pronouncing and writing the name of Buddha, also the Biot or Bot race.

BUT. PERS. An idol. In the Hindi and 531.
several Indian tongues, Bu or But is a spirit, generally an evil spirit.

But-Khana, a temple, an idol-house; by some supposed to be the origin of the English word pagoda, also supposed to be from pai-guda.

But, also Butkalay. Beng. Cicer arrietinum.

Buta. Hind. Head of the Indian corn, the Zea mays. Buta-dar, a diaper fabric. Also any shrub or plant; Crotalaria burhia; Cheti-buta, Abelia triflora. Buta kara-mee, Tel., Naucela parvifolia.


Butani, a clan of the Baluch Maghazhi tribe, which has been located in Kachi for a long time. The Maghazhi are subdivided into four principal families or clans, of which the Butani of Jell are the most illustrious, and give the chief or sirdar to the whole. They boast of being able to muster 2000 fighting men, and between them and the Rind a blood-feud long existed. The Maghazhi and Rind are alike addicted to the use of ardent spirits, opium, and bhang. The Butani dwelling in the Dehra Ismail Khan district, were a robber tribe until they became British subjects.


Butasha. Hind. Sugar cakes.


Buchter island, 32 miles from the shore in Bombay harbor. Its Hindu name is Depa-devi, or the island of the gods, Holy Island.


Erythrina monosperma, Lam.


Moott, Chhuhl, Can. Poras maram, Tam.

Pulas, Eng. Moduga chettu, Tel.

Paras; Dhak, Hind. Kinsukam, Sank.

This tree grows in most parts of British India and Ceylon. It covered the battlefield on which Clive defeated Suraj-ud-Dowlah, which in history is known as the battle of Plassey. When left to nature it attains a good size, but it is much cut for firewood, and its roots cut for fibre to make ropes with, and it is generally seen gathered and bushy. In April its large clusters of deep orange-coloured flowers, called teso, also kiau, attract attention. An infusion of the flowers of this and also of B. superba, dye cotton, previously prepared with alum, a bright yellow, which may be changed by an alkali into deep reddish orange. The lice insect is frequently found on the smaller branches. Its wood resembles teak in appearance, and is used for gunpowder charcoal, well curbs, and for building purposes. The leaves are sold to shopkeepers in the bazaars for the purpose of wrapping small articles in them instead of paper. From the bark of the root a very strong fibre is prepared. The root is cut into lengths of from two to four feet, and the bark peeled off, dried, and beaten by handfuls with a wooden mallet. It is used for caulking boats, and making ropes and cables for anchoring boats. The flowers are offered by the Ho to their goddess Desauli Bonga. Its gum, of a deep red colour, is known in commerce as the Butea kino and Indian kino, the Paigs gond or Dhak ka gond.

Butea Superba. Roxb. iii. 267.

Tige moduga, Tel. | Baranki chettu, Tel.

Tivva modugu, ".

An immense creeper with flowers resembling those of B. frondosa. It grows on the mountains of Coromandel, in the Circars, the Kheri jungle, and in the Dehra Doon, and is not uncommon in the provinces of Tavoy and Mergui. It yields the same kind of gum as B. frondosa.

Buteonine, the buzzard sub-family of birds of the order Raptoria, or birds of prey, comprises Archibuteo hemiptilopus of Tibet and the Himalaya; Buteo pycnnaeum of Tenasserim; B. rufinus of India and N. Africa, and B. vulgaris, the common buzzard of Europe, N. Africa, Asia Minor, higher mountains of India, common in the W Himalaya; B. sublimus, the Nimbiricis; and replaced on the plains by B. canescens; rare, and to the northward and far west only, in America; mostly migratory in Scandinavia. B. Bacha, Franklin, and B. Melanotis, Jerd., are synonyms of Spilornis cheela. Sank.

Butyhusufer, Linn., the great black scorpion of Ceylon; is as large as a little crayfish; its sting occasions a little inflammation.

Buti. Hind. A vegetable; flower.


Butia, a name comprising the Little Tibetans, the natives of Ladakh, the Tibetans of Tibet proper, and the people of Bhutan. See Bhot Bhutan; Bulti; Ladakh; Tibet.


Butocera Rubus, the Curumings of the Singhalase. A beetle which penetrates the trunk of the cocoanut tree near the ground, and there deposits its eggs; and its grubs, when hatched, eat their way upwards through the centre of the tree to the top, where they pierce the young leaf-buds and do incredible damage. — Tenent's Ceylon.

Butomus, a genus of plants of the ord. Butomaceae. Roxburgh (ii. 315) describes B. lanceolatus of India. B. umbellatus, the Kii-tau of the Chinese, is a waterside plant of China and Tibet. Its rhizomes, formerly eaten, are now used medicinally.


BUTTER.

Ni-nai-yu; Su-yu,  Chn.    Manik sap; Man.
Smor,  . Dnt.  Tega; Mal.
Boter,  Dnt.  Maslo; Pol.
Beurre,  Fr.  Manteiga; Port.
Kara;  . Mskya;  Rds.
Mackan,  Hind.  Mentecoa;  St.
Burro;  Butiro,  It.  Venne,  Tam.
Makhan,  MAH.  Mas-sko-yu,  Tarkar.
Baryrum,  Lat.  Venna,  Tel.

BUTTER.

Bitter is one of the components of milk, the others being curd or casein, a kind of sugar, and certain salts. The lighter matters suspended in milk, when it is allowed to stand, separate in the form of cream, which can be further separated, by churning, into butter and butter milk. The yield of cream is increased by dropping into the milk a small piece of zinc. Butter is naturally of a yellow colour, which is deepened when the cows feed in rich pastures, but it is often artificially heightened by arnottto and safflower. Karra, or fresh butter, is seldom used by the natives of India. It is generally kept till it turns rancid, and then clarified by repeated boiling. This is called roughgan in Persia, and ghi in India. The ordinary drink of the Tartars is kumys, a spirit made of mare's milk. They pour the milk into a large leather vessel, and, when they have got a considerable quantity, beat it till it begins to ferment like new wine. When it becomes quite sour, they beat it again violently, and then draw off the butter part. The fermented whey makes a brisk sort of liquor, with an agreeable almond flavour, very intoxicating to those not much accustomed to it. The Tartars also make from goats' milk a kind of butter, which they boil and keep for winter use in goats' skins, and though they put no salt in it, it never spoils. It is a simply ghi. After they have taken off the butter, they boil the curd again to make cheese, which they dry in the sun, and which is as hard as iron. These cheeses they put into sacks for the winter store, and when the supply of milk becomes scanty, they put this hard, sour curd into a leathern vessel, pour hot water upon it, and beat it till it liquefies; and with this acid drink they have to content themselves during the time of year so severely felt by pastoral nations. The Tartars live chiefly on their flocks and the produce of the chase. In China the milk of every domesticated animal has been employed for making cream and butter. The milk from the wild cow is said to be the best. Ghi, or clarified butter, is called Ti-hüi. — Smith, 45; Huc's Christianity, i. p. 209; Tomk. i McCull.


BUTTERFLY.

Let-pya,  BURM.  Parwana,  HIND.  Papillon,  FR.  Farfallas,  IT.  Schmetterling,  GERM.  Mariposa,  SP.

Butterflies are very numerous in the S. and E. of Asia, and many of them very beautiful. They are classed by entomologists in the insect order Lepidoptera. The largest and most gaudy of Ceylon is the great black and yellow butterfly, the Ornithoptera darsius, Gray. Its upper wings, which often measure six inches across, are of a deep velvet black. Its caterpillar feeds on the Aristolochia and betel leaf, but the butterfly on the heliotrope. Papilio polymnestor, the black and blue butterfly, feeds on the ruddy flowers of the hibiscus or the dark-green foliage of the citrus. Papilio Hector has crimson spots on the black velvet of the inferior wings. When examining the Lachen valley, Dr. Hooker found the caterpillar of the swallow-tail butterfly (Papilio maachau) common, feeding on unbeliellurous plants, as in England; and a sphynx (like S. euphorbiae) was devouring the euphorbias; the English Cynthia cardui (painted-lady butterfly) is uncommon, as were saffuras, marlinae, Papilio (whites), blues, and Thecla, of British aspect but foreign species. Amongst these, tropical forms were rare, except one fine black swallow-tail. Kallima inachis of India and K. paralekta of the Malay Archipelago furnish wonderful examples of protective resemblance to dead or decaying leaves, every one of them being some shade of ash or brown or ochre. The Ornithoptera paeonae of the Anu Islands, is the bird-winged butterfly. In the western districts of Java are the calliper butterfly, Charaxes kademi; of birds, the elegant green and yellow trogon, Harpitaces Reinwardt; the gorgeous little minivet fly-catcher, Pericrocotus mininus, which looks like a flame of fire among the bushes; and the rare black and crimson oriole, Analaeus sanguiolentus. The Papilio arjuna has its wings covered with grains of golden green. — Wallace, p. 118.

BUTTER MILK.

Dhal,  HIND.  Salla, also Majiga,  TEL.  Moz,  TAM.

Butter milk forms an ingredient in many native recipes; it is used by chocklers for softening leather. — Rohde, M.S.

BUTTER-NUTS.  See Caryocar.

BUTTERS, VEGETABLE.  This name is given to the concrete oil of certain vegetables, from its resemblance to the butter obtained from the milk of animals. The term is also occasionally, but improperly, applied to some vegetable products which are entirely of a waxy nature, such as the wax of Myrica cerifera. The name is likewise bestowed in Siberia on certain alge, species of the genus Nostoc, such as N. pruiforme. The most important vegetable butters are produced by species of Bassia and certain palms.

Butter of Cacao, from Theobroma cacao. 1000 parts of the seed yield 300 parts of a concrete oil or butter, of a most agreeable flavour.

Butter of Cinnamon, from Cinnamomum verum, or C. Zeylanicum. By strong decoction the fruit yields a concrete oil, also called cinnamon wax, used for candles, and which exalates while burning a most fragrant odour.

Butter of Nutmeg, from Myristica moschata, is brought from the Moluccas, of two kinds, and is obtained by bruising the nutmegs into a paste, which is compressed in bags between hot metallic plates.

Butter of Coconut, from the Cocos nucifera, is prepared by rasping the pulp of fresh ripe coconut, adding a little hot water, squeezing and boiling the milky juice until the water has evaporated, and filtering through paper. This oil separates into two portions, the one fluid and limpid, the other a solid concrete substance of a pure white
colour, which, in the shade, remains unliquidated at all temperatures.

Butter of Pahu-oil, from Eleis Guineensis, a native of Africa and America. It is much esteemed in Europe for enlarging, and has been lately recommended for culinary purposes.

Butter of Tapal Tree, the Pentadesma butyracea, B.c., of Sierra Leone, is so named from the yellow, greasy juice which copiously flows from it when cut. It is mixed by the Negroes with their food.

Kawan Solid Oil, of Java and Singapore, is obtained from an undetermined species of Bassia. Shea Butter is from the seeds of Bassia Parkii, Don, growing in W. Africa; likely to become valuable for the manufacture of candles and soap.

Galam Butter, from Bassia butyracea, Fulwa or Phulwara, also Choorie, of Nepal, Alморa, and Kamaon in Northern India. In the province of Dotee this is so abundant, that the oil is cheaper than, and is used to adulterate, ghi. It is white and solid, fusible at 120°, and exhibits little tendency to become rancid when kept.

Bassia latifolia Oil separates into two portions, one on the surface, fluid, and of a pistacio green colour; the other of a brownish green, and almost solid.

Bassia longifolia or Illupn Oil. One sample separated into two portions,—the upper, fluid, of a pale oil-green in colour, and the lower greenish white, and of the consistence of ghi. Another separated into three portions, the uppermost a golden yellow, and fluid; the middle, yellowish white, solid, and floating in the upper; and the lowest, solid, and brown in colour. A third was of the consistence of ordinary ghi. A specimen, almost solid, from Tanjore, was of a light golden-yellow colour.

Chinese Vegetable Butter from Stillilina sebifera is much in use in China. The number of these trees in the province of Che-kiang is immense.

Indian Vegetable Butter, Piney Butter, or Doo-пада Solid Oil, is from the Vateria Indica of the western coast of India. It is white or yellowish white, of the consistence of hard salt butter, and in the shade remains always solid. It is used for lamps principally, but is very suitable for soaps and candles. It is prepared by cleaning the seeds, then roasting and grinding them into a mass. To five seers of seed add twelve seers of water, and boil until the oil rise to the surface. Remove the oil, stir the contents of the vessel, and allow it to stand until the following day, when more oil will be observed on the surface, which may be collected, and the process repeated.

Caram or Carab Vegetable Butter, from Carapa Guineensis, a large tree in Trinidad and British Guiana.

Butter of the Great Macaw Tree, from Acercomia fusiformis.

Japanese Wax is from Rhus succedaneum.

Almond Butter, from Amygdalus communis.

Cocum Butter, from Garcinia purpurea seeds, which produce solid oil.

Gamboe Butter, Mukke Tylum, Tam., Arasana Ghoorghy yennai, Can., is a product of the Garcinia pictoria, Roxb., which grows abundantly in Mysore and the western jungles. Gamboe butters are solid, and of a deep leek-green colour. The oil is procured by pounding the seed in a stone mortar, and boiling the mass until the butter or oil rise to the surface. 24 measures of seed yield one seer of butter; it is sold at the rate of 1/2 annas per seer of Rs. 24, in the Nuggur division of Mysore, and is used as a lamp oil and as ghi.

Sterculia foetida Oil, Coordin yennai, or Coordin pusjan yennai, Tam., is thick at all seasons of the year, and is obtainable probably in large quantities in the Nalla Mallas and Yella Mallas forests of the Peninsula of India.

Butter of Laurel, Laurus nobilis.

Solid Oils are obtained from some Dipterocarpi in the Indian Archipelago.

Solid Oil of the Horse-eyes and Cacoons of Jamaica, Fevillea scandens, is white and hard.

Mijo or Japan Butter, from Doliches soja.

Solid Oil, from Myristica (Virola) sebifera of British Guinea.

Solid Oil from the Demanara butter tree, Snouari, Pekea tobeculosa.

Solid Oil of Bombay, from Salvadoria Persica, or Vernonia abbreviata?

Croonga Malagum Oil, of Masulipatam, separates into three portions,—the uppermost, fluid, resembling brown sherry; the middle, of the consistence of ghi, and brownish yellow; and the lowest almost solid, and of a hair-brown colour.

Moorogana Butter, of Canara, is used for medicinal purposes, and as an ointment for the wounds of cattle injured by tigers. It is said to be produced from a forest tree growing in the Canara jungles. It is dark brown, and is the most solid of the solid oils.

Odur or Adul Oil, of Travancore, separates into two portions,—the upper, fluid, of the colour of golden sherry; the lower, reddish white, of the consistence of ordinary hard salt butter.

Shacotty Oil, of Canara, used for cutaneous eruptions, separates into two portions,—the upper, yellowish fluid, and the lower brownish-red, and of the consistence of hard ghi.

Hibavania, a solid oil of Canara, from the Sampaoyj district, of a clove-brown colour.

Camujuy Tree Oil; a small bottle, priced Rs. 24, from the same district, was a dark gelatinous mass, of the consistence of blanc-mange.

Oil of Hydnocarpus inebrians, the thortay oil of Canara, used for sores, is a very valuable vegetable solid oil, of the consistence of ordinary hard salt butter.

Terminalia bellerica, Tani-kai yennai, separates into two portions,—the one fluid, of a pale oil-green colour, and the other white, floccular, and of the consistence of ghi.—Madras Museum Report, Simmonds, pp. 510-514.

BUTTON.

Buttons, .......................... Fr. Kanching, .......................... MALAY.

Knopfe, ...................... GER. Botoens, ...................... PORT.

Buttouen, .................... Gruz. Fogowicz, .................... RUS.

Gundou, ....................... HIND. Botanes, ....................... SP.

Bottoni, ....................... IT. Battan, ....................... TAM.

Bahr, .......................... MALAY. Buttasalu, ....................... TEL.

Buttons are made from every possible material. Those of metal are often gilt; and five grains of gold, and sometimes 24 grains, are made to cover 144 one-inch buttons, so great is the divisibility of that precious metal. A round ball or button is used in China to mark the rank of their weavers. The members of the first rank, or highest order, wear on the apex of their caps a dark-red corn ball or button; the second class have one of a
light red; third class, light blue; fourth, dark blue; fifth class has a crystal ball; and the sixth class a ball of mother-of-pearl. Members of the seventh and eighth class have a golden ball, and the ninth and lowest rank, one of silver. Each officer may be further distinguished by the decoration of a peacock's feather. This is attached to the base of the ball or button on the apex of his hat, and slopes downwards; it is worn at the back.

**BUTTOO-PASSALEI KIRAI.** TAM. Basella cordifolia, Lam., B. alba, Linn.

**BUTUM.** Arah. Pistacia terebinthus, turpentine.

**BUTUNT.** A name given to the Tartars by the people of Lower Kunnawar. They also call the Tartars Zhal, also Bhotia, and their country is called Bhot and Bootunt. These Tartars differ greatly in appearance from the people of Lower Kunnawar.

**BUVUSHIRUM.** Sansk. Phyllanthus niruri.

**BUWAYA.** Malay. Crocodile.

**BUXAR,** a town, lat. 25°32' N., long. 84° E. It gives its name to a district which is a subdivision of Shahabad. The town is built on the bank of the Ganges, and is largely inhabited by Mahomedans. A battle fought and won here by the British, 22d October 1764, under Sir Hector Munro, against Mir Kasim, the last independent Nawab of Murshidabad, placed Bengal and Behar in their possession.

**BUXUS,** a genus of plants, the species of which afford the valuable boxwood. S. sempervirens is the common box, and forms a large evergreen bush or small tree, common all over the S. of Europe, from Spain to the N. of Persia and into the N.W. Himalaya. The Himalaya boxwood is known as Pabur Lakri. Mr. Dunlop saw a jungle of this plant at Sem Kharrak, beyond Ramoo, the trees as tall as English firs, and some of them as thick round as a man's body. The chief supply of boxwood for Europe is derived from the southern parts of Europe, and from Asia Minor. European boxwood is more curly, softer, and paler than the Turkey. The Karens furnished Dr. Mason with specimens of a wood not light, but scarcely to be distinguished from the boxwood of Europe. Dr. Wallich found Nauclea cordifolia on the banks of the Irawadi, with wood coloured like that of the box tree, but much lighter, and at the same time very close-grained. One Tavoy tree, he says, has a strong, tough wood, in grain like box. B. Chinensis, Lam., is the Chinese box tree. Buxus emarginatus, Wallich, was introduced into Britain from the Himalaya. The wood is found to be softer than the common kinds, though like them in other respects. Woodcuts have been engraved upon this wood, which has the advantage of being of considerable size and thickness.—*Eng. Cyc.;* *Royce, Hist. Bot.* p. 327; *Mason;* *Voigt.*

**BUXUS SEMPEPVIRENS.** Linn.

**BYAT.**

This grows in northern Persia, also in China in the provinces of Kiung-Chau-fu, Hainan island, and in Tung-jin-fu in the Kwei Chau province; it is abundant near Manikaran in the N.W. Himalaya. From being lopped, it is generally seen as a shrub, but at times grows to a tree of some girth, locally only, on the Sutlej and Bass, upon the Rattan Pir, near Panch, above Rawli Pindi, in the Salt Range, and Trans-Indus. The wood is carried to Umbiraur and other places in the plains to be made into combs, but the supply is probably getting exhausted. This is found in the Sutlej valley between Rampur and Sungnum at an elevation of 6000 feet. Wood hard, heavy, and nearly as compact as the boxwoods of Europe. Used in the schools of art throughout India for woodcutting, and used under the same name for rifle bullets. The leaves of the box are poisonous to the camel. —*Cleghorn, Panjub Report,* p. 63; *Powell's Handbook;* *Dr. J. L. Stewart,* M.D.

**BUYO,** thePhilippines, betel leaf, the sirih of the Malays, and Piper betel of botanists.


**BUZ.** Pers. A kind of antelope, or long-horned mountain goat, called Tish by the Arabs.

**BUZA.** Hind. Hordeum hexastichum.

**BUZGUND.** Hind. Gutpista; Pistacia nut.

**BUZLI.** Hind. Orostechium lanuginosum.

**BUZORO-BUTU,** of Bombay, Cynca circinalis.

**BUZOTI** and Siph are small but very brave Pathan tribes, the Buzoti numbering 500, and the Siph 300 fighting men. They live in tolerably close connection with their more powerful neighbours the Afridi, and manage to hold their own. After the British acquisition of the Panjab, they acted up to their engagements in regard to the Khasias, and generally behaved well.

**BUZRUJK.** Arab. Limsaid.

**Buz-kaluna, Plantago ispaghula.**

**Buz-ul-Bunj-Ahmar, seeds of Cleome visciosa.**

**Buz-ul-Bljub-Ahmar, dill seeds.**

**BWAI-JIN.** Eng. Careya arborea, Roxb.

**BWA-JIN.** Burm. Bauhinia anguina; B. racemosa.

**BYA-JAINTI.** Hind. Sesbania Egyptia. See.

**BYA-KED,** also Bokyool. Benc. Indian nightshade, Solanum indicum.

**BYANA** or Byara, Kalm. A piece of pasture land attached to a village, and assigned as a perquisite to the headman, who let it out for the grazing of cattle at a charge per head. —*W.*

**BYANS,** a pass in Garhwal, in which are 9 villages and 184 houses. The people who occupy four of the Garhwal passes are Bhot; those in the Darma pass are said to be Mongols left by Timur. The Bhotia in Byans speak a dialect of Hindi.

**BYANS RISHI** is a mythical holy man, who is supposed by the people of Byans in the N.W. Himalaya to be dwelling on the top of the Kelifong mountain. He appears to be the rishi Vyasa.

**BYAT.** A powerful tribe which came originally from Tartary with Chengiz Khan. They were long settled in Asia Minor; and a number of them fought in the army of Bajazet against Timur. After his defeat, many of the families of this tribe were sent by the conqueror to the province of Dairbekir, but, having quarrelled with its ruler, they went to the territories of Baghdad, where they lived till the time of Shah Tamsap, who brought them into Persia. One half was settled at Souj Bulagh, a district of Teheran, and the remainder at Ashraf, in Mazenderan. They remained on these lands till Abbas II. transplanted a number of them to Khurasan. The
Byat are still more numerous in Turkey than in Persia; but in the latter country, in the reign of the Saffawan monarchs, they were registered at forty thousand families.—Malcolm's Persia, ii. p. 218.

BY-IT-ZIN. BURM. Antidesma paniculata.

BYL.T.E of Ptolemy, are the Baltic people of Little Tibet. They have on the east the Khor country, which is inhabited by a people supposed to be the Chaurundi Seytanes of Ptolemy.—Cuaningham.

BYNNE AIRACK is from Caryota urens. 

BYNSA, one of the seven branches of the Byrana race.

BYRAGI. ANGLO- HIND. For Viragi (vi, privative, raga, passion), Hindu Vaishnava ascetics. The followers of Ramandan and Kabir form their principal subdivisions. The Byraga, or Zafaratia, is a small crooked stick or piece of iron which the Byragi devotee places under his armpit, to lean upon as he sees. See Vairagi.

BYRD, amongst the Rajput races, the blessing of a bard to a ruler. Whenever a Suktawat chief enters the court of his sovereign, or takes his seat among his brother chiefs, the bards still salute him with the dying words of Ballo—The bard, jealous of so sweeping a byrd, complained that nothing was left for him, when the master bard replied, he was 'Kewar-ka-Aggul,' the bar which secures the door, 'Kewar.'—Told's Rajasthan, i. p. 308.

BYSSUS, a long, delicate, lustrous, and silky fuscillus of filaments, by which some of the conchiferal mollusces, for example the Mytilaceae, mussels, and Mallicheae, hammer oysters, are moored to rocks, etc. It is an assemblage of muscular fibres, sereed up in one part of their extent, but still contractile and in a living state at their origin. The tendinous foot of Byssacea and Tridacna seems to be a step towards the organization of a true byssus. The byssus of the great Pinna of the Mediterranean is in a fleshy sac or sheath at the base of the foot, which is attached towards the middle of the abdominal mass of the animal. In Italy it is manufactured into various articles; and there are few museums without a glove or a stocking woven out of this substance. The pearl oyster, by a byssus, secures itself to the rocks. The animal's foot is composed of muscular fibres, and is 2½ inches long when distended. On the lower side there is a groove lined by a secrerting membrane, which is an exact mould for the formation of the byssus. When the animal desires to attach itself to the rock, its foot is protruded and, after seeking out a suitable spot with the tip for some minutes, is again retracted into the shell. A strong fibre, of the form of the groove in the foot, is thus left, attached to the base of the foot at one end, and to the rock at the other. The process is again and again repeated, until a strong cable is formed; and it was one of the

most important results of the careful investigations of Dr. Kelaart in Ceylon, that the power of the animal to cast off its byssus at pleasure was ascertained. It leaves it behind to make another in a more convenient place. From this ability to shift its berth, it follows that the pearl oyster might safely be taken from its native beds and made to colonize other parts of the sea, and also that it would move of its own accord if the surrounding water should become impure or sandy, or when there is an influx of fresh water. The animal can reform the byssus at pleasure, if in good health and condition.

BYTNIERNACE.E, the Byttneria tribe of plants, by some botanists considered a distinct natural order, by others reduced to a section of Sterculiaceae.

BYTURNI river rises near Lohardugga, in lat. 23° 29' N., long. 84° 55' E., runs S., S.W., S.E., E., into the Bay of Bengal, by Dhunrah river; length, 345 miles. It receives the Sunk, 95 miles. About 26,000 square miles are drained by the Brahminy and Byturni. It is the Styx of Hindu mythology, and is sacred, more especially at its source. There is a legend that Rama, when marching to Ceylon to rescue his wife Sita from her captor Ravana, halted at the river-side, on the borders of Keunjahr, and numbers of Hindus visit the river every January. It is also written Baitaranj.

BYZANTIUM of Ptolemy is supposed to be the Balabhi of Gujerat.

C

C, in the English alphabet, has no power of its own, but takes that of k before a and u, and of s before e and i. Its use for foreign words is therefore apt to mislead; for instance, in the Persian and Urdu word circar, a government, an authority, and in common use, there is one letter for two sounds, and two sounds for one letter,—a breach of all system. Even the form of ch has two sounds, as in character and charter. To get rid of this inconsistency, the tendency has been growing amongst scientific men, to substitute ka and ku for ca and en, and to write Cabul and Cashmir as Kabul and Kashmir, and Ouch and Cudapah as Kach and Kadapah, and also to use k for the hard ch. The Italians have the soft English ch in cio and ce; and the French and Germans use the letters tch and tsch to meet the equivalent letters in all the cultivated languages of Southern India in which the sounds produced by the English compounds of ch, as in child, have single letters with corresponding powers in all those tongues, and, in all but Tamil, ch h also has equivalents modified in compound letters, but there is no letter which has two sounds of ch, as in character, child. With entirely similar sounds for ca, en, and ku, some duplication is unavoidable. See CH.

CABA. ARAB. A quadrangular building in Mecca, towards which all Mahomedans turn in prayer; the Black Stone, Hajar-us-siah, is built into its wall. It was a lingam of the god Mahadeva or Siva.

CABAB-CHINI. HIND. Cabeba.

CABAN, in the Philippine Islands, a measure of capacity.
Cabbage, Brassica oleracea.

Peh-tai, CHIN. | Kohl, HIND.
Chou, FR. | Cavoletto, IT. | Kohl, GER.

The word is derived from the Latin, capit, a head, through the French cabas. The opinion is generally entertained by naturalists, that the white and red cabbage, savoy, borecoles, cauliflower, and broccoli have all originally sprung from the wild cabbage of the sea-coast. The cabbage, horse-radish, cress, mustard, turnip, etc., all belong to the natural order of Cruciferae. The varieties cultivated are, red, rose, and white; also the hundred-leaved cabbage. Cabbage is largely eaten by the Chinese. From the seeds of a variety cultivated on the continent of Europe, the colza oil used in lampa is expressed.

Cabbage, a term applied to the new leafshoots at the tops of palm trees; they are cooked and eaten as vegetables. That of the Alshephila excelsa of Flinders island, Australia, is in substance like a Swedish turnip, but is too astringent in taste to be agreeable, and it is not much improved by cooking.

Cabinets of silver are worn by all the Jan-gam sect of Hindus, each containing the conical emblem of Siva, the lingun of the Hindus, the phalus of the Greeks, and the priapus of the Romans. The tabernacle of Moloch, mentioned in Acts vii. 43, was doubtless a cabinet in which the object was enclosed; and the shrines of Diana were most probably of the same construction, and for the same purpose. In a medal, with a figure of Diana's shrine, shows pointed cones and a semi-lune. Bacchus brought his thyrsus from the east when he returned from his Indian expedition. It was said to have been surmounted by a fir cone or pine, but a recent writer in the Edinburgh Review thinks it was the date. This fruit, according to Pliny, was consecrated to the worship of almost every heathen divinity. The date palm is the scriptural emblem of all that is dignified, beautiful, and good, and entered largely into the ornamentation of temples.—Edinburgh Review; Miller's Seven Churches of Asia, p. 130.

Cable.

Tan, Ankeratau, GER. | Tal-i-sawu, MALAY.
Langkeri rasi, HIND. | Amar, TEL.
Gomena, IT.

In Southern Asia some cables for ships are made of coir, the requisite quantity being laid out at full length along the beach or other convenient spot; they are made upon strands, and twisted in a very simple machine, viz. a strong wooden frame in a strong board, across which three or four pins are placed, and turned, like the screws of a carpenter's bench, by as many men; the further end of the cable is fixed to a large revolving pin, which is turned round in a similar manner. As the strands are twisted, the horse in which this is fixed is drawn nearer to the other. It is evident that cable strands thus laid are very unequally strained, the outer lines being tight, while the inner ones are slack. By laying the strand and twisting it as each yarn leaves its separate reel, a strand is formed of which each yarn bears its due proportion of the strain. Hubbard's patent rope was laid on this principle; the necessary apparatus for winding off the yarn might be readily made. Cables for the Shakespeare bridges were formed of the country rattan. In the Red Sea, cables formed of the coating of the branches of the date tree are used; and the same material, with a proportion of fibre of the Kalderu bush, the Pandanus odoratissimus, is used by fishermen in forming drag ropes for their nets at Oopada. In the Eastern Archipelago rattan cables are largely used.—Mr. Rohde, MISS.

Cabo Negro, Spanish, of the Philippines, is obtained from the gomuti palm, Arenga saccharifera, and resembles black horse-hair. It is found between the trunk and branches, in a matted form, interwoven with interlaced twigs. When separated from the latter, it is manufactured into a cheap and durable cordage, chiefly used for cables and standing rigging. A single palm in its lifetime yields two crops of this material, each amounting to about 9 lbs. The twigs are used as writing pens, and also as arrows. Under the hair-like material a soft substance is besides collected, used as okum for caulking, and as such exported to China.—Walton's State, p. 119. See Gomuto.

Cabook. SINGH. Lateritious deposit, said to be the product of decomposed gues.

Caboool. See Kabul.

Cbral. Alvarez Cabral, the Portuguese commander in the second expedition sent to India by the Portuguese. It consisted of 13 ships and 1200 soldiers, and sailed from the Tagus in March 1500. In his route he discovered Brazil, A.D. 1500, and took possession of it, and then sailed to Calicut. He lost four ships, in one of which Bartholomew Diaz perished. He entered into treaties with the kings of Cochin, Cannanore, Onore (Honoire or Honawar), and Quilon, and built fortresses at their principal towns. The Zamorin at first was cordial, but, being instigated by the Mahomedans, attacked their fort, and killed all the Europeans. Cabral retaliated by destroying ten Mahomedan ships, and then returned to Lisbon in July 1501.

Cacailia Coccinnea, a flowering plant, mostly found in waste places.

Cecilia Kleinia, Wight. Hart's ear.

Lisan ul saur, ARAB. | Yenna putu nalikil, TEL.
Gao zaban, PERS. | Jimmuddu, Ermina-Kullie, TAM.

The leaves resemble the tongue of the buffalo; the stalks are prickly, and covered with white spots. While fresh, the leaves have a strong smell like hemlock; they are given in decoction in rhumatism, syphilis, and lepra. For the class of cases in which sarsaparilla is usually employed by European practitioners, they seem to be highly esteemed by Mahomedan and Hindu practitioners. A water distilled from the leaves is kept for use.—O'Sh. p. 420; Houyberger, p. 246.

Cacalia sonchifolia, Linn.

Emilia sonchifolia, D. C. | E. purpurea, Cass.
Shudimudi, BENG. | Udram panum, Sansk.
Pella camudi, MALAY.

A decoction of this plant is deemed antifebrile on the Malabar coast.—O'Sh. p. 420.

Caca-Mullu. TAM. Pedalium murex. Cacapa, Legularia vulgaris.

Cacatina or Cocato, a sub-family of birds of the family Psittacidae, of the order Scansores. See Birds.

Cacay tree is the greatest ornament of the woods of Karnataka. The foliage is a fine shining green; and the pendulous strings of flowers surpass those of the laburnum, not only in beauty,
but in length and number. In the cool of the morning they diffuse a most agreeable perfume.
The plant is sacred to Ganesh, the god addressed by all Hindus about to commence any undertaking.
The people worship him under the form of his favourite tree. The cultivators of every village place a stake of the Cacay on the ground, level a circular place round it, and purify this area with cow-dung. On this spot they assemble before the commencement of seed-time; burn some incense before the stake, make offerings of rice, milk, and the like, and pray for the success of their crops. The ceremony concludes with a rural feast. It seems to be the Cathartocarpus fistula.

CACHALOT, the Physeter macrocephalus, or sperm whale. The male ranges in length from 58 to 76 feet, is about 60 feet in the average. The female does not exceed 30 or 35 feet. The cachalot is without symmetry, of a prevailing dull black colour, occasionally marked with white, especially on the abdomen and tail. They propel themselves round by striking and pulling against the water with the flashes of their tails. The lower jaw is diminutive, slender, and in form not unlike the mandible of a bird; the teeth of the upper jaw, wholly ivory, in aged males are of great solidity, and weigh from 2 to 4 lbs. each. It spouts a thick watery mist from its nostrils at intervals of ten or fifteen minutes. The valuable sperm is chiefly situated in the head. It is a solid mass of soft, yellow fat, weighing between 2 and 3 tons, in a hollow of the head, bared on the upper jaw, and forming the lower part of the snout. The cavity, called case, is situated to the right and beneath the spouting canal, and corresponds to nearly the entire length of that tube. It is filled with a very delicate well of cellular tissue, containing in large cells the limpid and oily fluid, which is liberated on the slightest force. The quantity, chiefly spermacei, contained in this singular receptacle is often very considerable, and nearly 500 gallons have been obtained from the case of one whale. It has been noticed in the Mediterranean, and a strag individual in the Thames.—Hartweg.

CACHAR, a district in Assam, in the upper portion of the valley of the Barak, extending from lat. 24° 13' to 25° 30' N., and from long. 92° 26' to 93° 29' E. Its area, 3750 square miles. Its population in 1872 was 275,027, in the area of 1285 square miles, to which the census was confined. They consist of Manipuri, Cachari, Lushai or Kuki, Naga, Mikir, and Khassa. The Burmese invaded it, but were again expelled during the first Burmese war, when the legitimate raja, Govind Chandra, was restored by a treaty. On the southern frontier of Cachar lies the territory of the Lushai or Kuki, a most warlike tribe, who in 1848-49 drove up the Kuki from the south into Cachar; but Colonel Lister, by a judicious employment of the Kuki as soldiers, exerted a salutary influence over the Lushai. The Lushai, however, have in their turn been pressed up northwards by another tribe still more powerful than themselves, called the Poi, who approached from the south-east. The lonely tract lying between Cachar and Chittagong is inhabited by the Lushai, who claim and hold all the tract of country to the south of the parallel of the latitude of Chattergoora hill, and east of Hill Tiperah to the Tepai river is the Burmese frontier. The Cachari dynasty ended on the assassination of Govind Chandra, without heirs, in 1830, and in 1854, Tularam Senapati of N. Cachar also died without heirs. The Cachari people must at one time have had an extensive sway in the valley of the Brahmaputra. The people adopted Hindustan about the beginning of the 18th century, and about half the number profess that faith. It yields rice, petroleum, salt from salt wells, and several valuable timbers, tea, caoutchouc from the Ficus elastica. The elephant, rhinoceros, buffalo, metra or wild cow, gavæus gaurus, tiger, black bear, and deer occur, with the sambar and the barah-sinna. The Manipuri women weave excellent cotton cloth, and a fine net for mosquito curtains. The agriculturists hand themselves together as guilds or khel.—Imp. Gaz.; Atchison's Treatises, p. 77; Ann. Ind. Adm. xii. p. 86.

CACHARI. HIND. Cucumis purpureus s. CACHAR KALANG. TAM. Dioscorea alata. CACHU. HIND. Colocasia antiquorum. CACHUR. HIND. Cucumis zedoaria. CACODOXUS ARGUS. Linn. A fish eaten by the natives, though many reject it on account of its reputed disgusting habits. In several examined in the estuaries of the Ganges and at Penang, the stomach contained remains of small fishes and crustacea. According to Bennet, it is in Ceylon angled on hooks baited with a kind of sea-weed (Pendah), of which this fish appears to be particularly fond.

CACRI. HIND. Cucumis utilisissimus.

CACSHA, in the astronomy of the Hindus, the orbit of a planet, or the circle which ancient astronomers called the deferent; for the Cachsha carries epicycles (Paridhi), like the deferent.—Warren.

CACTACE.E or Cactace, the Indian fig tribe or exogenous plants; many genera and species are found in S.E. Asia. Some species are the food of the cochineal insect. Of these the Opuntia tuna seems the most employed in Peru; O. Hernandezii is the most celebrated in Mexico; and O. cochenillifera, the native province of which is somewhat doubtful. The Old Man cactus, Cereus senilis, Salo, is so called from the hoary aspect of the columnar stems. The cactuses are natives, almost exclusively, of the new world, from whence the prickly pear (Opuntia Ficus Indica), now abundantly naturalized in the Atlantic islands, and generally on the shores of the Mediterraneæan, where it serves to form impenetrable fences, was originally introduced.—Engl. Cyc. p. 710; Voigt, p. 60.

CACTUS INDICUS. Roxb.

Opuntia Dillenii, Haw.

Nag-phunee, | ENG. | Kabuli-tsun, Gangi-Naga-kali, | TAM. | sho, Kangi-chii, {PANJ.

Dr. Roxburgh supposed this plant to be a native of India, grounding his opinion on its general distribution and its native names. Dr. J. S. Stewart mentions it as a plant of the Panjab, on which the wild cochineal insect feeds. In the Panjab, it is grown as a hedge up to 4000 and 5000 feet, near the Jhelum. Dr. Roxburgh also mentions C. Chinensis, with its synonym Fabricia bracteata.—Roxb.; Dr. Stewart; Voigt.

CADABA INDICA. Lam., W. and A.

Strenna tetrandra, Roxb.

Indian Cadabas, | ENG. | Chimurudu, | TEL. | ada-morinika, | TEL. | Polomerini, | "

Chekomadi, "VAls, | "

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A straggling shrub, flowers in terminal racemes, of a dingy white, nearly throughout the year; very common about Musalmans burial-grounds. C. Indica, Lam., and C. trifoliata, W. and A., are plants of Coromandel.—Riddell.

CADAGA SALEH. TAM. Rungia repens. CADALACCA. MALEAL, Cadalay, TAM. Cicer arietinum.

CADALI. SANSK. Musa paradisiaca.

CADALI PUA. TAM. Lagerstroemia reginae.

CADAM. HIND. Nauclea parvifolia.

CADAPILAVA, MALEAL. Morinda citrifolia.

CADASSUM, TAM. Barringtiona racemosa.

CADDIS-WORM insects are found in all tropical Asia. They belong to the family Lepto-ceridae, and the genus Setodes contains several of them; they are enclosed in cases with projecting shields.—Hartweg.

CADELARI. MALEAL. Acalyranthes aspera.

CADESIA. The battle on the plains of Cadesia, on the border of the Euphrates, fought in A.D. 632, decided decisively the fate of Iran. This battle lasted for three days; was fought during the khilafat of Omar, by his general Sa'd, against Rustum, the general of Yezdejird III., the last of the Sassanian race. The Arabs are said to have lost about 8000 men, while the loss on the Persian side amounted to nearly 100,000.

CADJAN. ANGLO-MALAY. Jowli, . . . HIND. Tennam ola, , . TAM. Cahan, . . . MALEAL. Taki aku; Cobaral aku, Tel. Pannam ola, . . TAM.

A commercial word, used by the British in India for the dried leaves of the cocoonat and palmyra palms; they are largely used as a thatch, which resists the rain better than tiles; but roofs made of them should be relaid before the commencement of the rainy season; 149,500 were imported into Bombay in the year 1850–51. Books of palm leaves, called kavile in Telugu, are prepared from the palmyra and the fan or cocoonat palm, and are written on with an iron style.

Kajan, MALAY, are mata made from the leaf of the Mang-kwang. See Cocoanut Palm; Fan Palm; Ola; Palmry.

CADJU. MALAY. Anacardium occidentale.

CADU. HIND. Lagenaria vulgaris.

CADUMBH. MALEAL. Barringtiona racemosa.

CÁLEDONES CALYCONUM. Bedd. A plant which grows at Panamassum, at the foot of the Tinnevelly hills, and called kótpira. Its wood is very hard.—Bedd. Pl. Sylv.

CESELINIA. Some of the species of this genus are useful trees or shrubs. C. bondwelica and C. digyna are of the climbing plants, the seeds and oils of which are used in medicine. The pods of C. coriaria, or sumach, a small tree, are used as a tanning material; C. paniculata is a magnificent climber of the Himalayas; and C. sappan yields one of the Brazil woods of commerce. The fleshy pods of a Cæsallinia are largely used as soap in all parts of China, and may be bought in every market town. C. binas grows in the Eastern Archipelago. C. Brasilienensis of S. America, province of Pernambuco, might be introduced into India; its wood yields a red dye; it is the Brazil wood of commerce.

CÆSALPINIA CORIARIA. Wilde.


This small tree is now growing plentifully about Singapore, Salem, Bangalore, Hurnaur, and Chichecole. It is a native of S. America, but in 1842 was introduced by Dr. Wallich into the Botanical Gardens at Calcutta. The seed-pods, for tanning leather, are considered superior to all the Indian astringents, and leather tanned with them is considered equal to that of the best of Europe manufacture. The pods are oblong, compressed, somewhat obtuse, curved laterally, the inner side being concave and the other convex. It is to the curved pod that the commercial term of divi-divi or libi-libi is given. The average produce of pods from a full-grown tree has been estimated at 100 lbs. weight, one-fourth of which consists of seeds or refuse, leaving about 75 lbs. of marketable matter. The divi-divi pods are of a dark brown colour externally, when ripe, and 3 lbs. of an inch wide. Underneath the outer skin of the pods, and separated from the seeds by a layer of woody fibre, is a considerable thickness of astringent matter of a light yellow colour, almost pure tannin, slightly darker in colour than that manufactured from galls, about 60 or 65 per cent. of the whole pod (excluding seeds). At an interval of six feet apart, an acre of ground will contain 1210 trees, yielding an average of 810 cwt., and 30 lbs. of divi-divi, or about 204 tons of marketable matter, worth, at only 5£ per ton, 1£200. The quantity of mucilage it contains precludes it from the use of dyers. One part of divi-divi is sufficient for tanning as much leather as four parts of bark, and the process occupies only one-third of the time. The selling price ranges from £8 to £13 per ton. The imports into the United Kingdom in 1844 were 3900 tons; in 1845 and 1846, about 1400 tons each year; during the subsequent three years the imports were merely nominal; but in 1850 a renewed demand seems to have sprung up, for 2770 tons were imported into Liverpool, and a few tons into London.

—Voigt; M. E. J. B.; Dr. Cleghorn’s Reports; Markham, p. 355; Simmonds’ Comm. Products, p. 503; Indian Annals, No. vii. p. 120; Jurors’ Report, Madras Exhibition, 1855.

CÆSALPINIA DIGYNA. Rott. C. oleosperma, Roxb. F. i. ii. 357.

Umul Kuchi, . . . BEN. | Nune gachi‘a, . . . Tel. This climbing shrub grows in the Peninsula of India, and at Bhagulpur. The seeds yield an oil used in lamps.

CÆSALPINIA PANICULATA. Roxb. Guilandina paniculata, Lam. | Hsao-Kouk, . . . BUM. Grows in all India; magnificent climber in Sikkim, festooning the trees with its dark foliage and gorgeous racemes of orange blossoms.


CÆSALPINIA SAPPAN. L. Sappan wood.


This tree, the Verzina of Caesar Frederic, grows widely over S.E. Asia. Its wood is a very important article of commerce. In 1842 as much as
78,000 cwta. were shipped from Ceylon, but the export from thence has decreased. A large quantity is exported from Siam and the Philippine Islands; as much as 200,000 pikuls annually from the former, and 23,000 pikuls from Manilla. 3524 pikuls were shipped from Singapore in 1851, and 4074 pikuls in 1852. 3670 tons of wood were imported into England in 1852, at £7 to £12 the ton. Fée considers Cesalpinia sappan to be one of the Brazil woods of the merchants. But it is probable that it is the produce of more than one genus. The best Brazil wood is said to come from Pernambuco, where it is called Pao da Rainha, or Queen's Wood, on account of its being a royal monopoly. C. sappan grows in the N. Arcot forests, in the Nalai Malai of Cuddapah in the Kotah jungles; is a native of Malabar, Ceylon, Bengal, Burmah, Tenasserim, Siam, and Amboyna; is found in the immediate vicinity of Prome, growing on the small hills of the place, and near Thounge-za, in the northern part of the Rangoon district, where it is also seen in small quantity. It is cultivated in Palghaut for dying the straw used in mat-making, and from its high price for this purpose, it is not used for carpentry. It grows with great luxuriance in South Malabar, where it is cultivated rather extensively by the Moplahs, who plant a number of the seeds at the birth of a daughter. The trees require fourteen or fifteen years to come to maturity, and then become the girl's dowry. Dr. Cleghorn thinks the dye-wood is damaged by being allowed to float in salt water. In the Bombay forests it grows freely in their cultivated places without any care, but the heart-wood is dingy, and wants that fine pinkish red which the wood of the southern forest has. The heart-wood being cut into chips, steeped for a considerable time in water, and then boiled, is used for dyeing. The cloth or thread is repeatedly dipped in this liquid, and hung to dry between each wetting, till it is brought to the shade required. To fix the colour, alum is added. The powder commonly used at the Hooe festival is extracted from the wood of this tree. The reddish-brown tint so frequently met with in the clothes of the poorer Chinese, is produced from this wood. The seeds are used for colouring milk. The chips are used like logwood, and medicinally.—Marsden’s Sumatra, p. 95; Voigt; Captain Macdonald; Drs. Wright, McClendon, Gibson, and Cleghorn.

C.ESALPINIA SEPIARIA. Roxb. Mysore thorn.

Reichardia decapetala, Roth.

Hao-kyan bo, BURM. Phalwai, HIND. Chilloor; Kilgato, HIND. Urm, Urm, of. KAGHAN. Haidar ka jhar, ...

Grows in Kamaon, Nepal, Bengal, Ava, Tavoy, Mysore, Ajmir, and in all the Himalayas under 5000 feet. It is a scendent, strong-armed shrub, used to fence around fields, and forming a splendid impenetrable hedge, covered with bright green leaves and large yellow spikes of flower. Hyder Ali surrounded fortified places with it.—Voigt; Irvine; Chow-Chow; Thompson; Stewart.

C.ESAR, the Arabic, Greek, and German Kaiser, a title of the emperors of Rome, which was applied to the Byzantine emperor, until the title was transferred to the Turkish sultan.

C.ESAREA ruins stand by the seaside, and from the summit of a tower that is washed by the waves, a view is obtained of the whole coast of Palestine, from Cape Blanco to Jaffa. When Colonel Skinner passed through the area of this great city was used for a burial-ground.—Skinner’s Overland Journey, i. p. 155.

C.ESAR FREDERICKE, a Portuguese jeweller who wandered from Bussora to Karacchee, and thence to Goa and Vijayanagar.

CAFFER BREAD, of the Cape of Good Hope, is from the Euphorobalsamier. The stem, when stripped of its leaves, resembles a large pineapple. It is also called the Hottentot bread-fruit. The Kafir people bury it for some months in the ground, then pound it, and extract a farinaceous matter of the nature of sago.—Captain Carmichael.

CAFFER TEA, the leaves of Helichrysum nudifolium, common in the Cape Colony, and used medicinally.

CAFFEE CHILLEY, Capsicum grossum.

CAFIR, also Kafir, a term employed in India to designate the African race, usually the large-featured, curly-haired variety. La Bourdonnais enlisted many into his army, but the British in India have never enlisted them. They are employed in the city of Hyderabad. A small number were employed in the Ceylon Rifle Corps; comparatively few of their children grew up, usually falling victims to pulmonary complaints. Cahir also is a term to designate the idol-worshiping race in the N.W. Himalaya, known as the Siah Posh Cahir, because of their black-coloured clothes. Also a general term of abuse by Mahomedans to any non-believer in Mahomed. It is from the Arabic, meaning a slanderer, and devoid.

CAGGAR, the ancient Dhaudahvati, a river of the Rajputana desert, also known as the Hakra, but absorbed by the desert sands many centuries ago. The stream took a westerly direction by Phoolra, where it is still to be traced, and fell into the Indus below Cutch. Its absorption occurred during the reign of Rao Hamir, prince of Dhat, and caused great physical and political changes in the country. There are vestiges of large towns buried in the sands; amongst them is the Rung Mahal, west of Bhainar, with subterranean apartments still in good preservation. The tradition is that it belonged to a Powar prince in the time of Alexander the Great, Sikandar Rooni. The absorption of the Caggar river is named as one of the causes of the comparative depopulation of the northern desert of India.—Todd’s Rajasthan, ii. pp. 218, 214. See Sarasvati.

CAHAMILILE. SINGH. A very hard, fine, close, even-grained heavy Ceylon wood.

CAHUÁ. HIND. Pentapetra arjuna.

CAILLEA CINEREA. G. and P.

Diehrostatybus cinerea, W. Densmannus cinereus, W. Mimosae cinerea, Linn. Acacia dealis, D.C. Mavalinga maram, TAM. Venuturu, TEL. This small tree grows in Ceylon, in the Madras Presidency, and is common on sterile plains of the Dekhan, Deuli, Patna, and Paghmam.—Voigt.

CAIN, according to Bunsen (iv. 426), Qayin, is the type of the dwellers in towns. He was the progenitor of the city-building Aryans, as also of the vast Turanian wanderers, who move about all but cut off from the rest of mankind. Cain is called Kabil by Mahomedans, and is fabled by them to rest under Jabil Shamshah, the highest wall of the crater at Aden, where he and his
Cairn.

A heap of stones or tumulus piled over the resting-place of the ancient dead, in different parts of S. India. Prior to the Buddhist stupas or tope, this seems to have been a common mode of covering the dead; indeed, the tope is only a cairn regularly built. On the Neiggerry hills are found remains of cairns, barrows, cromlechs, kistvaens, and circles of upright loose stones. In the cairns or barrows, vases, cinerary urns, and other vessels of glazed pottery, are often found, which sometimes contain human bones, more or less charred, and mixed with ashes; sometimes a little animal charcoal alone. They are met with in almost every part of peninsular India, from Nagpur to Madura, in immense numbers on the Animally hills, a range on the south side of the great Combatore gap, which forms the commencement and northern face of the Southern Ghats, those on the Animally being of a more advanced order and in better condition than the Neiggerry barrows. Similar remains are found in Circassia and Russia; and circles of stones surrounding ancient graves, are found on the southern Arabian coast, and in the Somali country in Africa. All around Hyderabad and Secunderabad, in the Dekhan, are great numbers of cairns; and many of these remains are at Rajan Kooloor, in Zorapur, and also at Siwarji, near Ferozabad, on the Bhima. Neither the hill people, the Toda and Kurubara, nor any Hindus, know anything about the race to which these remains belonged; and neither in Sanskrit literature, nor in that of the Dravidian languages, is there any tradition on the subject. The Tamil people generally call these cairns pandukuri; kuri means a pit or grave, and pandu refers to the Pandava brothers, to whom so much of Hindu mythology relates. The resemblance of the barrows and their contents (with the cromlechs, etc.) to the remains which are discovered in the ancient seats of the Celtic race in Europe, is exact (Dr. Caldwell's Grammar). In India, the tops or tumuli of Kruku-chandra, Kanaka, and Kasyapa existed before the preaching of Saky.; and the ancient elemental deities of the Vedas preceded the worship of Dharma or concrete nature.

Kodi Kul, or umbrella stone, Topi Kul, cap or covering stone, and Pandu Kul or Pandu stones, are other names by which the cromlechs of Southern India are known to the people. The Topi Kul is a large mushroom-shaped stone placed on the ground. Underneath it are urns of baked pottery, containing portions of human bones mixed with charcoal, and a fine powder or sand, in which also the heads had been placed. And whether with the Topi Kul, or the other cairns, a foreign earth, i.e. an earth not belonging to the locality, is used to cover in the funeral urns. Mr. Babington was the first to notice them, about the year 1820. Underneath the Topi Kul he found a flat stone, and beneath it an urn or urns, resting in a shell corresponding to its shape, filled in with fine sand; and on ledges near the urn, were remains of iron implements and weapons, with heads of various kinds, an iron tripod, a lamp, etc. In 1831 Captain Harkness found groups of cairns on the Saroni hill at Ota-

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to 15 feet. The floor of the pit is flagged with stone slabs, on which is a cist, formed by slabs on edge, with a covering slab. Around the head of each cist were found circular vases, urns of red and black pottery, glazed and unglazed, spear heads, arrow heads, fragments of swords, of bill hooks, iron lamps, iron tripods. In one compartment of a cist Captain Taylor found a perfect male skeleton; in others, one, two, or three smaller skeletons, evidently of women, some with the skulls separate from the bodies, and the skeletons lying on their bellies; and between the upper flagstone and the floor, intermixed with the human skeletons and portions of skeletons in every possible position, the skulls of many being separated from the bodies. These he considered to be the remains of persons who had been sacrificed and thrown into the grave-pit of the cairn. The slabs above, the guiding entrance below, and the cists, lay invariably N.E. and S.E.

In the circles near Hyatnuggur, and other places around Hyderabad, southwards to Zorapur, bells, iron weapons, and pottery have been found. The weapons consisted of arrow heads, a javelin red like that used by the Binjari race of the present day, lance and spear heads, bronze bells and cups. In a Hyatnuggur cairn, also, were found chank shells (Turbinella pyrum), some of them intended to be used as conchis, others as ornaments, necklaces, etc. The pottery articles were cups, and an hour-glass-shaped drum, also human and other bones.

All around in the cantonment of Secunderabad and Bolarum are numerous remains, many of which have been opened, and some very perfect skulls obtained.

There are many cairns on the Masulipatam road, noticed by Captain (now General) Doria. Also at Goor Mukul, between Zorapur and Hyderabad; many near Dewarconda, about 40 miles S.E. from Hyderabad; also at Narkelpilly. A return from Mr. Felly showed 2129 cromlechs and kistvaens in the Bellary district, which the people believe to have formed the dwellings of a diminutive race called Mohori. Cairns, cromlechs, and kistvaens are also to be seen in all the Raichore Dooab; in the district lying between the Krishna and Tumbrada, on the Yemmee Gooila hills.

At Vihathalli Captain Taylor discovered a great group of natural rocks or tors, surrounded by circles of stones. One at Vihathalli consists of a square of 22 rocks on each side. It is partly incomplete, and the area measures 360 by 340 feet. At Shahpur is a parallelogram, where 56 huge rocks enclose a space and tumulus 400 feet by 260. Some of the masses exceed 200 tons in weight, one of them 267 tons, and it is difficult to imagine how such masses were moved from the granite hills at Shahpur, three miles distant. It had been a place of cremation on a large scale, and the tumulus consisted of human ashes, charcoal, and pieces of bone; and the remains of each body had been covered over with white earth.

The Zorapore graves are of two kinds, one in which the dead were buried, accompanied by human sacrifices; the other burned their dead, and placed their ashes in cairns, or collected and placed them in kistvaens.

Captain Congreve regarded these Neolithic remains to be those of Scythic races. Captain (Colonel) Taylor discusses the question whether of Scythic races, Aryan or Turanian. Over vast wildernesses in the northern regions of Asia, along the banks of the Irthi, and beyond the remote Yenisei, innumerable tumuli are scattered, containing the remains of ancient art and long extinct races of men. Implements of silver, gold, and copper, girdles of the precious metals, bracelets decked with pearls, fragments of porcelain, have surprised the travellers who have seen a few of the tumuli opened. Similar tumuli are spread over the north of Europe, in Eschricht, Nilsson, and Retzius, in Sweden and Denmark, Dr. Wilkins in Ireland, and MM. Robert and Serres in France, have attempted to identify in these relics the remains of different races supposed to have inhabited successively the north of Europe in early times. In the opinion of the Swedes, the sepulchral remains of northern Europe may be referred to three successive eras. They display different physical types and different stages of advancement in civilisation. The oldest are the relics of a people with round heads, having the transverse diameter of the cranium large in proportion to the longitudinal. The implements and ornaments which are found in the tombs of this race, indicate the greatest roughness. They consist of tools and the heads of arrows and lances made of stone and bone, but nothing indicating a knowledge of the use of metals. It seems to be the opinion of Retzius and that of Nilsson (Scandinaviska Nordens Urvinarne, af S. Nilsson, Lund, 1838–43), that they were the burial-places of a people much older than the Celts. Similar remains, discovered in France, have been supposed by MM. Robert and Serres to be reifiable in like manner to different eras.

In the Alford district of Aberdeenshire are many cairns of enormous size. Some people think they have been beacons to give warning in time of danger; but many of them are situated in low places, and they are supposed to be tombs of some great men. It is a common saying among the people of that country to this day, when any person makes them a gift, 'God I wat, gin I live abiat you, I' se add a stone to your cairn.' The old Celticks, 'Cairns, thei, me make doon', 'I will add a stone to your cairn,' i.e. I will do homage to your memory when you are dead. And to this day many old people never pass by any of these cairns without throwing a stone to it.

The Gond races in the Vindhya place great stones over the graves. Doorgawati, queen regent of Gurga Mundela, was killed in action against the troops of Akbar, under Asaf Khan, as an inscription of her family asserts (As. Res. x. p. 437). She was interred at the place where she fell (Ben. As. Soc. Journal, vi. 628), and to this day the passing stranger places, as a votive offering, one of the fairest he can find of those beautiful specimens of white crystal in which the hills in this quarter abound. Two rocks lie by her side, which are supposed by the people to be her drums converted into stone; and strange stories are told of their being still occasionally heard to sound in the stillness of the night by the people of the nearest villages. The very ancient custom of casting a stone upon untimely graves is still observed throughout Spain, accompanied by a silent prayer for the dead.

In the Upper Godavery, British side, and Kistna
district south of Jaggipetta, tombs and cairns are found in groups, particularly in the Kistna district, where there are hundreds on one hill alone,—four stone slabs on edge, and slab at bottom, and one on top; then round the tomb a ring of small stones, some 12 feet in diameter, and small stones within that heaped over the grave. The grave is sunk from 2 to 4 feet in the ground, according to the breadth of the side slabs. The size of the graves are from 1 foot 6 inches long by 1 foot broad, to 6 feet long by 2 feet broad. In the Kistna district the slabs are limestone; in the Upper Godavery, trap, hypogene rock and sandstone. In several of these graves has been found a skeleton. The body had been placed so that the head rested on right arm, head always north, feet south. The bones crumbled almost at a touch. The size of the upper slabs on the tombs vary in size from 4 feet by 3 feet to 8 feet by 6 feet; some of the smaller tombs have no slabs on them at top, but only small stones piled up as a cairn.

In the Upper Godavery, also, are tombs without cairns, no slabs at bottom, only four forming the sides. They are generally 4 feet by 3 feet square; some immense slabs on top measured 14 by 5 feet. The graves are filled up with small earthen pots, filled with burnt bones and clay. Beads, apparently made of ivory, and some small glass ones of red and green colour, in the pot that contains the charred remains of the skull. There is a splendid tomb of sandstone on the Nizam's side of the river opposite Lingala; the slab on top is 9 feet square, the tomb surrounded with eight rings of stone (sunk in the ground) some 7 feet in diameter; it is evidently a chief's grave. In another grave, with smaller slabs and fewer rings round, were the usual pots with bones and beads; the rings contained a skeleton with feet in towards the tomb, the skull placed between the knees. These were the skeletons of slaves that had been sacrificed on the death of a chief, number according to rank. Hero-lotus describes this ceremony. Mr. Rivett Carnac, in the beginning of 1847, brought to notice the existence of barrows, a little further northward, at the village of Junapani, near Nagpur, in which were found articles of pottery, spear and arrow heads, battle-axes, a horse snaffle bit, stirrup-irons, and a small iron model of a bow and arrow.

In the Bengal Asiatic Journal, xiii. p. 618, for 1844, is Colonel Yule's description of the Khasaya people of East Bengal, an Indo-Chinese race, who keep cattle but drink no milk, and the sister's son inherits property and rank. They habitually erect dolmens, menhirs, cists, and cromlechs, and cists are gigantic in their proportions; the dolmen similar in appearance and construction, to the so-called Druidical remains of western Europe. The undulatory eminences of the country, some 40 feet to 600 feet above the level of the sea, are dotted with groups of huge unpolished squared pillars and tabular slabs, supported on three or four rude piers. In one spot, burial in a sand grove, were found a nearly complete circle of menhir, the tallest of which was 30 feet out of the ground, 6 feet broad, and 2 feet 8 inches thick; and in front of each was a dolmen or cromlech of proportionately gigantic pieces of rock, while the largest slab hitherto measured is 32 feet high, 15 feet broad, and 2 feet thick. Several had been very recently erected. The method of obtaining the blocks, is by cutting grooves, along which fires are lighted, and into which, when heated, cold water is run, which causes the rock to fissure along the groove. The lever and rope are the only mechanical aids used in transposing and erecting the blocks. The objects of their erection are various,—sepulture, marking spots where public events had occurred, etc. The Khasaya word for a stone, 'maan,' as commonly occurs in the names of their villages and places, as that of man, men, and men does in those of Brittany, Wales, Cornwall, etc. Thus Mauzain signifies in Khasaya the stone of oath; Mauloo, the stone of salt; Muylong, the grassy stone, etc; just as in Wales, Pennaen Mawr signifies the hill of the big stone; and in Brittany a menhir is a standing; and a dolmen a table stone, etc. A cairn of considerable size, on the roadside at the top of the Ajanta ghat, seems to have been a thankoffering for the ascent of the ghat. We added, like the rest of our camp, one stone to the heap.—Ras Mala, Hindoo Annals, ii. p. 387; Dr. Fitchard, Rep. Brit. Ass. 1847, p. 236; Colonel Meadows Taylor in J.E. Soc. 1869; Dr. Caldwell's Grammar; As. Res. v. xx.; Capt. Harkness and Congree in M.L.S.J.; Captain Yule; Beng. As. Soc. Journ. xii. p. 619. See Cheda; Cromlech; Ghorband; Tsalal.

CAIRO, the capital of Egypt, in lat. 30° 6' N., and long. 31° 26' E., a very ancient city in the valley of the Nile, and known to the people as Misr. After the conquest of Egypt by Cambyses (B.C. 525), the Babylonians are said to have founded New Babylon, on the site now occupied by old Cairo. That city, during the Roman occupation, was the headquarters of one of the three legions stationed in Egypt. In A.D. 638 New Babylon was captured by the Arabs, and a new city gradually arose beyond it, which received the name of 'Fastat,' from its having grown up around the tent (fastat) of the Arab general. The modern city was built adjacent to Fastat, in the 12th century A.D., a portion of the stone used in the construction having been obtained from the ancient city of Memphis.

In A.D. 973, the new city, under the title of Misr (al Kahirah, i.e. the Victorious), was constituted the capital of Egypt. The citadel was built in 1116 by the famous Saladin (Salah-ud-Din), who also erected the beautiful aqueduct seen from its walls. Within the walls are the Pasha's palace, the arsenal, mint, and public offices, a mosque, and a well 260 feet deep, known as Joseph's Well. It was not, however, Joseph the son of Jacob who built it, but a ruler of that name, about A.D. 1100. Under the son of Salah-ud-Din, Cairo was greatly extended; its magnificence culminated about 1340 A.D.

On the 26th January 1517, the Osmanli sultan, Selim I, entered the city as its conqueror, and thenceforward its history is a blank down to the 22d July 1798, when it was occupied by the French army under Bonaparte. In 1801 the French garrison capitulated to the Turkish army. On the 3d August 1805, Muhammad Ali Pasha took possession of the citadel, which witnessed the massacre, 1st March 1811, of 400 Mameluk Beys, by his orders. Amir Bey alone escaped by leaping the wall. The population is estimated at 400,000, Egyptians, Mahomeds, Copts, Jews, Europeans, and other strangers from the principal
Cajanus bicolor, D. C. | Cyrtisus pseudo-cajan, Jacq.
Barry Tur, | Duka. | Main Tovaray, | Tam.
Two-coloured Dah, Eng. | Malay Tovaray, | Tam.
Hill Doll, | Konda Kandulu, | Tel.

An excellent pulse, makes a pudding little inferior to that made of peas, and is a particular favourite. When husked and split, it constitutes the kind of dhal which most commonly enters into the formation of the vegetable curry of the Hindu,—moisture, 120; nitrogenous matter, 201; starchy matter, 631; fatty or oily matter, 1;5; mineral constituents (ash), 32. This is sown in fields at the commencement of the rains in June, and sometimes much later; it is ripe in December. The seeds are sometimes ground into flour, or split like dry peas; for the latter they are an excellent substitute. It is one of the plants employed in the Bengal Powder-works at Espharo, in the manufacture of gunpowder charcoal. It might probably be employed in the manufacture of pyrolygenic acetic acid. The green pods are cooked in curries. The seeds are separated from the dried pods by beating, and to give a bright colour are mixed with red earth and steeped in water until they germinate. They are then removed, and dried in the sun for two days, and bruised in a mill to break up the seeds, when it is freed from the testa. The cotyledons are now called dhal, which is cooked for curries; also sweet cakes are made from it. Dhal sells at 18 to 24 lbs. for a shilling. The dry leaves and stalks are given to cattle, and the stalks used as thatch.—Beng. Phar. p. 235.

Cajaputi OIL, Kayaputi, Caqaput oileum. This oil is obtained from the leaves of the Melaleuca caqaputi of Maton and Roxburgh; and it has been said, also from M. leucodendron, which is the species known to the people as the kayaputi, literally white wood. Ramphius described two trees, Arbor alba major and Arbor alba minor, and in 1798, Mr. Smith, of the Calcutta Botanic Garden, was sent to the Molucca islands to obtain the true sort of caqaputi plant. He obtained several of each of the trees, and they were distributed over Europe. Specimens sent to England were examined by Dr. Maton to be those of the Melaleuca caqaputi. It is a small tree with an erect but crooked stem, covered with thick, rather soft, light-coloured bark; branches scattered, with slender twigs which droop like those of the weeping willow. A native of the Molucca islands, especially of Boeroe, Manipe, and of the S. of Borneo. It is called daunikjeel, but also caqaputi. The leaves are collected on a warm dry day in autumn, and placed in dry sacks, in which they nevertheless become heated and moist. They are then cut in pieces, macerated in water for a night, and then distilled. Two sackfuls of the leaves yield only about three drachms of the oil. This is clear and limpid, of a light green colour, very volatile, diffusing a powerful odour, having a warm aromatic taste, something resembling that of camphor, followed by a sense of coolness. Sp. gr. 0.914 to 0.927; soluble in alcohol. It boils at 349°.— Crawford's Diet. O.S.; Rolly; Mason. See Melaleuca caqaputi.

Caju, Gu., Hind, Casearia elliptica? also Hind., Anacardium occidentale. Cashew-nut tree. Caju ka tel, the oil from the apple.

Cajur. Hind. Phoenix dactylifer, the date-palm, properly Kshajur.

Calak. Can. Cathartocarpus fistula. Cala. Sansk. Time in its natural acceptation; a term applied to a variety of mathematical and astronomical subjects. Cala, in Hindu astrology, an arc of one minute of a degree; also the phases of the moon, of which the Hindus count 16. Maha Cala, the conjunction or opposition of the sun and moon. See Kala; Yug.

CALABAR SKINS.


CALABASH, Cucurbita ingenaria, Linna. Horsea kuddoo, Hind. Chooray kai, Tam. Lahoo Ambon, Malay. Anapa kaya, Tel. This is the Lagenaria vulgaris, Ser. It is of two kinds, the long or Ceylon, and the round; they are good vegetables when young, and are useful when dry as vessels, also as fakirs' bottles, as the sounding drum for the sitar, and as a buoy for swimming across rivers. The New World calabash is the shell of the fruit of Crescentia cujete, L, a tree of the West Indies and South America, applied to various domestic purposes, and often carefully carved or painted.—Rohde, MNS.

CALABASH NUTMEG, Monodora myristica, var., of tropical West Africa, bearing globular fruits, 4 to 6 inches in diameter, filled with aromatic seeds. These might, with advantage, be brought to India.

CALABA TREE, Calophyllum calaba, Linna. CALACUTA, in Hindu mythology, a poison produced from the churning of the ocean.

CALADANA. Hind. Phorbittis nil.

CALADIUM XANTHORIZUM.

Coloeasia escallenta, Schott. | Ervi, | Hind.
A small bulbous root, sown from March to July in rows of beds, mostly along a watercourse where ginger is planted. It requires much water, and takes from six to seven months to ripen. When boiled and then roasted, it is very wholesome, and somewhat resembles a yam in taste; the natives also put it into curries. It is not liked by Europeans.

This Chinese arum has a round bulb, used medicinally.—Smith.
CALAH.

CALAH, one of the three cities mentioned in Genesis x. 11, 12 as having been restored by Asshur, son of Shem. B.C. 740, Calah revolted, and Tiglath-Pileser became ruler of Assyria. It has been identified as the modern Nimrud, q.v.

CALAH. H. H. Fennel flower seed.

CALAMANDER WOOD.


A commercial term applied to the woods of two or three species of Dalbergia growing in Ceylon, one of them the D. quesita, Thev. It is scarce even in Ceylon; it is probably the most beautiful of all fancy woods. The figure is between that of rosewood and zebra-wood; the colour of the ground is usually a rich hazel brown, described as chocolate brown with black stripes. It is hard, and turns well. Mr. Rohde (M.S.) met with variegated ebony of rich lustrous in logs of ebony cut at the Northern Circar hills, but whether this was owing to the wood being young, or whether the wood was from a distinct tree, he did not know; but there seems no doubt that very many trees yield an ebony—Ains. Mat. Med. p. 211; M'Culloch; Rohde, M.S.; Holtzappel; Mendis; Ferguson; Thwaites. See Dalbergia.

CALAMARIDE, the family of dwarf snakes. See Rattles.

CALAMARIES, or Squids, are canglossous animals, of the family Teuthididae, section Decapoda. Most of the genera are fossil; but Loligo and Teuthis has twenty-one recent species, and one of them is luminous at night. See Mollusca.

CALAMBAC, Chin-hiang, Chin., also Calambeg, called aloes-wood, is the agallochum of the ancients, and the agila or eagle-wood of the moderns. It is produced in Siam and Sylhet by Aquilaria agallocha.—Royle, Illusr. p. 171.

CALAMBUCO, one of the best timber trees of the Philippines. The wood is largely employed in the fabrication of domestic utensils and agricultural implements.—Crawfurd, Dig. p. 79.

CALA MEEN. TAM. Polynemus Indicus.

CALAMINE.


Rough calamine is prepared for medicinal use by burning; prepared article, usually called oxide of zinc, is often adulterated with sulph. baryta, carbonate of lime, etc.—Royle.

CALAMUS. This genus of palm trees is indigenous to Southern Asia, and Dr. Griffiths enumerated 58 species. They abound in the Madras territories, along the foot of the Himalaya from Dehra Dooon to Sylhet, in Assam, Chittagong, in the Malay Peninsula, Siam, Cochini-China, Sumatra, and in the Eastern Archipelago. The species are mostly spreading shrubs or small trees, erect, or climbing to a considerable height, or trailing the stems several hundred feet along. They furnish the dragon’s blood, Malacca canes, and rattans of commerce, some being formed into walking-sticks; some, as the C. rotang and others, form the canes or rattans of commerce, of which the people of the Khalsa hills make bridges 300 feet long, and those of the Anaumly hills are formed into long looped ladders. The hard flinty coating of the cane stems is readily split into strips, from which the bottoms of chairs and similar articles are manufactured. It is not, however, possible to say from what particular species the canes of the shops are obtained, it being probable that many are gathered indiscriminately; C. rotang has, however, been said to furnish the stouter, and C. scipinum the more slender sorts. But the C. tenuis of Assam, C. gracilis, C. extensus, and others, all furnish the canes of commerce. The stem of Calamus verus is described as being 100 feet long, that of C. oblongus 300 to 400 feet, of C. rudentum upwards of 500 feet, and of C. extensus as much as 600 feet. Rumphius even states (vol. v. 100) that one kind attains the extraordinary length of 1200 feet. The cane stem is closely covered over by the tubular bases of the leaves, through which it is drawn by the cane-gatherers when green; afterwards it is dried in the sun, and then is ready for the market. The ground rattan is distinguished by its straight head and altogether straight and stiff character, as well as by its pale colour, produced by species of Lombara, in inch in diameter, and others not half that thickness, and that is disdained by a hard, and others by a soft bark. It is not known whether the slender are of the same species as the thicker kinds, only growing in different situations, or from roots of different ages; but Rhapsis flabelliformis is said to yield the ground rattan. Another kind of rattan is called dragon cane. This, both light and dark coloured, is thicker than the last, has long internodes and a hard bark, less flexible than the common rattans, but strong, springy, and much valued. A variety, with soft bark, is called Manila dragon cane. Other kinds of canes, imported from China, are known, one with stiff stems and large knots, by the name of Jambee, another as Whanghee. This has a pale, hard bark, and flexible stems, with internodes of about an inch and a half or two inches, and a number of little holes at the knots. Some of the canes of commerce, however, are produced by species of Lombara, saecurum, and other genera. The flesh that surrounds the seeds of this genus is a delicate article of food; limpid water flows from the stems when cut through; and the young shoots of some of them, while still tender, are fritted or boiled, chopped small, and, being fried with pepper and gravy, are said to furnish a very delicate dish. One of the kinds of dragon’s blood or jurnang is the produce of species of calamus; and those which chiefly yield it are the C. petraeus, Lour., C. rudentum, Lour., C. verus, Lour., and C. draco, Wild., of which the last three were by Linnaeus reckoned mere varieties of C. rotang. Mr. Gamble names 39 species. Calamus arborascens, Griff., is an arboreous species of rattan common in the Burma jungles. Griffith justly terms it ‘a very elegant palm.’ Calamus draco, Wild.


This grows in Burma, the Malay Peninsula, Sumatra, and the Eastern Archipelago, and is said to be the species which, as a natural secretion of its fruit, yields the best djurnang or dragon’s blood, an article of commerce from the earliest times, and still in demand. In the forest of Tenasserim, the natives call it ‘red rattan,’ as it produces a red exudation like dragon’s blood. It is little known in the Peninsula of India. The plants when young are elegant, and resemble small palm trees, after which they become secedent,
and overruns any neighbouring trees. The fruits are fleshy, red, and astringent. Dragon’s blood is of more importance in the arts than in medicine, being chiefly used as an ingredient in varnishes and paints. In commerce it occurs in powder, grains, masses, drops the size of an olive, and in sticks, enveloped in the leaf of the talipot palm.

Calamus erectus, Roxb. Its seeds are used as a substitute for betel-nut.

Calamus extensus, Roxb., Nela pokra, Tel. Its seeds are used for betel-nut. See Canes.

Calamus fasciculatus, Roxb. Rattan cane.

Buru-bet, . . . BENG. Parambu, . . . TAM.
Perambu, . . . MALAY. Ama Vadasamu, Tel.

This cane is a native of Bengal, used for walking-sticks.

Calamus inermis, T. And., furnishes the finest alpenstocks.

Calamus latifolius, Roxb., of Chittagong, Burma, and the Andamans, is used for tying timber rafts, and to make cables.

Calamus montanus, T. And., of Sikhim and Bhutan, is the best cane for suspension bridges and for dragging logs.

Calamus rotang, Linn. Rattan cane.

C. Roxburghii, Griff. Roke.
Bet, Betu, . . . BER. Betamu, Betapu, . . . TEL.
Rotan, . . . MALAY. Niru Prabba, Penu, . . .
Bed, . . . PERS. Papiu, . . .
Perambu, . . . TAM.

This species of calamus is said to furnish the stouter of the rattan canes of commerce, which are readily split into strips, are extensively used for the caning in the backs and bottoms of chairs, sofas, and light carriages; are made into matting, seats, sofas, baskets, and cabinets; and throughout the Archipelago vessels are furnished with cables formed of cane twisted or plaited. They are likewise formed into ropes by the people of the forests, to drag heavy weights and to bind wild elephants. The kinds employed for caning chairs, etc., are known in commerce by the name of rattan cane, and are yielded by long trailing species which abound wherever the genus is found. The most northern one, Calamus royleanus, do doubt yields the rattans collected in the Debra Doon, while C. Roxburghii doubtless yields those collected in more southern latitudes. Dragon cane is thick, both light and dark colours, with long internodes and a hard bark, less flexible than the common rattans, but strong, springy, and much valued. C. Royleanus, C. rotang, common in Bengal and on the Coromandel coast, are used for all the ordinary purposes of cane; as also are C. tennis of Assam, gracilis, extensus, and others. Cane form a considerable article of commerce. Between four and five millions of them have been exported from the East Indies. Dampier says: ‘Here we made two new cables of rattans, each of them four inches about. Our captain bought the rattans, and hired a Chinese to work them, who was very expert in making such wooden cables. These cables I found serviceable enough after, in mooring the vessel with either of them; for when I carried out the anchor, the cable, being thrown out after me, swam like cork in the sea, so that I could see when it was tight, which we cannot so well discern in our hemp cables, whose weight sinks them down, nor can we carry them out but by placing two or three boats at some distance asunder, to buoy up the cable, while the long boat rows out the anchor.’

The tow-ropes mentioned by Marco Polo as used by the Chinese for tracking their vessels on their numerous rivers and canals, seem also to have been made of cane, and not of bamboo, as sometimes stated, as they were split in their whole length of about thirty feet, and then twisted together into strong ropes some hundred feet in length. In Java, Sumatra, and throughout the eastern islands, vessels are furnished with cables formed of cane twisted or plaited. This sort of cable was very extensively manufactured at Malacca.

Mr. G. Bennet says (Wanderings, ii. p. 121) that near Macao the rattans are split longitudinally, soaked, and attached to a wheel, which one person keeps in motion, whilst another binds the split rattans together, adding others to the length from a quantity carried around his waist, until the required length of the rope is completed.

Calamus Royleanus, Griff., the most northern of the cases, being found in the Debra Doon, where it abounds. Plentiful in the eastern Kamaon forests, and used in all cane-work.

Calamus rudimentum, Loureiro, grows on the Mahabaleshwar hills and Dekhan, also in Cochin-China and the Moluccas. Loureiro describes this large species as being twisted into ropes in the eastern regions, and employed, among other purposes, for dragging great weights, and for binding untamed elephants.

Calamus steptoei, Loureiro. Griffith considers this to be the species which yields the Malacca cane, but the plant does not appear about Malacca. He was, however, informed that the canes are imported from Sink, on the opposite coast of Sumatra. Some of these are simply mottled or clouded, others of a brown colour, in consequence, it is said, of their having been smoked. The more slender specimens with the longest internodes are those most highly valued.

Calamus siminalis, Ainale. Bet, . . . DUKH. Perapum, . . . TAM.
Vetra, . . . SANSK. Betta, . . . TEL.

It grows in the woods, and its fruit is eaten by the common people. —Roxb.; Griffith; Seemann; Voigt; Royce, Fin. Pl.; Mason; O’Sh.; Bennett; Thompson; Ainale, p. 291: Gamble.

CALANDRA GRANARIA.

Oheda, Ghan, . . . HIND. Makara, . . . HIND.

A weevil very destructive to grain. It is one of the insects styled goon by the people. See Insects.

CALANUS to a Brahman who accompanied Alexander the Great into Western Asia. He was an old man upwards of 80, and went along with Alexander through Gedrosia, the modern Makran. But at Pasargada, in Persia, he fell sick, and ended his life by immobilising himself on a pile. According to Plutarch, his real name was Sphones. His native country was on the banks of the river Camala.—Cal. Rev. See Zarnano Chegas.

CALAPA. MALAY. Cocoanut palm. From this is derived the old word for the cocoanut, calaper, still usual amongst sailors.

CALAPPHATH. HIND. Andrographis paniculata.

CALASTRI or Kalahasti is a zamindari estate in the Madras district of North Arcot, Madras. The town, in lat. 13° 45’ N., and long. 79° 44’ E., is the principal town of a Hindu chief known as the raja of Calastri.

CAUL CAREOUS SPAR. Cale-spar.

Ying-shwu-shih, . . . CHIN. Han-shwu-shih, . . . CHIN.
Peh-shwu-shih, . . . Safed surna, . . . HIND.
The varieties of this mineral are calc-spar, Iceland spar, satin spar, chalk, rock milk, calcareous tufa, stalactite, stalagmitic, limestone, oolite, pisolite, argentite, Fontainbleau limestone, white and clouded marbles, statuary marble, compact limestone, stinkstone, anthracomite, plumbo calcite, mineral argentite. Calcareous spar is used in India medicinally, and they call it white antimony, probably from its rhombohedral fracture resembling that of galena, which is usually employed in lieu of antimony; and natives use this also for the eyes, just as they do sulphide of antimony. At Samkhandergool, 25 miles S.W. of Salem, a great quantity of calcareous spar is burnt and sent to Salem and other parts, for eating with betel, as betel-eaters hold it in esteem. It requires a much greater heat than the ordinary kinds of limestone, and is generally burnt in small circular kilns with a jungle shrub, which gives out a great heat. When burnt it is much whiter than ordinary chunam, takes a most beautiful polish, and is much used for the last coat of plaster in houses, etc., giving the appearance of the whitest marble when polished. It occurs also at Masulipatam and in Travanore; rhomb spar at Nellore, and satin spar, or fibrous carbonate of lime, in the Hyderabad territory. Calcium is estimated to constitute one-fourth part, by weight, of the materials of which the earth consists. The importance of the uses of the compounds corresponds with the abundance of the element itself. But for the use of calcium in separating iron from ore, iron would not occupy the important position it does. Its compounds form ranges of mountains, coral islands, and chalk cliffs. There are few industries which do not depend in some way upon it in the form of carbonate of lime, as limestone, chalk, marble, calc-spar, and shells.

Calced shells, Poh-fen and Hai-koh-fen of the Chinese, when finely powdered, are used in China as a face powder, or for dusting sores. The famed polished wall plaster of the Madras houses is made of lime prepared from calced shells dredged from the neighbouring Pulicat lake. See Chumam.

Calcis carbonas, Chalk, Carbonate of lime.


Chalk is only seen as an article of import into India. The Hindustani, Malay, and Tamil names describe it as foreign lime. It is used in house-holds; but the bones of vertebrata, a large part of the shells of testaceous mollusca, of crustacea, corals, oyster shells, crab’s claws, crab’s eyes, as they are called, are all employed in eastern countries medicinally, as also the lapis judaicus, which is the spine of fossil echinus. All consist of pure carbonate of lime, with some animal matter intimately intermixed.—Royle.

CALCULUS CYSTICUS, bezonr.


Biliary concretions occasionally found in the gall bladders of horned cattle in India. They are generally contained in a little bag, which holds two or three small calculi, each about the size of a tamarind stone, or one large one as big as a marble. They are of a bright yellow colour, and are considered by native practitioners as highly valuable in certain indispositions of young children, owing to their cordial and alexipharmic qualities. A piece about the bigness of a mustard seed is commonly given for a dose to a babe of two months old, in conjunction with an infusion of onum or siragum. This substance is also used, together with kadukai and machakai, in preparing a mixture for cleansing the inside of the mouths of new-born infants. The Veytans prescribe a solution of it in warm ghi, to be poured up the nose in cases of nervous headache; and they administer it internally, in dosages (typhus fever), made into a draught with women’s milk.—Ains. Mut. Med. p. 85. See Bezoar; Gall Stones.

CALCUTTA, in lat. 22° 34' 2'' N., long. 88° 23' 59'' E., at the easterm of the barometer at the Surveyor-General’s office, is 18 feet (G.T.S.) above the sea. It is the capital of British India, built on the left or eastern bank of the Hoogly river. It is a place of great trade, and has a mint, a cathedral, a governor’s house, a fortress, a town hall, great hospitals, schools and colleges, a botanical garden, custom office, high court, and public monuments to Sir David Ochterlony, Warren Hastings, Wellesley, Cornwallis, Outram, and others. The name is from Kalika (Kali, and at), to move, also said to be from Kali Kota, and it was the first concession to the British in that part of India. It was, when they obtained it, only a miserable village known also as Kali Ghat, of which also some believe its present name is a corruption. It is also called Pulicat, or Bay of Bengal. On the 18th June 1756, it was taken by Siraj-ud-Dowla. Messrs. Drake and Minchin had made their escape along with the women and children, but Mr. Holwell held out for forty-eight hours longer, and he and 146 of the people were then imprisoned in a small guard-room, about 20 feet square, and on the following morning only twenty-three issued alive. The guard-room was thenceforward known as the Black Hole of Calcutta. In January 1757 it was recovered by a detachment from Madras under Admirals Watson and Clive, and the treaty of Calcutta was agreed to on the 9th February 1757. The population greatly increased:—

1710, 10,000 to 12,000.
1752. Mr. Holwell’s estimate, 409,066.
1814. By Sir E. Hyde East, 700,000.
1821. By Town Assessors, 179,917.
1821. By Calcutta Magistrates, 230,552.
1831. By Captain Steel, Superint. of Police, 187,051.
1866. By Mr. Simms Surveyor of Calcutta, 381,360.
1876. By the Justice of the Peace, 377,924.
1872. In the Census of Lower Bengal, 429,535.
1881, 684,658.

In 1686 the English merchants quit Hugli and occupied the three river-side hamlets, Sianaati, Kalikata, and Govindpur, where in 1696 they erected the original Fort William, and in 1700 they formally purchased the site from prince Azim, son or grandson of Alamgir I. Between 1752 and 1773, the present fortress was constructed, at a cost of two kro, and the natives gathered around it. After the battle of Plassey, a mint was established, and the first coin was issued on the 19th August 1757. In 1797 it was declared a presidency. The town has a European and a native portion; and until the latter half of the 19th century, its insanitary condition was cou
Caldani, a body of Christians in Kurdistan who use the Syrian language in their liturgy.—

De Bode. See Kuldi.


This was the Pandanus odoratissimum, Linna, which was brought into India from the Mauritius. Its leaves are valuable for making soft matting; the droops from the stem are a mass of tolerably fine fibres, and the ends, beaten out, are used by plasterers for brushes; the fibre is used for lines and cordage; and the plant itself makes good fences near the sea, but it soon becomes straggling.

—Rohde, MSS.

Caldority, in Travanore, 700 feet above the sea, has a rainfall of 150 to 200 inches. Tea is grown there.

Caldwell, The Rev. Dr. R., during the latter half of the 19th century a missionary for Christianity in the south of the peninsula India; author of the Comparative Grammar of the Dravidian Languages, and On the Shanar Race. His success in conversions was great, and he was created a bishop of the English Church.

Calemberi. Singh. Coromandel or calamander wood.

Calendar. Nations have adopted different divisions of time, from which history has presented difficulties and contradictions. That of the Chaldeans was seen by Calisthenes, the favourite of Alexander. It commenced B.C. 2574. The Chinese calendar was reformed under the Han dynasty B.C. 191.

The Romans called the first day of each month Calend, from a word which signified 'called,' because the pontiffs on those days summoned the people together, to apprise them of the days of festival in that month. The Roman calendar is stated to have been introduced by Romulus, the founder of Rome. He divided the year into ten months only,—Mars, Aprilis, Maius, Junius, Quintilis (afterwards called Julius), Sextilis (afterwards called Augustus), September, October, November, and December. Mars, Maius, Quintilis, and October contained 31 days, and each of the six other months 30 days, so that the ten months comprised 304 days. The year of Romulus was therefore of 50 days' less duration than the lunar year, and of 61 days less than the solar year.

Numa Pompilius placed two months, January and February, before Mars. Julius Cæsar consulted the astronomers of his time, and fixed the solar year as 365 days 6 hours, comprising, as they thought, the period from one vernal equinox to another. The six hours were set aside, and at the end of four years forming a day, the fourth year was made to consist of 366 days. The day thus added was called intercalary, and was added to the month of February, by doubling the 24th of that month, or, according to their way of reckoning, the sixth of the calends of March. Hence the year was called bissextile. This almost perfect arrangement, which was denominated the Julian style, prevailed generally throughout the Christian world till the time of Pope Gregory XIII. The calendar of Julius Cæsar was defective in this particular, that the solar year, consisting of 365 days 5 hours and 49 minutes, and not of 365 days 6 hours, as was supposed in the time of Julias Cæsar, there was a difference between the apparent year and the real year of 11 minutes. This difference at the time of Gregory XIII. had amounted to ten entire days, the vernal equinox falling on the 11th instead of the 21st of March, at which period it fell correctly at the time of the Council of Nice in the year 325. To obviate this inconvenience, Gregory, in 1582, ordained that the 15th of October should be counted instead of the 5th of the future.

The solar, i.e., really the sidereal year, called the Shuboor Sun, or vulgarly the Soor Sun, that is, the year of (Arabic) months, was apparently introduced into the Dekhan by Taghalaq Shah, between A.C. 1341 and 1344, and it is still used by the Marathas in all their more important documents, the dates being inserted in Arabic words written in Marathi characters. The Fasli or Mewar year of the other parts of India was not introduced until the reign of Akbar and Shah Jahan, and they mostly continue to this day to be used even by the British in revenue accounts.

—History of the Sikhs; Captain Cunningham, p. 84; Bunsen, ii. pp. 402, 412; T. of Ind. Cal. See Era.

Calendrellia Brachydactyla, the Alanda brachydactyla, or short-toed lark of S. Europe, N. Africa; rare in Britain; extremely common in India, where it is currently known to Europeans as the ortolan.

Calf. As the Basava and Nandi of the Hindus, the brazen calf mentioned in Scripture as an object of worship by the Hebrews is still worshipped by Hindus in India. It is rarely if ever of wood, is often of brass, but often of stone. See Bull, Lingam; Nandi.

Cali, the Diana Taurica of Greece. See Kali.

Cali, in Hindustan, the expected tenth incarnation of Vishnu in the shape of a white horse with a human head. See Kali.

Cali-chi-Kai. Tam. Bondue nut; Cusalpinia bonducellia.
Cotton cloth, originally manufactured at Calicut on the Malabar coast, still largely made in India, but much of that is brought from Britain. Arrian (i. 539) speaks of the beautiful white linens of India, probably the same with the modern calicoes. These formed, as they do at present, a great part of the people's clothing.

CALICO, a stronghold of the raja of the Kollari race, now ruled by the Paducottah raja.

CALICO PRINTING. This art was common to the Egyptians and the Hindus, and is still largely practised by the latter, with a skill which produces much to be admired, even at the midst of the productions of the world, and after so many attempts have been made to improve this art, certainly imported from the East. Pliny was acquainted with the wonderful art by which cloths, though immersed in a heated dyeing liquor of one uniform colour, came out tinged with different colours, which afterwards could not be discharged by washing. The people of India apply the mortants both by pencils and by engraved blocks. The cloth-printers at Dacca stamp the figures on cloth which is to be embroidered. The stamps are formed of small blocks of kantul (artocarpus) wood, with the figures carved in relief. The colouring matter is a red earth imported from Bombay, probably the so-called "Indian earth" from the Persian Gulf. Though the art is now practised to much perfection in Britain, Indian patterns still retain their own particular beauties, and command a crowd of admirers. This is no doubt due in a great measure to the knowledge which they have of the effect of colours, and the proportions which they preserve between the ground and the pattern, by which a good effect is procured both at a distance and on a near inspection. Printing in gold and in silver is a branch of the art which has been carried to great perfection in India, as well upon thick calico as upon fine muslin. The size which is used is not mentioned, but in the Burmese territory the juice of a plant is used, which no doubt contains caoutchouc in a state of solution.—*Royce, Arts, etc., of India*, p. 483; *Pennant's Hindoostan*, i. p. 132; *McColloch's Commercial Dictionary*, p. 215.

CALICUT, a seaport town on the Malabar coast, in lat. 11° 15' 2" N., long. 76° 15' 6" E., and six miles N. of Beyrur. It is not visible from the ocean, the only building to be seen being a tall white lighthouse. Thick groves of coconut-trees line the shore, and are bounded by the sea by a belt of sand, while undulating green hills rise up behind, and a background of mountains is often hidden by banks of clouds. The name is from Colicodu or Colikutaga, a cock crowing, as Cheruman Pernal gave his sword, and all the land within cockerow of a small temple, to the Zamorin, or raja of Calicut, who attained considerable power in the 15th century. Pedro da Covilham, the Portuguese, landed here about 1486, Vasco da Gama in 1498; in 1501 Alvarez Cabral established a factory here, but the colony was massacred, which Da Gama revenged, and in 1510 Albuquerque burnt the Zamorin's palace. The Danish Government established a factory in 1752. In 1766, when Hyder Ali invaded Malabar, the Zamorin shut himself up in his palace and set fire to it, crying with his family in the flames. It has been repeatedly in the hands of the Portuguese, Dutch, French, British, and Mysoreans, and in 1817 it was restored with Mahé to the French. Tipu Sultan destroyed its flourishing trade, expelled from the country the merchants and factors of the foreign commercial houses, caused the coconut and sandal trees to be cut down, and ordered the pepper plants in the whole surrounding district to be torn up and hacked to pieces, because these plants, as he said, brought riches to the Europeans, and enabled them to carry on war against the Indians. Besides coconut products, coffee, pepper, cardamoms, ginger, cocculus Indicus, gingselly seed, turmeric, arrow of Beypur, sandal seeds, and terra japonica form articles of export. There are many of the Tar and 15,837 of the Moglap race in the Calicut district. The population in 1871 was 48,338, of whom 11,983, or 33 per cent., were Shannars, or toddy drawers from the palms.—*Imp. Gaz.*; *Horsburgh*; *Bartolomeo's Voyage*.

CALICUT MANCHE, a trading ship of the western coast of India. See Boat.

CALIF, from the Arabic khalifah, a viceroy, was the title assumed by the Mahomedan rulers at Baghdad, of whom the first after Mahomed were Abubakar, Umar, Usman, and Ali. Under the Abbas dynasty they attained to great power. In Central Asia, the sultan at Constantinople is even now by most Sunni called the Khalif of Rum. They claim that this dignified position was granted to Selim I. by a descendant of Ahmad; and it is through Ahmad and Mutasawakkil B'Ilah that they claim to have had transferred the right to the office of Khalif of Islam. It is, however, an elective office. See Khalif.

CALL-KASTURI, Beng. Abelmouschus moschatus.

CALIMERE POINT, a cape or promontory in the Tanjore collectorate, the Caligicum of Ptolemy, in lat. 10° 17' N., long. 79° 56' E., the most southerly point on the Coromandel coast. Two pagodas near each other, are about a mile from the shore.—*Imp. Gaz.*

CALI-NADI. The boundary between Dehli and Kauoij was the Cali-nadi, or black stream,—the Calindi of the Greek geographers.—*Tod's Rajasthan*, ii. p. 9.

CALINGOA, an ancient kingdom on the eastern coast of the Peninsula of India, at its upper end. The dynasty ruled at Rajamundry and in the Northern Circars. The meaning of the word is a country abounding with creeks. The town of Kalingapatam alone remains to indicate the rule of that dynasty; but the term Kiling or Kaleen of Burma, and the Hindu religion of the Javanese, seem to have come from them.

Kalingapatam is in lat. 18° 20' N., long. 84° 10' E., a seaport town on the right bank of the Vomahudara river, 15 miles N. of ChicaCoe. It is in the Ganjam district. Under Mahomedan rule it was a trading port of consequence, and the remains of a large town are still to be seen. There is good anchorage. The exports are rice, wheat, oil-seeds, grain, hides, timber, beeswax.

CALINGULA. Tam. A sluice, a weir, or
waterway, constructed in the banks of or dams of tanks to permit the escape of surplus water, and thus guard against the accumulating waters over-flowing the softer parts of the dam.

CALI-SIND. This river comes from Rangri, and its petty branch, the Sodwa, from Fraghugur. There are four rivers in India called Sind,—first the Sind or Indus; the Little Sind; the Cali Sind, or black river; and the Sind rising at Latoti, on the plateau west and above Seronge.

CALI YUGA. See Yuga.

CALLAGOUR ISLAND; lat. 15° 34' 12" N., long. 97° 38' E., in the opening of the Gulf of Martaban, is a small granite island rising about 150 feet above the sea, with few trees, and with a small skirting bay with indenting bay, in which mangroves grow. It has also the name of Curlew Island. Stones for the lighthouse at Cape Negrais were quarried here.

CALLIAN, the Kallara of the Periplus, a town near Bombay. It has all around an extensive series of Buddhist caves, one or two chaitya or waggon-vaulted caves, with the dahgopa; also vihara or monasteries, hermitages, vaulted reservoirs for water. The identity of Callian with Kallara has been disputed, but is generally recognised, as it is mentioned by Cosmas, who was only acquainted with the western coast of the Peninsula.

CALLIANA CYNOTMETROIDES. Reel. An interesting tree growing on the Timnevely and Travancore mountains at 2500 feet elevation, in the dense, moist forest not far from Courtallam. It is in flower and ripens its fruit in November. Its timber is very good.—Beddome. See Inga.

CALLICARP, a genus of plants of the order Verbenaceae. Roxburgh described eleven species,—acuminata, Americana, arboarea, cuspidata, inea, lanata, longifolia, macrophylla, lanceolaria, pentandra, and purpurea.

C. arboarea, Roxb. i. 390, a stout, tall tree of Nepal, Kamaon, Oudh, the Moring mountains, Goapara, Chittagong, and Moulemain.

C. Ineana, Roxb. i. 393.

Mashandari, . BENG. Muttara; Muttraja, . Chhs. Tattharma; Batpattra, . Denbur; Drus, . Rav.

Grows in the Panjahan.—Voigt; J. L. Stewart.

C. Laniata, Linn.

Calliarp cana, Linn., tomentata, Lam. Callicarpa americana, Lour.

Massandari, . BENG. Tondi; Teregam, Maleal.

Aroosha fibre of Chittagong Kat Komul, . Tam.

Basta, . HIND.

This plant is recommended by Dr. Royle for the fibre of its inner bark, Thondy nar. O'Shangnessy says it is bitterish, and rather aromatic.

C. Wallichiana, Walp., a very small tree of the western forests generally.—Royle, F. Pl. p. 310; O'Sh. p. 456.

CALLICHIROS CHECHRA. B. Ham. The butter fish of the rivers of India.

CALLIGONUM POLYGOINOIDES. Linn.


Phuk or Phog, Uis-Indus.

The shoots of this moderately-sized shrub are greedily eaten by goats and camels; the wood is used as fuel; and in Bikanir the twigs are much used for huts and for linings of shallow wells. In the Cis-Sutlej and Southern Panjab, the fallen flowers are used as largely in Muzaffargurh for food; they are made into bread, or are cooked with ghi, and eaten as a relish.—Stewart; Powell.

CALLINICUS, a surname of the second Seleucus, B.C. 246, and the fourth of the Syrian rulers after Alexander. See Greeks.

CALLIOPSIS, a genus of flowering plants, esteemed in India. In sowing, dig and pulverize 18 inches deep; give abundance of manure. Water before sowing; sow thinly, and press, and cover with fine sand.—Richell.

CALLISTEPHUS CHINENSIS. Cass. Chinese star. Several other species are named by Voigt as having been grown near Calcutta.—Voigt.

CALLISTHENES, as the friend of Alexander, was permitted access to the Babylonian records. It is stated in the Dabistan, that Callisthenes sent to his uncle a technical system of logic (Nyaya), which was the basis of the Aristotelian system. See Babylon; Calendar.

CALLITRIS QUADRIVALVIS. Vent.

Thuja articulata, Denf. | Jointed Arbor vitae, Eng.

The plant coppices readily, and is largely used for fuel; its roots furnish the beautifully-grained Citrus wood for ornamental work. It produces the juniper resin or sandarach of commerce.

CALLOCEPHALON GALEATUM, the Ganga cockatoo of Australia.

CALLUCA, an ancient commentator of the Vedas. His era is not known, but he lived at a time when the religious views were on the change.

CALNEH, an ancient town, on the site of which it is supposed that Cesiphon was built.

CALOE or Culaie, SUMATRA. The Rhee, China grass, Boehmeria nivea.

CALOENAS NICOBARICUS, the Nicobar pigeon, is of great size and splendour. Its appearance and habits exhibit a near approach to the gallinaceous birds. It lives chiefly on the ground, runs with great swiftness, and flies up into a tree when disturbed. Its nest is of the rude platform construction usual among the pigeon family. Eggs are white.—Macgillivray's Voyage, p. 244; Jerdon.

CALOMEL, the Shwini-yin-fen and Hung-feng-fen of the Chinese. A chloride of mercury used in medicine by European and native medical practitioners. It is known in India as Raskapur, but this is rarely free from soluble corrosive sublimate, which is often present in poisonous proportions, unfitting such for medicinal use. It is largely made by the Chinese.—Powell.

CALOYCTION GRANDIFLORI. Cheoye.


This beautiful creeper was introduced into the East, from the West Indies. Its large pure white blossoms open at sunset and fade at daylight. Its seeds, when young, are eaten.—O'Sh.

CALYNYCTION ROXBURGHII. G. Don. Ipomoea grandiflora, Roxb., Rhedae.

Nway-ka-zowo a | Chandnee, . Hind.

phyoo, . BURM. Pandit vankaia, . Tam.

A large-flowered species, whose snowy blossoms
open at sunset and shut at daylight. It is sometime

carried on arbours and pannels. It is

'The white moonflower, such as shows

On Serendiah’s high eragos to those

Who are near the island at evening ill;

Scenting her clove trees in the gale.'—Mason.

CALONYCTION SPECIOSUM. Choisy.

Ipomoea bono nox, Linna, | Monda Valli, Van Rheede.

This species is seen in European gardens.

CALOPHYLLUM (from the Greek Kalos, beautiful, and Phyllon, a leaf), a genus of plants belonging to the natural order Gaurciainae. C. angustifolium, inophyllum, and tacamaehaca, grow in S. E. Asia; but in Southern India several species have not as yet been determined. They furnish useful timber,—C. angustifolium yielding one of the poon spars of commerce, and C. calaba, the East Indian tacamaehaca, though C. inophyllum is also quoted as the tacamaehaca tree. In Tenas-serim the house carpenters often use the timber of a species of calophyllum, which also furnishes spars. A species of the Poona marum is a large tree common in the Western Ghats of peninsular India. Its wood is much used in house, and to some extent in ship building. C. angustifolium grows in Penang; C. Blumii, Wight, in Java; C. Burnanni, in Ceylon; C. decipiens, in Travancore; C. longifolium, in Bombay; C. Moonii, in Ceylon; C. polyanthum, Herit, in the Khussya mountains; C. tacamaehaca, in Madagascars and the Seychelles; C. rotundifolium, Wight, in Ceylon. C. tamentosum, Wight, in Ceylon. C. ame-mum, Wallis, is a tall tree of the Andaman Islands. C. bintador grows in the Moluccas. C. Brac-tetum, Thw., a great tree growing in the Saffragam district of Ceylon by the sides of streams, at no great elevation. C. Burnanni, Wight, Illust. i. 129, grows in the hotter parts of the island of Ceylon, and at no great elevation. C. cuneifolium, Thw., a great tree, grows in Ceylon at an elevation of 3000 to 4000 feet at Madamahene-wera. C. Moonii, Wight, Illust. i. 129, Domba keena-gas, Singh., a great tree of the Ceylon forests, in the district between Galle and Ratnapura; not uncommon. C. tamentosum, Wight, Illust. i. 128, Keena tel, Singh., is a tree of Ceylon, growing abundantly in the Central Provinces, at an elevation of 3000 to 5000 feet; common; its timber is valued for building purposes; and the seeds are collected in considerable quantities for the oil they contain. C. tra-peziifolium, Thw., a great tree of Ceylon in the Hunasgiria district, in the Central Provinces, growing at an elevation of 4000 to 5000 feet. C. Walkerii, Wight, Illust. i., a tree of Newera Ellia, Adam's Peak, and other of the most elevated parts of Ceylon. An oil is extracted from the seeds of this and the other species of the genus, which is used for burning.—Thw. Enum. Pl. Zeyl. i. p. 51; Choisy: Rozb.; Voigt; Mason; Gamble.

CALOPHYLLUM ACUMINATUM. Wal-dombe, Singh. A tree of the western parts of Ceylon, the timber of which is used for common house-building purposes. A cubic foot weighs 39 pounds. It lasts 20 years.—Mr. Mendis.

CALOPHYLLUM ANGUSTIFOLIUM, Rozbury, is said to be a tree of Penang, and to occur also in Coorg, Mysore, Canara, and along the ghatas, northwards to Sawantwari, but rarely of any great size beyond the line of the Nilgiri ghat. It is here that, according to Dr. Cleghorn, poon spars are obtained from this tree. Dr. Gibson also says that, to the best of his knowledge, poon spars are furnished by Calophyllum angustifolium, which is a magnificent tree in the ravines of the Southern Ghats. In habit and appearance it is totally distinct from C. inophyllum. He says that it is from the inland forests of Canara, backed as these are by those of Coorg to the east, that the supply of poon spars is principally drawn. In 1850 Dr. Wight was satisfied that Ceylon penta-gynia is a tree which furnishes poon spars,—Dr. Gibson, Cleghorn, and Wight; Mr. Robbe’s MSS.; Dr. Rozbury; Tredgold; Markham, p. 452. See Poon.

CALOPHYLLUM CALABA. Linna. Calaba tree.


Bubbe mara,... CAN. | Gorrukeenee, ... SINGH. | Tsiu panna, ... MALEAL | Cheru Pinnia, ... TAM.

This is a native of the western provinces of Ceylon, of Travancore, and in Canara and Sunda; it grows on the banks of rivers and streams, chiefly above the ghats, and produces the true East Indian tacamaehaca resin. It grows to a height of 60 feet, and its timber is used for building cars, staves, cask headings, house-building, and for canoes. Sir J. Herscetel seems to think the East Indian tacamaehaca to be the produce of C. inophyllum, for he says specimens obtained from C. inophyllum, the tacamaehaca of Ceylon, are desirable in order to aid pharmacologists in accurately determining the tacamaehaca of European commerce.—Herscetel’s Manual of Scientific Enquiry, p. 414; Dr. O’Shaughnessy; Mr. Mendis; Dr. Gibson; W. and A. p. 103.

CALOPHYLLUM DECIPIENS. Wight. Var. a. Folis obovato-oblongis, basi rotundatis, inambus in the Ambaganova district.

Var. b. Folis cordato-obvulatis, grows at Hinnidun Corle, at an elevation of 1000 to 2000 feet.—Thw. Enl. Pl. Zeyl. i. p. 51; Wight, Je. 128.

CALOPHYLLUM ELATUM. Bedd.

C. tamentosum, Wight, Hooker.

Poongoo, ... ANIMALTY. | Poon, Poone, ... MALABAR. | Siri Poone, ... S. CAN.

A very large, straight tree, with numerous longitudinal cracks down the bark. Grows abundantly in most of the moist ghat forests or valleys on the western coast from Cape Comorin to Cape Conoorin, and in similar forests on the lower Pulneys, Anamallai, Coorg, Mysore, and the Sirlumallai. It is never found in dry, deciduous forests. Colonel Beddome says it yields the poon spar of commerce. Thousands of these trees have lately been destroyed by the axe of coffee-planters in Malabar, Coog, and Travancor; quantities still remain, but chiefly in very inaccessible places. In the ghat forests of South Canara they are felled by the Forest Department, and floated down rivers to the coast depots; but the demand for the article does not seem great, though many years ago a single fine spar has fetched as much as Rs. 1000. The wood is scarcely known, except as a spar, though it is occasionally used for building and bridge-work by planters; it is reddish, coarse-grained, but ornamental. The tree has never been planted, and would not succeed except in the moist forests on the mountains at an elevation of 1000 to 4000 feet; it flowers in January and February, and the seeds fall early in the rains, and germinate freely in the dense shade of
the shola forests. This tree was for some years to be the Calophyllum angustifolium of Roxburgh, which is from the Prince of Wales’ Island.—Beddome, Fl. Syle. p. 2.

**CALOPHYLLUM INOPHYLLUM.** *Linn.*

C. bitangar, *Roeb.* Balsamaria inophyllum, *L.*


Undi; Sultana champas, *Hind.* Punnaga chettu, *Tel.*

This beautiful tree, with an appropriate name, grows in the western part of Ceylon, where it is employed for masts and cross sticks of Yettar dhonies and fishing boats, and poles of bullock carts. A cubic foot weighs 40 pounds. In the alpine forests it attains a great size, and it furnishes part of the poon spars so valuable for shipping. This grows to a considerable size in the Malabar coast, but is a still larger tree on the island of Balambangan and along the shores of Bangooy and Saippaunnang, whereby it got the names of ‘Palo-Maria and Dancawn.’ It is also common in the Philippine Islands, where, as in Malabar, the nates prepare oil from its fruit. Near the Burman monasteries this fragrant-flowered calophyllum is occasionally seen. It is in flower and fruit most part of the year; it grows well in sandy tracts close to the sea, where few others thrive; it is rare at a distance from the coast. It yields fruit twice a year, in March and September, and frequently attains the age of 300 years. It is cultivated in Java for the sake of its shade and the fragrance of its flowers, and there the wood is much used in houses and to some extent in shipbuilding. Mr. Dalrymple tells us that no tree is superior to this for knees and crooked timber. A resin is obtained from the roots and trunk, said by some authorities to be identical with the tacamahaca of the Isle of Bourbon. The flowers have the odour of muscinette. The seeds yield about 60 per cent. of their weight of oil. In the Samao islands, the large ava bowl is made from the tamanu, *C. inophyllum,* and occupies a conspicuous place.—*Roeb.*; Capt. Ephphinstone Erskine, Islands of the Western Pacific, p. 46; *Drs.* Wright, Gibson, Mason, Ansle, O’shaughnssy; Eng. Ceyc.; Voigt; *Thev Qtts.* i. 51; *Beau t.* i. 112; *Seaman.* See Oils.

**CALOPHYLLUM LONGIFOLIUM.** *FCl.* Tha-ra-bi, *Burm.* In Fugu this is found near towns, together with two other species of the same genus, which are of smaller growth. It is abundant in Mergui, Tavoy, and in lesser quantities near the Attar can river and its feeders. Maximum girth, 3 cubits; maximum length, 224 feet. When seasoned it sinks in water. It has a red wood, adapted to cabinetmaking, and is there used for planking, masts, and yards of junks; it is excellent for helves. Strongly recommended to make models.—*Dr.* M’Cleland; *Capt.*

**CALOPHYLLUM WIGHTIANUM.** *Wall.*


C. delavayi, *Welw.*

Colonel Beddome unites all these as the Kal-Poon of S. Canara, a middling-sized tree, common near the banks of rivers on the western sides of the Madras Presidency; in S. Canara it is very common, and its timber is much esteemed; it is of a red colour, very hard and heavy, and valuable for engineering purposes.—*Beddome,* p. 90.

**CALOTROPIS METALLICA,** the metallic stinking of the Aru Islands.

**CALOTROPIS GIGANTEA.**

Var. a. *Alba* or white. | Var. b. *Lilacina* or blue. | a. White variety.

Aselepias gigantea, *Linn.*


Shetw Akund, *Beng.* Belerika (white), *Sh.*


Yokadi, *Burm.* *Abi.*


Kerer, *Tell.* Tella jilledu, *Tel.*

Gigantea swallow wort, Racha jilledu,

Madar, Akund, *Hind.* Nalla jilledu (purple), *Tel.*

Calotropis is a genus of plants of the natural order *Asclepiades,* the species produce useful fibres, a ood wool, juice, a gutta percha like substance, and a mummy. Three species are met with all over Southern Asia, but *C. gigantea* is that common in the southern, and *C. Hamiltonii* in the northern parts, and *C. procera* grows in Persia and Syria (Voigt, p. 540). *C. gigantea* is, by the Hindus, held sacred to Siva.
CALOTROPIS GIGANTEA.

Its buds also form one of the five flowers on the darts with which Kama, the Indian god of love, is supposed to pierce the hearts of mortals;

'Infants winged, who mirthful throw
Shafts rose-tipped from nectarous bow.'

Sir William Jones refers to it in his hymn to Kama Deva.

The rope is called Lamb-dor, Hind., Toondee coir, TAM., Gulan taroo, Tel. It will grow in barren places, and it has been suggested to plant it as a barrier to drift sands. It yields a kind of manna called Shakra-al-asurh, also Ak or Madar ka shakar (asgar). Its milky juice has been prepared like caoutchouc and gutta percha, and yields 50 per cent. It is evaporated in a shallow dish, either in the sun or in the shade; when dry, it may be worked up in hot water with a wooden kneader, as this process removes the acridity of the gum. It becomes immediately flexible in hot water, but hardens in cold water; is soluble in oil of turpentine, and readily takes impressions. It is, however, a conductor of electricity. The wood is white, tolerably hard, and grows to a girth of 12 inches. It is used for gunpowder charcoal, and by firework manufacturers. The silky down of the pods is used by the natives on the Madras side in making a soft cotton-like thread. It is susceptible of being spun into the finest yarn for cambric, and has been used for the manufacture of a light substitute for flannel by Messrs. Thresher & Glenrie of London. It works well with either silk or cotton. It is also being tried by Messrs. Cowan & Co. of Edinburgh as a material for paper. In 1856 Major Hollings exhibited carpets manufactured in the jail at Shahpur in the Punjab from the fibre in the seed-pod. He mentioned that the manipulation of the floss was precisely the same as cotton. A carpet 7 feet by 3 feet cost Rs 7. Fibres are prepared from the stem and branches. These are dried in the sun for 24 or 36 hours, when they are taken up and the bark peeled from the wooden parts, and the greenish-coloured fibres gathered. A night's bleaching whitens them.

The cleaned fibres are one of the bowstring hampns of India. This fibre possesses most of the qualities of flax, and can be worked with the same machinery, as it splits to almost any degree of fineness with the hackle, and bears dressing and beating well. It was used by wealthy natives for making strong cloths, cambrics, and lawns; and it is employed for fishing lines, nets, gins, bowstrings, and tiger traps. It does not rot readily in water. It is even considered better adapted for cloth than for cordage. The strength exceeds that of all other vegetable substances, as the following experiments made at Coimbatore, of a three-strand 3½ inch rope, will show:

1. Coir, Cocos nucifera, sustained 224 lbs.
2. Pooley Manjee, Hibiscus cannabinus, 270 lbs.
5. Cutthaldar nar, Agave Americana, 322 lbs.
6. Junapum or Sunn, Crotolarea juncus, 407 lbs.
7. Yereum nar, Calotropis gigantea, 552 lbs.

Its fibre is valued at £90 to £35 a ton. The follicles are supposed by some to be the apple of Sodom. Its juice and the powdered bark of its roots have long been employed as alteratives by the natives of India in leprosy and other cutaneous affections, also in syphilitic ailments, and are supposed to possess active properties. Dr. Duncan obtained from it a principle which he called Madarine. In Arabic authors on Materia Medica it is even supposed to have been known to the Greeks. The leaves, smeared with oil, are used in rheumatism.—Wight’s Contributions; Hooker, Hin. Journ. i. 86; Royle, Hin. Bot. 275; Drs. Riddell, Hunter, Mason, O’Shaughnessy, p. 43; Wight in M. E. Reports of 1857; Royle, Flb. Pl.; Simmonds, Com. Prod.; Burton, iii. 122; Jour. Agri-Hort. Socy. of India, vii. 107, 226. See Carbon.

CALOTROPIS HERBACEA. Carey.


The roots are employed to make gunpowder charcoal. The stem yields useful, strong fibres, and the white, silk-like material of the pods has been successfully mixed with silk.—Vight; M. E. Proceedings.

CALOTROPIS PROCERA. R. Brown.

C. Hamiltoni, W. | C. gigantea, Andr.
Aclepia procera, Att. | C. Wallichii, W. Contr.

Aka, Madar, | Hind. Pashkand, | PANJAB.
Spalnak, | Pan Tork, Naval, | Gro. Spalnak, | Jilledu, | Tel.

This grows in Palestine, Abyssinia, Arabia, in Hindustan, the Peninsula of India, Peshawur, and the Panjub, is quite arborescent, ten or twelve feet high, and in Sind four and five feet in girth. The bark is stripped and made into halters for cattle, ropes, netting, twine, and fishing lines, all durable. The silky floss of its follicles is used for pillows. A manna, Shakra-al-asurh and Shakra-at-Tighal, obtained from it, is sold in the shops. Its acrid juice is applied to cutaneous ailments and in leprosy, and is used by Rajputs to poison their infant daughters. The fresh bark of the root, also the powder of the root, are likewise used in leprosy. The bark of the root and the dried milk possess similar properties to those of the C. gigantea; it is, however, far inferior as an emetic remedy. According to Dr. Wallich, this and C. gigantea are the same species. The insect that causes the manna is called Galtigul.—Royle, Ill. Ind. Bot. p. 275; O’Sb. k. 454; Stewart; Powell.

CALPA. SANSK. Creation or formation. In Hindu theogony, at the end of every calpa (creation), all things are re-absorbed in the deity, who, in the interval of another creation, reposes himself on the serpent seshu (duration), who is also termed annata (endless). Agni savarni, in Hindu mythology, is one of the 14 patriarches who preside successively over the 14 Manwataras of the calpa.—Warren’s Kuta Sanhita, p. 311.

CALPENTYNS, south of Corinda, is a spit of sand which runs off the Ceylon shore on the west coast, and extends from lat. 7° 36′ to 8° 16′ N.; the fog is clear at 8° 15′ N. and long. 79° 45′ E. A statue of St. Anne is on its N.E. end. The people are industrious; cultivate the cocoanut, and gather Calpentyn moss and the orchilla weed. In the Gobh, or lake behind the peninsula, there is an extraordinary abundance of fish, which are dried and exported. Sharks’ fins, trepan, and turtle are also sold. The long tongue of land on the south almost touches the main.

CALPI, a Hindu astronomical term of 4,520,000,000 years. See Calpa.

CALPICARPUM ROXBURGHII. G. Don.

Cerbera fructicosa; periwinkle tree.

Sa lat, | Berr. | Gotti gunneru, | Tel.

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A handsome flowering shrub, almost constantly covered with blossoms like those of the rosy periwinkle, Vioa rosea, but larger and faintly fragrant.—Mason.

CALUTRA, a small sea-coast town in Ceylon, in lat. 80° 4' E., long. 6° 12' N. A favourite resort of the Dutch and British.

CALUMBA ROOT. Cocculus palnatus, D. C.

Jateorhiza calumba and J. palama, Miers.

A plant of east tropical Africa, which was first made known as a medicine by F. Redi about 1677. Semedus mentioned it before 1722 among medicines from India. In works on Materia Medica in use in India, it occurs by the name of Kalumb. It grows wild in the forests of Mozambique and Obo in Eastern Africa, and got its name because it was imported indirectly through Colombo in Ceylon.

CALUVERE. SINGH. A tree of the northern and eastern part of Ceylon, furnishing a fine black wood, used largely for buildings and furniture. A cubic foot weighs 71 lbs., and it lasts 80 years.

—Mends.

CALYA or Cali-naga, a serpent slain by Krishna.

CALYMERE POINT, on the Coromandel coast, in lat. 10° 18' N., long. 79° 54'/ E., is low, and covered with cocoanut trees, with two pagodas near each other about a mile inland.—Horeburgh.

CALYPTOMENA RAFFLESII, the tapoo tree of Borneo. Its fruit has an agreeable acid flavour, and is largely eaten. The pulp, mixed with rice and fermented, furnishes an intoxicating drink.

CALYPTREIDE, a family of the mollusca, the bonnet limpets, containing several recent and fossil genera, the genus Calyptraea being the cup and saucer limpet.

CALYPTRANTHES CARYOPHYLLIFOLIA. Wilde, Swartz.

Engenia caryophyllifolia, E. Jambolana, Roxb.

Janoon, . . . HIND. Navel maram, . . . TAM. Battedome, . . . SINGH.? Neredi chettu, . . . Tel.

A large-growing timber tree. The wood is light, and chiefly used for making grain measures, but is also made into carriage frames, cots, etc., and in Ceylon for common house-building; a cubic foot weighs 45 lbs. The bark is astringent, and is used in decoction by the natives for dysentery. The fruit which is ripe is of a very dark purple colour, and about the size of a large cherry. In taste it somewhat resembles the sloe, but is much sweeter. A variety of this tree—

Oojla janoon, . . . DUK. [Vullay navel, . . . TAM. Sweta jembo, . . . SANSK. Tella neredi, . . . Tel. has a fruit nearly similar to it in natural qualities, and has got its names from being of a different colour (white).—Riddell; Mends; Ainslie.

CALYSACCION ANGUSTIFOLIA. Gibson.

Soopunni, . . . CAN. [Koolumara, . . . CAN.

Grows in Canara and Snuda, in ravines of the ghats, and below in sheltered valleys, but is not common in N. Canara or Snuda. The tree there furnishes one of the poon spars. It produces an excellent edible fruit. It is a tree which ought to be conserved everywhere, and largely increased.—Dr. Gibson.

CALYSACCION LONGIFOLIUM. Roxb.

Ochrocarpus longifolius, Benth. et Hook. Calophyllum longifolium, Wall., Cat. Mammea longifolia, B. H.
daughter to Deogiri under an escort, but the escort was overtaken, the fair maiden seized and carried to Dehli, where Khizr Khan, the son of Ala-ud-Din, married her. Their union was very happy, and the poet Khusru praised them. But Khizr Khan's eyes were put out by Cafaor. A few years from the death of Ala-ud-Din, the throne of Dehli was filled by a converted Hindu, who filled the capital with Hindu troops, put to death all the survivors of Ala-ud-Din's family, and transferred Dewala Devi to his own zanana.

CAMALAPBABH, a title of Vishnu. CAMAPALIPUR, a large village 32 miles north-west of Cambay; and, from the neighbouring hills is largely smelted here.

CAMARI, according to Abul Ghazi, one of the eight sons of Japhet, whence the Camari, Cimerrin, or Cimber. The Camari are one of the Saura tribes, or sun-worshippers of Saurashtra; claim descent from Garuda, the bird god of Vishnu (who aided Rama to the discovery of Sita), and the Macara or crocodile; and date the fabulous conception from that event, and their original abode from Sancodra Bate, or island of Sancodra. Whether to the Dioscorides at the entrance of the Arabian Gulf this name was given, evidently corrupted from Sancha-dwara to so-cotra, need not be inquired into here. Like the islet in the entrance of the gulf of Cutch, it is the dwara or portal to the Sinus Arabicus, and the pearl shell (sancha) there abounds. This tribe deduce their origin from Rama's expedition, and allege that their crocodile mother landed there, where they still reside. They seem to be a Scythic race from Sakadwipa and the Dashti-Kapchak, and, like the Takshak, Jit, Kat'i, and Hun, have entered India from the north-west.—

Tod's Rajastan, i. p. 604.

CAMBALU, an ancient name of China.

CAMBAY, in long. 22° 51' E., and lat. 22° 5' N., in Gujarat, is at the head of the bay which bears its name, on the estuary of the Mahi, between the mouths of the Sabarmati on the west, and the Mahi on the east. It is said to be the town in which Zaramachebas was born. Marco Polo travelled through it at the close of the 13th century, when on his return to Europe. Cambay or Kambhat is the capital of a feudatory state ruled by a Mahomedan family of Moghul descent, and of the Shiah sect. In 1875 its area was estimated at 500 square miles, and its population at 175,000. Cambay town has 33,700 souls. Near the town, skirting the shore of the gulf, and along the banks of the Mahi and Sabarmati rivers, are vast tracts of salt marshland, submerged at high spring tides. The population consists of Mahomedans, Jains, and Parsees, with the wild tribes of Koli and Wagni, and the languages spoken are Gujarati and Hindustani. The name is from Khambha-tirth or Stambha-tirth, the pool of Mahadeva. Vikramaditya is said to have been born here.

Cambay Gulf is formed by the coast of Gujerat on the west, and the Peninsula of India on the east, and extends due north 80 miles, being about 3 miles wide at its entrance. In ordinary springs the rise and fall is 25 feet. Surat lies at the eastern point of the gulf. The gulf receives the two rivers Tapti and Nerbadda.

—Imp. Gaz.

Cambay Stones.—In 1503, Lewes Urtomenes, a learned gentleman of Rome (See As. Soc. Jl. 1824, vol. xviii.), says, 'In this region is also a mountain where the onyx stone, commonly called the cornelian, is found; and not far from this, another, where chalcedony and diamond are found.' It was visited in 1623 by Pietro de la Vallo. Captain Hamilton, who visited Cambay in 1681, says, 'The cornelian and agate stones are found in this river, and nowhere else in the world. Of cornelian they make stones for signets; and of the agates, cabinets entire except the lils. I have seen some 14 or 15 inches long, and 8 or 9 inches deep, valued at £46. They also make boats of some kinds of wood; and boxes and handles of swords, daggers, and knives, and buttons, and stone seals and snuffboxes of great value.'

Cambay still enjoys celebrity for its silicious minerals,—cornelians from Ratnapur in the Raj-pilla state; agates from Rewakanta, Kapadawanj, and Sukaltirth, on the Nerbadda, and from Rajkot in Kattyawar. The Bihls are the miners. They are worked into every variety of ornament,—cups, boxes, necklaces, handles of daggers, of knives and forks, seals, etc. Cambay stones form a distinct geological formation, derived probably from the amygdaloid trap rocks drained by the Nerbadda and Tapti. They pass in Europe and America for Scotch, Irish, Chamouni, Niagara, Isle of Wight 'pebbles,' according to the place in which they are sold. The Brazils import them as largely as India into Europe, where the terms 'Brazilian' and 'Indian' agates are used indifferently by the trade. The principal varieties sold in Bombay are crystal, milk-quartz, prase, a green variety, moss stone, mocha stone, fortification agate, chalcedony, cornelian, chrysoprase? heliotrope, onyx, obsidian? and very rarely amethyst.

Necklaces, black and green, Rs. 0.8 to 2.8.

Paper-cutters, 0.2, 5.

Knife handles, per dozen, 6, 12.

Stones for brooches, 1 to 8 annas.

Boxed and snuffboxes, 0.12 to 2.

Cups and saucers, 5, 100.

Pen handles, 0.6, 1.

Studs of all sorts, per dozen, 0.6, 2.

Towser buttons, per pair, 8 to 10 annas.

Bracelet beads of all sorts, per pair, 0.12 to 2.

Paper-weights, 4, 5.

Tables of sizes, 15, 50.

Guns, 95, 100.

Ear-rings, per pair, 0.2, 1.

Finger-rings, 1 to 6 annas.

The fragments of a Murhine cup—the little Cambay stone cup still made in Cambay—were exhibited in the theatre of Nero, as if, adds Pliny, they had been the ashes of 'no less than Alexander the Great himself!' Seventy thousand sestercus was the price of one of these little Cambay cups in Rome in the days of Pompey. The price in Bombay ranges now from Rs. 5 to Rs. 100. Nero paid 1,000,000 sestercus for a cup, 'a fact well worthy of remembrance,' syly remarks Pliny, 'that the father of his country should have drunk from a vessel of such a costly price!' The stones are sawn or ground down; for the native lapidary's wheel consists of a strong wooden platform 16 inches by 6, and 3 inches thick. In this are two strong wooden uprights. Between these is a wooden roller 8 inches long and 3 in diameter, fastened into a head at the one end. This works on an iron spindle or axle at each end. On the
one end the axle is screwed and fitted with a nut, by which the saw or grinding wheel can be made fast. The saw consists of a thin plate of iron, the cutting material consisting of ground corundum. The lap wheels consist of two circular discs or cakes of lac, with ground koorund, coarse or fine, according to the work, of a copper disc for polishing, and a wooden one for finishing the work. These are spun backwards and forwards by a bow, the string of which passes round the roller. The lapidary sits on his hams, steadying the wheel with his foot, and holding on the stone with his left hand, while he works the bow with his right. For very fine work, a small-sized wheel, similar to the English lapidary's wheel, but of smaller size, is used. It is driven by a pulley—always the subjects of which trap, and pulley. The custom-house returns give the value of the traffic in Camby stones at an average between £10,000 and £12,000 annually, one per cent. of the stones finding their way to Europe. Gayni or Gajni was one of the ancient names of Cambay, and it was the port of the ancient Balabhipura, the ruins of which are 3 miles from Cambay. Almeysda, when he visited the coast of Cambay, observed a very ancient town, with a large mosque, and near it a spacious place, covered with tumuli.—*Hamilton's New Account of the East Indies*, Lond. 1744; *Report of the Juries in 1851*; *Pennant's Hindoostan*, i. p. 64; *Tod's Travels.*

**CAMBESDEA OPPOSITIFOLIA.** *W. & A. Mangifera oppositifolia, Roxb.*  
This indigenous tree of Tenasserim has a reddish-coloured, hard, close-grained wood, said to be durable. It produces a fruit much like a plum. There are two varieties, one bearing an intensely sour fruit, and the other one as insipidly sweet.—*Mason; Voigt.*

**CAMBODIA,** or the kingdom of Khmer, extends from long. 101° 30' to 104° 30' E., and lat. 10° 30' to 14° N., with an area of 62,000 square miles. It was reduced to its present dimensions in 1862, by two of its provinces being annexed to Siam. It is bounded on the S.W. by the Gulf of Siam, on the S.E. by French Cochin-China, on the N. by Laos, and on the N.W. and W. by Battambang and Angcor. The Meï-kong flows through the kingdom. The population is 1,000,000, of whom four-fifths are the native Kho. The Chinese number 100,000. Buddhism prevails. Its capital is Phnompenh, on the Meï-kong. Cambodia town is nearly 240 miles up the river. It has four provinces, Potissat, Kampong-Suai, Kampong, and Kampot-Son. For the past three centuries its independence has been lost, Siam on the one side, and Cochin-China on the other, having encroached on it. In Cambodia is the great temple of Nakhon-Vat, which seems to have been built in the 10th century. Every angle of the roof, every entablature, every cornice, bears the seven-headed serpent. The outer enclosure measures 570 by 650 feet. It is a towered pyramid more than 600 feet in breadth, and rising to 180 feet at the summit of the central tower. It is built of large stones, beautifully fitted, without cement. M. Delaporte says that the ancient Khmer temples were dedicated to Brahmianism. At Angkor-Wat he detached from the harder parts the chefs d'œuvre of Cambodian sculpture—bas-reliefs, once brilliantly gilt; pediments, and walls adorned with bas-reliefs. M. Delaporte maintains, down to those which decorate the most secluded sanctuary, are devoted to the exploits of Rama and the glories of Vishnu. At Angkor-Tom, M. Delaporte visited several new monuments, on most of which he also finds on the principal pediments the exploits of Rama and Vishnu. He cleared of rubbish and explored the ancient palace of the Khmer kings, a work of magnificent and wonderful sculpture, the rising terraces of which are adorned with superb compositions in bas-relief; the enormous three-headed elephant, Iravati, is there enthroned in all the places of honour, as at the angles of all the gates of the city, where he is shown by the god Indra, accompanied by two apsaras. When the country became subject to the government of Cochinchina, the trade of Cambodia was transferred to Sai-gon, which was occupied by the French in 1808. Cambodia river, also called the Mei-kong, discharges itself into the sea by three principal branches, of which the most western is the best for ships. Its entrance is in lat. 9° 31' N., and long. 106° 36' E. It is one of the largest rivers in Asia, and is said to rise in a lake in Yunnan.—*Chin., Jap. and Phil. Chr. and Der.,* 1881.

**CAMBOO, TAM. Holecus spicatus,** CAMBRIC or Cambriek.  
Cambranja, *It.*  
A fine cotton or linen fabric, largely imported into India.  
**CAMBRIDGE,** author of War in India, London 1762.  
**CAMBYES,** a king of Persia of the Kaianian dynasty, and father of Cyrus. He conquered Egypt, b.c. 529 to 522. He took Memphis by storm; and he visited the tomb of Menes. Cambyses is a Greek variant of the cuneiform Kabujuya.  
See Pars; Persian Kings.

**CAMEL.**  
Oont, *Dutch.* Lotti-itta, Wonte, *Tel.*  
Camels are mentioned in 1 Kings iv. 28, Esther viii. 10, and Isaiah ix. 6; and they are still largely used as beasts of burden, or to carry messages, and for war purposes, in Egypt and in all the countries in the south of Asia, from Syria up to the Burmese countries and China. There are two kinds, that with one hump and another, and still with two humps. The species employed on the European steppes through which the Don and Volga flow to their respective seas, are the two-humped; and Lieutenant Irwin distinguishes two varieties of two-humped camels. Beyond the Jaxartes, he remarks, is the two-humped species, in the Turki language called uzhri, and by British writers Bactrian. His height is far less than an Indian camel, his hair longer; he is not capable of bearing severe heat, and is not easily naturalized even at Bokhara. In Khzakan he is the prevalent species. The camel called Baghiduli has also two humps, but his height is equal to that of the Indian. He is found chiefly in the south-west of Khurasan, yet even there it is much outranked by the Indian species, meaning we presume, the one-humped camel of Turkestane.

In Arabia there are three varieties of one-hump camels. The largest and clumsiest, called khowas,
are used to carry heavy burdens at the slow and measured pace of a large caravan; the second, called delou, or saddle camel, are selected when young from the former, and are employed in journeys, singly, or with light caravans consisting of similar animals; the third bears the name of hajin in Arabia, maherry in Africa, hurkary in S. Asia, and is the dronemary of the Hebrew Scriptures. It is lightly formed, and of a very pale brown, approaching a cream colour. Being well-trained, its speed will outstrip that of its Mediterranean allies. One can walk between nine and eight miles per hour, and it can accomplish at the utmost 70 miles in 24 hours for two or three days in succession. Wellsted tells us (i. 292) that Nejd is equally the nursery of the camel as of the horse; but the camel of Oman in all ages has been celebrated in the songs of the Arabs as the fleetest. Their legs are more slender and straight, and their eyes more prominent and sparkling. The single hump of the camel of Arabia is round and flabby whilst the animal continues in good condition, but wastes away when out of condition. Wellsted had known £28 paid for one in Oman; but £6 to £10 is their average price. Depth of chest and largeness of barrel constitute their chief points of excellency. A camel of Hejaz can carry from 250 to 500 lbs.; and an ordinary burden camel can walk about 2½ miles an hour, making daily a march of 20 or 30 miles. M. Fontaine mentions an instance of an Arab on his council journey and returning with a message from Coseir to Canneh, a distance of 225 miles, in 28 hours, at the rate of 8 miles an hour continually, which seems incredible. Colonel Chesney mentions that he crossed from Basrah to Damascus, 958¾ miles, in 19 days, or daily 50 miles. Nizam-ud-Din Ahmad, author of the Tabakat-i-Akbari, while Bakshi of Gujerat, was summoned to Lahore by the emperor (A.H. 998) A.D. 1589-90. The Wakiat-i-Mushtaki says that he took with him a party on camels, and that they accomplished the journey of 600 kos (1200 miles) in twelve days, for which the king bestowed honours on him. General Ferrier tells us that the camels from Turkistan and the country of the Hazara are exceedingly large and strong, but not very active. Those from the Seistan are slenderly formed and wiry, but, though small, are as hardy an animal as can be found, and incredibly swift; they will travel 25 leagues in a day without feeling fatigue, and are never affected by the great heat of the sun. These are generally used for riding, and those of Turkistan as beasts of burden. The Bokhara camel and the two-humped Kirghis camel are only surpassed in strength and swiftness by the Arab, and especially the camel of the Hejaz. Besides the Bactrian camel, the Turkomans have a mule breed between this and the Arabian animal, with a hump which can neither be called single nor double, though more near the latter than the former. This is a large, useful, and highly-prized animal, capable of transporting from 1000 to 1200 lbs. with ease; but the creature is short-lived, and the Arabs do not breed from it, giving as a reason that the progeny are intractable and bad-tempered.

In Colonel Stewart's 'Journey through North-Eastern Persia,' he states that the load of the Khorasai camel is 600 to 700 lbs. A correspondent of the Pioneer writes: 'I have frequently seen Brahui camels go out of the fort at Dadur, in Southern Afghanistan, laden with 12 mounds, about 1000 lbs., the ordinary load being 8 mounds, or 650 lbs. I have also met them frequently on the line of march with these loads, and yet one rarely saw a dead Brahui camel.'

They were used by the British in the wars on the N.W. frontier of 1879-1881, but they died in great numbers.

Camels are extensively bred in Murwut, Meenawul, and Esakhail, and are purchased by the Povinda and other wool traffickers. In Syria, the rutting season is in spring, and the males then become extremely unruly. The female carries twelve months, and breeds one at a time. The young camels are weaned at the beginning of the second year. Camels are known to attain to the age of 40 years; but after 25 or 30 its activity begins to fail, and it is no longer able to endure much fatigue. In the northern districts of Arabia, the hair is not shorn from the camel, like wool from sheep, but is plucked off, about the time it is naturally shed by the animal, and seldom amounts to more than two pounds. It is woven into stuffs for clothing.

M. Hue, however, tells us that in Chinese Tartary the fur of an ordinary camel weighs about fourteen pounds. It is sometimes as fine as silk. That which the entire camel has under its neck and along its legs is rough, tufted, and black, but the hair in general is reddish or grey. The Tartars do not take any care of it, but suffer it, when it falls off, to be lost. The milk of the camel is excellent, both for butter and cheese; the flesh is tough, ill-tasted, and little esteemed by the Tartars. They make use, however, of the hump, which they cut in slices and take with their tea. It is said that the emperor Heliogabalus had camel's flesh served at his banquet, and that he was especially partial to the foot; but to modern taste the flesh of the camel is detestable. Like the sheep and goat, their need for water to drink varies with the dryness or moistness of their food. A succulent grass, moist with rain or dew, and near the bank of rivers, of itself furnishes almost sufficient fluid for their wants; but a dry grass, an arid atmosphere, and a burnt-up soil render them very thirsty, and they then readily rush into water. Skinner mentions (ii. pp. 112, 113) that his camels had been 19 complete days without drinking. In the United States, the camels are raised on a large store of food. Pottinger mentions that he allowed his camel 15 lbs. of flour daily, in addition to all the grass it ate. The camels eat the tamarisk and the camel thorn. In parts of the Panjnad country, where camels are reared in great numbers, they delight especially in lana, plants of the salso-laccaceae tribe, which are also useful for burning to get soda. There is often quite a rivalry of interest over a patch of salola land,—the camel-feeder wants it for his animal, and the soda burner for his furnaces.—Pocock's Handbook; Dr. J. L. Stewart, M.D.; Chesney's Overland Route; Hue's Recollections of a Journey, p. 130; Postans' Personal Observations, p. 108; Mignan's Travels, p. 27; Wellsted's Travels; Burton's IV.; Pottinger's Bunch, and Sinde; Fontaine's Egypt; Robinson's Trav. ii. p. 183.

**CAMELopard,** or giraffe, a mammal of S. Africa, the Camelopardis giraffa of naturalists. One variety has been named C. Ethiopia, Ogilby; another variety, C. Sennaarensas.
CAMELID.E. Fossil remains of this family have been discovered in the Siwalik hills and in Burma. So-Cam; Camel; Camilla.

CAMEL: the aba cloak of the Arabs, made of camel's hair. The aba, or cameline, as it is called in the Persian Gulf, is worn in Oman by all classes; it is the camel's hair cloak of Arab shaikhs, and is often striped white and brown.

CAMELIA, a genus of the east of India and China, of the nat. ord. Ternstroemiaceae, and furnishing several species of ornamental flower plants, such as C. Japonica, malliflora, reticulata, drupifera, and thea. C. oleifera of China yields a valuable oil, C. kisii is a tree of Nepal, and C. cedula is a shrub of the Khassya hills.— Voigt.

CAMELLIA JAPONICA. The single red variety of this species grows spontaneously in the woods of China, from 20 to 30 feet in height, and with stems thick in proportion. Its elegant flowers are much admired by the Chinese, who enumerate thirty or forty varieties, for each of which they have a separate name. Many of these varieties are unknown out of China, and Chinese gardeners are likewise ignorant of a large proportion of those found in western conservatories. This elegant flower is cultivated solely for its beauty; but there are other species of camellia raised for their seeds, the oil expressed from them being serviceable for many household and mechanical purposes. The camellia bears the same Chinese name that the tea plant does; and the term cha is likewise employed, as tea is with ourselves, to designate any infusion.—Williams' Middle Kingdom, p. 265; Fortune's Residence.


The Assam tea plant is a shrub with a thin grey bark, and grey soft wood, weighing 50 lbs. per cubic foot. It is cultivated in Kanger, Kuhi, Debra Dün, Kumaun, Darjeeling, the Western Duars, Assam, Cachar, Chittagong, Hazaribagh, in Northern India, and also on the Nilgiri Hills and Ceylon.—Gamble.

CAMEL'S HAIR. Poil de Chameau, Fr. Mu-l-Shatur, Pkns.

Laine de chevron, Fr. Pelo-o-lana de Camello, Ger.


Oont ka bal, Hind. Ottagam mair, Tam.

Pelo de Camello, It. Wonte ventrenkula, Tel.

Unu Runu, Malay.

The soft underwood is of a light-brown colour. In the Panjab it is made into chogas of a cheap kind, but they are soft, warm, and useful. The long hair is not made use of; it is employed in Europe for making paint-brushes.—Powell, Handbook, Panjub; M'Culloch's Dictionary.

CAMEL'S-THORN, Alhaji maurusum.

CAMEL THISTLE, Echinops echinatus.

CAMELUS BACTRIANUS. Linn.

C. dixthorpe, Walther. C. turecuss, Alpinus.

Mecheri, ? Fr. Le chameau, Le camel, Fr.

Bactrian camel, Eng. Trampel their, Ger.

It is found in N. Persia and Turkestan. It is about 10 feet long, has two humps on its back, has dark-brown shaggy hair, long under the throat.—Eng. Cyc.

CAMELUS DROMEDARIS. Linn.

C. monophotus, Eversmann.

C. dromas, Gesner.

C. minimus, Klein.

C. virginus, Forkal.


Camel, dromedary, Eng.

Its countries are Africa, Arabia, Persia, Baluchistan, Rajputana. It is about 8 feet long, has one hump on the middle of the back, pale brown hair. An instance of great endurance of this camel is mentioned by Captain Smith, who purchased one, named Tipu Sahib, for Rs. 300, that carried him 680 miles in 12 days across the desert of India from Jodhpur to Sukkur in Sind. On another occasion, the same camel carried him 110 miles from Sukkur to Kotri, without a halt, in 30 hours.—Smith's Nepal, pp. 20, 26; Eng. Cyc. See Camel.

CAMELUS SIVA VLENISIS, a fossil species discovered by Dr. Falconer and Captain Cautley in the tertiary deposits of the Siwalik Hills of Hindustan. Its crania, jaws, and teeth are in the British Museum. It was nearly related to the existing species, but exceeded them by at least one-seventh in height.—Eng. Cyc. p. 733.

CAMEO, the cyannea of a Tin. They are still largely manufactured in Italy from the large red shield shell of the Maldives Islands, the Casia rufa. It is brought from the Maldives to Ceylon as tribute, and is exported to Italy. It is not a manufacture of India. In 1846 the average value of the large cameos made in Paris was six francs each, giving a sterling value of £8,200; and the value of the small cameos was about £8000, giving a total value of the cameos produced in Paris in 1846 at £40,000. At the same time, in England not more than six persons were employed at the trade. The black helmet, on account of the advantageous contrast of colour in the layers, produces very effective cameos. In 1847 the consumption of shells in France for this purpose was—

<table>
<thead>
<tr>
<th>Helmet Type</th>
<th>Value (£)</th>
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<tbody>
<tr>
<td>Bull's Mouth</td>
<td>8000</td>
</tr>
<tr>
<td>Black Helmet</td>
<td>4900</td>
</tr>
<tr>
<td>Horned Helmet</td>
<td>2000</td>
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<tr>
<td>Queen Conch</td>
<td>2000</td>
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</tbody>
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The art of cameo-cutting was confined to Italy until 1890, at which time an Italian began cutting cameos in Paris. It might be introduced into India.

CAMERON, JOHN, F.R.G.S., author of The Tropical Possessions in Malayan India.

CAM-HI, an emperor of China who first subdued the Mongol Tartars, which he effected more by kind than by the sword.

CAMJIOO of Tibet, Capra hircus, Linn.

CAMLET. Kamelot, Dyt. Ciambelotto, It.

Camelot, Fr. Kameleon, Rm.


A fabric of wool or long hair.—M'Cullock.

CAMMETTI. Malay? Exoeocaria cemmetia.

CAMOENS. Luis de Camaoens, a native of Portugal, was born at Lisbon about a.d. 1524, and educated at the University of Coimbra, but, falling in love with Catharina de Atayade, he was banished from court. He joined the army invading Morocco as a soldier, where he was often wounded, and lost an eye, and he describes himself then as with 'one hand the pen and one sword employed;' but, neglected, he left Portugal a.d. 1553, and landed at Goa, after a voyage of nine months. He joined an expedition against the king of Benimmen, and a year afterwards accompanied Manuel de Vincencellos up the Red Sea, and returned to Goa, but he involved himself by writing his Absurdities of India, and was banished to the Moluccas. During the five years
that he remained there, he visited some of the islands of the Archipelago, and amassed a small fortune, but, embarking it in trade, he was shipwrecked near the river Mei-kong in Cambodia, saving only the manuscript of his poem, the Lusiad, deluged with the waves, through which, clinging to a plank, he forced his way to the shore. The Lusiad describes the system of modern commerce, founded on the discovery of the Cape route. The geographical descriptions are singularly accurate. He returned to Lisbon, where he lived in great poverty, till his death in the Lisbon hospital, A.D. 1579. His poem, the Lusiad, celebrates the great voyage of Vasco da Gama, and gives a history of the Portuguese in India. The 'Cave of Camoens,' where he is supposed to have written a portion of his Lusiad, is a place of interest at Maona. It is picturesquely situated on the summit of a small hill on the margin of the inner harbour.—American Expedition to Japan, p. 165.

CAMPHOMILE, Anthemis nobilis.

Ehdaal mirzie, ARAB. Chamomilla, LAT.
Camomilla, FR. Babanah-gow, PERS.
Romische hamiller, GER. Manzanilla, SP.
Babune-ka-phul, HIND. Chamanudi pu, TAM.
Camomilla, IT. Shamanti puva, TEL.

A herb much employed in domestic medicine.

CAMPANULACEÆ, the Campanula tribe of plants, comprising the genera Campanula, Cephalostigma, Cidipnos, Symphyandra, and Wahlerberga. The genus Campanula consists of flowering plants, the Canterbury bell, Venus's looking-glass. C. dehiscent and C. lancifolia are noticed by Roxburgh as growing in Bengal. C. edulis is a native of Arabia Felix. Its thick and rapid root contains a considerable quantity of starch, and is eaten by children. C. glanca, its root is used by the Japanese in syphilis. C. grandiflora grows wild amongst the Chinese hill.—Fortune's Waverings.

CAMPBELL, A., M.D., a medical officer of the Bengal army, who was political officer at Darjiling for upwards of a quarter of a century. When he first took charge of the office, there were not twenty families, but by 1853 a population of ten thousand had gathered together. He found it an inaccessible tract of forest, and left it an excellent sanatorium, with a revenue of fifty thousand rupees. He journeyed to the confines of Tartary. He wrote an itinerary from Phari, in Tibet, to Lhasa, with appendices; Routes from Darjiling to Phari; Report of the Death of Cosmos de Koros, the Tibetan Scholar; The Literature and Origin of certain Hill Tribes in Sikkim; Memorandum on the Bora Chung of Bootan; On the Native Alum or Salaght of Nepal; On the Inhabitants of Sikkim and their Language; Limboos of Sikkim and other Hills.—Beng. Jour. and Journ.

CAMPBELL, Sir COLIN. See Clyde.

CAMPBELL, Sir GEORGE, K.C.S.I., a Bengal civil servant, born in 1824, and sailed for India in 1842. In 1845 he was appointed the assistant to the Governor-General's Agent, N.W. Frontier, subsequently Deputy-Commissioner, Cis-Sutlej States. On returning to Britain, he published Modern India; and India as it May Be. He wrote extensively on the ethnology of India generally. In 1854 he was called to the bar; in 1855 he was appointed Commissioner of the Cis-Sutlej States; and in 1867, Commissioner of the Central Provinces. He was Lieutenant-Governor of Bengal; and on retiring from the service, became a member of the Indian Council in London, and subsequently a member of Parliament.

CAMPBELL, Lieut. J., Assistant Surveyor-General, an officer of the Madras army, wrote on the use of Sir Howard Douglas's Reflecting Semi-circle; On the Use of Kater's Altitude and Azimuth Instrument; Suggestion of a Tide Register; Table of Specific Gravities of Aqueous Vapour, and Dry and Saturated Air; Meteorological Journal of Boyacottah; On the Advancement of Geological Science in India; On the Construction of the Portable Barometer; On the Formation of the Table-land of Southern India; Plain of Baramaral, 2000 feet above the level of the sea; Soils of; On the Manufacture of Steel in Southern India; Improvement of the Silk manufactured in Mysore and the Salem Districts; Report on the Kaolin Earth of Mysore; Report on the Construction of Philosophical Instruments in India; On the Manufacture of Pottery-ware in Southern India; Meteorological Experiments at the Gunnsar Mountains; Journey overland to India; On estimating the distance of Objects of Known Height at Sea.—Mad. J. L. and S. Col. J. Nat. Hist.

CAMPHERE of Scripture, the Illena, or Lawsonia alba.

CAMPHOR.

Kafur, AR., HIND., PERS. Kapur Japun, JAP.
Pay-yok, also Parouk, BUR. Camphora, LAT.
Kapur Bar, CHN. Kapur, CHN.
Kamfer, DUT. Alcanfor, PORT., SP.
Camphre, FR. Kamfora, RUS.
Kampfer, GER. Karpura, SANSE.
Kupros, OR. Capura, SINGH.
Kopher, HER. Carpathum, TAM.
Canfora, IT. Carpathum, TEL.


Camphor of Borneo, or Bornea Camphor, Lang-nau-hiang, Po-lal-hiang, Hoh-po-lo-hiang, Ping-pien, Mei-hwa-pien.

The camphor of commerce is obtained from two trees, one of which, Dryobalanops camphora, grows in Sumatra, Borneo, and Labuan; the other, the Camphora officinalis, or Laurus camphora, grows in China. The names for it in many languages of the world, are sufficiently alike to show that a knowledge of the substance came from one source, probably China or Sumatra, and the words Dutch, or Japan, or Tub camphor, Burus camphor, China camphor, Formosa camphor, have been added merely to indicate the place of production. The unrefined or crude camphor of commerce is the product of the Camphora officinalis, and is of two kinds, viz. Dutch or Japan, or Tub camphor, so called from being brought from Batavia to Europe in tubs, containing 1 cwt. to 1 1/2 cwt., and is in the form of lumps of pinkish grains. The second kind is called ordinary or crude camphor, China camphor, and Formosa camphor, much of it being produced in Formosa, shipped to China, and re-shipped to Europe in square chests lined with lead-foil, and containing from 1 to 1 1/2 cwt. In this crude state it consists of dirty greyish grains. This crude material is obtained by distillation from the roots and wood of the Camphora officinalis tree, which is chopped up and split up into billets, which are boiled in plenty of water in large boilers, with a conical or round straw cover smeared with clay outside; and, as the water boils, the crude camphor is deposited on the inner straw. Refined camphor is obtained from this product by
CAMPHORA.

distillation, which is carried on in various ways; but the whole process consists in using two round vessels, inverting one above the other, and adding 2 per cent. of quicklime in order to absorb any oil, and distil from one vessel to another. Two earthen pots, luted together, answer perfectly, as a very small aperture being left for the escape of air on the first application of heat. It is largely refined in Bombay. In China it is prepared very carelessly, by soaking in water the chipped wood of the root, trunk, and branches, and subliming it.

The Borneo or Barus camphor, the Lagus-nauhu-hiang or 'dragon's-brain perfume' of the Chinese, is a product of the Dryobalanops camphora, Colebrooke. It is much esteemed in China, and is called by the natives and in commerce, 'kapur barus,' or Baruscamphor, to distinguish it from the product of the Camphora officinalis, or Japan camphor. It derives its name of Barus from a place in Sumatra where it is produced, and whence it was probably first exported. The tree is found on all the northern parts of Borneo, and is said to be particularly abundant in the country of the Kyan, in the interior, on the Bintulu and Rejang rivers. The produce, though so valued by the Chinese, is not much used by the natives, though it is occasionally taken inwardly as a medicine. The price in China of the Borneo camphor is said to be higher than that of Japan, in the proportion of twenty to one; it has been supposed that this disproportion is caused more by some fancier of the consumer than any real distinction of properties. As not one in ten trees is found to produce camphor, its presence must be suspected by a particular state, either of vigour or disease, in the tree; and the camphor collectors cut notches in the trees, in order, before felling, to ascertain whether they are likely to produce camphor. It is said that in those which produce it, the younger and smaller trees are often found to be quite as prolific as the older and larger trees. The camphor is found in a concrete state in the crevices or fissures of the wood, so that it can only be extracted by felling the tree which is afterwards cut into blocks and split into wedges, and the camphor, which is white and transparent, is then taken out. An essential oil is also found in hollows in the wood, which the natives crystallize artificially; but the camphor thus obtained is not so much esteemed as that found naturally crystallized. For the distinction of palm and richest trees they rarely collect more than two ounces. After a long stay in the woods, frequently of three months, during which they may fell a hundred trees, a party of thirty persons rarely bring away more than 15 or 20 pounds of solid camphor, worth from 200 to 250 dollars. The quantity and value of this costly substance are enhanced by a custom which has immemorially prevailed among the Batta race, of delaying the burial of every person who, during his life, had a claim to the title of raja (of which each village has one) until some rice, sown on the day of his death, has sprung up, grown, and borne fruit. The corpse, till then kept above ground among the living, is now, with these ears of rice, committed to the earth, like the grain six months before, and thus the hope is emblematically expressed that, as a new life arises from the seed, so another life shall begin for man after his death. During this time the corpse is kept in the house, enclosed in a coffin made of the hollowed trunk of a durion, and the whole space between the coffin and the body is filled with pounded camphor, for the purchase of which the family of the deceased raja frequently impoverish themselves. Camphor oil is also said to be collected by incisions at the base of the trunk, from which the clear balsamic juice is very slowly discharged. Barus camphor is getting scarce, as the tree must be destroyed to obtain it. About 800 pikuls are annually sent to China. Malay camphor is more fragrant and not so pungent as the Chinese camphor. 983 tons of camphor were exported from Java in 1843; 625 bales were imported in 1843, the produce of the Japanese empire, and 559 pikuls exported from Canton in 1844. In London in 1889 it was selling at 5s. the cwt. The wood of the camphor tree is good timber, suited for house and ship building. The liquid camphor of the same tree appears of the nature of camphogen. Dr. A. T. Thomson, by passing a current of oxygen gas through it, converted it into camphor. In Spain, a camphor has been obtained from some of the Labiatae. In Burma considerable quantities have been produced from the Blumea grandis; and a similar chemical product has been obtained in Europe, by passing a stream of muriatic gas through turpentine. It is largely employed in medicine; and to burn camphor before an idol forms part of the ritual of the Hindus.—Low's Sarawak, pp. 44-46; Marsden's Sumatra, p. 150; Royde's Mat. Med.: Crawford's Dictionary, p. 51; Simmonds' Comm. Prod.; O'Sh.; Mason's Tannearium Tomum, pp. 287-8.

CAMPHORA, a genus of plants belonging to the Lauraceae, of which three species, C. glandulifera, C. officinarum, and C. porrecta occur in the south and east of Asia.

Camphora glandulifera, Nees, is the Laurus glandulifera, Wall. It is a tree of the Nepal mountains, with small yellowish-green odoriferous flowers, and pale yellow light wood, smelling strongly of camphor while fresh. It is weak and unfit for furniture. Its bark has been named the sassafras of Nepal. Dr. Royde says (Ili. Him. Bot.) it contains solid grains of camphor in its wood.

—Voigt, p. 308; Royce, p. 324; O'Sh., p. 545.

Camphora officinarum. Bours. Laurus camphora, Linn., oflicial camphor tree, camphor laurel. A considerable tree of Cochlin-China, Formosa, Japan, and China, principally near Chiu-chu, in the province of Foh-kien; also in Canton, Hu-phe, Kwang-si, and Foh-kien. The tree furnishes excellent planks, beams, and boards. Camphor is diffused through all parts of the plant; the root, trunk, and branches, when cut into chips, are boiled in water and then sublimed into inverted straw cones contained within earthen capitals. It is thus obtained in the form of crude camphor, chiefly from the province of Foh-kien and the opposite island of Formosa, but some of good quality is also procured from Japan. It is sometimes imported into Britain from Batavia.—Williams' Middle Kingdom, ii. p. 157; O'Shaghnessy, p. 455.

Camphora porrecta. Linn.


A tree of Penang, Sumatra, and Java, furnishing a strong gum which is durable if kept dry.

—Voigt; Biez, ii. 708.

Camphor Oil, Kapur minyak, Malaya; the liquid camphor of the Dryobalanops camphora tree.
Camphor Cup, a cup for use after the manner of the quassia-wood or 'bitter cup.'

Camphor Wood of Simatra is from the Dryobalanops camphora, of which the wood is hard, compact, and brownish-coloured. The fragrant, light-coloured, soft wood of which the trunks and boxes of China are made, is supposed to be that of the camphor tree of Japan, Laurus camphora, or Camphora officinarum. Camphorwood is valuable for the construction of chests and almirahs, as its powerful odour protects the contents from the ravages of white ants and other insects. The Martaban camphorwood, Laurus sassafras, is from a very large tree, scattered sparingly throughout the Tenasserim provinces. Wallisch wrote that it was very like Laurus glanduliferæ, which furnishes the sassafras and camphorwood of Nepal. The Karens call it the 'tree galanga,' from its fragrance. — *Holtz; Mason; O'Shaunessy.*

CAMPOSHERMA ZEYLANICUM. *Thur.* A tree 30 to 40 feet high, not uncommon in Ceylon, growing on the banks of streams at Ratnapur and lower part of the Saffragan district up to 400 feet elevation. — *Bedd. p. 188.*

CAMONG, MALAY. A village, an enclosure, a courtyard, the Anglo-Indian compound, the Hindi जिंगान.

CAMRUKH. HIND. अवर्होस carambola.

CAM SING MOON or Cum sing moon, a safe harbour in the Canton river, formed between the southern port of Keow island, and a point of Macao island called Bluff Head. It was much frequented by opium vessels. — *Horsburgh.*

CAM-WOOD, a dyewood from the Baphia nitida of Africa, used in dyeing the bright red of English bandana handkerchiefs.

CANAAAN. This name, according to one authority, is from Chana, the ancient name of Phœnicia. According to another, Canaan or Palestine was called after Canaan, the youngest son of Ham.

CANADA TURPENTINE, or Canada balsam, is obtained from the Abies balsamea in Canada. Between the bark and the wood of the trunks and branches of the trees are vesicles containing the oleo-resin, which exudes when they are broken. Canada balsam is much used by varnish-makers in the manufacture of some of the most transparent varnishes. It is also extensively employed by opticians as a cement. The great value of Canada balsam for optical purposes, depends on its transparency and its refractive power, which is nearly equal to that of glass. When used to connect the pieces of an achromatic lens, it prevents the loss of light by reflection, and excludes moisture and other foreign bodies from the space between the surfaces of the glasses. In Nicol prisms (single image prisms of Iceland spar) it serves the important purpose of transmitting the ordinary ray, and of interrupting the passage of the extraordinary one; its index of refraction being intermediate between that of Iceland spar for the ordinary ray, and that of the same substance for the extraordinary one. — *Brockman.*

CANAGA, CAN., TEL. Pongamia glabra. CANAILS for irrigation are of the greatest importance in all the tropical countries liable to the calamities resulting from excessive droughts.

The great canal of the world is that of *Suez,* connecting the Red Sea with the Mediterranean, and separating Africa from Asia. It was com-

menced 25th April 1859, the first ships passed through it in the year 1867, and it was formally opened for traffic in December 1869. It had occupied ten years of labour to bring it to that state, and cost to that period 13 millions sterling = 13 kr of roupas.

In British India the great works are the Ganges Canal, the Eastern Jumna Canal, the Agra Canals, and the Lower Ganges Canal.

The *Multan Inundation Canals* supply the district of Multan between the Sutlej and the Chenab, where rain hardly ever falls, and convert it into a succession of beautiful gardens, shaded by palm trees. There is a burning sun above and canals flowing below.

The rude inundation *canals of Gujair and other districts of the Bari Doab above Multan,* are of value, and from those in the rich country of Muzaffargarh, between the Chenab and the Indus, the land is made one sheet of cultivation.

The inundation canals of the *Shahpur district* draw their supply from the Jelum.

The *Derajug Canals* run parallel with the river Indus and fill during the periods of inundation.

The *Kohler lands of the Bakhawalpur State* are 10 or 12 miles wide, and border the Indus. They are irrigated by inundation canals from the Sutlej.

The aggregate length of the *Upper Sutlej Canals* is 213 miles.

The *Khanewal Canal* leaves the Sutlej at a point 20 miles below Firozpur, by a month 90 feet wide, narrowing to 20 feet at the end of its length of 55 miles.

The *Sohag Canal, 73½ miles long,* leaves the Sutlej a little below the mouth of the Khanwah, and irrigates the country between that canal and the river.

The *Para Nullah* is a continuation of the Sohag, and is connected with the old bed of the Beas by a channel called Nawabbin.

The *Kutaura Nullah* is to the north of the Khanewal canal, and it was proposed to bring into it the waters of the Sutlej.

The *canals of the Lower Sutlej* and the *Chenab* fertilize the *Multan* district, irrigating 120,000 acres, belonging to 120,000 villagers. In 1871–72 they were 39 in number, with an aggregate length of 632 miles; 11 had been made by the British.

The *Indus Canals* include those of Muzaffarnagar and the Derajat. There are 66 in the Muzaffarnagar district, drawing their supplies from the Indus and the Chenab. Those of the Derajat are 592 miles in aggregate length, of which, up to 1871–72, 108 had been constructed by the British.

The *Dera Ghazi Khan district* and the Sind Sagar Doab need irrigation.

The *Peshawar valley,* with the exception of a small opening towards the Indus, is encircled by mountains, and comprises 2400 square miles, divided into two by the river Kābul, which enters the plain at Michīn. It is joined midway by the Swat river flowing from the N.W., and entering the plain at Peshāvar, it waters Yusufzai by many channels, the Bara from the S.W. entering the plain at Shaikhān.

Bakawalpur State extends for 300 miles along the left banks of the Sutlej, Chenab, and Indus. In former times, the Ghaggari, the ancient Saraswati, flowed through it from the Siwalik mountains to the Indus, between Rori and Uch, parallel
with the Sutlej, but it dried up; and ruins of old towns are dotted along its banks, and all the once fertile tract is now barren and sandy, drifted from the desert, and is known as the Bawahulpur-Bangar. To the west of the Bangar are narrow strips 10 or 12 miles wide, along the left banks of the Indus, Chenal, and Sutlej, called the Khadar. In 1807-70, Major Minchin, political agent, led a canal 105 miles long from the Sutlej, and called it the Fowndow. He also formed six small canals in the Khairpur district.

Below Khairpur are the Vahind, the Khanwah, Naoranga, Kutubwah, Sultanwah, Mubarakwah, Minchinwah, Baruswah, Sidikwah, and the Harihari or Fertiliser, all of them large channels 100 to 200 feet wide, irrigating a vast area by an endless network of branches, and annually cleared out.

From the Indus nine canals lead, two of them excavated by the British; and in July and August the Indus floods the face of the country, the waters reuniting to run into the eastern Narra, a great channel belonging to the Sind system of irrigation.

In the Bari Doab, between the Beas and Ravi rivers, there has been a great State canal completed; but canals are still needed for the 7,000,000 acres unirrigated in the Rechna Doab, between the Ravi and Chenab, which are the Chenab and Jhelum; and the Sind Sagar Doab, between the Jhelum and the Indus.

That of the Bari Doab up to 1871-72 cost upwards of £2,000,000, and was irrigating 300,000 acres.

The great Sirhind Canal, commenced in 1871-72, was projected to draw its waters from the Sutlej, to irrigate an immense area now desert, and the total cost was estimated at £2,950,427, a third part of which was to be borne by the native states.

After the rivers of the Panjab unite at Mithankot, the Indus flows for 450 miles to the sea, through the arid rainless country of Sind. Here artificial irrigation is essential to cultivation of the river during the dry season, and its banks are now greatly above the alluvial plain. When the bed attains a certain height the water falls over, and since historical times the river has been changing its course to the west. The banks are permanent only at Sukkur; at Jharrak, where it is bound by rocky banks; and at Kotri, by hills and deep tenacious clayey soil. The canals are excavations carried away from the river in an oblique direction, so as to secure as great a fall as possible. They vary from 10 to 100 feet in width, and from 4 to 10 feet in depth, and none are deep enough to draw off water from the river except during inundations. The irrigation is carried on by the water flowing into the channels during the inundations, or it is raised by the aid of machinery or Persian wheels. Some of the canals are 70 and 80 miles long. On the western or right bank, the chief canals are the Sind, 654 miles, Ghar or Larikhana, Bigari, and Western Narra.

On the east or left bank of the Indus river is the Eastern Narra. It was an ancient channel which passed through the Thar, and had near it among the sand-hills, about 400 small dunds or lakes or bottoms. In 1859 a channel from the river at Rori was led into it, and its channel was dammed at places to prevent the escape of water into the large dunds.

Two canals have been led from the Eastern Narra,—the Mitraw, which in 1866 had 190 miles open, and irrigated 156,803 acres, and the Thur canal, irrigating 38,000 acres. Under Sir Bartle Frere's administration, the ancient channel of the Narra, 120 miles long, was reopened on the 7th May 1867, to distribute water over the vast plain of Mirpur, the Haur, and the Doab.

From Hyderabad southwards, the Fullali canal is the main feeder of irrigation canals. Originally it was a natural branch of the Indus, which it rejoined 16 miles below Hyderabad; this was stopped by a dam in the time of the Amirs, and its waters were sent into the Gaja, the Gun, and other canals.

In 1861 the cost of clearances of the main canals was £41,041, but the allotment in 1871-72 was insufficient. Canals of a permanent character, proposed to be led off the Indus from Sukkur, Jharak, and Kotri; and the first of these, from Sukkur, was opened in 1870.

In the valley of the Ganges, above its junction with the Jumna at Allahabad, and in the whole length of the country through which the Jumna flows, the rainfall does not exceed 30 inches.

Firoz Shah, emperor of Delhi between 1351 and 1388, drew a canal from the Jumna to water his favourite hunting ground at Hisar, but it had long fallen into disrepair, when Akbar in 1588 ordered its restoration. In 1626, Shah Jahan's engineer, Ali Murdan Khan, projected a canal in the Doab, which shortly ceased to flow. He also led one from that of Firoz, to convey water to the city of Delhi. The Delhi canal crossed the lowland by a masonry aqueduct, traversed the Aravalli hills by a canal cut through the solid rock, 60 feet deep at the crest, and flowed through the city in a masonry bed, throwing off innumerable minor streams; but in 1703 this branch ceased to flow.

When the British came into possession, all these works had fallen into ruin, and in 1820 the canal of Firoz was restored from where the Jumna issues from the Siwalik hills. At Delhi it separates into a branch which enters the city at the Kabal gate, and part of it flows down the Chandni Chowk; the other branch follows that of Firoz to Hisar, and sends off the Rolotak branch. The united length is 445 miles, and that of the watercourses 728 miles; and the total outlay up to 1871-72 was £282,517, from about 447,171 acres.

The Ganges Canal, commenced in 1848, was opened on the 8th April 1854. It is wholly a British project. The water is brought from Ganges Ghat on the Ganges, 24 miles north of the town of Hurdwar, close to the foot of the Siwalik mountains. The main channel is 341 miles long, and the branches 306 and the distributaries 3078, in aggregate length; and 767,000 acres in 5061 villages are irrigated by them. The principal engineer was Sir Proby Cantley. Commencing at Hurdwar, as the river Ganges issues from the mountains, it runs through the country on the right bank of the river. One of its many branches re-enters the Ganges at Cawnpur, and another joins the river Jumna. The canal is carried by a great viaduct, three miles long, over the river Salani. It is of earth, and is protected by a wall of masonry and a bridge of fifteen arches, each of fifty feet of span, through the volume of another river, and beneath the bed of a third, and was planned to re-enter the Ganges at Benares. The Solani aqueduct leaves a clear waterway of
CANALS.

700 feet, and cost £300,000. The total cost of the canal was not less than two millions sterling (£2,056,000). It takes about 75 per cent. of the water of the Ganges, whose volume, however, is not diminished. It traverses the Doab, and by countless branches, dykes, and channels, irrigates almost every village throughout a tract of country upwards of 800 miles in length, and is supplied to every tiller on payment of a water tax. At Hardwar, the pass through which it issues, at the lowest ebb discharges about 7000 cubic feet of water every second. Its current was too strong for navigation, and the expected advantages from it for irrigation were not attained. It is carried through Hardwar, Alighur, Cawnpur, Hamirpur (330 miles), with branches to Futehghur, Bunder-shah, and Koel. A ridge of land rises slightly above the level of the adjacent country, and runs along the 13 miles of the Doab, sloping down on the one side to the Jumna, and on the other to the Ganges. The canal has been constructed on the top of this ridge to the vicinity of Alighur, whence it diverges into two channels, one to Cawnpur, and the other to Hamirpur and Etawa. On the completion of the canal, it was opened in April 1854, and the water admitted on an aqueduct across the Solani river at Roorkee. The engineer, Sir Proby Cautley, on leaving Calcutta, was honoured with a salute from the batteries of Fort William, and was favourably noticed in the Government Gazette.

The Agra Canal has been led off from the Jumna below Dehli, to irrigate the lands of Dehli, Agra, and Muttra. It irrigates 350,000 acres. The Fatehpur Sikri reservoir may also be mentioned.

The Rohilkhand Canals comprise the Nehtore, the Kurnia, the Jyogool, 180 miles, the Muradabad, the Paba, 13 miles long, and the Kailas canals; and the Kiteka and Dhura watercourses, 52 miles. They irrigate the belt of country along the Terai, where much rice is grown.

There are five canals in the Dehra valley, between the Ganges and the Jumna, aggregating 67 miles in length, and irrigating 11,039 acres. There are ten miles of rajbhu.

The tanks in Mahrwaras in 1871-72 had a total area of 8675, and irrigated 14,826 acres. They were largely constructed by Colonels Hall and Dixon.

The canals of the N. W. Provinces have irrigated on the average 1,065,450 acres.

A dam has been thrown across the Sone river, and two main channels lead off from it.

The Midnapur Canal was partly open in 1871-72. It is 52 miles long, to irrigate 290,000 acres.

Mention may be made of the Arruch Canal, 70 miles long, to irrigate 439,000 acres, and of the Patna Canal, 84 miles long, to irrigate 390,000 acres.

The Humirpore and Jhansi irrigation works consist of lakes and reservoirs, partly natural, partly artificial, and are under the direct control of the civil authorities (Friend of India; Annals of Indian Administration).

The Mahanadi river drains the fertile plain of Chatisgarh, in the Central Provinces, and falls into the Bay of Bengal after a course of 529 miles. Its basin covers an area of 45,000 square miles. It is liable to heavy but short-lived floods, and the province of Orissa at the deltas has long suffered from them. The E.I. Irrigation Company undertook to form a great anicut, and it was commenced in 1862; they failed, and in 1868 transferred their works to the Government for £1,050,000, but the water has never brought remunerative rates.

Canals, as watercourses for cultivation, have only since 1862 been in progress in the Bombay Presidency. A weir of 1550 feet has been thrown across the Girnar river, in Kandlesh, and one across the Panjir. In Sultanah a weir 2000 feet long has been drawn across the Kistna, to feed channels 45 miles long. A large tank has been formed at Koorgaum near Barsee, a reservoir at Muki near Duiila, and a tank at Hurtola. A reservoir has been constructed near Shokapur at a cost of £90,000. Large works have been planned for Gujarat and the W. Dekhan, and others for the Central Provinces; for works from the Pench river north of Nagpur, and from the Warda river to its south, and for the waters of the Betwa river to be led to irrigate Bundelkhand, which has been fifteen times desolated by famine in the last three centuries. One-third of the water will go to the Patiaila State.

In Madras, of the native engineering works, those for the application of water to irrigate fields and gardens, wells, tanks, and river channels take the first rank. There are innumerable tanks or artificial lakes of various sizes formed in basins, that near Cumnum being seven miles in circumference. The most northern of its rivers, the Godavery, at Rajamundry, is about fifty-five miles from the sea, divides into two streams, forming a delta of rich alluvial country. A little above this point the river is 2000 yards broad, but it soon expands at Dowlaishwarara into a width of three times that extent, parted, however, by islands into four branches. An anicut has there been thrown across the channel, the united length of the four damps being 3955 yards. Upwards of two miles of stream is blocked up by a solid, well-protected mass of stone, in lime cement, with a breadth at the base of nearly 130 feet, and a height of twelve feet above the natural surface of the water. Along the left bank of the river is one channel, another to Cocanada, and other channels; the total being 840 miles of main channel, irrigating 780,000 acres of land. In 1871-72 there were 56,471 boats and rafts engaged in traffic on this canal.

The rajas of Vijayanagar in 1521 constructed nine dams across the Tumbudra river, and had channels of 89 miles of total length. The old travellers, Cantl and Cesar Frederick, tell of cool streams flowing through the streets of the city. In 1860 the Madras Canal and Irrigation Company undertook to bring a navigation and irrigation canal from the river, throwing an anicut across Sankasala; its history is useful. It was thus to provide for the continuous irrigation of the Bellary district, of the Koundy valley and the Nellore district. The weir across the Tumbudra at Sankasala was 1500 yards in total length of clear overfall, which was broken into two lengths by an intervening island. The Hindry Aqueduct carried the canal, 90 feet broad and 8 feet deep clear waterway, over that river, at an elevation of 32 feet, by 40-feet arches, the length between the abutments being 651 feet; the cost of the first 75 miles was £8710 per mile; the next 115 miles cost £2900 per mile; and the whole
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The Grand Canal of China has been led through and near a series of lakes, some of considerable extent, extending all the way from Nan Wang, in lat. 35° 55' N., long. 116° 30' E., down to the Yang-tze-Kiang.—Morai and Material Progress, 1871-2; Markham's Embassy; Ann. Ind. Adm.; Report on the Administration of the Punjab; Powell's Handbook, Econ. Prod. Punjab; Jackson's Manual. See Irrigation.

CANAMBOO. Tam. Crotalaria juncea, Linn.

CANARA, a maritime province on the western coast of the Peninsula of India, with an area of 7,800 square miles. It is arranged by the British into two revenue districts, North Canara and collectorate of Honore, and South Canara as far south as the Chundrakherry river, and from that river commences Malabar. Canara formed part of the Mysore Dominions, and came under British rule after the fall of Seringapatam in 1799. Below the mountains the country is rocky, mountainous, intersected by numerous mountain streams running to the sea, with exceedingly fertile valleys. The Garsuppal falls of the Sherranuty river have four portions. The Grand Fall falls perpendicularly 880 feet. Three languages are spoken, viz. Tulu in the ancient Tuluva country, Malealam as far north as the Chundrakherry river, and Canarese in the taluks of Honavar and Kundapora above the Ghats. In the Buntwal taluk are colossal images of Gomata Raya, carved out of single blocks of granite, and placed on the tops of hills. The interior of the Jain temple at Mood, bidderly is beautiful. Near Kundapora, close to the sea, is a small fresh-water lake, in which the Howana or flower fish is caught.

North Canara, since the 1st Feby. 1862, has been administered by the Bombay Presidency. It lies between lat. 13° 52' and 15° 31' N., and long. 74° 10' and 75° 7' E., with an area of 4,235 sq. m., and in 1872 a population of 398,406 persons, 364,492 of them being Hindus. The Havik Brahmas cultivate betel-nut gardens. The Nannai Mahomedans are seamen; they are well to do, and represent the colonies of Arab merchants of whom a remnant still exists along the coast from Gogo southwards. There are Sidi Mahomedans, descendants of African slaves whom the Portuguese held. They have the woolly hair and black skin of the pure African negro; are poor, and cultivate little patches rudely in the forests.

South Canara is under the Madras Presidency. It lies between lat. 14° 31' and 15° 31' N. and long. 74° 1' and 75° 2' E., and has as its eastern boundary the Western Ghats, through which the Manjarabad, Kolur, and other passes lead up to Mysore and Coorg; its area is 3902 sq. m. The people, about a million in number, consist of Saraswati, Konkani, and Sivakul Brahams, Baut, Korargar; Portuguese of mixed descent, native Christians, Mopla of Arab descent. The aborigines include the Malekudi, Koragar, Holyar. The Malekudi are a forest race who practise the Kumari cultivation, but labour on coffee estates. The languages spoken are Tulu, Malealam, Canarese, and Konkani, besides Urdu and English. The language of Tulu, is spoken between Udipi and Kumbla by about 180,000 people, south of the Pushevenni river and elsewhere; with Moplas, Malealam is the prevailing tongue. Prior to British rule, the Holyar were the slaves of the Wargdar or proprietors, and even yet continue in a state of modified serfdom.—Findlay; Imp. Gaz.; Madras Records.

CANARESE.

The Eknuk tank is four miles north of Sholapur on the Adela, a branch of the river Bhima. Its dam is 7200 feet long, and 72 feet high in the centre, and the lake formed is 63 square miles. It submerged five villages, two of them in the Nizam of Basseor, but 35,840 acres are brought under the influence of the tank.

An aqueduct was completed across the Pennar river at Nellore in 1855. It was breached by the hurricane of 1857, but restored in 1861, and in 1863 the irrigated area was 32,874 acres. It is 520 yards in length.

The Cauvery and Colerun anicuts are the most ancient in Southern India, and those to which the British first directed their attention. At the head of the island of Sirrangam, near Trichinopoly, the main river divides into two branches, the southern retaining the name of Cauvery, the northern being called the Colerun; and the tendency was for the Cauvery to silt up, and the whole of the water to pour into the Colerun. The native anicut had been built about the third century of the Christian era, and consisted of a solid mass of rough stone 1080 feet long and 60 feet broad, irrigating 669,000 acres. Sir Arthur Cotton threw a masonry anicut, 750 yards long, across the Colerun, resting it on three lines of walls 6 feet in diameter in the sandy bed of the river, which has thrown the water into the Cauvery and cleared the bed of the Colerun. In 1836 an anicut was thrown across the Colerun to regulate the supply of water for S. Arcot. Colonel Sim was the engineer.

The Mardi Conwai river is in Mysore, with the Nundoor Sreeramadwara and Maseehully reservoirs.

The Periar river runs to waste into the Cochin marine lagoon, and it has been proposed to turn it to the eastern districts by a cutting 140 feet deep and a dam 60 feet high, and add to the water supply of Madura and Ramnul, now obtained from the Vaiga.

The Tambaprapura river waters the Timneckly district. It has been crossed by several dams in very ancient times.

The East Coast Canal from Madras to Sadras is for traffic.

The Grand Canal of China has been led through and near a series of lakes, some of considerable extent, extending all the way from Nan Wang, in lat. 35° 55' N., long. 116° 30' E., down to the Yang-tze-Kiang.—Morai and Material Progress, 1871-2; Markham's Embassy; Ann. Ind. Adm.; Report on the Administration of the Punjab; Powell's Handbook, Econ. Prod. Punjab; Jackson's Manual. See Irrigation.
spoken by about nine millions of people, partly under the Hyderabad, the Mysore, and the British Governments of Bombay and Madras. The ancient Hindu term, Karnatica, comprehended all the high table-land in the south of India above the Eastern and Western Ghats, and its rulers seem never to have held sway beneath the Ghats; though in the present day, by a strange fatality, it is now only the countries below the Ghats, the Karnatic on the east and Canara on the west, to which the name of the ancient Karnatica kingdom has come to be applied, and its name is now never given to the Bala Ghat, or country above the Ghats.

The great bulk of the Canarese-speaking people are of one race, who are pure Dravidians. They have adopted the Jangama sectarian faith, the followers of which, by their tenets, ought to have no caste distinctions. Most of their subdivisions are restricted to vegetable products as food; and so carefully do they act up to these, that no one of these vegetables will come near bringing a living creature for sale to any one of the flesh-eating people. Their sect is, perhaps, amongst the most exclusive of all in India. It is doubtless this tenderness towards animal life that guides them to their avocations, which are mostly those of civil life, cultivators and shopkeepers, and may have led to their non-resistance to invaders; but in all the great armies which the British have formed during the past century, of the Canarese Jangama sectarians not more than a few thousand men may have become soldiers, and certainly not even one of that portion who abstain from animal food. The Teling and Canarese nations have, till recently, continued equally advanced as to elementary school education; and though, in this respect, both races fall short of the progress made by the energetic, restless, impetuous Tamil people, they are greatly in advance of the Mahratta. For nearly 200 years the inland tract occupied by the Canarese-speaking people had been traversed by great armies, bent on conquest, and since the fall of the great Vijayanagar dynasty all comers seem to have crossed this tract without opposition.

Canaree, properly the Kannadi or Karnatka language, is bordered by the Tamil and the Telugu on the east. It is spoken throughout the plateau of Mysore and in the western districts of the Nizam’s territory as far north as the village of Murkundah, lying 30 miles south-west of Beder. Also it is spoken in part of the ancient Tulva country on the Malabar coast, now long designated as Canara, a name which it acquired from having been subjected for centuries to the rule of Canarese princes. But in Canara, the Malenam, the Konkani, and the Tulva are also spoken, though less extensively than the Canaree. From A.D. 800 to 1500 it was free from any admixture of foreign words, but since then Sanskrit words have been extensively introduced, and it is now in the vicinity of Hyder Ali and Tipu, Urdu words were largely imported into it in Mysore, while it added Marathi in the N.W. and Telugu on its N.E. The Canaree character differs slightly from the Telugu, from which it has been borrowed, but the characters used for Tamil, Malenam, and Telugu are quite distinct from each other. The ancient Canaree character, however, entirely differs from that of the modern Telugu, and the Canareese language differs even more widely from the Telugu than it does from the Tamil. There is an ancient dialect of the Canarese language current, as well as modern, the latter differing from the former by the use of different inflectional terminations. The ancient Canaree dialect, however, has no connection with the Sanskrit character to which that name has been given, in which, viz. the Hala Kannada, many very ancient inscriptions in the Mahratta country as well as in Mysore are found.

**CANARIUM, a genus of plants of the natural order Burseraceae.** Wight says the resinous juice of C. commone has properties similar to copaiva, while the kernels of the seed afford by expression a bland, edible oil. C. strictum, Rozb., is known in Malabar under the name of ‘black dammer tree,’ in contradistinction to the Vateria Indica, which is the ‘white dammer tree.’ This tree is rather common in the alpine forests about Courtallum in the Tinnevelly district, and is regularly rented there for the sake of its dammer. The dammer is transparent, and of a deep brownish-yellow or amber colour when held between the eye and the light, but when adhering to the tree has a bright, shining, black appearance. The fruit is a very hard, three-celled, oval nut, tapering at each end.

Under the names Dhoo and Googul, Dr. Gibson mentions two species of Canarium in Canara and Sunda, one on the ghats above, and the second species of great size cultivated near Biligil and at Siddapore. The choice gum-resin afforded by these trees is extensively used in the arts, and exported both inland and to the coast.—*Wight, Ill.; Dr. Gibson. See Boswellia; Resins.*

**CANARIUM BENGALENSE.** Rozb. An immense forest tree of Assam, Sylhet, and the adjacent mountainous countries, flowering in May and June. From fissures or wounds in the bark, a large quantity of very pure, clear, amber-coloured resin exudes, which soon becomes hard and brittle, and is not unlike copal. But in the Calcutta bazar it was only valued at from Rs. 2 to Rs. 3 for seven maunds of eighty pounds each.

—*O’Shaughnessy, p. 255; Voigt, p. 149; Rozb. iii. p. 136; Boyle’s Hist. Bot. p. 177.*

**CANARIUM BRUNNEUM.** Thw.

Senticans the brunneum, Thw.

Maha-bulu marn,... . ... SINGH.

A tree 50 to 60 feet high, growing in the Central Provinces of Ceylon at elevations of 2000 to 3000 feet.—*Boedome, Pl. Syst. p. 127.*

**CANARIUM COMMUNE.** Linn. Java almond.

C. mehennethene, Gert. | Colophonía Mauritania, D. C.
Ampyras Zeylanica, Ret. | Balmsolaneenten Zeylanice, D. C.

Bois de Colophane, Fr. | Jungli Badam,... HIND.

Grows in the Mauritius, Ceylon, the Peninsula of India, the Moluccas, and the Indian Archipelago. It was brought from the Moluccas to the Calcutta Botanic Garden, but in Roxburgh’s time did not thrive, owing to the coldness of the winter months. The bark yields an abundance of limpid oil, with a pungent turpentine smell, congealing into a buttery, camphoraceous mass. It has the same properties as balams of copaiba, for which it could be substituted; and is said to yield East Indian elemi. Its nuts are three-cornered
and edible, but apt to produce diarrhoea.—_Roxb._

_ACIARUM GENICULATUM._ M-C. A
large and valuable timber tree found in the Pegu
valley, but scarce. The wood is white-coloured,
and adapted to house-building.—_M-Clelland._

**CANARIUM NIGRUM.** _Roxb._

_Marignia acutifolia,_ D. C. | _Dammara nigra, Ramp._

_A tree of Amboyna and the Moluccas; a
reddish, soft, viscid, heavy - smelling substance
exudes from wounds in its bark._ —_Voigt_, p. 149.

**CANARIUM PIMELA._ Smith. Pimela nigrum.

_Luh-lan, Wu-lan._ | _Chin._ T'ing-kwo, | _Ctn._

_Kam-lan._ | _Chinese olive._ | _Eng._

This tree grows in the Chinese provinces of
Kwang-si and Foh-kien. Its pointed oblong
fruits, from 1½ to 1½ inch long, are eaten green or
shrivelled and are full preserved in salt. At
Amoy the hard kernels are often beautifully
carved for heads. Lau-tang, a kind of gum or
black dammer, is obtained from its branches,
and leaves. The kernels of the Pimela alba (Luh-lan) are similarly used.—_Smith._

**CANARIUM STRICTUM.** _Roxb._

_Dammara nigra legitima, Ramp._

_Manda-du._ | _Beng._ Thelli marr, | _Maleal._

_Gugal, Dup._ | _Kongilam maram, | _Tam._

_Black dammer tree._ | _Eng._ Karapa Kongilamu, _"_ | _Maleal._

This very beautiful, large tree is most abundant
in all the moist ghat forests on the western side
of the Madras and Bombay Presidencies up to
4000 and 4500 feet, but it does not occur in
Ceylon or elsewhere, and it is never seen in dry
forests. Its brilliant crimson foliage makes it a
most beautiful sight when in young leaf. The
leaves of saplings and young trees are very much
larger than those of full grown trees.

This is the black dammer of the Tinnevelly
and Malabar, and is so named in contradistinction
to the Vateria Indica, which is called the white
dammer tree. _C. strictum_ is common near Court-
allam, where it is rented for its dammer. While
adherent to the tree, it gives a bright, shining
black tint, but by translucent light is of a deep
brownish-yellow or amber colour. The balsam
exudes in a very fluid state, and trickles down
the trunk, where it gradually hardens by exposure
to the sun; the fresh resin continuing to flow over
that already hardened, gives the stalactitic ap-
pearance to the huge lumps of resin, in which
form the resin is brought to the market. It is
perfectly homogeneous, has a vitreous fracture.
It is insoluble in cold, but partially soluble in
boiling alcohol on the addition of camphor; when
powdered, it is readily soluble in oil of turpentine.
Powdered and burnt on the fire, it emits a more
resinous smell, and burns with more smoke, than
white dammer. The size of the lumps of this
resin, together with its colour and the peculiarity
of shape already mentioned, suffice to distinguish
it from other Indian resins.—_M. E. J. R.; Voigt,
_149; Roxb._ iii. 138. See _Gums and Resins._

**CANARIUM SYLVESTRE._ Gartn._

_C. Sylvestralum, Rum._ | _Schinus Bengalesis, S._

_A tree of Chittagong and Assam. Timber hard,
tough, and close-grained, used for furniture._

**CANARIUM ZEYLANICUM._ Blume,

_C. Balsamiferum, Moor._ | _Kakooon-sgas._ | _Singh._

_Occupies the warm, moister parts of Ceylon up
to an elevation of 1500 feet. A resinous balsam
exudes copiously from the trunk of this tree,
which, mixed with paddy chaff, is used by the
natives for burning, as the smoke drives away
snakes from the domicile. C. coccineo-bracteatum
and _C. euphyllum_ are also known._—_Thew._ i. p. 79.

**CANYREE SEED.** Phalaris canariensis, _Linn._
_Mainly used to feed caged birds. The annual
British consumption may be estimated at about
10,000 quarters, of which about 8000 are grown
in England, especially in the Isle of Thanet and
Essex._

**CANAVALLIA GLADIATA._ D. C. _Sword-
bean._

_Dolichos gladisatus, Roxb._ | _Dolichos ensiformis, Lour._

_Mekhun._ | _Beng._ Thambatin, | _Tam._

_Segapu Thambatin? _"_ | _Tela._

_Pai-noung-nee._ | _Burm._ Tamma ; _Chama? _"_ | _Tel._

_Kalsamba._ | _Hind._ Segapu? _"_ | _Sank._

_This plant has four varieties, viz._ :—

_a. Flowers and seeds red._

_b. Flowers and seeds white._

_The three first of these are cultivated for their
large swordlike pods; that with the white flowers
and white seeds is considered the best, and is
often two feet long. It is esteemed by Europeans._—_Mason ; Voigt._

**CANAVALLIA OBTUSIFOLIA._ D. C._

_Koyi avari._ | _Tam._

_Is a common plant on the Coromandel coast,
where it occurs along with the Ipomoea pescaprae,
and is a useful binder of loose sand._—_Cleghorn._

**CANAVALLIA VIROSA._ W. and A._

_Dolichos virosus, Roxb._ | _Dolichos cusiformis, Lour._

_Kalo Shim._ | _Beng._ Wild sword-bean, | _Eng._

_Kat Shim._ | _Adavi chamma, | _Tel._

_Kudusmar of Bombay._ | _Karu chamma, _"_

_Grows on the Coromandel and Kousan coast,
and on the seashore of the Tenasserim provinces,
in great profusion._—_Mason._

**CANAXA.** This battle, in which the younger
Cyrus lost his life, was fought in the plain between

**CANCER.** The crab genus of crustacea of the
family Canceriidae; several species occur in Southern
and Eastern Asia. _C. carcinus, C. hydromus, C.
coralinus, C. maculatus, and C. tenax have been
transferred to the genera Gecarcinus, Carpillus,
and Rupella._

_Cancer roseus,_ _Ed., Red Sea._

_C. integerrimus,_ _Ed., Indian Ocean._

_C. marginatus,_ _Ed., Red Sea._

_C. oxyroe, Ed., Asia seas._

_C. mamillatus, Ed., Australia._

_C. cultratus, Ed._

_C. limbatus, Ed., Red Sea._

_C. salvini, Ed., Red Sea, Indian Ocean._

_C. calculosus,_ _Ed., New Holland._

**CANCHI,** the Tamil name of Converam._

**CANCHI PANDU._ Tel._ Solanum nigrum._

**CANCHORI VER._ Tam. Tragia involucrata._

**CANCRA._ Hind. Pavetta Indica._

**CANDAHAR.** A town in Afghanistan, in long.
65° 26' E., and lat. 31° 37' N., 3184 feet above the
sea. It is the Khenta of the Vendiaal. Accord-
ing to Elphinstone (Cautib, p. 456), there has been
a city here since the time of Alexander, and the
ancient city stood till the reign of the Ghilaz, when Shah Hussain founded a new city under
the name of Husainabad. Nadir Shah attempted again to alter the site of the town, and built Nadirabad; at last Ahmad Shah founded the present city, to which he gave the name of Ahmad Shah, and the title of Asraf-ul-Balad, or the noblest of cities; but the old name of Candahar still prevails among the people, though it has lost its rhyming addition of Dar-ul-Karar, or the abode of quiet. Ahmad Shah himself marked out the limits of the present city, and laid down the regular plan, which is still so remarkable in its execution. The houses in the town are from 16,000 to 20,000; the population, 45,000 in number, consist of different tribes. Houses as under:—

Agyi Khel, 50 Dowlat Shahi, 50 Makuzai, 100
Arab, 50 Ghilzai, 100 Nurzai, 600
Alikozai, 600 Hossain, 200 Parsian, 120
Ali, 200 Ishakzai, 600 Pathna, 200
Achakzai, 150 Ismail Zai, 100 Popalzai, 600
Babi and Kakar, 50 Pirian, 100
Barab, 200 Kashmil, 100 Sddazai, 100
Bakozai, 400 Sardani, 300 Sarkani, 200
Bardurani, 150 Khordi, 200 Turki, 50
Barnezai, 400 Khugiani, 150 Others, etc., 440
Bisakzai, 100 Madozi, 150

The more remarkable objects are the tomb of Ahmad Shah, the public baths, the citadel. It was occupied by the British Indian army from 20th April 1839 till the 8th August 1843, and was re-occupied in 1879. See Afghanistan; Candahar.

CANDALLA, in lat. 20° 3' N., and long. 74° 49' E., in the Dekhan, N.W. of Aurangabad. The entrance to the caves of Candalla is 1982 feet above the sea.—Wise, Schi. See Candalla.

CANDALOO, Tex. Caj. Ceylon Indica, is a candle-leaf, found in Labuan and Sarawak. It has a curved and pointed head. It frequents the tops of lofty trees.

CANDESH. See Kandesh.

CANDIA or Crete, an island in the Mediterranean. Mount Ida, famous in history, is in the centre of this island.

CANDLES.

Kaaren, ... DET. Dyian; Lidin, MALAY. Chandelle, ... FR. Kandil, ... Kerzen; Lichter, ... GER. Velass, ... PORT. St. Butti, ... OULIH. Swietach, ... RUS. Candelle, ... IT. Vatti, ... TAM. CANDELARIA, or candle-fly, is found in Labuan and Sarawak. It has a curved and pointed head. It frequents the tops of lofty trees.

Almost all the candles in use in the East Indies are imported from Europe and America. For lighting, the natives use oil lamps of various shapes, often of metal fixed on an iron spike, which they stick into the ground. Wax and tallow candles are, however, made in several parts of India,—in Vizagapatam, Coa, Malabar, Patna, Calcutta, Pedlalore, and Berhampur; but the large importations of candles from Europe have caused the manufacture to decline considerably. It is useful to place two thin instead of one thick wick in each, and the wicks should be plaited, not twisted. Wax candles improve with age. The candles used in Japan are made of an oil said to be pressed out of the seeds of the Rhus succedanea? This oil becomes, when exposed in the sun, gummy; when used in candles it hardens, and is not solid as wax. The province of Fetsigo, more particularly, produces this tree, and consequently supplies the greatest quantity of this oil. In the eastern parts of China, the product of the tallow tree, Stillingia sebifera, and beef and hog’s tallow in the south, are used in the manufacture of candles. Wax is only employed to encase the tallow or hard, which, from the heat of the climate and its unclassified condition, never becomes hard.—Royle, Arts, etc., of India, p. 484; Thunberg’s Travels, iii. p. 188; Rohde, MSS.

CANDLESTICKS.

Kandelaars, ... DET. Candelieri, ... IT. Chandeliere, ... FR. Podwiesnikii, ... RUS. Leuchter, ... GER. Candeleros, ... ES. Candelabros.

Candlesticks are in general use in the East Indies, but to shield them from the wind are usually covered with glass shades.

CANDLE-TREE, Candle-nut tree, Aleurites triiloba. Its nuts are strung together and used for candles. Torches are made from the candle-wood of Demerara.

The Candle-tree, Parmantiern ecerifera, might be introduced into India. It is confined to the valley of the river Chagres (Isthmus of Panama), where it forms entire forests. In entering them a person might almost fancy himself transported into a chandler’s shop. From all the stems and lower branches of the trees hang long cylindrical fruits, of a yellow wax colour, so much resembling a candle as to have given rise to the popular appellation, ‘Palo de velas,’ candle-tree. The fruit serves for food to numerous herds of cattle.—Dr. Seemann.

CANDY, a province of Ceylon, formed out of an ancient kingdom, subdued in the early part of the 19th century by the British. The town of Candy was taken on the 19th July 1819.

CANDY, Sugar-candy.

Kurri-shakur, GUJ., HIN. | Kal-kando, ... TAM. Gula batu; Batu, MALAY. Kala kanda, ... TEL. Nabatt, ... Pers. | ... Crystalized sugar was at one time largely imported into India from China, but is now made in many parts of India.

CANDY, a measure of weight equal to 500 lbs. in some places, but it varies in different towns. A candy (khundee) in one place differs very much from the candy of another place. Again, a candy, for instance, of metal, is not the same as a candy of tobacco; and there is a different candy for cotton and sugar. The candy used in buying is not always the same in the same place as the candy used in selling.

CANEER. HIND. Nenir. odorum.

CANES or Rattans.

Canne, roseau, ... FR. Bed, ... HIND. Cane, ... SP. Baton, raton, ... IT. Cano, ... Ger. Rohrt, ... Junco de Indias, ... Nahur, ... GUJ. Perambugal, ... TAM. Rotan, ... MALAY. Betamulu, ... TEL. Canne, bastone, ... It.

Canes are the produce of the Calamus genus of palms, of which the species are numerous in the islands of the Indian Archipelago, in the Malay Peninsular, in the humid parts of the Madras territories, in the forests of the districts of Chittagong, Sylhet, and Assam, along the foot of the Himalaya as far north as the Dehra Doon, where a species is found which Griffith named C. Roylanceanus; and he applied the name of C. Roxburghii to the plant which Roxburgh called C. rotang, common in Bengal and on the Coromandel coast. Both are used for all the ordinary purposes of cane; as also are C. tennis of Assam, C. gracilis, C. extensus, and others. But those of the shops
are gathered indiscriminately, and it is not possible to say from what particular species they come. C. rotang has, however, been said to furnish the stouter, and C. Scipionum the slenderer sorts. Mr. Griffith considered C. Scipionum of Loureiro to be the species which yields the well-known Malacca cane, but the plant does not appear about Malacca, and the canes are stated to be imported from Siak, on the opposite coast of Sumatra. Even this does not, however, seem to be correct, as the Malacca Committee for the Exhibition of 1862 sent Malacca canes, as cut from the jungle, previous to being subjected to the process of smoking, which gives the cane its rich brown tint so much admired in Europe. The stem of Calamus versus is described as being 100 feet long; that of C. oblongus, 300 to 400 feet; of C. rudementum, upwards of 500 feet; and of C. extensis, as much as 600 feet. Rumphius even states that one kind attains the extraordinary length of 1200 feet (vol. v. p. 100). In the Tenasserim Provinces there are numerous species indigenous in the forest, and the Kares have different names for seventeen species or varieties, used extensively instead of cordage. The stays of the masts in Burmese boats are usually made of rattans, and they are split up into strings for the innumerable purposes to which cord and twine are usually applied. All that gives stability to bamboo houses, is the rattan which ties them together. The Calamus rudementum of Loureiro is manufactured at Malacca into cables, and is employed for dragging great weights and binding wild elephants. A canoe bridge over the Temisang in the Khassya hills is 312 feet long, and 50 feet above the river. It oscillates greatly.

CANGNI. Hind. Panicum Italicum.
CANGOO. Tam. A Timewelly wood of a whitish brown colour, used for handspikes and wheelwright’s work.—Col. Frith.

CANGUE, a wooden yoke, by which Chinese criminals are punished, and are led about the streets as a spectacle to the people. It consists of two large pieces of wood fitting into each other, and having one to three openings, through which the head and one or both hands are drawn, according to the pressure of the crime. Such a yoke weighs from 50 to 100 lbs., and presses so heavily upon the back and shoulder, that the criminal is unable to feel himself, and must wait till some compassionate person lifts the food to his mouth. Such punishment is inflicted for periods varying from a few days to several months, and in the latter case it is almost always fatal. This instrument of torture makes a man resemble the foot of a huge heavy table.—Sinnett’s Lady’s Voyage, p. 49; Huc, Chinese Empire, i. p. 272.

CANHO. SIND. Citrullus cucurbita, Linn.
CANIATCHI. Cani, land, and Atchi, heritage.
In the south of India, land property. Tod thinks the atchi, like the ote and awut, Jafput terminations, implies classship.—Todd’s Rajast. i. 496.

CANDE, the dog tribe, family of mammals, comprising the genera Canis, Cyno, and Vulpes, of which the common dog, Canis familiaris, and its many varieties, the wolf, Canis pallipes, and the jackal, Canis aureus, occur in India. The wild dogs of India have been removed to the genus Cuon, and the foxes belong to the genus Vulpes.

CANIS? in Penang, a large tree, used for door frames.—Col. Frith.

CANIS AUREUS. Linn. The jackal.
C. aureus Indicus, Hodg. | Lups aureus, Kennep.
Shighal, | Duk. | Srigala, Sans.
Jackhals, | Duk. | Nakka, Tel.

The jackal is found in a great part of Asia, Syria, Arabia, Persia, and North India west of the Brahmaputra. Along the line of the Ganges, in Lower Bengal, they move in packs, and eat indiscriminately. In the Peninsula they are of larger size, and seen singly or in pairs; and in the Dekhan live much on wild fruits; the coffee bean of the plantations is largely eaten by them. Their cry when moving at night is very disagreeable, and even when cackling their call is unpleasant. Native sportsmen believe that an old jackal, which they call bhalu, is in constant attendance on the tiger, and whenever his cry is heard, which is peculiar and different from that of the jackal generally, the vicinity of a tiger is confidently pronounced. Sir W. Elliot says he has frequently heard the cry attributed to the bhalu.—Cat. of Mammalia, Jordan. See Jackal.

CANIS FAMILIARIS. Linn. Var. Indica. The Pariah, Polygar, and Brinjara dogs, and Tibetan mastiff. The Brinjara dog is a large, powerful animal, in shape and with limbs somewhat resembling the Persian greyhound, only much more powerful. The breed seems, however, to be disappearing from amongst the Brinjara tandas, and replaced by the ordinary pariah. In 1868 the editor met a great tanda on the march at Ajunta, but only pariah dogs amongst them. Indeed, between the Brinjara dog and many of the pariah dogs there is so great a resemblance, as to impress with the belief that they are the same variety. In many villages are pariah dogs in no way distinguishable from the Brinjara. The large Brinjara dog is an eager hunter of the larger game, a faithful, intelligent, and good watch-dog, but does not crave attention. The Pariah dog is very intelligent, and powerful, and is peculiar in being without hair. The Beder race of Zorapore and Gurbhunata hunt the wild boar with a large powerful breed of dogs. A peculiar breed is raised by the raja of Rampur, seemingly between the Persian greyhound and the Tibetan mastiff. The Tibetans have a mastiff, a terrier, and a poodle, and the two last are pets, and the poodle is often fed for the table. The Chinese dogs from Japan, the original of the King Charles spaniel, is sometimes seen in India. The C. Egyptianus, C. cauda, C. Dukhunensis, do not need separate remark. See Dog.

Canis laniger, Hodg., Tibet white wolf.
Chankodi, | Kamaon. | Changu, | Trs. | Himalaya.

Canis niger, Jerd., black wolf of Tibet.
Hakpo-chanko, | Trs.
Canis pallipes, Sykes, Blyth, Indian wolf.
C. lupus, var., Eid.
Bighana, | Bundelkh. | Landgah, | Hind.
Tobs, | Can. | Nekra, |
Bhures, | Bheria, | Hind. | Handar, | Hurrar, | Byra, | Bhaya, | Hind. | Toralu, | Tel.

The wolf roamst in Central and Southern India; they are never seen singly, but always in large or small packs. If a single one appears, it
may be assumed that others of the pack are near. They are bold, even in the vicinity of towns, scarcely moving off from a horseman. Length from muzzle to insertion of tail, 36 to 57 inches; do. of tail, 16 to 17½; height at shoulder, 24 to 26; length of head, 10; circumference of do., 10 to 17; weight of an adult female, 347. The wolves of the Southern Mahrrata country generally hunt in packs, chase the goat antelope (Gazella Arabica), steal round the herd of Antilope cervicapra, and conceal themselves on different sides till an opportunity offers of seizing one of them unawares, as they approach, whilst grazing, to one or other of their hidden assailants. On one occasion, three wolves were seen to chase a herd of gazelle across a ravine, in which two others were lying in wait. They succeeded in seizing a female gazelle, which was taken from them. They have frequently been seen to course and run down hares and foxes; and it is a common belief of the ryots that in open plains, where there is no cover or concealment, they scrape a hole in the earth, in which one of the pack lies down and remains hid, while the others drive the herd of antelope over him. Their chief prey, however, is sheep, and the shepherds say that part of the pack attack and keep the dogs in play, while others carry off their prey; and thus, if part of the former in the same plan, part turning and checking the dogs, while the rest drag away the carcass, till they evade pursuit. Instances are not uncommon of their attacking man. In 1875, 1061 persons were devoured by wolves; in the next five years, 887, 564, 845, 492, and 347; and from four to six hundred are annually destroyed. Sometimes a large wolf is seen to seek his prey singly. These are called won-tola, and reckoned particularly fierce. In Oudh and the Punjab they destroy large numbers of children. Their ordinary prey are deer, sheep; and in pursuit, they display great sagacity, throwing out flanking parties, and surrounding game. In 1866 the editor witnessed a sambar run close up to a railway train in Berar, halt as the train moved on, and it then fled at speed; looking beyond, a body of wolves were seen in pursuit.

CANNABIS SATIVA. Linnaeus.

The hemp plant is grown in Persia, Syria, Arabia, and throughout India, in some places for its fibre; in others, and generally, for its intoxicating products. It is common in waste places in many parts of the Punjab plains, Cis and Trans India, and much more abundant and large (reaching 9 or 10 and 12 or 14 feet in height at times) in many places in the Himalayas, up to 10,000 feet. It appears to be commonly cultivated in Garhwal, etc., than in any part of the Punjab Himalaya, but in the latter it is frequently grown in small patches on the Sutlej and Bias at 5000 to 7000 feet; and Dr. Stewart had seen fields at 10,000 on the Chenab in Lahou. On the Sutlej the seeds of the cultivated plant are roasted and eaten in small quantity with wheat. The most important product of this plant is the resinous exudation, which does not appear to be produced below a certain elevation in the hills. It is used as a narcotic, as are the dried tops of the plant. The latter are gathered for home use in many parts of the hills, and also occasionally in the plains (they are largely used in Sind, where the plant appears to be grown in the fields for this purpose), but the great source of the charras is Turkestan. Dr. Cayley states that in October 1867 this drug to the value of Rs. 44,700 was imported from Yarkend into Leh, and Rs. 1,92,220 hemp was exported from the latter to the Punjab in the same month. During 1867, 1830 maunds were imported from Yarkand to Leh, and 817 maunds were sent from the latter southward by various routes. The drug is mostly consumed with tobacco in a hookah, its use extending to Afghanistan, according to Bellows (Dr. J. Stewart, P. Plants, p. 216). In 1859, an experimental consignment of two tons of Himalayan hemp was valued in the English market at from £30 to £32 per ton. The price at Lahore is about £15 or £16 per ton.

The hemp plant secretes the resinous principle in its leaves, on which account these, as well as the charras collected from off the young tops of the stem and flowers, is highly esteemed in all eastern countries, on account of its exhilarating and intoxicating properties. Among the Arabs the hemp has a variety of names, as 'the increaser of pleasure,' 'the emenstor of friendship,' etc. By its name of Hasha, it is often seen painted in the works of travellers in Egypt, Arabia, and Syria, while the name of Bhang is not less known in the far east.

Of the intoxicating products, Charras is the concreted resinous exudation from the leaves, slender stems, and flowers, collected in the Himalayas, Yarkand, and Herat. It is eaten in a sweet-meal, or smoked like ganja.

Ganja, the dried hemp plant which has flowered, and from which the resin has not been removed; also the whole plant. It is smoked in a water pipe until a peculiar contraction of the throat is felt.

Bhang, and Subza, and Sidhi, the larger leaves and capsules without the stalks; also Sukho or Sawia, the small leaves, seeds, and husks ground and made up with water, milk, etc. These are highly aphrodisiacal, but often lead to impotency, inanition, delirium tremens, catalepsy.

Majum is a concoction made of bhang, ganja, charras, opium, poppy seed, datura, leaves and seeds, cloves, mastic, cinnamon, aniseed, cumin, cardamoms, made up with milk or ghee and sugar.
Canna edulis.

Tadhal is a preparation from bhang, poppy seeds, and other similar articles. It is believed to have cooling properties. The charnas produces visionary ecstatic pleasures, sometimes catalepsy; or the intoxicated, with his arms outstretched, balances on his toes as if soaring. The misuse of bhang is a frequent cause of insanity.—Materia Medica; O'Shaughnessy, p. 581; Pouss; Hand- book: Cleghorn, Punj. Rept. p. 66.

Canna edulis. The Thubers afford 'Tous les-mois,' a farmcourt food used by invalids.—Mason; Ains. Med. Med. 142; Biddell.


Saba jaya, Hakik, Hind. Guri Genza chettu, Tel. Katu Balu, Maleal. Krishna tamarachettu,

There are several varieties of this, the colours of the flowers scarlet, orange, red and yellow mixed. Varieties are often seen in gardens, and much cultivated by the Burmese for the seeds, which they use for sacred beach. CANNANORE, a seaport town on the west coast of India, in long. 75° 24' E., and lat. 11° 51' N., known to the natives by the name of Kouryal-bandar. In 1871, population 10,265, rainfall 97 inches. It is a military cantonment, and has been known to Europeans from the earliest times. Proceeding along the sea-coast, says Bartolomeo, you then arrive at Cannanore, a town with a castle, and subject to the government of queen Collatiri, by the Europeans called Collas- tri. This city is of great antiquity, and the king of Collatiri belongs to the first class of the Indian princes. The capital of the kingdom of Cannanore, called also Colunas, lies in the latitude of 11° 50', and is distinguished by the same name. The whole surrounding district, which extends towards the north as far as Mount Dely, is inhabited by the Molandis, who live merely by piracy. Several seamen are mentioned by Pliny, Arrian, Ptolemy, and other ancient authors. They unite themselves to other pirates who reside on the Angedib islands, near Goa, and capture all the small vessels which sail from Goa to Cochinn. The huts in which their wives and children live, stand on the eastern side of Mount Dely.' This mountain, which forms a cape or headland, lies in the latitude of 12° 8'; and here Malabar or Maleala, properly so called, ends. Cannanore is now in British territory, held by a body of European and native soldiers; it is a place of large trade. There is a fort which was built by the Dutch in 1636, and the cantonment lies to its north. Across the bay from the fort is the quarter occupied by the Mopla race of Mahomedans.—Imp. Gaz.; Voyage to East Indies.

Cannibal.

Mr. Stanley and the missionaries describe many cannibal tribes on the banks of the Congo river in Central Africa, and of other races on the New Calabar river. The Immulthanga, a Zuul tribe, and the Moshesh in S. Africa, were cannibals; also the Fan of the west coast of Central Africa, and the Niam or Sandhe in the region of the Gazelle Nile, and the light-coated civilized Mibutton race on the Uelle river. In the instance of the Basuto people the habit had newly arisen.

At the time of the Tai-ping insurrection in China, an English merchant in Shanghai met his servant in the street carrying home the heart of a rebel, with the avowed intention of eating it to increase his own courage. The ancient Mexican were cannibals. Papuans of New Guinea, the Solomon Islands, New Hebrides, New Caledonia, and the Fiji group, were cannibals. It is common to all Polynesians, in the Marquesas Islands, the Hawai group, Tahiti, and the Maori of New Zealand. The Australians are not habitual cannibals. The odious rite exists with considerable civilisation. The natives of the Solomon Islands are dwarfish, but they build canoes which are 'perfect gems of beauty,' and they have a fine sense of vocal harmony. The New Hebrides have a yet more inveterate love than these vocalists for human flesh. In one of the islands, Anetityum, the natives have been cured of the bad habit by the missionaries; but the population, which was 12,000, is now but a sixth part of that total. Epidemic diseases and a sudden change from barbarism to civilisation are the causes. Nowadays was the passion for human flesh more violent than with the Fijians. At great feasts twenty bodies were served up at once. No solemnity was perfect in the times before British domination without human sacrifices. When a chief died, wives and slaves were buried with him. When a chief's house was built, a slave was buried under each pole which held it up. The Fijian had a fixed belief in a future state, in which the actual condition of the dying person is perpetuated. Thus a young man, being unable to eat, was buried alive by his father at his own request, lest he should grow thin and weak. Somewhat luxuriously he was asked to be strangled first; but he was scolded and told to be quiet, and be buried like other people, and give no more trouble; and he was buried accordingly.

Anthropophagy has vanished with the people themselves from among the Iroquois and Algon- kin; it has disappeared from among the people of the high plains of Anahuac, the Indians of Peru, and most Brazilian races. It is increasingly circumscribed in the Southern Ocean by the dying out of the cannibal races, and the pressure of white settlers. The number of cannibals is still, however, very considerable. The Bata of Sumatra, according to Fredman, may be reckoned at 200,000 souls; the cannibals of the Niger delta at 100,000; the Fan, according to Fleuriot de Langle, at 80,000; the cave dwellers of the Basuto country (about a tenth of the whole population), at 10,000; the Niam- Niam, at about 500,000; the Mirenga and Masey, according to Marley, at 2000; other South American cannibals, at 1000; the Australian aborigines at 50,000; the Melanesians (without including New Guinea), 1,000,000,—a total at the present of 1,943,000 human beings addicted to

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anthropophagy. A native paper of British India, in A.D. 1870, stated that a person had been transported for life by the Session Court at Jhansi, on a charge of eating dead human bodies stolen from graves. It was said that he lived on this fare for a number of years.—P. M. Gazette; Richard Andre in the Erganzcungen blatter; Dalton's Ethnology; Neubold's British Settlements, ii. pp. 379-375; Pitchel, Races of Man, p. 161. See Aghora; Batta; Birbor.

CANNING. Charles John Canning was born at Gloucester Lodge, Brompton, in 1812. He was the third son of George Canning, a celebrated statesman, and was educated at Christ Church, Oxford. He entered upon public life in 1836, as member for Warwickshire. In the following year his mother died, and he went to the House of Lords. When Sir R. Peel came into power in 1841, he was appointed Under Secretary for Foreign Affairs. For a month or two, in the re-constructed ministry of Sir Robert Peel, Lord Canning was Chief Commissioner of Woods and Forests; but in July 1846 he resigned with his party, but returned with the Coalition Ministry in 1858. In the government of Lord Aberdeen, Lord Canning was Postmaster-General, and distinguished himself by his administrative capacity. He made many changes in the internal organization of the department, and set on foot the practice of submitting annually to Parliament a report of the work, and especially the progress, achieved by the post office. He held the same appointment for a short time in Lord Palmerston's cabinet. Lord Canning began his rule in India on the last day of February 1856, when the army of Bengal revolted, and much of Northern India rebelled, under the guidance of Nana Rao of Bittur, and of the emperor of Delhi. The years 1857-1858 were employed in suppressing the mutiny, in which he displayed great boldness and self-reliance, and when the embers of the insurrection alone remained, he was the first to urge clemency.

On the 3d March 1858 he issued a proclamation declaring his policy he intended to pursue with regard to the talukdars of Oudh, which he afterwards modified, on the remonstrance of Sir James Outram, then Chief Commissioner. Oudh had been the centre of the rebellion, and on its suppression the inhabitants were disarmed, and the forts of the petty chieftains dismantled. He was the first Viceroy of India, having been appointed Viceroy and Governor-General 1st November 1858, and 12th March 1862. During his administration, the loyalty of the Sikhs and of the Nepal ruler, Sir Jung Lang, was maintained, and so was the prosperity of Nana Rao and the emperor of Delhi. Several servants of Government, Sir Henry Lawrence, Sir John (Lord) Lawrence, Sir Robert Montgomery, Sir Colin Campbell, Sir Nevil Chamberlain, Sir George Balfour, Sir Hugh Rose, Sir Robert (Lord) Napier, Sir Hope Grant, Sir Henry Norman, Sir Bartle Frere, by their labours in war and in peace did the state service, and won honours for themselves. Earl Canning, on his return home, was appointed a Knight of the Garter by letters patent, dated Balmoral, May 21, but he died at London on the 17th June 1862.

CANNON.

The cannon used for war in Eastern and Southern Asia by the eastern nations, or by the Europeans, are either imported from Europe and America, or are cast in the foundries of the several countries. The British have a considerable foundry near Calcutta, but cannon of the more recently invented forms are all imported from Britain. From the Persian term top, is the Hind term top-khana, a battery of artillery. The British in India have mounted batteries drawn by bullocks, ponies, horses, and mules, also camel batteries and elephant batteries, and mountain trains.

CANOES.

Canoon. Fr. Canois, Sp. Barchetta, It. "Canoe." Canoes are largely used in India as river and ferry boats, and have shapes and forms to suit the rivers and waters. Canoes at Calcutt are hewn out of the trunk of the jack-fruit tree, Artocarpus integrifolia. Coast canoes of Point de Galle and the Madabar coast have weatherboards on an outrigger in the form of a smaller canoe; they are sharp at both ends, and beat to windward without tacking. The Jangar of the Malabar coast, for rivers, is a kind of canoe. The rivers of the Northern Circars are crossed by a double canoe, formed out of two pieces of a coconut or a palmyra tree hollowed, and kept apart by cross ties of wood. Canoes scooped out from single trees are in universal use in Burma, the Malay Peninsula, and the Malay and Eastern Archipelago. Canoes of the Solomon Islands have no outriggers. The practice of standing up to paddle canoes seems to be general throughout the coasts of New Guinea. The brown-skinned natives of the Archipelago all sit, or squat, while paddling their canoes, excepting the Bajau Laut, or sea gypsies, who stand like the Papuans, and give as a reason for assuming this posture, the superior facilities it affords them of seeing turtle, and of chasing them when discovered. See Boats.

CANOON-GO. Arab. Pers. The village clerk; an expounder of the rent terms, literally, teller.

CANOPUS STAR. See Kumbhha yoni.

CANOUJ, in the N.W. Provinces, in lat. 27° 2' 30" N., long. 79° 38" E., with a population of 17,093. It is said to have existed from 1000 B.C., and to have been founded by two sons of Cush, who named it Mahadya, afterwards changed to Kanya knjia. It was not unfrequently called Gadhipoora Jye-Chand. It was held by the Raitor dynasty from the close of the 6th to that of the 12th century, and terminated with Jye-Chand, A.D. 1194. In S. 1222 (A.D. 1219), eighteen years after its fall Seoji and Satrun, grandsons of Jye-Chand, abandoned Canouj, and with two hundred retainers journeyed westward to the desert,—according to some of the chronicles, on a pilgrimage to the shrine of Dwarica, but according to others, to carve their fortunes in fresh fields. Seoji, on the banks of the Looni, exterminated, at a feast, the Dabeys of Mehwo, and soon after killed Moheslas, chief of the Gohils of Kherdur. One of the chronicles asserts that it was Astothana, the successor of Seoji, who conquered 'the land of Kher' from the Gohils; and he established his brother Soning in Eedur, a small principality on the frontiers of Gujerat, appertaining, as did Mehwo, to the Dabey race; it was during the mithan, a period of mourning for one of its princes,
that the young Rahtar destroyed the clan. His
descendants are distinguished as the Katondia
Rahtar. The third brother, Uja, carried his
forays as far as the extremity of the Surashtra
Peninsula, where he decapitated Beekumi, the
Chawara chieftain of Okanundula, and established
himself. For this act his branch became known as
the Badhali; and the Badhali are still in consi-
derable number in that farthest track of ancient
Hinduism. Its wars with Delhi accelerated the ruin
of Hindu independence. This kingdom appears to
have been like Panchala. It seems to have been a
long narrow territory, extending on the east to
Negal (which it included), and on the west along
the Chambal and Banas as far as Ajmir. The
identity of Canouj and Panchala is assumed in
Moen 11, 19. Its limits, as assigned in the
Mahabharata, are made out by connecting notes
(vol. iii. p. 135, vol. iv. p. 142) in the Oriental
Magazine. These boundaries, enlarged a little on
the south and on the west, are the same as those
assigned by Colonel Tod to the same kingdom at
the time of the Mahomedan invasion. Mr. James
Fergusson (p. 735) gives the following rulers in the
Christian era—

<table>
<thead>
<tr>
<th>Vasu Deva.</th>
<th>Regn.</th>
<th>A.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vimtramadiya t. of Ujjain,</td>
<td>25</td>
<td>470?</td>
</tr>
<tr>
<td>Sri Harsha,</td>
<td>20</td>
<td>495</td>
</tr>
<tr>
<td>Vimtramadiya t., the Great,</td>
<td>35</td>
<td>515</td>
</tr>
<tr>
<td>Siladiya t. of Malwa,</td>
<td>30</td>
<td>550</td>
</tr>
<tr>
<td>Prabhu Kara,</td>
<td>25</td>
<td>580</td>
</tr>
<tr>
<td>Raja Verdhanas,</td>
<td>5</td>
<td>605</td>
</tr>
<tr>
<td>Siladiya t. of Canouj,</td>
<td>40</td>
<td>610</td>
</tr>
</tbody>
</table>

Died and troubled commence, 648-650

—Tod's Rajasthan, ii. p. 13; As. Jl. 1817; Elphin-
stone's History of India, i. p. 402; Ferg. p. 735.

CANTHIJA. A clan of Gaur Brahmans. Also
tribes in the north-west of India, who trace their
origin from the city of Canouj. The Canouj
Brahmans are met with from the Himalaya to the
Narbada and Bay of Bengal. They have many
subdivisions, but the khutkool or six houses—
(1) Sandel-got, (2) Oopmun-got, (3) Bharadwaj-
got, (4) Bhuradwaj-got, (5) Koteayun or Visva-
mitra-got, (6) Kusip-got, and (6) Sakrint-got—are
chief. The honour of an alliance with the
privileged khutkool such as the Kulis, Kullu,
Barlamas, and of Bengal, some of them have as
many as twenty or twenty-five wives. Amongst
them are included the Sumulakhee, who are said to
have been made Brahman by Raja Ram Bug'heil, when
he was in a hurry to make a sacrifice, but as he
could not perform it without assembling a lairk and
a quarter of Brahmans, he collected people from all
classes and parts, and invested them with the
junci, or sacred thread. Others say that Manik
Chand, the brother of the famous Jye-chand
Rahtar, others that one of the Surneyt rajas, others
that the redoubtable Ram Chunder himself, was
the manufacturer. However this may be, the
Sumulakhee rank very low in the scale of
Brahmans.—Gloss; Elliot, Sappl.

CANTH. HIND. Placourtia separaria.

CANS. HIND. son of Ugra, a tyrant killed by Krishna.

CANTA. HIND. Agave vivipara and A. yuccanoila.

CANTHA-JATHI. BENG. Barleria priocititis.

CANTHARIIDE. A small tribe of vesicatory
beetles, containing eleven genera, among which
are Cantlaris, Mylabris, and Meloe, species of all
of which have been employed as vesicatories.

The genus Cantaris does not occur in India, but
is largely imported. The genus Mylabris is very
common in the Dekkan. Cantanthes erythrophorj
occurs in Shanghai and Chefoo.—Ryle.

CANTHARIS VESICATORIA. Latrenelle.

Blistering beetle. Eng. Canterelle, IT.


Mouches d'Espagne, Fr. Cantaridas. Span.

Spanish Fliegen, Gen.

A genus of Coleopterous insects, abundant in
all the south of Europe, and spread into Germany.
This insect was at one time largely imported into
India, but since the year 1850, species of Mylabris,
obtained in India, have been substituted.—Ryle.

See Cantaridece.

CANTHUM, a genus of plants of the natural
order Cinchonaceae. The species now recognised
as of the E. Indies, are C. angustifolium, Chinense,
didymum, floribundum, longifolium, parviflorum,
parvifolium, and recurvum. Other species have been
described by the present writer to the genus Randia, Stylcocorne,

CANTHUM DIDYUM. Gartn.

C. cymosum, Pers., Webers cymosus, Wildi.

C. umbellatum, W. J., Rendellea cymosa, Poir.

Peydax diconos, Gartn., Cupea cymosa, D. C.

Ursool, ..... MAHR. Tolan, ..... URIYA.

Nalla balu, ..... TAM. Tel. Foruwa, ..... SINGH.

Nalla Kegi, ..... TAM. Tel.

This is a small or middling sized, very handsome
tree with deep green foliage. It is very abundant
on most of the mountains in the Madras Presidency,
particularly so on all the hills in the Salem dis-
trict; grows in the Godavery forests, and is very
common in Ceylon. A variety was considered by
Wight as a distinct species from the Didymum of
the eastern coast, but it only differs slightly in the
inflorescence, and is not now considered specifically
distinct; the wood is close-grained and hard, and
mottled and very dark-coloured in the centre, like
old seasoned oak.—Beddome, Fl. Sylc, p. 221.

CANTHUM NITENS. W. Jc. Malai caurai.

TAM. Dr. Gibson seems to consider Dr. Wight's C.
nitens identical with C. didymum (the Canthum
umbellatum, Wight), and adds, that if right in
this conjecture, the tree is a common one on the
Bombay Ghats, and, from its flowers and shining
leaves, is well worthy a place in gardens. The wood
is small, and is said not put to any use.—Wight;

Gibson.

CANTON, a city and seaport of China, capital of
Quang-tong, in the south-west of China, built
on a river of same name. At an early date after
the Hijira, the Arab Mahomedans established a
factory at Canton, and their numbers were so
great by the middle of the 8th century, that in
758 they attacked and pillaged and fired the city,
and fled to their ships. In their commercial trans-
actions with the Chinese, the natives of Europe
were long restricted to this town. The city con-
ists of three sections, divided by high walls; the
streets are narrow, paved with small round stones
in the middle, and flagged at the sides. Canton
river has two tides in the 24 hours, greatly
influenced by the moon's declination. At its
entrance it is called Choo-zeang. It is divided
into two channels by the Wun-tong islands, the
eastern one of which is the Hoo-mun or Hoo-tow-
mun, or Tiger's Head entrance of the Chinese, the
Boca Tigris of Europeans, and Foo-mun of pilots.
The channel to the west is called Bremer channel.
Canton city is on the N. bank of the river, about
CAOUTCHOUC.

30 miles above the Bocca Tigris, 75 miles from Hong-Kong, and 70 miles from Macao. The wall is 6 or 7 miles in circumference. Canton was captured by the British, and ransomed 25th May 1841.—Horsburgh.

CAOUTCHOUC, Gummi, Gomme Verderhars, veraceae, Canvas lencio, Canvas voile, or canvas, is one of the most valuable rubber, or caoutchouc, and is much used in Europe as sailcloth for ships’ sails, and a finer kind is made for tows and common tablecloths. Canvas is manufactured at Pondicherry and at Cuddalore, and sold in bolts, containing 40 yards, at from 20 to 25 rupees, and a coarser at 8 to 15 rupees a bolt. Canvas of excellent quality is manufactured in Travancore. European canvas, though much dearer, is generally preferred in India to the native material.—Europe material selling at 24, 25, and 26 rupees per bolt, while the ordinary country canvas can be had for 16 rupees. A coarse description of very hard brown canvas has been for some time produced in Bengal. In some parts of the Madras Presidency, cotton canvas of very good quality is produced; two or more threads are placed together, sometimes the threads of the web are twisted either wet or dry. Native vessels have all their sails made of an inferior description obtained in the northern parts of Madras Presidency, at the rate of 6 to 8 rupees a maund of 25 lbs.—Rohde, MSS.

CANYA, in Hindu astronomy, the solar sign Virgo.

CANYA KUBJA, an ancient name of the town of Canouj.

CAOUTHOCUH, India rubber.


India rubber, or caoutchouc, is a vegetable compound which is found in all plants with a milky juice, as in the moraceous, euphorbiaceae, artocarpaceae, apocynaceae, eichoraeae, papaveraceae, campauelaceae, and lobilaceae. India rubber has long been known to the natives of the East Indies and South America. It was not, however, till the expedition of the French academicians to S. America in 1735 that its properties and nature were made known in Europe, by a memoir upon it by M. de la Condamine. And subsequent notices of it were sent to the French Academy in 1751 by M. Fresnay, and in 1768 by M. Macquer. It is used for machinery, in electric and surgical apparatus, weaving, and clothing.

Great Britain Imports.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cts.</th>
<th>Value</th>
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<tbody>
<tr>
<td>1839</td>
<td>304</td>
<td>167,715</td>
</tr>
<tr>
<td>1840</td>
<td>6,640</td>
<td>108,613</td>
</tr>
<tr>
<td>1857</td>
<td>1,440</td>
<td>99,894</td>
</tr>
<tr>
<td>1872</td>
<td>1,436,005</td>
<td>89,138</td>
</tr>
</tbody>
</table>

The selling prices in London per lb. are—

Africa, 1s. 5d.; Borneo, 1s. 9d.; and Central America, 2s.; and Madagascar, 2s. 3d.

The plants yielding the caoutchouc of commerce are—

Vieus elastica, Assam. Chavannesia esculentu, Burma.

Vieus, Madagascar. Landolphia, Africa.

Castilla elastica, S. America.

C. Markhamiana, Collina, S. America.

Caoutchouc is obtained in Borneo from three trees,—mangoon, mangoon putih, and mangoon manga, from 50 to 100 feet high, and about 6 inches diameter,—seemingly three species of Willoughbeia.

The American sources of the commercial supply are from the Hevea Braziliensis, H. Gwynanius, Castilloa elastica and C. Markhamiana, and Han-cornia speciosa. The African caoutchouc is got from the Vahea gymnifera of Madagascar, and Landolphia Owariensies; and the Asiatic plants are Ficus elastica, Urecola elastica of Sumatra, Borneo, and Penang, Willoughbeia edulis, and Chavannesia esculenta. Other plants are named, viz. Siphonia elastica, S. calinanch, Jatropha elastica, and Melodinus monognus. The banyan tribe generally yields a milky juice, which, for many purposes to which caoutchouc is applied, might be rendered serviceable. So long ago as 1806, Dr. Royle reported fully on the Assam caoutchouc from the Ficus elastica. The tree has been introduced into the Tennessee Provinces, and appears to grow as well as an indigenous plant. Caoutchouc from Ficus elastica was brought to Arakan in 1878 by clans of the Shando or Poor race, who receive it in barter from the Lushai. They reside north and south of the Blue Mountains. The plant is indigenous for thirty miles south of the Blue Mountains. In 1873 the Government of India formed plantations of it. It has aerial roots, and grows to a large size, above 100 feet, in the evergreen forests at the foot of the Assam hills.

Chavannesia esculenta, a troublesome creeper in the Burma forests, attains a girth of 11 inches, and its crown covers an area of 300 square feet. Its caoutchouc is similar in quality to that of the Ficus elastica.

Species of Ficus produce the caoutchouc brought from Java; and F. rubra, F. elliptica, and F. prionoides are noted for those mentionable affords a portion of that brought from America. Next to the Moraceae, the order Euphorbiaceae yields the largest quantity of caoutchouc.

Siphonia elastica, a plant found in Guyalla, Brazil, and extending over a large district of Central America, yields the best kinds of India rubber that are brought into the markets of Europe and America. The caoutchouc which is brought
from the islands of the Indian Archipelago is from the Urceola elastica, a climbing plant of very rapid growth and gigantic dimensions. A single plant is said to yield, by tapping, from 50 to 60 lbs. annually. It is also obtained from the juices of Calophora utilis and Camerania latifolia, plants of South America and Willughbeia edulis, in the East Indies. Caoutchouc, whilst it is in the tissues of the plant, is evidently in a fluid condition; but after its separation from the other fluid parts, it forms a solid mass similar in its external characters to vegetable albumen. In this state it is dense and hard, but may be separated and rolled out so as to form a sheet resembling leather. Caoutchouc is employed to rub out pencil marks made on paper, and largely for waterproofing. When distilled, it yields oils which have a composition similar to oil of turpentine. In N.E. India, an India rubber tree grows to some 70 to 100 feet high. Immense forests of it are found on the west side of the Brahmaputra, extending along the Miri and Abor mountains. The rubber from this tree from some chemical property cannot bear the heat of a passage to Europe. It becomes a fluid during the voyage. Otherwise, in cold climates it is equal to other rubbers. The Caoutchouc trees of the Bhamo and Mogoung districts are estimated at 400,000. They thrive most in damp moist soil, and in thick forests, shady and cool. They grow to from 75 to 150 feet high, and their roots grow over the ground to some distance. They are fit to tap when from 6 to 10 years old, at which time they are 21 to 30 feet high, and 44 feet in girth.

In the Tenasserim Provinces, also, a species of Echites, an indigenous creeper, yields caoutchouc not at all inferior to that which is obtained from the elastic fig tree. The Agricultural and Horticultural Society, in reporting on a specimen sent them by Major MacFarquhar of Tavoy, observed: "With care in preparing, it would be equal to the best South American." Caoutchouc is also procurable from the Nerium grandiflora, a beautiful climbing shrub often met with in gardens. The Loranthi abound in Malabar; and a similar substance might readily be procured, as obtained from Urceola elastica in Penang and the Archipelago, Ficus religiosa, F. Indica, Hippomane biglandulosa, Cecropia peltata, and the Jintawan of Borneo.

Castilla, the Ule of South America, belongs to the Ar tocarpacea, and is one of the loftiest of the forest trees of tropical America. There are two known species, Castilla elastica, Cerru, and C. Markhamia. Which yields the India rubber is at present (1876) disputed. The collectors are called Hulero. C. Markhamia attains to 180 feet in height, with a diameter of 5 feet, and a yield of 100 lbs. of India rubber; wood soft and spongy; leaves 14 inches long and 7 broad.

Hevea Brasiliensis (Siphonia Brasiliana, Küh.) grows in the valley of the Amazon. It is the Castilla of South America. It is the most valuable of the India rubber trees, and furnishes the Para rubber. It was introduced into India in 1873, as it affords the best caoutchouc; exported from Para in Brazil. The juice is obtained by incisions cut through the bark; it falls freely from any wound. The stiffening milky juice is plastered over bottle-shaped clay moulds; the clay being removed, when sufficiently coated, by washing. Other species of hevea yield juice abounding in caoutchouc of various qualities. It is dissolved by turpentine and spt. eth. sulphur. In Britain there are about twenty factories where this article is made into shoes, boots, caps, cushions, elastic bands.—Poole's Statistics of Commerce; Rode, M.S.; Rose, Productive Resources of India, p. 76; Mason's Tenasserim; Bonyng, America, p. 258; Reports, Exhibition of 1851; Eng. Cyc.; Trans. Royal As. Soc.; Tomlinson, pp. 296–299; Captain Strover, 1873; Markham, Perw. Bark.

CAPA. See Eleusine coracana.

CAPALA. Hind. Rottleria tinctoria. The oil, which is obtained plentifully from the kernels of this fruit after the removal of the celebrated kupti or kamala powder, promises to be of some importance medicinally as a cathartic oil, and deserves a more complete investigation. See Dyes.

CAPE ADEN, a high, rocky, peninsular promontory on the south coast of Arabia, 5 miles long and 3 broad. Its most elevated part, 1776 feet high, is called Jatal Shamsham, and in clear weather is visible 60 miles off. This peninsula was taken by the British in 1839, and has since been fortified. Several ports on and near it are named, as Hejaf, Al-Ainah, Shaikh Ahmad Island, Ras ibn Jarbeh, Ras Marbut or Steamer Point, Ras Tarsheim, 988 feet; Ras Marshagh.—Findlay. See Aden.

CAPE BUNGO, in Japan, in lat. 33° 32' N., long. 132° 2' E., at which Ferdinand Pinto landed in 1642. See Pinto.

CAPE CALDER, in lat. 8° 4' 20" N., and long. 77° 35' 35" E., is a low, sandy point, with a small white, square pagoda at its extremity. A little to the W. is a large village. Inland, the Cape rises in a gradual slope to the base of the ghats, the nearest of which, at 4 m. N.W., is an isolated, very sharp conical hill, 1403 feet high, often mistaken for the Cape itself. It is the most southerly point of the Peninsula of India. The name is from Kumari, a virgin, the virgin goddess Durgah, and has a legend that a virgin once leaped from it into the sea. It is covered on the eastern ridge with palmyra trees.—Horsburgh; Imp. Gaz. See Comorin.

CAPE DALIGADO, on the E. coast of Africa, in lat. 10° 41' 12" S., and long. 40° 39' 51" E.

CAPE GUARDAFUI, a headland on the coast of Africa, nearly opposite Aden.

CAPE BEN, or Socoty Petrel, is the Puffinus major, also known as Dorothea fuligiosa.

CAPE JASHK is the N.E. limit of the Gulf of Oman.

CAPE LIANT, in the Gulf of Siam, in lat. 12° 34' N., long. 101° 11' E., called by the Siamese Lem Samme San. The whole of the coast, from Cape Liant to Kamas in Cambodia, is an uninterrupted archipelago of beautiful islands. One of them, Hin Chalan, is in lat. 12° 27' 4" N., and long. 100° 57' E. See Cambodia.

CAPE MONZE, a cape in the southern part of Baluchistan, in lat. 25° N. It is the most westerly point in India. The mountains of Baluchistan are there only a few miles broad.

CAPE NEGRAIS, its extreme S. point in lat. 16° 1' 30" N., and long. 91° 19' 16" E., is the termination of the mountain range that runs N. and S. along the Arakan coast.
CAPE OF GOOD HOPE.

CAPE OF GOOD HOPE, the southernmost point in Africa. It was rounded by the Egyptians ages before the Portuguese succeeded under the command of Vasco da Gama. Cape Town, the capital of the territory of the Cape, stands on the west side of Table Bay, and rises in the midst of a desert, surrounded by black and dreary mountains, Table Mountain (3315 feet high), the Sugar Loaf, the Lion’s Head, Charles Mount, and James Mount, or the Lion’s Rump. From these several rivulets flow into Table Bay, False Bay, etc. This town surrendered to the British in 1795, and was restored in 1802 by the treaty of Amiens; it again surrendered to the British in 1806, and was finally ceded to them in 1814. Long. 18° 23' E., lat. 33° 50' S.

Cape Gooseberry, Physalis Peruviana, also Brazilian cherry.

CAPE PALMYRAS, a projecting land in Orissa.

CAPE PETEL, also Cape Pigeon, the Daption Capense, Stephen, also called Pintaloa, and by sealers the Egli bird.

CAPE RAMAS, in lat. 74° E., and long. 15° 6' N., on the west coast of India, near Goa, has a small fort on it belonging to the Portuguese.

CAPERS.

Kebbir, ARAB. Carparis, LAT. Kappers, DUT. Kebbir, PERS. Capres, Fr. Kappersii, Rus. Cappari, GER. Alekapparissis, SR. Cappari, IT.

The capers of commerce are the unexpanded buds of Capparis rupestris of Greece, C. fontanesii of Barbary, and C. Aegyptiacae of Egypt. Preserved in vinegar, these flower-buds constitute a well-known article of commerce and of luxury at our tables. The quality depends exclusively upon the age at which they are gathered, the smallest and youngest being the dearest and most delicate, and the largest and oldest the coarsest and cheapest. On an average, each plant of the caper bush gives a pound of buds. The consumption of capers in Britain is about 60,000 lbs. a year. Several other species of Capparis possess stimulating properties.

CAPER SPURGE, Euphorbia lathyris.

CAPILLAIRE, a syrup prepared with leaves of the Adianthus capillus Veneris and A. caudatum. The last grows in Ceylon, also amongst the Courtallum hills in the Indian Peninsula, in Cochín-China, and at Ambony; the first is called by Rumphius, Micia Miccan Utan. — Ainslie’s Mat. Med. p. 297.

CAPOETA MACROLEPIDATA, a fresh-water fish of Tenasserim, Penang, and Java, with a large swimming bladder of which isinglass is made. See Isinglass.

CAPOOR KICHILIE. TAM. Curcuma zedoaria. Likewise the root of a plant called also Kakhar, sent to India and Persia for medicinal purposes, and for perfumery, and to preserve clothes from insects. It is about half an inch in diameter, and cut up when brought to market; it has a pungent bitterish taste, and slightly aromatic smell. — Middle King ii. p. 400.

CAPPARIDACEAE, the capper tribe of plants. Sixty or seventy species occur in the East Indies, of the genera Gynandraopsis, Cleome, Polanisia, Crataeva, Nicobahria, and Capparis. Some American Cappariaceae are very poisonous, others act as vesicatories, and a few are merely stimulant. To the latter class belongs the Capparis spinosa of the south of Europe.

CAPPARIS PHYLLA. Roxb.

Karai, HIND. Khero (unripe fruit), SIND. Kirrun, HIND. Pulpku (flower).

This small tree grows on the banks of the Jumna, in Tungevelly, Dakhun, Gujerat. On his journey to Kābul, the Honourable Mr. Elphinston found it growing in the midst of the desert. All over the Panjab its flower-buds are cooked as a pot-herb; its unripe fruits are gathered, made to assume the acid fermentation, and made into a pickle with pepper, mustard, and oil, and eaten with bread. The fruit is about the size of a marble, and is gathered both green and ripe by great numbers of the natives, who eat it largely. Its wood is durable, and not eaten by insects. Karil fruit is considered by natives useful in boils, eruptions, swellings, piles, and in affections of the joints; also as an antidote to poisons. — Rozb.; Voigt; Dr. J. L. Stewart; Powell’s Handbook.

CAPPARIS BREVISPINIA. D C.

C. acuminata, Rozb. ii. 566.

Kalo-kera, BENG. Pallkeo, TEL. Autunboody kai, TAM.

A scrambling shrub of Malabar and Bengal, common in hedges, with a beautiful red fruit, the size of a small pear; the stem armed with yellow thorns in pairs at the leaves. The green fruit is used in making pickles. — Jaffrey; Voigt; Rozb.

CAPPARIS DECAISNEI. Its buds, Pameero, SIND, are pickled, and would well replace the ordinary capers of commerce; leaves epistatic.

CAPPARIS DECIDUA. Its fruit, Karil, called also Dèle, is gathered from the tree when it is of a bright red colour, and about the size of a cherry; it is used as a pickle. — Powell’s Handbook.

CAPPARIS DIVARICATA. Lam., W. and A.

Pachoonda, MAHR. Budareni, TEL. Toaratti maram, TAM.

A small tree of Coimbatore, and not uncommon on the more arid wastes and in the dry hedges of the interior of the Bombay Presidency. Wood only fit for fuel. — Wight; Gibson.

CAPPARIS GRANDIS. Linn., W. and A.


Waghutty, MALAY. Guli, TEL. Vellai toaratti maram, GUILEMchetu, TAM. Regutti ...

A small tree of Coimbatore, and common in waste places inland of the Bombay Presidency; wood close-grained, hard, and good; too small for general use, but good for turning. — Wight; Gibson; Elliot, Flor. Andh. Usef. Pl.

CAPPARIS HEYNEANA. Wall. Chayruka, HIND. A shrub growing in S.W. India, at Cochín and Courtallum. Its leaves are used for rheumatic pains in the joints, and its flowers as a laxative drink. — Voigt, 74.

CAPPARIS HORRIDA. Linn., W. and A. IC.

C. Zeylanica, Rozb. ii. 567.

Thorny caper bush, ENG. Katalikai, TAM. Aranda, HIND. Attaday, SANSK. Adonna; Arundola, TEL.

Grows in the Panjab, Bengal, and the Peninsula of India. The natives eat its fruit dressed in different ways, but chiefly as a pickle. — Dr. Ainslie, p. 238, Stewart, Rozb.
CAPPARIS OBOVATA.

CAPPARIS OBOVATA is found in the Sutlej valley between Rampur and Sungnam, at an elevation of 3000 to 5000 feet. Its fruit is pickled.


CAPPARIS PANDURATA. Linn.

Kantagar; Kamai, Beng. Nalla uppi, Tel.

Grows in Bengal and Peninsula, and is a good hedge plant. — Voigt, pp. 74, 75.

CAPPARIS SINICA. The buds of the caper of Mount Saini are the Filılı-ul-jabl, or mountain pepper of the East.—O'Shaughnessy.

CAPPARIS SPINOSA. L.


In Europe this plant furnishes the caper. It generally grows in the Panjab, exactly as a recent traveller has described it on Saini, viz., 'in bright green tufts hanging down from the efl ects of the rocks,' and adorned with very handsome large flowers. It is found near Multan, in the Salt Range, along the Trans-Indus hills to Peshawur, and in the valleys of some of the great rivers, ascending to 5000 feet at Wargiri, on the Sutlej 8000 feet, Thomson, and on the Indus above Skardo to about 10,000 feet (Jacquemont and Thomson), and it occurs to 12,000 near Leh. The ripe fruit is made into pickles by the natives of the Salt Range, etc., in some places at least eaten only by Hindis. Mr. Edgeworth prepared the buds in the European style as capers, and found them excellent. In Ladakh the leaves are used as greens; they are eaten by goats and sheep; and in Kangra the roots are said to be applied to sores.—Dr. J. L. Stewart, p. 616.

CAPPER, COLONEL, Quartermaster-General of the Madras army in the latter part of the 18th and beginning of the 19th century, and his house on the sea-beach is still known by his name. He was the first to put forward the view that the storms of the Indian Ocean are rotary, and in 1801 he published a book on the Winds and Monsoons, adopting the view that hurricanes are whirlwinds. He took an active part in the troubles of the Madras army, and was embarked for England but the ship never reached.

CAPRA ÆGAGRUS. Gumelin, Blyth, Hatton.


This has five varieties, viz.:

Var. a. Capra Ægagrus, Bock, lives in the highest Khasia mountain, where they are reared by the people. It has no wool, and is used for food.


This is domesticated in Tibet, and the wool is exported to Kashmir, where it is made into the finest shawls. It has on the body a long coarse hair, intermixed with which is a fine soft wool, which is the article used in the manufacture.

Var. c. Capra imberbes, the Berbura, Bocc. The Berbura goat is found to the west of the Jumna. Its female is the Berburi, and the Bengal call it Ram Sagul. The body is very like the long-legged goat of the south of India; in manners they are similar. The scrotum of the male externally is separated into two distinct bags.

Var. d. Tibetan goat of Ladakh; has a short tail, and very short ears, scarcely two inches long, and concealed; has long, soft, pendulous hair, but no wool.

Var. e. Tibetan goat of Ladakh; has long, soft, pendulous hair, but no wool. C. Ægagrus, of the mountains of Asia, is believed to be the parent stock of all the goats, mingled perhaps with the C. Falconeri of India. The breeds greatly differ from each other, but they are fertile when crossed.—Darwin.

CAPRA MEGACEROS. Hutton, Blyth, Jerdon.


The Mar-khor inhabits the highest parts of the Tibetan Himalaya, also the Sulinam range, the Pir Panjal, Kashmir, the Hazara Hills, the hills of the Jehlum and Chenab, and Ladakh. The Kashmir variety (Capra Falconeri) has openly spiral horns. The horns of the Sulinam variety more nearly approach a straight line. The Sind goat or sind ibex is identical with the wild goat of the Caucasus, Armenia, and Persia, probably of Crete. It is not found east of the Indus. The famed bezar (pa-zahr, Fars., fa-zahr, Pers.) of commerce is obtained from this goat. It associates in small herds frequenting steep and rocky hills, in winter descending to the bare spots in the wooded region. It is much sought after by sportsmen, and the horns are considered a great trophy.—Jerdon, p. 291.

CAPRA SIBIRICA. Meyer, Blyth.

C. sakeen, Blyth. C. Pallasii, Schinz. Himalayan ibex, Eng. Kyl. of. ... KASHMIR. Skia (male), Iskin, Him., Tangrol of Kurr. D'Ham (female), Hind. Buz of. ... SUTLEJ.

It is found throughout the Himalaya from Kashmir to Nepal; rare in Kashmir. The soft under fleece is called ashi-tus, and is used for lining shawls, stockings, gloves, and is woven into a fine fabric called Tusi. No wool is so rich, so soft, and so full. The hair itself is manufactured into coarse blanketng for tents, and twisted into ropes.—Jerdon, 292.

CAPRELLA, the phantom shrimp, is found on seaweed sitting upright like a monkey, holding on by its hind claws, and, with ghastly grimaces, mesmerizing all passers-by with its fore-claws. It sits in like guise upon sponges a mile or two deep in the darkness,—there, however, not a quarter of an inch, but three inches long.

CAPRIFOLIUM CHINENSE. Smith. Kin-yin-hwa, of the Chinese; a climbing plant with gold and silver flowers; one of the Caprifoliaceae.

CAPRIFOLIUM SEMPERVIRENS. B. et S. Lonicera sempervirens, D. G. | Trumpet honeysuckle.

The honeysuckle occasionally seen in India.
CAPRIMULGID.E.


CAPRINE, a sub-family of mammals of the family Bovidae, comprising goats and sheep, 1st capricorns, or antelope goat or mountain antelope; 2d, the true goats. See Antilopinae, Bovidae.

CAPROVIS ARGALI.

Agocerus argali, Pall. | O. argali, Pall. Ovis ammonoides, Linn. | O. Hodgsoni, Bhlyth. O. ammonoides, Hodg. |

Hayan, nyan, nyund, nuan, niar, snoow, ... Tin.

Dr. Gray says this species, the Nyan or Bamberra, or wild sheep, seldom or never crosses the Himalayas, the land-side of which range is the special habitat of the Nubian, while the north and west beyond Tibet, C. argali is replaced by other species; so that Tibet may be considered as the special habitat of one species (Ovis ammonoides), and the plateaux north of Tibet as far as the Altai of another (Ovis ammon.), cited as types of the true ovine form; and it may be added, that the six sorts of tame sheep of Tibet and the Sub-Himalayas, all without exception exhibit the essential characters of that form. There are several species that may be confounded under this head. The Siberian Argali is found in the most northern part of that country, and it is probably different from the Himalayan animal; but Mr. Byth had not been able to discover any difference between the specimen received from Mr. Hodgson and those which were sent from Siberia by the Russian naturalist.

CAPROVIS VIGNEL, the Houriar, extends along the eastern spurs of the Salt mountains, but becomes less common as we go eastward, and is seldom met with on the ranges beyond the town of Jhelum, or southwards of the Beas river. It is confined to the north and western portions of the Panjab, including the Suliman chain, where it is known by the name of Kuch. It is also a denizen of the mountains around Peshawur, including the Khabar pass, Hindu Koh, and Kafiristan. The Shapoo or Shalmar of Ladakh, if not identical, is certainly very closely allied; its differences are slight, and such as might result in a great measure from the marked diversity of climate, food, etc., of the two regions. This species is no doubt the Sha of Tibet described by Vigne; and possibly the wild sheep of western Afghanistan, Persia, the Caucasus, Armenian and Corsean mountains, is the same species altered mayhaps by climate and other external agencies. The eastern limits of the Shapoo have not been fixed with certainty; but it would seem that, commencing at Ladakh, it proceeds westward towards the Indus into the regions where the Houriar is found; and probably when these regions are explored, we shall find out the relation between what has been supposed distinct, but which Dr. Adams is inclined to consider one and the same animal.—Adams.

CAPSELLA BURSA PASTORIS. | Manch. Mullay muntha keery, 7m. | Shepherd’s purse, | Eng. Common on the Neighherries; also grows in Europe, Persia, Asia, and Japan; used by the natives as a pot-herb.—Jaffrey; Wight.

CAPSICUM, red pepper, chillies.

Fihli, ... Abar, Chabu, ... Malay. Nga yook thu, ... Bom, Leda mera, ... Chieh, Tsu-hou-teen, ... Chana, Lala chien, ... Lah-liau, ... Lao, Choe subrang, ... Lall mirich, ... Dukhi, Fihli i Siah, ... Pers. Mirchie, ... Guj, Mallaghai, ... Tam. Chabai, Chabo, Malay, Mirapa-kai, ... Tel.

The shell of the fruit is fleshy and coloured, and contains a pungent principle, which also exists in its seed in great activity. On this account both the fruit and seeds of different varieties of Capsicum are in request as a condiment, and either in the raw uncooked state, or ground, when they are called cayenne pepper, form a conspicuous feature amongst the plants affording stimulating substances used by man. In Europe the Capsicum enters largely into the seasoning of food and the preparation of pickles, and in warmer countries it constitutes one of the first necessaries of life, either green or ripe. It is the species of this genus, and not any of the genus Piper, which is the peppery condiment of all the inhabitants of India and the Asiatic islands in Eastern Asia; the latter, indeed, being little used, and mostly raised for exportation. Foreign species or varieties of Capsicum have been introduced into the Archipelage, and are named by the Malays, Chabo China, the Capsicum of China; and Chabo Sabrang, the Capsicum of India, literally, of the other side of the water. There are now numerous varieties of chillies in India, many of which have been introduced. They are raised from seed, which have been kept up for several years, or if fresher, the crop is generally a failure. One species, called 'devil’s pepper,' introduced by Lord Harris from Trinidad, is so intensely hot that the natives can hardly manage to use it. It is cultivated during the cold months. In the Tenasserim Provinces two or three species enter into all the native dishes, not in the form of pepper, but the fruit, stewed or roasted, is eaten with the food. In India, the dried fruits of several species and varieties of Capsicum usually seen are the C. annum (common Capsicum), C. frutescens (goat pepper), C. grossum (bell pepper), C. minimum (bird’s eye pepper), perhaps only cultivated varieties of one species. They are valued as a digestive condiment, and are raised all over the S.E. of Asia as condiments, and to make cayenne pepper and chilli vinegar.—Tomlinson; Crawford, Dict. p. 82; Jaffrey; Matson.

CAPSICUM ANNuum. | Linn. Common chilli. Gach mirich, ... Beng. Kapo molag, ... Mala. Fig. ... Spanish pepper, | Mollag etwanga, | Pan. Common capsicum, ... Mollag; Mollaghai, Tam. Red pepper, ... Mirapa-kaia, ... Tel. Is largely cultivated in South America, Mexico, and India. C. baccatum, Linn., bird’s eye pepper, var. of C. annum, Linn.—Roth, i. 573. See Chillies.

CAPSICUM FASTIGIATUM, var. of C. annum, called red pepper, Guinean pepper, cayenne pepper, common capsicum, chilli pepper, Usari mollaghai, Tam., a small conical orange-coloured pod, shining externally, internally containing spongy pulp, and white flat reniform seeds in two cells. It contains a volatile neutral principle called capsicine, and acts as an acid stimulant, and externally a rubefacient. It is used in putrid...
sore throat, scarlatina; also in ordinary sore throat, hoarseness, and dyspepsia, and yellow fever, and in diarrhoea occasionally, also in piles.—Pocell's Handbook, i. p. 363.

CAPSICUM FRUTESCENS. Linn. Var. of C. annuum, Linn.

Lati Lamha mirch, BENG. Chabai, MALAY. Chabo Lombok, ENG. Lada mera, GOgeoda chilli, MALAY. Johan, GOgeoda chilli, ENG. India, Ceylon, Sri Lanka, Burm. used Burm. used Beng. Singh.

Goat pepper, BENG. Coin, Tamil. ">.

Chilli, BENG. "

Bird pepper, BENG. "

Cayenne pepper, BENG. "

Lall mirch, HIND. "

Lanka mirch, "

Lalgach march, "

This, the large red capsicum, is grown all over India by sowing the seed broadcast, and when the plants are about 6 inches high, putting them either in rows or beds 18 inches apart. The soil should be rich. They require watering, and to be kept clear of weeds: a yellow variety is C. flavum. —Roth. i. 574; O'Shaughnessy, p. 468.


CAPSICUM MINIMUM.

Gna yoke, BURM. Bird's eye pepper, ENG. Gna yoke mo-hnyau, Beng. Oosi-mulaghali, TAM. E. Indian birdpepper, ENG. Sudi mirapa kain, TEL.

This plant yields its fruit for a series of years. Its fruit is very hot.

CAPSICUM NEPALENSIS. Var. of C. annuum, Linn.

Gach march, BENG. Mallaghai, TAM. Cepoo Modalgoo, MAZAL. Mirapa-ki, TEL. Ratnamirs, "

This is the most acrid and pungent of the species Capsicum.

CAPSICUM PURPUREUM and C. minimum are cultivated in small quantity in Pegu for domestic use.—M'Clelland.

CAR, the ruth of India, used at the Hindu temples to convey the idol from one place to another. This is usually preceded by native music, flaring torches, dancing girls, and priests, the deity bedizened with jewels, and carried on a richly-constructed throne, and fanned with gorgeously-constructed fans. While Sir G. Campbell was Lieutenant-Governor of Bengal, twenty people fell while the car at Geopto was being dragged; eight were run over, five were killed on the spot, and three were wounded, of whom one died. The six victims were women.

CARABIDE. Leach. The family of ground beetles, about 9000 species are known. Almost all possess a very pungent, disagreeable smell; and a few, called bombardier beetles, have the peculiar faculty of emitting a jet of very volatile liquid, which appears like a puff of smoke, and is accompanied by a distinct crepitating explosion. They are mostly nocturnal and predacious. They are chiefly remarkable for brilliant metallic tints or dull red patches, when they are not wholly black, and are therefore very conspicuous by day, but insect-eaters are kept off by their bad colour and taste. They are sufficiently invisible at night, when it is of importance that their prey should not become aware of their proximity. Many species of Carabus, a genus of the family Carabide, occur in India. C. coelestis is a beautiful beetle of China. C. impressus Fabr., and C. politus, Fabr., occur in the East Indies.

CARAB TREE. Ceratonia silicium, W. CARACAL, Felis caracal, Schreber, the Indian lynx, occurs in Africa and Asia. It has immense speed, runs into a hare as a dog into a rat. It often catches crows as they rise from the ground, by springing 5 or 6 feet into the air after them. CARAGANA FLAVA. Smith. Huwang-teing of the Chinese. In China its root is eaten as food in times of scarcity. It is obtained from the provinces of Ngaan-hwui, Che-kiang, and Hunan. CARAGANA GERARDIANA is the Tartarian furze. C. arborescens is the tea tree of Siberia. CARAGANA VERSICOLOR. Royle.

Caregana pignase, D.C. | Dama, . . . . . . . . . . Tis.

A small shrub which grows in Tibet and Western Himalaya at elevations of 14,800 feet, and is very useful for fuel.—Dr. Stewart and Thomson.

CARALLIA CALYCINA. Benth. This large Ceylon tree has two varieties,—var. a, Singhe Raja forests, between Galla, and Rattanapura, at no great elevations. var. b, Central Province, at an elevation of 4000 to 5000 feet.—Trew. ii. p. 121.

CARALLIA INTEGRIRAMA. D. C.


A very common tree in the Western Ghat forests, up to 4000 feet, from Bombay down to Cape Comorin, also on the Cuddapah hills; most abundant in S. Canara. In Ceylon it is met with up to 3000 feet, and it is indigenous in Bengal, Burma, Hong Kong, and tropical Australia. It is a highly ornamental tree, on account of its beautiful flaring branches. The timber is useful for household and ornamental purposes, and is also required for furniture, cabinet purposes, and fittings. It is tough and not easily worked, brittle and not durable, and has a pretty wavy appearance, and is peculiar in structure, having a great deal of cellular tissue. A cubic foot unseasoned weighs about 56-60 lbs., and 44 lbs. when seasoned, and its specific gravity is 064; in Burma, where the tree is known by the name of Manicoga, it is used for planks and rice pounders. In Calcutta it is in use for house-building.—Beidome, Fl. Syl. CARALLIA LANCE/EFOLIA. ROZB. A tree of Sumatra.—Voigt.

CARALLIA LUCIDA. ROZB.

Carallia integerrima, D.C. | Carallia integrifolia, Graham. Kierp, Kierpa, BENG. | Dewata gass, SINGH. Manicoga, TAM. | Plumbo, "

This handsome tree grows on the Malabar side of India, in the Konkans, the Circars, Kamaon, Sylhet, Chittagong, Pegu, Mergui, and in Ceylon up to 3000 feet. On the Bombay side it is small, but pretty frequent in the forests of the S. Konkan. Wood hard, close-grained, and might be used in turning. Thwaites says it is rather ornamental, and adapted for furniture. It is a large and common tree north of Rangoon and throughout Pegu. Wood of a peculiar structure, thick medullar rays going through from the centre to the circumference; colour red; used for planks and rice pounders, and may possibly be found useful for cigar boxes. In the southern forests of Pegu it is a plentiful tree of large girth, and in Calcutta is employed in house-building, under the name of Kierpa.—Dr. Gibson, M'Clelland, Brandis, and Voigt.
CARALLUMA ADSCENDENS.

CARCHARIAS. R. Br.

Stapelia adscedens, Roxb. | Collee moolayen, . TAM.

This curious-looking fleshy plant, with angular stems, belonging to the natural order Asclepiadaceae, is used by the natives in making pickles, and sometimes in chatni.—Jeffrey. See Vegetables.

CARAMBOLA TREE, Averrhoa carambola. Highly cultivated in the Kwang-tung province of China.


CARAMBA VULGARENSIS. Its seeds yield a solid oil or vegetable milk. It is a large tree of Guiana. See Dyce.

CARAMBA MOLLECCENSIS. Lam.

Xylocarpus granatun, Ken., Willde.

Kadul, . . . SINGH | Kandilangha, . . . TAM.

This tree is a native of the coast in Malabar, Ceylon, and in the Sunderbuns; is also found in Africa, Australia, Madagascar, and the Malay Archipelago.—Beddome, Fl. Syst. p. 136.

CARAT, from the Greek keration, a kind of vetch. A carat weighs 4 grains French, or 33 grains, troy. It is used in weighing precious gems, and also in valuing the alleged precious metals, in this case standing for an imaginary 24th part of the pound troy, the number of carats indicating the pure metal, and the remainder the alloy. Thus the carat standard of the sovereign is 22, or 2 parts alloy; of watch-cases with the Goldsmiths' Hall mark, 18, or 6 alloy. In France the latter is the lowest legal standard.—King.

CARAVAN. See Kasfah; Karwan.

CARAVANSARY. These, in Syria, form four sides of a large quadrangular court. The ground floor is used for warehouses, the first floor for guests, and the open court for the loading and unloading of their burdens, and the transaction of mercantile business generally. The apartments used for the guests are small cells opening into a corridor, which runs round the four sides of the court.—Eothen, p. 243. See Dharmasala; Serei.

CARAYA PILLAY, TAM. Bergera Konigii.

CARRYA SEED.

Carvi; Cumin despres, Fr. Carvi . . . Tr. Brouckemel . . . GER. Carum Carai, . . . LAT. Kummel . . . A. Rapp. Acalawa, . . . SF.

These aromatic seeds are used to flavour cheese, spirits, liqueurs, and articles of medicine.—O'Sh.

CARBI or Karbi. Beng. Stalks of Sorghum vulgar, used as fodder.

CARBON, when pure, is diamond; less pure, is plumbago, coal, and charcoal.

CARBONATE OF LEAD, white lead, ceruse.

CARBONATE OF LIME.

Kwang-fu, . . . CHIN. Carbonate de chaux. Fr. Chalk. . . . ENG. | Carbonas celeis, . . . LAT.

A very abundant mineral, and embraces several varieties, of which stalactical carbonate of lime is one. All the limestone caves of Tennesserin have stalactites hanging from their roofs, and stalagmites rising on their floors. The Siamese Karrins often bring over bits of limestone of the shape of a shell, and, when broken, a shell usually of the genus Melania appears, that has been encrusted with carbonate of lime. Much of the alabaster of which ornaments are made in Burma, is stalagmite; but all the alabaster images of that coast are made of marble, and not of compact gypsum, which they much resemble.—Mason.

CARBONATE OF SODA. Impure carbonate of soda, called Sajji or Sajji matti, occurs as an efflorescence in some part or other of almost every district in India. Muriate of soda and carbonate of lime exist in the soil, and the natron is found on the surface of the moist earth or mud. Near Gundyctoth, on the banks of the Penmar, common salt is interstratified with the upper schistose strata of the argillaceous limestone on which the sandstone rests; and on the surface of the neighbouring soil, salt contaminated with much muriate of soda, is collected. Barilla, an impure carbonate of soda, is prepared by burning plants of the Salsola and other species, and collecting the ashes, which melt into a coloured mass. Sajji loto is a somewhat purer kind, but still contains an immense amount of organic and other foreign matter, such as the sulphates of soda and lime, chloride of sodium and potassium, sulphure of sodium, sulpho-cyanide of sodium, together with silica and clay. The Kangon khar plant yields the best alkali. The pure sajji from this plant is called loto sajji, and the residue mixed with ashes is called Kangun khar sajji. The other two plants yield only a dirty and inferior substance known as Bhutni sajji, 'devil's soda.' This is black in colour, and sold in pieces like lumps of ashes. The plant burned in the Punjub is termed Khur, or in Persian Ashkhar; its scientific name is Caroxylon Griffithii. There are many square miles densely covered with this last, whereas the Khar is comparatively rare. Khar is applied to various herbs belonging to the natural order Chenoectedae, particularly the Anabasis multiforma and the Caroxylon Griffithii. The ashes, which fuse, run into a pot placed beneath the burning heap.—Powell; Stewart.

CARBUNCLE.

Escaraboucle, . . . Fr. Carbunculus, . . . LAT. Karfunkel, . . . GER. Merah; Dalima, MALAY. Anthrax, . . . Fr. Mastigo, . . . LAT. Barekeith, . . . HEN. Carbunculo, . . . SF. Carbonel;Carbonelles,Fr. Manikiam, . . . TAM, TEL.

One of the inferior gems; that variety of the garnet called almandine. Common in Southern India. Carbuncles, from the most ancient times of the Romans, have been set with a backing to enhance their colour. The carbuncles of superior brilliancy are called males, and those of inferior colour, females. Under this term the ancients included all the red corals, such as lychnias, rubies, garnets. The carbuncle, in Hebrew, Bareketh, signifying flashing stone, or lightning stone, was supposed to fall from the clouds, amid flashes of lightning.

CARCATA, also Caractaca. Sansk. The solar sign Cancer. See Varsha.

CARCHARIAS, a genus of heterocerous fishes, belonging to the Squalidae or shark family. C. leucos, Palen., is found in the southern seas. It is about 12 feet long. Carcharodon Rondelletii of Australia, a large shark; one of them measured 36 ft.
CARCHEMISH.

CARCHEMISH, the capital of the Hitittes, is the modern Kala Jerabulus, on the west bank of the Euphrates, 20 miles below Beredjik.

CARDAMOM HILLS, a range of hills in Travancore, rising 2000 to 4000 feet high, and lying between lat. 9° 27' and 10° 4' N., and long. 76° 52' and 77° 17' E. They are unhealthy and sparsely occupied. The cardamoms grow best at about 3000 feet; and annually about 10 tons, value £30,000, are collected.

CARDAMOMS.

Valakki, . . . CAN. . . . Kakelal-seghar, . . . PERS. . .
Yallakki, . . . Gurh. . . . Chiri, . . . Enanul, . . . SINGH.
Yang-chun-sha, . . . HIND. . . . Yellam arisi, . . . TAM.
Cardamomi, . . . Tr. . . . Yeylakulu, . . . TEL.
Kapel, . . . YALAKIU.

The cardamoms of the shops are the produce of several genera of plants—Alpinia, Amomum, Elettaria, and Renealmia. The round seeds of Amomum cardamomum of the Burna forests, Surnatra, and Malacea, are used by the Malay in lieu of the true cardamom. A. angustifolium of Madagascar supplies some of the cardamoms; A. maximum of the Malay Islands, Nepal, and Ceylon, also produces a cardamom of an inferior character. Alpinia cardamomum of the western coast of India in the Travancore forests, produces a cardamom in great request. Amomum granatum parvisildis of Madagascar and Ceylon yields an inferior sort. Elettaria cardamomum of the hilly parts of Mysore, Coorg, Malabar and Travancore, and Canara, yields the true cardamom, and is both cultivated and wild. In the Travancore forests they are found at elevations of three to five thousand feet. The mode of obtaining them is to clear the forest of trees, when the plants spontaneously grow up in the cleared ground. The average number of candies is about 140 to 300 candies; value, 1000 to 2000 rupees the candy of 600 lbs. Cardamoms are much esteemed as a condiment, and great quantities are annually shipped to Europe from Malabar and Travancore. In commerce there are three varieties, known as the short, short-long, and the long-long. Of these the short are more coarsely ribbed, of a brown colour, and are called the Malabar cardamoms or Wynch cardamoms. They are reckoned the best of the three. The long-Longs are more finely ribbed, are of a paler colour, and the seeds are white and shrivelled. The short-Longs merely differ from the latter in being shorter or less pointed. It is usual to mix the several kinds together, when ready for exportation. Some care is required in the process of drying the seeds, as rain causes the seed-vessels to split, and otherwise injures them; and if kept too long in the sun, their flavour becomes deteriorated. They are chiefly procured from the high lands overlooking the Dinidigul, Madura, and Timnevelly districts. In these mountains the cultivators make separate gardens for them, as they thrive better if a little care and attention be bestowed upon them. Cardamoms are a monopoly in the Travancore State, and cultivators come chiefly from the British provinces, obtaining about 200 to 240 rupees for every candy delivered over to the Government. In the forests on the western slopes of the Coorg mountains, cardamom cultivation is carried on to a great extent. In February, parties from Coorg start for these western mountains, and, selecting a slope facing west or north, mark one of the largest trees on the steepest declivity. A space about 300 feet long and 40 feet broad is then cleared of brushwood at the foot of the tree, which is cut down about 12 feet from the ground, and carries with it a number of small trees in its fall. Within three months after its felling, during the first rains of the monsoon, the cardamom plants in the soil begin to show their heads all over the cleared ground, and before the end of the rainy season, October, they grow two or three feet. The ground is then carefully cleared of weeds, and left to itself for a year, and then, 20 months after the felling of the great tree, the cardamom plants are the height of a man, and the ground is again carefully and thoroughly cleared. In the following April, the low fruit-bearing branches shot forth, and are soon covered with clusters of flowers, and afterwards with capsules. Five months afterwards, in October, the first crop is gathered, and a full crop is collected in the following year. The harvests continue for six or seven years, when they begin to fail, and another large tree must be cut down in some other locality, so that the light and air may cause a new crop to spring up. The harvest takes place in October, when the grass is very high and sharp, sorely cutting the hands, feet, and faces of the people, and concealing numerous large leeches. The cultivators pick the cardamom capsules from the branches, and convey them to a temporary hut, when the women fill the bags with cardamoms, and carry them home, sometimes to distances of ten or twelve miles. Some families will gather twenty to thirty mounds annually, worth from 600 to 1000 rupees. The cardamom tracts of Travancore are almost all granitic and gneiss. The smaller capsules, or lesser cardamoms, are the most valuable. The Elettaria cardamomum is also cultivated in Ceylon, and a species occurs wild. The Karen forests of Tavoy and Mergui abound with cardamom plants; and, while subject to the Burmese government, the Karen were required to collect the seeds and pay them in as tribute; but they now employ their time more profitably. When they did collect, they were in the practice of mixing a spurious kind of cardamom with the true produce of a plant belonging to the genus Amomum, believed to have been A. cardamomum. The cardamom called by the Chinese Yang-chun-sha, the lath China cardamom of pharmacologists, is said to be found in the province of Kwang-tung.—Maidris Ez. Jur. Rep.; Drs. Mason, Voigt; Crawford's Dictionary; Thwaites, En.; Drury, Cochlin; Rozb. i. 72.

CARDAMOMS, bastard or wild.

Kapulaga, . . . BALL. . . . JAV. . . . Kurrocha, . . . GUJ. . . . HIND. . . . MALAY. . . Hii kilan, . . . PERS.

Wild or bastard cardamoms are much larger than the true cardamom, more pungent but less aromatic, with a strong camphoraceous taste. They are not much esteemed, and are only used by the poorer classes of natives as a substitute for real cardamoms. They are brought to Bombay from the Malabar coast. The wild or bastard cardamom of Siam is produced by Amomum xanthioides, Wollich; the seeds have been imported into England, while the empty capsules found in the drug shops of China are exported from Siam. The plant bearing scintamine fruit,
to which the name 'large round China cardamom' has been given, and which is known to the Chinese as Tsau-kan, continues unknown; and the same remark applies to the bitter-seeded cardamom, Yih-eh-chee, and ovoid China cardamom, Tsakou or Qua len. It is probable that all of them are productions of the south of China, or of Cochinchina. — Paulkner.

CARDIAE, a family of molluceae, comprising the genus Cardium, the cockle, of which there are known 270 fossil and 200 recent species, with four sub-genera and the fossil genus Conocardium. Many species of Cardium occur in India.

CARDIOPTERIS. At Caheer, in the Assam valley and Chittagong, this remarkable plant covers the trees for upwarads of sixty feet, like hops, with a mass of pale-green foliage, and dry white glistening seed-vessels. — Hooker, Hist. Jour. ii. p. 334.

CARDIOSPERMUM HALICACABUM. Linn.

Nupukti, ... BENG. Budhaka-kava, ... Tel. Mu-la-mai, ... BURM. Kanakala, ... Oh. Shib-shub, ... NEPAL. Nala & guliensa, ... Ind. Heart-pes, ... ENG. Upurinta, ... Eng. Balloon vine, ... Budh barasa, ... Tel. Ulinja, Pocohavum, MALE. Ullema tige, ... Mel. Karavi, ... SANSK. Vokkudu tige, ... Mel. Jyoti-mattset, ... SING. Patali tive, ... Mel. Moda-cottan, ... TAM. Ekkudatlane, ... Mel. Mudul-cottan, ... ARAB. An annual climbing plant, with an inflated membranous capsule, hence its name. The root is aperient. It is mucilaginous, and slightly nauseous to the taste; is raised in great quantities by the natives of Tenasserrim; but more as a vegetable than a medicine. Grows all over India; and popular superstition asserts that by eating the seeds, the understanding is enlightened and the memory rendered miraculously retentive. C. canescens, Wall., grows on the Irawadi. — Rozb. ii. 292; Voigt, 93; Mason; Ains. Mat. Med. 89; Dr. J. L. Stewart; Powell, i. 330. See Jyotishmati.

CARDOLE, a thick black oily substance obtained from the pericarp of the cashew nut, Anacardium occidentale. It is a powerful vesicating agent.

CARDS, playing cards.

Kaerten, Speel-Karden, ... DUT. Karti, ... Rus. Cartes à jouer, ... FR. Carnas, Naipes, ... Sp. Spiel-Karten, ... GER. Kort, ... Sw. Ganjihal, ... HIND.

The playing cards of the Hindu and Mahomedan are round pieces of strong card, painted with figures of men, quadrupeds, and fish.

CARDUCHI, the Kord country; Kurdistan.

CARDUUS, sp.

Tez'ki, ... CHIN. Shiu-ki, CHIN. Shuh-tan, ... TA-ki, ... A plant of China. C. nutans, L., Gul-ba-bawdaw, flowers large, rich crimson; used medicinally to purify the blood. — Voigt; Powell, i. 356.

CAREI, a people mentioned by Ptolemy, who inhabited the southern part of Tinnevelly. Karei, in Tamil, means 'the shrive.'

CARELA, BENG. Monomordica charantia.

CARERTA, BENG. Monocotyle. See Chelonia.

CAREX, a genus of plants belonging to the natural order Cyperaceae. Several species grow on the sea-shores and near the rivers of India. C. Indica, Wildle, is a native of Nepal. C. Moorcrofti and Falce, a running wiry sedge in Tibet, binds the sand like the C. arenaria of the British coasts. — Hooker, Hist. Jour. ii. p. 155.

CAREY, Dr. W., a celebrated missionary at Serampore. He landed in Calcutta on the 11th November 1793. He was the son of a parish clerk. He joined Messrs. Ward and Marshman at Serampore on the 10th January 1800. His whole life was passed in the translation of the Scriptures into the languages of India; his whole career was marked with a passionate desire to reveal Christ to men who knew him not. His strong natural benevolence had been intensified by deep piety. 'I do not know,' says Wilberforce, 'a finer instance of the moral sublimes, than that a poor cobbler working in his stall should conceive the idea of converting the Hindus to Christianity, yet such was Dr. Carey.'


He founded the Agri-Horticultural Society of Bengal in 1820. He advertised that a meeting would be held in Serampore, but at the hour appointed only himself and two brother missionaries were present. But he voted himself into the chair; the proceedings were published, with the secretary and treasurer's names, and the society began. He was author of State of Agriculture in Dinajpore, in As. Res. vol. vi. Geographical Notices of Serampore, As. Jl. 1835, ii. 85. — Tr. of a Hindu.

CARKEYA ARBOREA. Rozb.

Bakoomba of Bombay. Ave-mavo, Ayna, ... TAM. Ban or bambooosi, BURM. Pohn, gymn, nunnam, ... Mel. Baubwai, ... PALI. Palis na-ma? ... Mel. Kaumba, ... HIND. Kumbhi, ... TEL. Koombha, ... MAHR. Buda-darmee, ... Mel. Pelos, ... MALEK. Daud-Ippi, ... Mel. Kahash, ... S. SINGH.

Flowers—Vakumbi; Fruit—Gugisara, Kuhni, HIND.

This large tree grows in most parts of British India, Burma, and Tenassserim, and also in N. Australia and Queensland. It rises to 20 feet. Dr. M'Clelland says that in Pegu the timber is large, the wood red and equivalent to mahogany, and there forms the chief material of which the carts of the country are made; Dr. Mason adding that it is a useful timber for house-building; and Dr. Brandis mentions that it is used for gun stocks, house posts, planks, etc. A cubic foot of the Pegu wood weighs 55 lbs. It sells in Pegu at 18 annas per cubic foot. Dr. Gibson tells us that it is not much used on the Bombay side, but that the timber stands the action of water well. As it is generally crooked, he thinks it merits trial for the crooks of boats, corners of carriages, etc. In Ceylon it is used for the axles of bullock carts and in buildings. Its fibrous bark is used as matches for matchlocks, guns, etc.; and in Bengal, according to Capt. MacDonald, the scant clothing of the Byrangi and other Hindus affecting peculiart sanctity, is made of the fibrous bark of this tree. The bark is astringent, and in Ceylon used in tanning, and medicinally. Its large greenish flowers are given by Hindus after childbirth.

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CARHARAS.

Carya sphærica, Roxb., is almost identical with C. arborescens. It grows in the Northern Circars, in the mountains at Chittagong, and at Calcutta. Its dark serves as cordage, and is used as a slow match for guns. It has large greenish-white flowers, with a few deep red filaments.—Roxb. ii. 686.

CARHARAS, in the Konkan. There were human sacrifices here to Renuka Devi.

CARIAR. HIND. Gloriosissima superba.

CARICAL or Karikal, a small settlement belonging to France, between Tranquebar and Nagore.

CARICA PAPAYA. Linn. Papaw tree.


This plant, one of the Papayaceae, is found throughout India, and grows without much care. The fruit is gathered in a green state, is dressed as curry and in tarts, and when ripe it is used as a dessert. Its dark-coloured seeds taste like the watercress. The fruit is large and oblong, suspended upon the leafless part of the trunk, like the jack-fruit; the surface when ripe is a pale orange yellow. A milky juice exudes on incision from the rind; and the rind and seeds are deemed in the Mauritius a pleasant vermifuge. Tough meat, rubbed with this juice, becomes tender, without any injurious property being communicated to it. The flesh of animals fed on the leaves and seeds is said also to be remarkably tender, but this seems unlikely. And in Bengal, Mahomedan table servants use the juice with the view of softening beef-steaks and old fowls. The leaves are used by the negroes in washing linen, as a substitute for soap. Pulp of the fruit is eaten with pepper and salt. Juice of the pulp removes freckles.—Roxb. iii. 824.

CARICATURE PLANT, or face plant, Justicia pietà. The white portions on its green leaves present caricatures of the human face. Graptophyllum hortense of the Indian Archipelago is also so called from the curious variegation of its leaves. CARIM CORAIL, Maleal. Justicia obliquum. Carin-gala, Pontedera vaginialis. Carin-pana, Borassus flabelliformis. Carim-tumba, Anisomeles Malabaricae.

CARIMON, twosmall islands, Greatland Little, off the Malay coast. They command the entrance to the Straits of Malacca. — Horsburgh.

CARINARIA, a genus of Gasteropod mollusces, in Asiatic seas. C. vitrea, C. fragilis, C. Mediterraena, and C. cymbium, are recorded. The shells of this genus are known to collectors under the names of Venus' Slipper and the Glass Nautilus. C. vitrea, Lamarck; has a beautiful transparent vitreous shell.


CARI NUCHI. TAM. Gendarussa vulgaris.

CARIRAM. MAEAL. Styrchnos nux vomica.

CARISSA CARANDAS. Linn.

Capparis carandas, Gnet. | Echites spinosa, Burm.
Kurumeli, BENG. | Mala-karomba, SINGH.
Bengal curraus, ENG. | Kalaka, Kalapa, TAM.
Kurudu, HIND. | Perin-kalaka pallam, 
Kile, Keelay, MAEAL. | Pedda kalivi pandu, TEL.
Karamuda, SANSE. | Vakka, also Vakudu, 
Krishna-pak phula, | Gothu, .... URIA.
Sushunas, Argela, | .... ..

A large thorny bush, cultivated for its fruits, but grows abundantly wild in the Kangra and the Kotah jungles, and in March and April fills the air with the fragrance of its blossom; also grows wild in most parts of the Dekhan, bearing a dark blue-coloured berry when ripe; and this is sometimes eaten by Europeans, and in the green state is made into tarts, jellies, and pickles; the jelly is considered inferior to none made of other Indian fruits. The fruit is about the size of a large olive, and when ripe is black, and has a very pleasant taste, somewhat like a damson. This species is a marked exception to the generally poisonous nature of the Apocynaceae family.—Roxb. 1687; Mason; Dr. Stewart; Capt. Macdonald.

CARISSA DIFFUSA. Roxb.

Gau. | HIND. Kurumalik, SANSE.
Barana, Carna, | Waa-kalim, TEL.
Mardal, | San Kurunda, URIA.

This shrub is a native of the Ganjam district, and from thence northward to the mouth of the Hoogly, and common throughout the Panjab. Its small white or pink flowers about April perfume the air around. The wood is used for comb, in turnery, etc., and as fuel. A Kangra authority states that the very old wood gets quite black and fragrant, and is sold at a high price as Aggar, or Ud-i-Hind,—Roxb. i. 689; Dr. Stewart.

CARIYAN-SARAI, in Persia and India, a halting-place for travellers, generally a house with many apartments, either opening into an open quadrangle or to the outside road. It is from karwan (caravan), a cortege, and sarai, a rest-house; the chausum of the Tainul people, and dharma or sarai of N. India. See Sarai.

CARI-VILLANDI. MAEAL. Smilax ovalifolia.


CARLI-CAYES, in the Western Ghats, near the Bhor ghat. The wonderful galleries and colossal elephants of its caves are dug out of solid trap. See Architecture; Buddhism; Caves; Karli.

CARLUDOVICA PALMATA, a tree of Panama. Panama hats are made of its leaves; they are made in Veraguas, Western Panama, and Ecuador, and are worn in the W. Indies and Central America. It might be introduced into India.

CARMA. SANSK. The name of one of the Kanda or general headings of the Vedas. This chapter relates to works; the other-two, Gnyana and Upashana, relate to faith and worship. See Vidya.

CARMEL, a small range of hills extending six or eight miles inland in a S.E. direction from the
CARMINATIVE.

The following are chiefly used medicinally and for culinary purposes:

Pimpinella anisum, common anise.
Bilolia anisatum, star anise. 
Jadran khatai. 
Anise nobilis, elbow anise. 
Baboon. 
Lavandula vera, lavender.
Ruta graveolens and other sp., rue. 
Sulub. 
Amropogon irawancusa. 
Anethum graveolens, dill. 
Sonf. 
... sowa. 
Panonuri. 
Curum caruti, caraway. 
Zeeru seeab. 
Nigrum. 
Eugenia pimento, allspice.
Amomum zingeri, ginger. 
Ada.
Perillumin officinale, fennel.
Molaveca cajaputi, cajput. 
Kypooti.
Juniperus communis, juniper. 
Hooper.
Piper nubeba, cuba. 
Kobah chinese.
Caraphyllus aromatics, clove. 
Long.
Laurus cinnamum, cinnamon. 
Darchine.
Juniperus sabina, sawine.
Ocimum basilicum, basil. 
Tului.
Rosmarinus officinalis, rosemary.
Moringa pterygosperma, suhunjana.
Mentha piperita, peppermint.
... pulegium, pennyroyal.
... vulgaris, spearmint. 
Puldina.
Anomum cardamomum. 
Elachee.
Origamum jamaica, marjoram.
Sassafras officinale, sassafras.

CARMINE. A beautiful pigment prepared from cochineal, discovered accidentally by a Franciscan monk of Pisa, who, having formed an extract of cochineal with salt of tartar, for the purpose of employing it as a medicine, obtained a fine red precipitate on the addition of an acid. Homberg, in 1656, published a method for preparing it. The makers in some of the principal towns of Europe succeed in preparing different varieties of it of greater or less purity and lustre. Many of their processes are kept secret; and although the chemistry of the art is well understood, yet there are certain details of manipulation, and an empirical knowledge of the effects of temperature, doubtless acquired after long experience and many failures, which confer on the carmines of some makers a greater lustre than on those of others. The use of carmine has of late years been extended to the manufacture of superfine red inks, of artificial flowers, and to silk-dyeing. Carmine is the finest red colour which the painter possesses. It is chiefly used in miniature painting and in water colours. It is made in large quantities in Paris. Carmine is one of those colours called lakes, a term applied to certain colouring substances which behave like acids, and combine by precipitation with a white earthy basis, usually alumina. Carmine is the richest and purest portion of the colouring matter of cochineal, isolated in the manner here alluded to. Various imitations of carmine are prepared for the use of those who exhibit rouge on their cheeks. French Carmine is superior to that of English manufacture, and the superiority is said to depend on the influence of light on its formation and precipitation; the clear sky of the south of France being more favourable for the process than the more hazy atmosphere of England. — Tomlinson.

CARNALINA, a tree of S. America, Havana, and Mexico, which should be introduced into India. Humboldt and Murichi have described it as the tree of life. Cattle eat the heart of the young tree, and at its full growth the succulent is obtained from it. Its fruit is also nourishing. But its chief product is the wax which covers the surface of its young leaves, in the form of a glutinous powder. When melted by heat, it cannot be distinguished from the wax of the honeycomb. — Muricius.

CARNATIC, an ancient town and table-land in Southern India, above the Eastern and Western Ghats, known as the Talaghat; to this region, though the people speak Carnarese, the name is now never applied, but it is now given to the country below the Eastern Ghats, or Paeon Ghat. Its ancient kingdoms were the Pandya, Chera, Chola, and Calinga. In B.C. 75 an expedition left the eastern side of the Peninsula, from ancient Calinga, and formed a colony in Java. The Pandya dynasty ruled in parts of the south of the Carnatic, with varying fortunes, from the 4th or 3rd centuries B.C. At present it is a province on the Coromandel coast, about 500 miles long from north to south, and averaging about sixty miles broad. From the 10th to the 18th centuries, it was overrun by Mahrattas, Mahomelan, French, and British soldiery. Sabut Oollah was ruler of the Carnatic from 1710 to 1732, and was succeeded by his nephew, Ali Dost. Ali Dost was killed in battle against the Mahrattas, and was succeeded by his son, Sufdar Ali. Of his two daughters, one married Chunda Sahib. Chunda Sahib seized on Trinchipiopol in 1736, but the place was taken by the Mahrattas, and Chunda Sahib was made prisoner, and lingered for eight years in prison, where he was murdered by the raja of Tanjore. Sufdar Ali was assassinated by his brother-in-law, Murtzza Ali, leaving a minor son; but this youth also was assassinated, while Anwar-ud-Din was his guardian, and Anwar-ud-Din succeeded to the throne as Nawab of the Carnatic. During the conflicts for supremacy in Hyderabad and the Carnatic, between the French and British, naval and land battles were fought at Damakcherry near Madras, at Amboor on the Pennar river, near Gingee, at Valconda on the Aril, at Cauveryjuck, at Vieravandi Bahr, at the Golden Rock, Sugar Rock of Trinchipiopol, at Wandelwash, also off Negapatam, Tranquer, and at Fort St. David, Anwar-ud-Din, when about eighty years old, fought and fell at the battle of Amboor, in 1749; his son, Mahomed Ali, fled to Trinchipiopol, but he was acknowledged by the treaty of Paris in 1763. From that time till his death in 1795, the Carnatic was occasionally under his rule, and at times under the civil and military administration of the British. In 1795 he was succeeded by his eldest son, Umdat-ul-Umra, who died in 1801, when the British put aside Umdat-ul-Umra's son, and placed his nephew, Azim-ud-Dowlah, on the throne. The British, in 1856, on the demise of Mahomed Ghous, grandson of Azim-ud-Dowlah, finally abolished the titular nawab, from which followed long efforts to seat the second son of Azim-ud-Dowlah. The people of the Carnatic are of the Dravidian stock, and speak the Tamil and Telugu languages. — Malleson's French in India.

CARNESE, quartzose minerals so called, be-
cause some kinds are of a flesh colour, from carnia, Latin, though others are white. In Japan they are found in vast quantities; and they are also collected in the province of Gujarat, at Cambay. Many of the antique genus are engraved in carnelian, and it is now much used for seals. Carnelian is very common in Burma, and has been found at Moopoos and Mergui. One of its Burman names means "fowl's blood."—See Cambay Stones.

CAR-NICOBAR, the most northerly of the Nicobar islands. See Nicobar.

CARNIVAL. This name for the Roman Saturnalia is derived from the sun-god Carneus, the Celtic Apollo, whose shrines were on the coast of Brittany; and one monument remains at Carnac, sacred to the manes of the warriors and of the sun-god. The character of this festival was entirely oriental, and accompanied with the licentiousness which belonged to the celebration of the powers of nature. Even now, although Christianity has banished the grosser forms, it Partakes more of a pagan than a Christian ceremony.—Tod's Rajasthan, p. 547.

CARNIVORA, an order of the mammals constituting flesh-eating animals, beasts of prey. They include the genera felis, hyaena, cuon, canis, vulpes, and others in the families Ursidae, Mustelidae, Felidae, Viverridae, and Canidae. The lion and the leopard occur in Asia and Africa, the tiger in Asia only. See Mammalia.

CARNIVOROUS PLANTS are found in both hemispheres. The Drosera rotundifolia or sun-dew is one. When an insect alights on its central disc, it is instantly entangled by the viscid secretion there, and the surrounding tentacles after a time become ultimately charged on air sides, and the insect is digested, D. Anglica, D. intermedia, D. capensia, D. spathulata, D. lunata, D. filiformis, D. trinervis, D. heterophylla, and D. binata. Dionaea muscipula, or Venus' flytrap, Aldrovanda vesiculosa, Droserophyllum Lusitanicum, Roridula dentata, Byblis gigantea, have similar functions, as also Finguiquela vulgaris, P. grandiflora, P. Lusitanica, with Utricularia vulgaris, U. neglecta, U. clandestina, U. montana, U. velumbifolia, amethystina, Griffithii, cærulea, orbiculata, multicaulina, Darling-tonia Californica, Sarracenia purpurea, and S. flava, with Heliamphora nutans.

CAROB TREE, or St. John's Bread, Ceratonia siliquea, of south Europe and the Levant. Its legumes are used for cattle-feeding. The seed is the original of the Jews' carat.

CAROLINA PADDY. The rice seed was originally taken from India to North America, and its cultivation has been so successful in Carolina, one of the United States, as to have led to its being re-imported into India as seed.

CAROLINAS, an extensive chain of islands which stretch nearly east through the middle of the Pacific Ocean, betwixt the parallels of lat. 7° to 10° N.

CARON OIL of Chittagong. The crooked tree from which this is obtained, grows in wet places near fresh water, very common in the sides of ditches which surround native dwellings. The seed is bean-shaped, and produced in a flat pod; the pods grow several together. The flower is pink and white, of the shape of a bean flower or blossom. The oil is used for burning in native lamps, and in large quantities for boiling with dammer to soften it for the seams and bottoms of ships. It is also often used by native practitioners for the cure of itch. A maund of seeds costs Rs. 1–8, and the extraction of the oil by heat necessitates 8 annas; the oil produced amounts to 62 seers per maund.—Local Committee, Chittagong.

CAROKUVA. TAM. Zipyphus trinervus. CAROONUCHI. TAM. Gendarussa vulgaris. CAROOR, in long. 78° 9’ E., and lat. 10° 50’ N., 50 miles from Trichinopoly, on the bank of the Cauvery, has a strong fortress. It was the capital of the ancient Chera kings. See Carnatic.

CAROXYLIN GRIFFITII. Moq. Salsola Griffithii. | Lagkame, Khar. | HIND. A Central Panjab plant, furnishes by lixiviation some of the saji or carbonate of soda of commerce.

—Stewart. CARP, or the genus Cyprinus of fishes. The gold carp of China is the Puntius (cyprinus) auratus, Linn. In India carps are habitual fish-eaters.

CARPENTER BEE, Xylocoa tenniscapta, West. Another species found in Ceylon is the X. latipes, Drury.—Tennent's Ceylon, p. 418. See Bee; Beetle; Insect; Xylocoa.

CARPENTERS are one of the five Hindu artisan castes of India, and wear the poitu or zonar. They claim to be Brahman, and worship chiefly Visvakarma, the artificer of the Hindu gods. Those of Travancore follow the law of descent by the aunts. See Hindu; Poitu; Polyandry.

CARPETS. Galim, Zuli, | Akab. | Prangmadani, MALAY. Tapten, | DUT. | Kalaas, Xatibaf. Gitterer, | Germ. | Putsch. Tapis, | Fr. | Kowru, Kilimi. | RTS. Teppiche, | Tappendt; | HIND. | Tapetes. Tappeti, | Fr. | Jam-kalam, | TAM. | Tappetti, | Moli, | Sancanae, | TEL. Carpets, either of cotton, silk, or wool, are employed in the eastern countries, from the south of India to Turkey in Europe, for domestic use, for praying on, and for occasions of state. The carpets employed by the ancients are thought to have been of the nature of tapestry, and used for covering couches rather than floors. True carpets seem to have been early employed in Persia; and those called Turkish were probably originally of Persian manufacture, whence the manufacture might have been introduced into Turkey, and where, as well as among the many Turkoman tribes and in Northern Africa, it is still practised. The Persians still remain unrivalled in the happy combination of colour and pattern for which their carpets have long been distinguished, whereas the most varied hues and deepest tints are brought into close approximation, and, far from offending the eye, please by their striking, because harmonious, contrasts. The places in India where a regular manufacture and trade are carried on, are Jubbulpur, Barcelly, Lahore, Merut, Rungpur, Benares, Mirzapur, Allahabad, and Gorakhpur in Bengal; North Arcot, Tanjore, Eilore, and Malabar in the Madras Presidency; and also at Mysore, Bangalore, Warangal, Bellary, Masulipatam, as well as at Shikarpur, Khurpur, and Hyderabad in Sind. Those of Bengal commend themselves by extraordinary cheapness; they are extensively used throughout India, and also somewhat largely exported. In point of texture and workmanship, however, the rugs from Eilore, Tanjore, and Mysore, though they are comparatively much dearer, are greatly preferred.
Kermanshah has a manufacture which adds much to the wealth of its province; none can be more rich, soft, and beautiful. Persian carpets are made also at Meshed, in the Turkoman country, and in Khorasan, and are justly celebrated for the beauty of the patterns, the fineness of the wool, and the durability of the colours—vegetable dyes—amongst others, a green not made elsewhere, conjectured to be saffron and indigo. Some of them fetch high prices in the country itself, as £6 or £8 for one of two yards square. The finest are made at Sena, and there is a famous manufacture carried on at Ferahoun, near Teheran. Carpets of any size can be made there. The finest carpets of all used to be made at Herat; and one in the Chahal Minar at Isfahan was 140 feet long and 70 feet wide. Large numbers were formerly exported to England through Trebizond, and they were sold nearly as cheap in London as in Persia, owing probably to the course of trade. Persian and Turkey carpets are most esteemed.

Eastern carpets have attained great popularity in Europe since the middle of the 19th century, but it has not led to any very general diffusion of real knowledge about them. The ordinary buyer knows nothing about them, except their names, which he roughly distinguishes as Turkey, Indian, and Persian carpets. The expert is, of course, a good deal more exact than this; but even his knowledge is, as yet, vague and confused. The most exquisite products of the loom were formerly destined for the adornment of the holy Kaaba, or some scarcely less venerated shrine. Sometimes the whole interior of a mosque, such as that at Meshed Ali, was hung with beautiful carpets; and the Mihrab, or niche towards Mecca, was always a favourite object for such ornamentation, which in this case corresponds to the altar-hangings of Europe. Mats of a less costly nature were spread on the floor; and it is recorded that in 1012 A.D. the mosque of El-Hakim at Cairo was strewn with 36,000 ells of carpeting, at a cost of 5000 dinars, whilst the Azhar required 13,000 ells of striped mats a year. The Kaba at Mecca was covered with hangings in the "days of ignorance" before Islam. Richard the Lion-hearted of the Crusades, from the Yemen, or a white Chinese silk carpet, covered the shrine; and later on the famous white and gold fabric of the Copts, or heavy violet or plush carpets from all parts of the East, were employed in the decoration of the Mecca temple. The rulers of the Mahomedan world vied with each other in presenting the richest covers to the Kaba; the very Mongol Khans of Persia sent gorgeous hangings; and we read of a cover studded with gold and pearls and precious stones to the value of 250,000 gold pieces. Difficult as it is to classify the designs of eastern carpets with any precision, they may roughly be divided into two classes, the floral and the geometrical; and that of these the former is the design affected by the higher and Aryan races, the latter the design of the lower and Turanian. The old woman whom Vambery saw in Central Asia, tracing the pattern of the carpet before her for the girls to follow, is the original designer of the Turkoman and Mongolian races; while the native Indian and Persian work is found in lovely conventionalized flowers and leaves, the 'tree of life' and other symbols. There is always, however, a difficulty of distinguishing between the carpet work of one district and another, from the prevailing

custom of pilgrimages in the East. Every pilgrim brings his carpet with him to Mecca, or Kerbela, or Kairwan,—he may take more than one, for an offering, or for sale,—and ultimately these find their way, for nothing or for nominal prices, to the priests and their hangers-on, who re-sell them for exorbitant sums as relics to the outgoing pilgrims. Thus carpets of every style and character pass from hand to hand, and, coming from southern India, make their way to Smyrna or Tashkend, the promiscuous dispersion becoming one of the chief secondary causes of the cosmopolitan character of Saracen art, and of its diffusion over so vast an area, and at the same time serving to make the origin of that art almost hopelessly obscure.

In Northern Africa, it is only in Kairwan that the genuine Tunisian carpets are now manufactured. In all other parts of the regency European designs have been adopted, with the inevitable result of destroying all that was quaint and original, and substituting vulgar and egregious patterns. The old Moorish style of working in iron has thus far escaped contamination, and large Saracen locks and giant keys, charmingly ornamented, may still be procured at Kairwan, among the various sorts of weaving that bear the name of Persian carpet-work, has always held the first place. We read of the Susanjird carpets in the palace of the Abbasi khilifs of Bagdad in the tenth century; and the nobles of the East were emulous of obtaining pieces of this fine work for the floors of their scarcely less magnificent residences. In the sale of the carpets of the Fatimite khilifs in 1067, a carpet fetched a thousand dinars—at a time when dinars weighed more than the present half-sovereign; and a Mameluke prince of the fourteenth century gave 70,000 pieces of silver for a silk carpet wrought with gold. Susanjird work was also highly prized in Europe. Byzantine palaces were found to need these rich carpets as much as the mansions of Bagdad; and the merchants were given carte-blanche as to the price they paid for their commissions. Such luxuries were only for the very rich. Susanjird carpets appear always to have been confined to the houses of the great or the houses of God, which are next chosen to honour; but the anarchy which came of the Tartar invasions affected the art of weaving in a disastrous manner. Tamerlane, though his exploits were embroidered on the old tapestry which the Persian ambassador brought to Philip III. of Spain, was a chief destroyer of the skill which depicted him. Whatever the origin of the name, Susanjird designates a loom embroidery which, though it may be of various kinds, possesses a distinct character of its own. Susanjird may be knotted (like plush) or plaied (like Gobelin work), or it may combine both methods; but its essential characteristic is flat relief. The combination of the knotting and plaishing (which was not done as it is at the present day) gave the work a peculiar character. The Susanjird carpet has the effect of a picture; the embroidery is like painting; and the whole impression is soft and delicate. The subjects represented are either figures or conventional ornaments; and the figures include, not merely animals, but maps and plans of towns, like mediaeval work 'cum historiar' or 'a ymages.' The ornamental work is chiefly derived from the vegetable world, and corresponds to the European designation 'a arbrea.'
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In Persian art the treatment is essentially symbolic. The lion or the eagle is represented as the symbol of power or rule, and is, indeed, on a gold border in the Victoria & Albert Museum the figures are explained by the Arabic word for dominion, and another piece has 'sultan' under a lion's figure. A descending eagle signifies bad luck, but a flying or standing eagle means good luck; while the unicorn welcomes the advent of a good prince. Hounds and leopards for hunting occur in Persian patterns, and stand for fame or increasing honour. More interesting are the ornamental designs derived from trees and flowers,—the embroidery 'a arbres.' Sir George Birdwood remarks that the great source of the majority of Persian carpet patterns is the tree of life, the straight trunk with long regular parallel horizontal branches terminating in buds, which pervades all eastern and much western decorative art. Sometimes on Persian rugs the entire tree is represented, but generally it would be past all recognition but for small representations of it within the larger. In Yarkand carpets, however, it is seen filling the whole centre of the carpet, stark and stiff, as if cut out of metal. In Persian art, and in Indian art derived from Persian, the tree becomes a beautiful flowering plant or simple sprig of flowers; but in Hindu art it remains in its hard architectural form, as seen in temple lamps, and the models in brass and copper of the sacred fig as the tree of life. It is extremely curious to trace the history of the tree of life (and the tree of healing, for there are two kinds in Persian decoration) through its various stages, and to find its head in the knop and flower, or cone and flowerhead of the Persian tapistry; as well as the copper and silver repoussé designs of Chinese and Egyptian wall-paintings, on Indian monuments, Cashmere shawls and Italian brocades; in the Greek honey-suckle and palmette scroll, and the Renaissance shell; and the tongue and dart, egg and tongue patterns in classical mouldings. The persistence of the tree of life, or the pattern formed from its head, in eastern and western decorative art, is very remarkable, and, it should be added, very admirable. That the Tapisserie de Haut Lisse was derived from the East seems beyond a doubt. At the end of the twelfth century the Paris statutes make mention of 'tapisiers sarrazinois,' in contrast to 'fabricans de tapis nostre'; and in 1302 we hear for the first time of an 'autre manière de tapissier que l'on appelle ouvriers en haute lisse.' It was probably about the time of the Second Crusade that this oriental high-warp tapistry found its way into France.

Printed calices of large size and suitable patterns are used for covering the floors in India; but the most common carpets employed there are made of cotton, called saltarajnis. These are of different colours, usually blue and white, in red or orange stripes, squares, or stars; some are of large size, and well suited for halls and tents, being thick and strong in texture, the two surfaces alike, smooth, and without pile. They are manufactured in different parts of India, at Murshidabad, Rangpur, Agra, etc., and at many places in the Madras Presidency. Another kind of cotton carpet is that with a pile of cotton, and similar in appearance to a Turkey carpet, manufactured at Sasseram—white, with a centre and border in blue; and they are made also in the Hyderabad country with every variety of coloured pattern. Cotton carpets for tents are made at Cumbum, Rajamundry, and other parts, the price being under one rupee the square yard. They are generally in broad stripes of red and shades of blue. Small carpets of this description are produced in almost every district, and are used for sleeping on. They are somewhat less in price in proportion than the larger ones. Carpets of a small description, woven with wool, in stripes on a stout cotton web, are made at about the same cost.

Silk is another material of which carpets are made in the East; and the pile, being of silk, imparts both softness and richness to the surface, while the colours are clear and brilliant. They are beautiful as specimens of variety in pattern, brilliancy in colouring, as well as of pleasing harmony in the whole. Silk carpets of small size, are made in Tanjore, Hyderabad, and Khyrpur.

Woollen carpets, of large size, and of beautiful and well-coloured oriental pattern, are made at Mirzapur, Gorakhpur, Bangalore, Vellore, and other parts of Madras. Mirzapur is most famous in India for its carpets, which are frequently sold in Britain as Turkey carpets. The woollen rugs from Ellore are admired for their general characteristics of oriental pattern and colouring; and these, as well as the large carpets from Mirzapur, all in the same style, are well adapted for sale in Europe. At the Madras Exhibition of 1857, there was a large display of carpets and rugs, viz. 1. The imitation Axminster or close-nap woven carpet; 2. The short velvet pile or tapestry carpet and woollen rug; 3. The long velvet pile or imitation Turkey carpet; 4. Ogee Axminster carpets. Of these Axminster carpets, there were some very good specimens of close-nap carpets from Warangal, the colours clear and bright, but a sameness in the patterns. The carpets were strong, soft, and very close in the weaving. The only one for which Warangal is famed is Persian carpets, which are made there of all sizes, and of worsted, cotton, or even of silk. The weavers are all Mahomedans, and are congregated principally at Mutwara, although there are a few looms within the Warangal fort. The weavers are drunken, turbulent, and ignorant, possessing no capital, and dissipating in excess the little money they may procure on accomplishing a piece of work. Carpets, chiefly of a small size, about two yards long and a little more than a yard in breadth, are made for the Hyderabad market, money being advanced to the weavers by the dealers there. A worsted carpet of this size and shape costs at Warangal from 23½ to 2½ rupees. A cotton carpet there is twice the price of a worsted one. A silk one is very highly priced. A common trick among these weavers is to substitute hemp for worsted.

Of the velvet pile carpets, some large and creditable specimens from Ellore were closely woven, bright and harmonious in colour, and the patterns more varied than those from any other locality. Some of the rugs from Tanjore were also very tasteful.—(Madras Exhibition Juries' Reports). At Iyempetlah in Tanjore they make very handsome carpets of silk.

The rugs and carpets produced at Ellore vary in price from 2½ to 4 or 5 rupees a yard. They are of dyed wool upon a cotton web. The colours are not so bright as those given in Europe. Commoner descriptions, of the size
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of small hearth-rugs, are exported thence to England and Persia.

Dr. Walker (As. Jo. 113) gives the following description of carpet-weaving at Hummmenda, which is generally applicable:—The carpet loom is nothing more than the common native loom, placed vertically instead of horizontally. The warp is of thick, strong cotton twist, being arranged by no wafting mill, but by one of the workmen going round and round two stakes fixed in the ground, and dropping the thread at each as he passes. In the loom it is kept on the stretch by two strong billets of wood, the threads being attached by separate loops of cotton fixed to a bamboo, which is elevated or depressed at the will of the weaver. The worsted is held in the left hand, and a crescent-shaped knife in the right, the fingers of both being left free. The inner thread of the warp is then seized, the worsted wound round the outer, crossed on itself, and the extremities drawn out, by which it is made to descend in the form of an open figure of eight to be snipped by the curved knife. It is superfluous to say that this is the work of an instant. When the pattern is new or difficult, the order and position of the worsted threads is changed by a reader in a kind of rhyme. On a row being completed, the warp, in the shape of a cotton thread, dyed dark brown by the bark of the Swietenia febrifuga, is forced down by means of an iron-toothed comb, in form something like an adze. The whole is completed by cutting the worsted to its proper length by large scissors held steadily against the warp. Infant labour is employed and preferred in Warangal carpet-weaving; it being averred that their more limber finger-joints are best fitted for the finer parts of the work. Dried sprigs of tulsi (Ocimum sanctum) and bunches of Lepidagathis Indica are attached to the loom frames. The workmen say that these make their labour go on more carefully. Twelve different woods are used for the wool batten, and some are from indigo; the yellows and the sulphur yellow from boiling the sulphur yellow in water impregnated with carbonate of soda, in which a little turmeric has been mixed. The deepest yellow is produced by dipping the same in the potash ley. The reds are all produced by lac dye dissolved by tamarind juice, with sulphate of alumina and potash as a mordant. The depth of colour depends in three cases upon the original black, brown, or white colour of the wool; in the fourth, on the length of time the last description of wool was allowed to remain in the dye. The greens are produced by immersion in indigo, and then in pulas or turmeric; their degrees also depend on the original colour of the wool. Bengal indigo is always preferred to the home manufactured by the worsted dyers. Cotton carpeting is prepared in the same way as the woollen. As a general rule, the lighter worsteds wear the longest. The reds are produced by using the wool batten, and some structural agent seems to be employed in preparing the wool. If the weavers would wash the wools thoroughly with soap, both before and after dyeing, the carpets would probably be far more durable.

At Ellore the wool is cleaned and spun. The former is a rather complicated process, but on its proper performance depends the possibility of afterwards spinning the thread without the hair starting out too much,—which is sure to be the case if very hot water is used,—and the thorough fixing of the dye. When the sheep is sheared, the wool contains a large amount of dirt and grease, sometimes as much as 50 per cent. of the whole weight, and this must be entirely removed before anything else can be done. Steeping in water, hot and cold, washing with soaps and various acids, fumigation, are the plans usually adopted; but the Ellore people keep the process a secret. After this the wool is thoroughly beaten out by filling it with a line of gut stretched on a bow. This turns the matted, coarse substance cut from the sheep into a beautifully soft wool. The spinning is carried on in the ordinary manner of India. After the spinning comes the dyeing, which is not shown to strangers, and from that the thread is taken straight to the weavers. Ellore carpets are made on upright looms, the operators sitting on the ground, their legs in a hole or trench in front of the workroom, not, as in the Gobelin tapestry, behind it. The warp thread is either of hemp, cotton, or wool. In carpets intended for Europe, hempen twine is invariably used; while for India, cotton is sometimes preferred. The woollen warp is mostly confined to the small rugs made up for native consumption. The wool, or cross thread that holds down each successive line of wool, is either hemp or cotton. The warp is always white, the weft frequently coloured. Each little tuft of wool is twisted round two threads of the warp, and thus, as it were, knotted. It is then cut off with a knife to the length of about 3/4ths of an inch. When one line (horizontal) of the tuft has been completed, the weft is passed through and beaten firmly down on it by means of an iron comb. The whole line is then trimmed down to the proper length with a pair of scissors. And so the carpet proceeds, bit by bit, and line by line, till completed. Some patterns are far easier to work than others, and the value of the carpet varies accordingly. A good workman does 1/3 feet in breadth by 6 inches in length from 7 A.M. to 4 P.M. From two to three annas a day is about the sum on which a fair workman can reckon.

The Indian cotton carpets most commonly met with are blue, red, and white. Some few, made of cotton and silk for wealthy people, are extremely beautiful. The rugs made in Bengal vary in length from 3 to 3 1/2 feet, their average width being 1 1/2 feet, and their value from 1 rupee to 1 rupee 10 annas. The rugs from Ellore, Tanjore, and Mysore are made of various sizes, and are valued from 2 to 4 rupees each. Those from Shikarpur and Khyrpur, as well as from Hyderabad (Sind), are of a lighter texture, but excellent workmanship; their width is generally uniform, but in length and consequent cost they vary from 2 to 5 rupees each. The employment of rugs throughout India is most extensive, it is impossible to form an estimate of the annual value of this manufacture, as only the small portion exported is entered in the official records, and as no steps have hitherto been taken to ascertain the local trade.

The finest articles of this description, however, are the silk rugs from Tanjore and Mysore, the blending of colours and workmanship being excellent. They are made of all sizes, even up to squares of ten feet; but, being too costly for
general adoption, this manufacture is very limited. Were the patterns and disposition of colour in the native articles better known in Europe, many useful lessons might be learned from them. Woollen carpets are rarely used by Hindus, and the manufacture is seemingly entirely confined to Mahbaban.

The Shahabad is a cotton carpet entirely made of cotton. They are used by every European or native throughout India; and the annual manufacture is consequently very considerable, especially in Bengal, where they form a large and important branch of inland trade. They are of all sizes, from that of the largest carpet to the smallest rug, but generally of one and the same pattern throughout India, the only difference being the colour. Blue and white and red and white stripes constitute the prevalent patterns; but, in some, one colour of darker and lighter hues is employed. In Meerut, Bareilly, and Patna, new patterns have of late been tried, but though preferred by the Europeans, are not so by natives, who like the striped patterns, because they wear better in dunny use, and do not lose the freshness of colour by wearing. The principal localities where shatranjis are manufactured are Agra, Bareilly, Patna, Shahabad, Birbhum, and Bardwan. Those manufactured at Agra are considered the best, and the value of its annual production is about £10,000.

The small ones are valued from 3s. to 15s., and the larger ones (carpet size) from £1, 10s. to £4, the price in many cases being regulated by weight. The Shahabad cotton rugs are almost invariably striped. They are cool and pleasant. The smaller kinds are used as quilts for beds. The manufacturers, called in this district Kellehum Bap, are almost invariably Mahomedans. The two local seats of manufacture in Shahabad are Bubboah and Sasseram. In the former place, from 10,000 to 12,000 rupees' worth are yearly manufactured and sold, and in the latter from 30,000 to 40,000 rupees.

Dhurri is the name of cotton carpets generally made for sale, and are of four kinds, 6 yards long and 2 yards broad, thick and strong, of any colour, and are sold at from 6 rupees to 6 rupees 8 annas. A small kind, used as quilts, weigh from two to three pounds each, and are 1½ to 1½ yards broad by about 2 yards long; they sell at from 14 annas to 1 rupee 8 annas each, according to thickness and quality. The haunthassica is a name of the better kind of carpet, and often displays much taste in the arrangement of the striped colours. It is made of any size to fit any room, and is always sold by weight. The price varies, according to quality, from 1 rupee 4 annas to 1 rupee 12 annas, and sometimes as high as 2 rupees 4 annas per seer. It is sold in all the fairs, and in all the large cities around, such as Patna, Ghashipur, Daudnguur, Gyah, etc. No merchant's or banker's shop or rich native's reception room is complete without these being spread. This is the kind generally used by Europeans for their drawing and public rooms. The small kind of carpet is made for use in zamin-dari and other small cutcheries, and is much used from its portability. It is from 3 to 4 yards long and from 1½ to 2 yards broad, and sells at from 3 to 4 rupees each carpet. It is generally made from five colours, from which cause it obtains the name of dhurri panch rangha.

Galicha carpets, manufactured in Sasseram, are almost always woollen, of florid but neat patterns, in imitation of the Persian carpet. They are used to a considerable extent by the rich natives in their zannas, but by Europeans also. The size usually manufactured is 2 yards long by 1 yard broad, and they sell at from 2 rupees to 4 rupees 8 annas per carpet. The European manufacturer could not compete with these as to price and actual value, as the wool costs but little in India, and the native dyers answer admirably for the purpose; while also the coarse local wools, which would not pay for exportation, answer for carpet work. The colours are harmonious, and there is but little doubt that it would pay any enterprising merchant to export these to Europe. The annual manufacture at present in Sasseram is about 10,000 to 12,000 rupees.

Another kind, in imitation of the above, but wholly of cotton, is also made; prices nearly the same. The patterns are pretty, but they rapidly become spoiled by dirt and dust. They are invariably made of only two colours, blue and white. (Ornamental carpets of this breed), with a woollen and sometimes with a silk pen, are made up in Multan, Peshawur, Amirissar, Bahawulpur, and Kashmir. Those of Multan are perhaps most celebrated. Those of Ellore and other parts of the Northern Circars are largely sold for use and for export.

The carpets from Cocanada are greatly admired; the ground is white. A floral scroll of blue, red, yellow, and brown divide them into regular geometrical spaces like a tesselated pavement; a flowery cone being inlaid in each white space, and the rows of cones thus formed are alternately coloured red, blue, yellow, and brown. The design is Greek in its simplicity; and in its warmth and glow of colour perfectly oriental, charming the attention, 'caught by each colour till it's own.'

India produces also velvet carpets embroidered with gold, at Benares and Murshidabad. Costly articles of this kind were contributed to the Great Exhibition of London by the Queen. These rich fabrics are of fine velvet, embroidered with bullion gold. Maharaja Gulab Singh contributed to the Great Exhibition of 1851 a magnificent manufacture of pure silk, nearly an inch thick in the pile, showing to perfection the dyes and the harmonious arrangement of the native artists. In every square foot there were said to be contained ten thousand ties or knots of silk.

In the colouring of the carpets of India, full Indian red, broken by flowers or conventional leaves, in which orange predominates, forms a leading feature. A cool, low blue, a green of similar gravity of hue, and soft, creamy white, complete the palette of the Indian designer of these fabrics. Some of the British carpet-dealers had changes effected in this old Indian system. Some white in borders was actually bleached, and one or two garish combinations introduced. Colours have been intensified and made flatly uniform, instead of broken and slightly varying as the masses of red and other colours are left by the native weavers. Linen backs have been introduced to meet the orders of some of the British dealers, and complaints of the wearing qualities followed. Both English and French dealers have bad changes, more or less important, introduced
into these oriental designs to suit the bad taste of their buyers,—in all such cases, with losses of the exquisite harmony of the native arrangements of form and colour.

Oriental colouring in textile fabrics seems to result from a gift to the various races that produce them. The native designers proceed in accordance with immemorial traditions, and with a certainty that resembles instinct. Of all artistic powers, that of colour, in its highest harmonies, is the most difficult to teach. Though general principles can be imparted by scientific rules, the power of colouring beautifully is undoubtedly one rarely attained. It seems to prevail in races as a special gift. It exists where the knowledge of form is unknown. It accompanies an unconscious sympathy with nature, and seems more allied with instinct than demonstrable by science. Many actually savage nations colour their cloths or wrappers and mats harmoniously, though absolutely devoid of social or mental cultivation. And, on the other hand, as nations have progressed in scientific attainments, the love of colour, in dress certainly, in other ways generally, is diminished. Europe may cultivate the study of colour, and understand its laws; but in textiles of all kinds, from carpets to gossamer muslins and gold and silver tissues, the traditional taste of oriental nations remains unattainable by Europeans. And of European nations those most old-fashioned, least changed from the rude ages of the past, retain the greatest enjoyment and feeling of colour.

If the civilised nations of Europe do not equal the less advanced and even the savage races in their appreciation of colours, they are even less happy in their application of designs; and in Cashmere and throughout India much injury has been occasioned to the manufacturers, alike to their skill and to their profits, by European purchasers inducing them to undertake designs from Europe. The deep tints of native Indian and oriental dyes generally are at once the aspiration and despair of artistic European dyers; and the beautiful elaboration in colour and design, as shown in the work of the weavers of Persia, Turkomania, Kirman, Cashmere, and British India, can only be injured by interference. The workmen know that for the coarser wool of the Panjah, Sind, Baluchistan, and British India, the fine designs of Persia, or the designs of the dense-piled carpets of Turkomania and Kirman, are equally unsuitable, and that only their own bold patterns will be with advantage used.—Madras Exhiz. Jrib. Rep.; Dr. Watson's Report; Mr. J. Rohde, MSS; Colonel C. Davidson in Report of Hyderabad Committee; Baron Clement A. de Bode; Bokhara and its Audir, p. 224; General Ed. Ferrier's Journal, p. 26; Sir George Birdwood, Memo, 29th Sept. 1879; do. Handewiek Paris Exhibition, 1878; Porter's Travels, ii. pp. 167-201; Die Persische Nadelmalerei Suriatschid, ein Beitrag zur Entwicklungs-Geschichte der Tapisserie de Haute Lisse, von Dr. Joseph Karabacek.

CARPILUS, a genus of crabs of the E. Indies, the Cancer of Linnæus. C. convexus, Edwards, is a crab of the Red Sea; C. corallinus, Leach, and C. maculatus, Leach, the latter the blood-spotted crab, are both of Asiatic seas.

CARPINI. Johannes Carpini, a Franciscan friar, was sent, a.d. 1247, by Pope Clement IV. to the Tartar camp on the Volga. Carpini travelled through Bohemia, Silesia, and Poland, and on through the vast regions then known under the name of Comania, and now as the country of the Don Cossacks, watered by the Donjeger, the Don, the Volga, and the Yark, until he at last came to the standing camp of 'Duke Bathys' (Butou, grandson of Chingiz Khan), which afterwards grew into the city of Sarai or Sara, on the Volga. From here he was sent on to the imperial court, where he arrived by way of Lake Balkash at the moment when Kuyuk was being elected to the Great Khanship of the Tartars, in succession to his father Oteki or Okkodai Khan, son of Chingiz Khan. On his return journey, passing rapidly through the camps of 'Duke Bathys' and 'Duke Correna,' who guarded the Tartar frontier in Europe from the nations of the west, he reached Kiev in Russia within eight months of leaving the imperial court of Kuyuk Khan. He was the first traveller into Mongolia whose narrative we possess.


This tree is found in Nepāl and the Indus valley between the Tampur and Sungnam, on an elevation of 5500 and 6000 feet. Wood esteemed by carpenters. C. cordata, C. crosa, C. laxiflora, and C. japonica, Blume, occur in Japan.—Cleghorn, Panjab Report, p. 64; Stewart.

CARPOBALSAMUM, an inferior quality of opobalsamum, obtained by expression from the fruits of Balsamodendron Berryanum.—Kuath.

CARPODACUS ERYTHRINUS, a rare bird in the N.E. of Europe, is a common winter visitant over the greater part of India.

CARPOO COONGILLUM. Tele. Black dammer.

CARPOORAWALLI. Tele. Lavandula cataro.

CARPOORUM. TAM., Tel. Camphor.

CARPOO ULANDOO. TAM. Black variety of Phaseolus max.

CARTOPHAGA, a genus of birds of the family Columbidae. C. luctuosus, a fine cream-colored pigeon of Colomby; C. japonica, one of the mourning pigeons; many of both sexes are furnished with a large, round, fleshy caruncle on the bill at the base of the forehead; this is said to be present during the breeding season only.—Macgillivray, Voyage, i. p. 244.

CARR, MAJOR M. W., of the Madras army, author of Telugu Proverbs. He perished with all in a steamer, in a cyclone on the W. coast of the Peninsula in the beginning of 1869.

CARRAGAGNA. Hwang-tsing, CHN. Carrageen moss or Irish moss, Chondrus crispus, Linph, and C. manniillulosus, Grec., from the west of Ireland. Used for cattle-feeding and dietary purposes.

CARRAY EILLOO. TAM. Guizotia oleifera.

CARRAY KEERAY. TAM. Wecbera tetrandra.

CARRABODHUM. TAM. Aloe.

CARRAGEE of goods and persons, in Southern and Eastem Asia, continues from remote ages of the most varied kind, being by conveyances, man, and quadrupeds. The sledge seems to have been the first kind of conveyance in use. A sledge is sculptured on the temple of Luxor at Thebes, resembling that in use by the
CARROT, Daucus carota.

The *Araba* of the Turks has its sides of lattice work to admit the air. The *Jutka* is similar to the eka. In India with the palaquin, etc., and in China and Japan with forms of the sedan chair, men have been employed as carriers from the most ancient times, but in India and China largely as bearers of burdens. The camel, the mule, the horse, the bullock, the buffalo, yak, and the donkey, have been employed in Egypt, Central and Southern Asia, from prehistoric times for riding, carriage, for burdens, and for ploughing. The hybrids between the female and male yak and the bull or cow carry from two to three maunds; they are sure-footed, hardy, and docile, and are used also for riding in the snows.

In the highest parts of the N.W. Himalayas, sheep and goats are most used. The sheep carry from 10 to 16 lbs., the goats from 12 to 24 lbs.; their day's journey is about five miles, to give them time to browse the pasture, which is their sole food. They are used to carry the borax from Tibet in packs (karabaj) slung over their backs.

During the march upon Kâbul, Yakub Khan made over to the British transport service sixty-two magnificent hill ponies, capable of carrying four maunds each = 336 lbs. Camels rarely cover the ground at a greater speed than one and a half to two miles an hour, consequently in an enemy's country the troops must be continually halted in order not to leave their baggage in the rear unprotected. The men and animals, even over the shortest marches, kept under arms all day; and when anything over fifteen miles has to be done, the camp cannot be formed until darkness has set in. Mules or ponies keep up with the troops, and the line does not extend to so great a length. Even the longest marches can be performed in the earlier part of the day. The karafs that come down every year to India in immense numbers, march for two days—perhaps at the rate of 20 to 30 miles—and halt for one good day's grazing. See Camell.

CARRION CROW, Corvus corone of Europe, Afghanistan, Japan (apud Temminck), is replaced in India by C. culminatus.


CARROT, Daucus carota.


The red and yellow carrots are cultivated all over India as a vegetable. The hibisp fruit forms the basis of the vermillion pad used by the Chinese as their ordinary red pigment for stamping purposes. Its fruits are recommended in chronic diarrhoea.

CARRUWA PUTTAY. Tam. Cinnamon.

CARTER, HENRY JOHN, M.D.

CARTER, HENRY JOHN, M.D., a medical officer of the Bombay army, a large contributor to current literature in the Tr. Med. Phys. Soc., Bombay, No. 8; Medical Gazette, 1839; Jour. Bomb. As. Soc. Ann. and Mag. He wrote on the Prevalence of Intermittent Fever among the troops at Hyderabud in Sind during the autumn of 1846; Beriberi among the Marines of the Indian Navy; Rupture of the Heart; Case of Poisoning by Opium, and Passage of Mud into the Bronchi in Drowning; Medical History of the
CARPATHUS.

Central Schools of Bombay, 1852; Dracunculus in the Island of Bombay; Medicolegal Cases; Colours of the Tapetum depending on Structure, not Colouring Matter; Medical Anatomy of Culex pipiens, Common Mosquito; Animality of the Freshwater Sponge; Description of the Freshwater Sponges in the tanks of the Islands of Bombay; On the Red Colouring Matter of the Salt-pans in the Island of Bombay; On the Form and Structure of Operculina Arabica; Zoospernum in Spongilla; Development of Gonidia (?) from the Cell-contents of the Characeae, with Observations on the Circulatory Movement of the Mucuna; On the Conjugation of Three Species of Diatomeae, with Remarks on Amphipiara; Abstract of Notes on the Organization of the Freshwater Infusoria of the Island of Bombay; On the Development of the Root-cell and its Nucleus in Chara verticillata; Observations on the Alluvium, with Figures of Eocene Fossils about Hyderabad in Sind; Report on the Copper Ore and Lithographic Limestone on the S.E. Coast of Arabia; Geology of Muscat and of the S.E. Coast of Arabia; On the Organization of the Foraminifera and their Fossil Remains in the Poorbunder of Kattyawar, etc.; Geology of the Island of Bombay; Pleiocene Deposits on the Shores of the Arabian Sea; Descriptions of some of the Larger Forms of Fossil Foraminifera in Sind; Description of Orbitolites Malabarica; Structure of Fossil Alveolina; Notes on the Gurrah of the S.E. Coast of Arabia; On the Great Mahraah Tribe of ditto, with Vocabulary of their Language; Description of the Frankincense Tree of Arabia, with Remarks on the Displacement of Polynys's Staniforous Region; Geography of the S.E. Coast of Arabia, Modern and Ancient; Description of the Ruins of El Bellad on the S.E. Coast of Arabia.—Trans. Geog. Soc. Bomb. vii. p. 225; Journ. Royal Geog. Soc. xvi. part ii. p. 187.

CARPATHUS was built b.c. 813 or 814. The Carthaginians were a Semitic race. Their descendants are supposed to be the Moors who occupy the north of Africa; lowlanders, traders, and dwellers in cities; little idle men who grow fat from indolence; avaricious, perfidious, cowardly, cringing, and insolent. See Semitic Races.

CARPATHIUS OXYACANTHA. Bieb.


Abundant in many of the more arid tracts of the Panjab. The seeds are eaten parched, either alone or with wheat, or are ground and mixed with wheat flour for bread, as also are those of C. (or Onobroma) Persicus. The oil extracted from the seeds is burned in lamps, used in food, and medicinally.—J. L. Stewart, M.D.

CARPATHIUS TINCTORIIUS. Safflower. Crocus Indicus, Rump.

Usfar, Arab.; Kamalottara, Sansk.; Kajreha, Beng.; Kusumbha, Tam.; Hoon, Egy.; Agnisikha, Tel.; Bastard saffron, Eng.; Kusumbha chheetu, Hind.

Kusum, Hind.

The safflower is grown very abundantly all over India, Burma, and China, and is very largely used in dyeing. The plant is propagated by seed sown in drills at 1½ feet distance from each other. The young plants appear in about a month, and after the second month are hooded and thinned, each plant being left a foot from the other. The richer the land, the larger the proportion of colouring matter afforded by the flower. On the opening of the flowers, they are rapidly gathered without being allowed to expand fully. They are then dried in the shade with great care. The produce of Paterghanta and Belispore is considered, in the London market, as the best that is exported from India. The Dacea safflower ranks next to that of China, which is reputed to be of a superior quality. Safflower is widely grown on the banks of the Irawadi and Salwim. Its flowers furnish the best yellow dye in the country, and, mixed with other ingredients, they are used to dye red, and to give a variety of tints, and in dyeing pink and scarlet.

This plant yields six or seven distinct shades of red, the palest pink or piyazi gulabi (pink), gulabi surkh (rose colour), fuli or gul-i-shaftalu (deep-red). In combination with harsingbar flowers (Nyctanthus arbor-tristis), it yields soneri or golden orange, naranji, deep orange, and sharbatli, salmon-colour; and with turmeric (haldi, zard chob), it gives a splendid scarlet, gul-i-anar, and other tints; again, if combined with indigo, Prussian blue, etc., a series of beautiful purples, known as lajawardi, uda, nafarmani, sosani, kasni (a delicate mauve), falsai, kokai, and the deep-purple baingli. All these tints are more or less beautiful, but scarcely one of them will stand washing.

The yellow principle is worthless as a dye. It is soluble in water, is removed by washing, and thrown away as the first step in the preparation of the valuable red product. The red dye is an acid resinous substance of superb colour, insoluble in water and in acid solutions, little soluble in alcohol, and not at all in ether. It is dissolved freely by aqueous alkaline solutions, which it neutralizes. Its salts (carthamates) are crystallizable, and quite colourless; acids precipitate the carthameric acids from solutions of these salts. To obtain it on a large scale, after the separation of the yellow matter, the dried flowers are treated by a solution of carbonate of soda, and lemon juice added; the carthameric acid precipitate is collected by subsidence, washed, and carefully dried at a gentle heat. The most lovely tints are imparted by this dye to silk and cotton; rouge is a mixture of the dry carthameric acid and finely powdered talc. The pink saucers used for giving a flesh tint to silk are prepared from this dye, with a small portion of soda. 8 oz. of the prepared petals and 2 oz. carbonate of soda are acted on by 2 gallons of water. 1 lb. of prepared chalk are added, and the colour precipitated upon this by adding the carthameric acid.

The Chinese carni-rouge is a carthamite of soda, colourless when rubbed on, but by the salt being decomposed by the acetic acid secreted by the skin itself, the carthamite acid separates in the most perfect rosy tint which can be imagined. The seeds yield abundance of fixed oil, which is used as an external application in paralytic affections, and for bad ulcers; and small seeds are reckoned by the Vytrians amongst their laxative medicines. The dye of the ‘Kong-pha,’ a variety of safflower or Carithamus tinctorius which grows in China, is held in high esteem by the Chinese, and is used in dying the red and scarlet silks and crates which are so common in the country, and so much and
CARVING.

It is conspicuously displayed in the elaborate details of the sandal-wood boxes from the Malabar coast, and is also shown in the beauty of the figures and buildings in the pith-like stems of the marsh-plant called shola, the Æschynomene aspera. In the latter, all the elaborate detail of the richly ornamented Hindu architecture of the south of India is carefully brought out. For this work only two tools seem to be employed,—one a large and heavy knife, and one with a fine sharp cutting edge. Besides these, cocoanut shells and gourds are carved and made into cups, vases, and snuff-boxes; also the kernel of the cocoanut is variously cut, for making garlands for state occasions. The natives of India also display skill and neatness, as well as habitual taste, in their work-boxes, etc., of ivory, horn, or porcupine-quill, ebony, and sandal-wood, their fans and umbrellas, chouries, and khus-kius or other baskets, hookah-snakes, imitation fruits and flowers, toys and puzzles.

The skill is remarkable with which the unyielding substance of the hard, thick chank shell is converted into necklaces for men and into bracelets for women. The manufacture of shell bracelets is one of the indigenous arts of Bengal, in which the Sankari caste at Baccæ excel. The chanks of which they are made are the large species of Turbinella, from six to seven inches long, and of a pure white colour. They are imported into Calcutta from Rammud and South India, opposite to Ceylon, and from the Maldiv Islands. The ivory for the Chinese carvers reaches China principally from Cochín-China and Africa, via Bombay, and always finds a ready sale at Canton; the largest and best tusks weigh from 16 to 25 pounds each, decreasing to five or six pounds. The cuttings and fragments also form an article of trade, as the workmen can employ the smallest pieces. Bones and horns, especially the long horns of buffaloes, are in China worked into handles, buttons, etc. Rhinoceros' horns are brought from Burma, from Sumatra, and from Africa through Bombay; they are highly valued by the Chinese, from a notion that cups made from them sweat whenever a poisonous mixture is poured into them. A large horn sometimes sells as high as 300 dollars; but those that come from Africa do not usually rate above 30 or 40 dollars each. The principal use of these horns is in medicine and for amulets, for only one good cup can be carved from the end of each horn; and consequently the parings and fragments are all preserved. The hard teeth of the walrus, laminant, and other cetaceous animals, also form articles of import into China from the Pacific, under the designation of sea-horse teeth; they weigh one or two pounds a piece, and the ivory is nearly as compact, though not so white, as that of the elephant. The delicate carving of Chinese workmen is well known, and has often been described; many specimens of it are annually sent abroad. Few products of their skill are more remarkable than the balls containing twelve spheres cut out one within another; but the manner of cutting them is simple. A piece of ivory or wood is first made perfectly globular, and then several conical holes are bored into it in such a manner that their apices all meet at the centre, which is usually hollowed out an inch or less after the holes are bored. A long crooked tool is then inserted in one of the conical holes, so

justly admired by foreigners of every nation. Large quantities are annually produced in the Che-chiang province near Ningpo.—Powell's Handbook, p. 457; Ains. Mat. Ind. p. 195; O'Shaughnessy, p. 411; Mrs. Mason, M'Clelland.

CARVING or Kartika, in Hindu astronomy the seventh Hindu solar month, when the sun is in the sign Tula, answering to the Tamil Arpēsi. In the southern parts of the Peninsula the Tamil month Kartica is the eighth of the solar year. Lastly, Kartica is also the eighth lunar month of the luni-solar year. This month is peculiarly sacred to Lakshmi, the goddess of prosperity, the June and August of the Romans. The 13th is called the Dhanurtes, or thirteenth day of wealth, when gold and silver coin are worshipped, as the representatives of the goddess, by her votaries of all classes, but especially by the mercantile classes. On the 14th all anoint with oil, and make libations thereof to Yama, the judge of departed spirits. Worship (puja) is performed to the lamp, which represents the god of the lower regions, and is thence called Yamadipa, the lamp of Yama; and on this day partial illuminations take place.—Tod; Warren; Kala Sanhita; Cole, Myth. Hind. p. 379.

CARUM CARU. Linn. Caraway.

C. gracile, Bh. | C. nigrum, Rogyle.
Curvija, | ... ARAB. | GUNYAN, HIND. OF LAD.
Carvi, F. tr. | Umba, | PANJ.
Jira siyah, | ... HIND.

Carum carui and C. gracile, if distinct, both grow in profusion in many of the more arid tracts on the Sutlej, Chenab, etc., in Kashmir, and in Western Tibet, from 9000 to 14,500 feet.—Dr. J. L. Stewart.

CARVING.


Carving in wood, horn, and ivory must have been practised in India from very early times, for the idols which the people worship, and for caIico-printing, for which they have long used wood-blocks. They are fond of carving on many of their ordinary utensils, as spinning-wheels, etc. Their skill is shown in carving the blackwood and ebony furnitures of Bombay and Madras, especially in the elegance of the patterns of the backs of the chairs and sofas, in the sideboards and bookcases. Carvings in ivory of different parts of India are much to be admired, whether for the size or the minuteness, for the elaborateness of detail, or for the truth of representation. Among these the ivory carvings of Berhampore are conspicuous. A set of chessmen from India, at the Exhibition of 1851, carved from the drawings in Layard's 1 Nineveh, 1 were excellent representations of what could only have been seen in the above work, and showed that they were capable of doing new things when required; their representations of an elephant and other animals were true to nature. The carvings in the same material in a state chair sent from Travancore were greatly admired; and for the truth of representation on a minute scale, where an elephant was enclosed in the shell of a pea, chouries or fly-flappers from Calicut, where the ivory or sandal-wood was cut into long hair-like threads, were also specimens of their mechanical skill. Their skill in wood-carving

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Bent at the end and stoppered on the shaft that it
cuts the ivory at the same distance from the
surface when its edge is applied to the inside of
the cone. By successively cutting a little on the
insides of each conical hole, their incisions meet,
and a sphere is at last detached, which is now
turned over and its faces one after another
brought opposite the largest hole and firmly
secured by wedges in the other holes, while its
surfaces are smoothed and carved. When the
central sphere is done, a similar knife, somewhat
larger, is again introduced into the holes, and
another sphere detached and smoothed in the
same way, and then another, until the whole are
completed, each being polished and carved before
the next outer one is commenced. It has been
proposed by some that these curious toys were
made of hemlock, nicely luted together, and
they have been boiled in oil for hours in order to
separate them and solve the mystery of their con-
struction. Fans and card-cases are carved of
wood, ivory, and mother-of-pearl in alto-relievo,
with an elaborateness which shows the great skill
and patience of the workman, and at the same
time his bad taste in drawing, the figures, houses,
trees, and other objects being grouped in violation
of all propriety and perspective. Beautiful orna-
ments are made by carving roots of plants,
branches, gnarled knots, etc., into fantastic
groups of birds or animals, the artist taking
advantage of the natural form of his materials.
Models of pagodas, boats, and houses are also
entirely constructed of ivory, even to representing
the ornamental roofs, the men working at the oat,
and women looking from the balconies. Baskets
of elegant shape are woven from ivory splints;
and the shopmen at Canton exhibit a variety of
objects, paper knives, chessmen, counters, combs,
etc., exceeding in finish and delicacy the same
kind of work found anywhere else in the world.
The most elaborate coat of arms, or complicated
cypher, will also be imitated by these skilful
carvers. The national taste prefers this style of
carving on plane surfaces; it is seen on the walls
of houses and granite slabs of fences, the wood-
work of boats and shops, and on articles of
furniture. Some of it is pretty; but the dispro-
portion and cramped position of the figures
detract from its beauty. Their porcelain is
good. The ivory carvings, ebony and other hard-
wood ornaments, and the bronzes, are all ex-
quisitely worked; the value attached to them in
England varying from £4 to £5. Burmese
carpenters carve in a rough but bold style, and
find employment principally in carving for the
exteriors of monasteries.—Williams' Middle King-
dom, ii. pp. 141, 148; Yule's Embassy, p. 69;
Blume's Malay Archipelago.
CARWAR or Sedabigahar, a sheltered seaport
on the western coast of the Peninsula of India.

CATYOCAR BUTYROSUM. C. meiferum. | Pekoe butyros.
The souaria, sawarow, or surwaha tree of
Guiana and Demerara. It yields the sawarow
nut. It might be brought to India with benefit
to the country.

CATYODAPHNE DENSIFLORA. Blume.
Kiteja of JAVA. A tree sixty to eighty feet high;
leaves gracefully aromatic, used in infusion like
tea against spasms of the bowels, and in puerperal
convulsions.—O'Shaughnessy, p. 547.
ing 18 or 20 feet in length, and from 10 to 12 across; from their fibre, the kuttu fibre of commerce, ropes of great strength, brushes, brooms, caps, and similar articles are manufactured; the woolly material found on the petals is used as oakum for caulking ships. In Ceylon the black fibre from the leaf-stalks is manufactured into ropes of great strength and durability, and is used for tying wild elephants. The Rodyahas, a forest race among the Kandyans, make this rope generally with considerable skill. The fibre is much used by the natives for making fishing lines and bowstrings; it is very strong, and resists water for some time, but is liable to snap if suddenly bent or knotted. It resembles black horse-hair, and might be employed similarly. Dr. Gibson says it is one of the most useful trees in the country; and he had heard that the farm of this tree, throughout the single district of Yellapore in Soopah, yielded Rs. 30,000 per annum.—_Dr._

Wight, _Gibson, Rozb., Royle, Hooker, Marsden, and Ainslie;_ Mr. Mendis; Captain Macdonald; _M. E. J. R.; Seenman; Mr. Low; Mr. Ondatjee, _Veg. Prod. of Ceylon._

CAS. HIND. Saccharum spontaneum.

CASEA-CASA. TAM., Tel. Poppy seed.

CASEA CHITTY, of Ceylon, author of the Tamil Plutarch, containing a history of the lives of the poets of Southern India in a chronological arrangement.

CASEA-ELLE. TAM. Leaves of Menecylon tinetorum.

CASANDHI. HIND. Cassia sophora.

CASARA-KAIA. Tel. Cucumin tuberosa; C. canabina.

CASARCA, a genus of swimming birds of India; there are several species. In _C. cana_, _Gm._, under the tail-coverts are paler, and the black on either side of them at base of _C. rutile_, is, in _C. cana_, replaced by dusky, minutely freckled with whitish. _C. rutile_, the Brahman goose, is met with above Sukkur. The male is a fine-looking bird, and measures about 29 inches; the general colour of the plumage is rufous, with brilliant green on the wing-coverts. It is shy and wary. See Chakwa.

CASEARIA CANGEZA. Wall.

Samyda canizia, _Buch._ Ana varia, _... Maleal._

A large tree growing in Assam and Bengal, very bitter. Its leaves are used in baths, and the pulp of its fruit as a diuretic. The _Casearia_ genus is of the order Sauridaeae. The species are found in the Himalaya, S. India, Assam, Ceylon, Penang. Voigt (p. 78) mentions six species, shrubs or small trees of _N. India_; and Thwaites mentions two moderate-sized trees of Ceylon.—C. coriacea and _C. champion._

Casearia pentandra, tha-byal-yvet-kya, Burmese, found in the Pegu district, but scarce. Timber strong and close-grained, adapted for fancy work and cabinet-making.—_Dr. McClelland._

Casearia tomentosa, _Rozb., D. C., chilah, chilla, Hindustani_, a small tree of Kangra, the Panjaur, Jaffna, and Sigre. It is not uncommon in the Svalzik region at from 3000 to 3000 feet, up to near the Indus. The timber is whitish, soft, and brittle, and is only used for small woodwork by natives; but is said to furnish good fuel. In some places the fruit is used for poisonous fish.

Casearia elliptica, bhogara, MAHE, klaare maram, TAM., in Coimbatore, a large shrub. On the Bombay side it is a small tree, not uncommon near the ghats. The wood is smooth, fine-grained, and yellow-coloured, but from its small size can only serve as an ornamental wood.—_Dr._ _Wight, J. L. Stewart, and _Gibson._

Casearia esculentia. _Rozb._

Jiru kanell, _... Maleal._ Konda prasara, _... Tel._ Konda janguru, _... Tel._

A large shrub, growing in the mountains of the Northern Circars. Its leaves are eaten by the people, and its roots are employed by the hill people as a purgative.—_Useful Plants._

Casearia ovata, _Rozb._, _Pods kali- meses._

Telugu, in a large tree of the Godavery; has wood of a light colour, hard, does not warp, and is worthy of attention. Fruit used to poison fish.

—_Captains Beddome, Macdonald._

Casearia varians. _Thw._

C. coriacea. _Thw._ | C. championi. _Thw._

This is a lofty tree, very common in all the Western Ghats forests and in Ceylon, and it grows to a very large size in the dense moist forests at 2000 to 3000 feet elevation. _C. coriacea,_ _Thw._, a form with very coriaceous leaves, is very common on the higher ranges of the Animally, 6000 to 7000 feet elevation, and on the Ceylon mountains at the higher altitudes. In drying, the leaves turn very black on the upper side.—_Thwaites,_ p. 19; _Beddome, P. Syl., part xviii. p. 208._

Casearia Zeylanica. _Thw._

C. ovata, Wild. _... W. & L.-wareka._ _Singh._

A middle-sized tree of the hotter parts of Ceylon, very common up to an elevation of 1500 feet.—_Thw._ _Enl. P. Ceylon._

CASEGAI, a wandering tribe in the south of Persia, between Shiraz and Darab.

CASH or Kas, in the old Madras currency, a small coin of which 10 = 1 dodie, now valued as 2 pice, and 80 cash going to a fanam; 45 fanams being equal to 1 star pagoda. According to the old Madras system, accounts were kept in star pagodas, fanams, and kas.

_8 kas = 1 fanam._

336 _k _= 42 (silver) fanams = 1 pagoda.

The E.I. Company reckoned 12 fanams to the rupee, and three and a half fanams to the pagoda. But the bazar exchange fluctuated between 35 and 45 silver fanams per pagoda; fanams were also coined in a base gold.

Copper 1, 5, 10, and 20 kas pieces were coined in England, by contract, for Madras, so lately as 1797. The 20 kas was also called 'dodo' and fanas. The star pagoda weighed 52-56 grains, and was nineteen one-fifth carats fine. It was therefore intrinsically worth 7s. 5d./d. sterling, but it was commonly valued at 8a. Many varieties of the pagoda used to circulate on the Coromandel coast, but since 1833 they have been only obtainable when sought for.

In 1811 a coinage from Spanish dollars took place, consisting of double rupees, rupees, halves, and quarters; and pieces one, two, three and five fanams; the rupee weighed 1567 grains. A silver coinage of half and quarter pagodas of dollar fineness, also then took place; the half pagoda weighed 320-73 grains troy, and was equal to 1½ arco rupees. By a proclamation of 7th January 1818, the silver rupee of 180 grains was constituted the standard coin, and all accounts and public engagements were ordered to be converted at the exchange of 350 rupees per 100 pagodas.
CASHMERE.

The proportion between the old and new currency
then became $1\frac{1}{2}$ rupees per pound, and in copper
75 paisa old currency equals 14 paisa new currency.

Kas may be a corruption of the Sanskrit word
Karsha, which is mentioned in Colebrooke's Essay
on Indian Weights, as the same with the word
pan. A karsha, or 80 raktika (rati) of copper,
is called a pana or karsha-pana. It is now the
eightieth part of a pan; but the simple word is
all that can be identified as having survived the
times of the change of system.

In Britain, 'cash' has come to mean ready money,
also copper or silver money. In India it
is still, along with the cowrie, used to indicate a
small sum.

CASH. Chin. A Chinese coin about eight to
a halfpenny. In 1872, 1700 cash were exchanged
for a tael of silver, and nearly four taels go to a
pound sterling. In China, a cash of iron is the
520th part of a dollar, and it is a saying, 'For as
many beads make the necklace, so many cash
make a cobang,' a gold coin equal to four dollars
and a third.—Edken.

CASH, the ancestors of the Chasdim or
Chalybes of the mountainous territory in Central
Armenia, a little to the north of Erzerum. The
Sabaean followers of Cash are to be distinguished
from those descendants of Sham who at a later
time occupied part of the mountains of Assyria.
See Chaldan.

CASH BALANCES, a financial term of the
Government of India for the balances in their
several treasuries. They have ranged between
thirteen kror rupees in the years 1870 to 1880;
but anything below thirteen kror is considered unsafe.

CASHCUTTEE. — Gambier.

CASHEF or Kashef of the Mahomedans
of Kashmir, the grandfather of Kasaya, who drained
the valley. See Kashmir.

CASHEW NUT TREE, Anacardium occidentale,
yields several useful products. One edible part is
the swollen, pear-shaped stalk (peduncle) which
supports the nut. The kernel also is eatable when
roasted.

Cashew Apple Oil is powerfully vesicating; and
it is obtained from the pericarp of the cashew apple.
It resembles in its properties the acrid oil obtained
from the marking nut, Semecarpus anacardium.

Cashew Gum. The trunk and branches, on being
wounded during the ascent of the sap, yield a
transparent gum similar in appearance to gum-
arabic, for which it is a good substitute. This
gum is somewhat sticky, and is particularly adapted
for use where the depredations of insects require
to be guarded against.

Cashew Nut.

Hidi i jali baddan, Beng. Jambu-mont, Mal.
Catsjoomoor, Dut. Nozes d'acaj, Poir.
Noix d'acajous, Fr. Nueces d'acaj, Sp.
Aka jumussa, Ger. Mundri Kotte, Tam.
Caju, Guz, Hind. Munta mamidi vitu, Tel.
Aka, Sr. 

Cashew nuts are kidney-shaped, attached to the
under part of the fruit; they are articles of food,
and an ingredient in chocolate.

Cashew Nut Oil.

Kaju ka tel, Hind. Munta mamidi nuna, Tel.
Mundri cotay yennai, Tam.

A light yellow, sweet-tasted, and edible oil
obtained from the nut of this tree by roasting. It
is in every respect equal, if not indeed superior,
to either olive or almond oil. It is very seldom
prepared, the nuts being used as a table fruit.—
M. E. J. R. See Gunn; Oil; Rosin.

CASHGAR, Khoten, Turfan, and Yarkand,
according to Lassen, the old original inhabitants
of these places, and of the adjacent highlands, are the
Tajak, who speak Persian, and are all agriculturists.
The Swedish chroniclers bring the Swedes from
Cashgar, and the affinity between the Saxon
language and Kachchak is great.—Bunaeu; Tod.
See Kashgar.

CASHMERE. The Cashmere territory at present
prehends Jammu, Cashmere, Kishwar, Zanzak,
Ladakh, and Balti. A chronicle exists which
was composed in a.D. 1125, but gives a general
historical account of Cashmere from B.C. 1182.
The Abissares chief, who with rich presents con-
ciliated Alexander as he approached the Indus, is
supposed to have ruled about Cashmere. The
rajas of Cashmere of the line of Kuru in the
nart race, were worshippers of the Naga or
Snake. The early chronology of Cashmere is full
of doubts, though Professor Wilson, Captain
Troyer, and Major Cunningham all coincide in
regard to the proper period of the initial date of
the Naga dynasty. The line is taken from the raja Tarangini, which commences with an account
of the desiccation of the valley by Kayaspa muni,
supposed to allude to the Deluge. Cashmere was
colonized by Kayaspa B.C. 2666. There were many
dynasties of Cashmere—kings of the Kaurava race,
1296 years, with one of whom, Gondera, authentic
history commenced in B.C. 2448. Lava, in 1709
B.C., was the Loo of Mahomedan historians.

Surendra, B.C. 1600, was contemporary of Bahan of
Persia.

The Gonderiya dynasty, 1013 years, or 378 years after
adjustment.

The Aditya dynasty, 192 years.

The Gonderiya line restored, 592 years, or 433
adjusted.

The Naga or Karkota dynasty, 260 years 5 months.

The Utpal dynasty, 84 years 5 months.

The Bhota dynasty.

The Mahomedan kings.

Cashmere was annexed to the Moghul empire
under Akbar in 1586 A.D., but it has since been
ruled from Afghanistan by the Durani and
Barakzai chiefs; was taken from them in 1619 by
Ranjit Singh, and is now held by a Dogra Rajput,
chief of Jammu. After the Sutlej campaign, the
new treaty of Lahore, dated 9th March 1846, left
the British Government in possession of the country,
hill and plain, between the rivers Beas and Sutlej,
and of the hill country between the Beas and the
Indus, including the provinces of Cashmere and
Hazarat. The British Government conferred on
raja Gulab Singh, territories on the hills, and
recognised his independence. Gulab Singh began
life as a horseman in a troop commanded by
Jemadar Khosheil Singh, then the favourite
chamberlain of Ranjit Singh. He soon raised
himself to an independent command, in which he
distinguished himself by making prisoner Agar
Khan, chief of Kajoori. For this service the
principality of Jammu was conferred on his
family, and Gulab Singh took up his residence in
Jammu, whence he soon extended his authority
over his Rajput neighbours, and eventually into
Ladakh. He took an important part in the negoti-
tiations which followed the battle of Sobraon. A
CASMERE.

Separate treaty (No. cxxiv.) was concluded with him at Amritsar on 16th March 1846, which put him in possession of all the hill country and its dependencies between the Indus and the Ravi, including Chamba, and excluding Lahour, on payment of 75 lakhs of rupees, and in exchange for the Ciss-Ravi portion of Chamba. By a subsequent arrangement in 1847, Chamba came again entirely under the British Government. In 1857, maharaja Gulab Singh died, and was succeeded by his son, Ruubir Singh, to whom the right of adoption was guaranteed to the maharaja by a sumud.

The general level of the valley of Cashmere is about 5500 feet above the sea, but at the Water lake and gardens of Srinagar it is 5146 feet, in lat. 34° 40' and long. 74° 48'.

Cashmere has always been subject to earthquakes. The great bulk of the people profess Mahomedanism; but they are of Aryan descent, of the Hindu stock, and all classes are remarkable for their physical symmetry. The chief town, Srinagar, on both banks of the Jhelum, has 40,000 people. Islamabad, on the Jhelum, is a seat of the shawl manufacture. The fruits which attain maturity are the apple, pear, quince, peach, apricot, plum, almond, pomegranate, mulberry, walnut, hazel nut, pistachio, and melon. The 'gilla' cherry is indigenus, and is cultivated in orchards. The 'bullace, Prunnus insititia, is found nowhere else in a wild state. The vine is extensively cultivated. In 1878-79 the British Indian trade with Cashmere amounted to Rs. 81,61,169, viz. imports, Rs. 55,85,369; and exports, Rs. 25,75,800. — Elphin. Coulbul, p. 506; Princep's Antiquities, by Thomas; Cleghorn, Punjab Report, p. 171; Aitchison's Treaties, etc.

CASMHERE, a very beautiful woolen fabric, formerly manufactured solely in the kingdom of Cashmere, but now in other towns, in the form of shawls, coats, scarfs. The manufacture of Cashmere shawls was long peculiar to that province. Formerly the shawls were exquisitely woven, with unrivalled elegance and claineness of design, softness and finish in quality, arrangement of colours and use of dyes, which the finest Paisley and French shawls did not approach. The exquisite shawls of Cashmere became rarer and rarer every year, and their place has been usurped by hand-embroidered fabrics of lower value, with more showy and more vulgar patterns. In the Punjab and in Dehli, of late years, workmen have commenced to embroider Cashmere cloths and net with floss silk and braid, but solely for sale to Europeans, who wear them as tunics, jackets, scarfs, and the like. In the hand-worked Cashmere shawls, as also in the Dehli work, wooden needles of hard wood are used, slightly charred, with a hole in the centre of the needle to receive the yarn. Cashmere weavers have settled at Amritsar and Jellapur and other places, and have flourished. The great Panjab mart for Cashmere is Amritsar. The largest import of is pashmina goods, consisting of shawls, needle-worked goods (amlikar), embroidered chogas, etc., and plain pashmina cloth.—M. E. J. R.; Dr. Watson. See Shawls; Wool.

CASPIAN, the Hindu name of Benares, a city which lies in 25° 18' 31" of N. lat., and according to Hindu geography, 4° 37' E. of Lanca. See Benares.

CASPIAN SEA. A large salt-water inland sea of Central Asia, lying between lat. 36° 55' and 47° 30' N., and long. 46° 48' and 55° 25' E., 730 miles long, 150 to 270 miles broad, with an area of 140,000 square miles. The chief affluents are the Atrak, Gurkan, Kidz-Ozan, Kuma, Kur-Terek, Ural, and Volga; but there are nearly a hundred torrents besides. It has no outlets and no tides. It has valuable fisheries of sturgeon and other large fish; sterlet, pozoarte, perch. It has twice been surveyed, and once declared to be 814 feet below the Black Sea, but at another time only 384 feet. It is known to the Mahomedans as the Daria-i-Kulsum, also Daria-i-Haseleta Khan, and Daria Khirz, and by the Armenians as the Sis, by the Georgians Sjava, and by the Russians Gualenskii. According to Strabo (lib. xi.), all the tribes east of the Caspian were called Scythic. The Dahan were next the sea; the Massa-gete, and Saece more eastward; but every tribe had a particular name. All were nomadie; but of these nomades the best known are the Asi, the Pasiani, Tachari, Seccarandi, who took Bactria from the Greeks. The Saece made irruptions in Asia, similar to those of the Cimmerians, and possessed themselves of Bactria and the best district of Armenia, called after them Saceae.

The whole of the N. part of the barren highlands on the E. coast is inhabited by Kirghiz Kazzaks, that to the S. by the Turkoman and Khivali, all of them in tents, carrying on the coasting trade. About 80 ships, called showtes (Razhiva, Aslam), trade from port to port. The waters give employment to about 10,000 fishermen; yield abundance of fish, classed as red fish, which includes the beluga, sevringa, and sturgeon, yielding isinglass, and made into caviare; white fish, such as the salmon trout, bastard beluga, sterlet, carp or susan, soudak, and sillure; the third class have the general names chistia and riba or kooaya. The sturgeon fishery alone yields 2,000,000 rubles annually. The take in 1828 was 43,035 sturgeons, 653,164 sevringas, 23,069 belugas, also 8335 soudak, and 98,584 seals. Canals connect this sea with the Baltic.

The first attempt to open a trade route from the Caspian eastward was made by Antony Jenkinson, Queen Elizabeth's envoy to Shah Tahmasp of Persia. In 1557 he travelled through Russia to Bokhara, returning by the Caspian and the Volga in 1560. From the king of Shirvan he obtained leave to establish a factory at that place. In 1579 Christopher Burroughs traded in a ship of his own building across the Caspian to Baku, but the ship got stranded in the ice, and his cargo of raw silk was carried in a boat to Astracan. After 160 years, in 1738, Mr. John Elton, who had been employed by the Russians on the Orenburg frontier, sailed from Astracan with a cargo of goods for the Persian market. He reached Enzeli, the port of Resht, in May 1739, and, proceeding to Resht itself, exchanged his English broadcloth for raw silk. He got leave to trade in Persia, and to plant a factory at Meshid, with a branch at Resht. Returning to Persia with a large cargo of broadcloth, he entered the service of Nadir Shah, and undertook to build for him a fleet capable of protecting the Persian shores of the Caspian. The Averse, carrying twenty three-pounders, was the first-fruits of Elton's energy and resourcefulness. But Russian jealousy brought
CASSIA-CASSA.

The new-born English trade in the Cassian to an untimely end in 1746. Two English vessels had to be sold at a great loss to Russian merchants in Astracan, and soon afterwards Elton himself was murdered in Ghilan during the anarchy which followed on the death of Nadir Shah in 1747. Among those who had embarked in the Cassian trade, was Jonas Hanway, who fell on one occasion into the hands of the Kajar chief, Muhammad Husain, ancestor of the present Shah of Persia. He escaped with the loss of his property in Astrabad, and obtained from Nadir Shah an order for the payment of all his losses. But Hanway soon went home, to write a charming account of his travels and a life of Nadir Shah. By the treaty of Gulistan between Russia and Persia in 1813, no Persian man-of-war was thereforeforth allowed to navigate the Cassian.

CASSIA-CASSA. Tel. Poppy-seed.

CASSAREEP, the concentrated juice of the bitter cassava, forms the basis of the West India dish pepper-pot. Meat placed in it is preserved longer than by any other process of cooking.

CASSAVA. The sweet cassava is Manihot utilissima, Roxb. The bitter cassava, or tapioca plant, is M. utilissima, Pers.

Cassava flour or meal, from which Cassava bread is made, is obtained from the M. api, the sweet Cassava, the Jatropha manihot, Linn., by grating the root, expressing the juice by pressure, and then drying the residual cake and pounding it. It is called Monasache by the French.

Cassava stalk, called also Tapioca, is prepared from the starch of M. utilissima, the bitter Cassava, by washing and granulating on hot plates, by which the concretions are formed, as seen in commerce.—Hogg; Birdwood; Von Mueller.

CASSIA OIL OF Moulmein. Out of this oil dammer is made, and a kind of torch, used by the poor classes instead of a lamp.—Local Committee.

CASSIA, a genus of plants belonging to the natural order Fabaceae of Lindley; 24 species belong to the East Indies, and 35 have been grown near Calcutta. Important products are obtained from species of this genus. It has been unable to distinguish the three kinds of senna from C. elongata, C. lanceolata, and C. acutifolia, and these were all included by him in his C. officinalis.

CASSIA ABSUS. Linn.

Senna absus, Roxb., Fl. Ind.

Akakalis. . . . Gil. Chukuddi patta, . . . Tel.
Chusunik. . . . Pers. . . . The small biennial or triennial is extremely common; the powdered seeds are used as an application in cases of chronic ophthalmia.—Royle.

CASSIA ACUTIFOLIA. Delilie, Even., Eberm. C. lanceolata, Forsk.


This grows in Arabia and N. Africa. Dr. Royle remarks that C. elongata, C. lanceolata, and this plant seem the same. Dr. O'Shanghnessy observes that this species furnishes the bulk of the senna consumed for medicinal purposes in Europe, and called Tinnevelly and Alexandrian. It is much adulterated with the leaves of Cynanchum arghel, Tephrosia apolline, and Coriaria myrtifolia.

CASSIA BUDS.


Mai za lee gye, . . . Pako g ling-gang, . . .
Comically call. . . . Sinu avis, . . . Tel.

It is a stunted shrub, pretty only when in gaudy yellow flower. The fresh leaves, bruised and mixed with lime-juice, are valuable in ringworm. The fresh leaves, bruised and rubbed upon the eruption, in many cases remove it. The whole plant is used by the Tamils as a remedy in venereal, in poisoned bites, and as a general tonic. An ointment prepared from its fresh leaves is almost a specific in ringworm.—Beeng. Pharr.

CASSIA AUGUSTIFOLIA, Vahl., of N. Africa and S.W. Asia, perennial, but also cultivated. Yields the Meeca, the Bombay, and some of the Tinnevelly senna.—Mueller.

CASSIA AURICULATA. L., Roxb., W. and A. Senna auriculata, Roxb.

Mayhari. . . . Sansk. Tangedu chette, . . . Tel.

Grows abundantly in the sterile tracts of the Madras Presidency, and in all parts of the Dekhan. In China the bark is used for tanning, and the stems to make native tooth-brushes; with the bark a soft and durable leather may be turned out. It is perhaps the best of the indigenous astringents of Southern India for this purpose. All parts of the plant have much astringency, and seem to possess no other property. In the south of Ceylon its leaves are infused as a substitute for tea. In China it is eaten as a vegetable. It is twigs are held in the hand, or applied to the head, for the coolness they impart.—O'Sh. p. 109.

CASSIA BERRIES, or Dalchini berries, are produced in the Nuggur districts of Mysore from the same plant as the cassia buds. The berries are an article of trade in the Nuggur division of Mysore.—Dr. J. Kirkpatrick; Rohde, MSS.

CASSIA BICAPSULARIS. Linn.

A shrub of the West Indies and South America, domesticated in India.

CASSIA BUDS.


Cassia buds are the immature fruits of a species of cassia or Cinnamomum, a native of Cochin-China; and an inferior kind of cassia buds, known as Lavungga-pu, is found in Malabar. The genera or species that afford it are as yet undetermined. The cassia buds of China, Yueh-Kwei-tze, are used to bear the immature flowers of Cinnamomum Malabathrum and of C. aromaticum. They are collected in Kiang-nan and Cheh-kiang and Kwang-si, and are used as a spice. They are packed with the bark, and exported to India and Europe. Cassia buds are now being largely exported from the western coast of India. It is a spice growing in favour, but still less known than it deserves.—Simmonds; M. E. J. R.; Cleg-horn.
CASSIA ELONGATA.  

Cassia Elongata. Lam., Lisane.  
C. lanceolata, Royle. | C. senna, Roxb., H. B.  
C. officinalis, Gurtin., Rozb. | Senna officinalis, F. Fl. Ind.  
Suna mukhi, | ARAB., HIND.  

This senna plant, or Tinnevelly senna, is found in many parts of India; and the general opinion is that the plant is indigenous, but others believe it to be only naturalized, and are of opinion that this is identical with the Cassia lanceolata of Forskal. Dr. Royle cultivated this plant at Sabarunpur, Dr. Gibson near Poona, Dr. Wight near Madras, Mr. Hughes near Tinnevelly, and Dr. Burns noticed it near Kaira. The plants in these situations yield a drug quite equal in value to the best senna. Dr. Royle remarks that C. elongata, C. lanceolata, and C. acutifolia seem the same. The senna of commerce is obtained from several plants, viz:—  
1. Cassia officinalis, called Bombay senna, also Suna mukhi.  
Cassia lanceolata, Forskal. | Senna Meece Lohaje, C. media.  
Cultivated in Arabia and Northern India.  
The three following plants, a, b, c, seem the same, viz:—  
(a) Cassia elongata, Indian senna, Tinnevelly senna.  
Cassia lanceolata, Royle. | Cassia officinalis, Gurtin.  
Sona-pat, ... BENG. Nelapoona, ... TAM.  
Suna mukhi, Nil. Nela tangedu, ... MALAY.  
veri, ... TAM.  
Cultivated by Dr. Royle at Sabarunpur, Dr. Gibson near Poona, Dr. Wight near Madras, Mr. Hughes near Tinnevelly, and noticed by Dr. Burns near Kaira.  
(b) Cassia lanceolata, Autor, Alexandrian senna.  
C. acutifolia, Hegye, Nee, Eber.  
This grows in the valley of the desert south of Syene.  
(c) Cassia acutifolia, Deville, Eacen, Eberm., Bombay senna. Grows in Arabia and Africa.  
2. Cassia ovata, Merat.  
Cassia Ethiopian, Guit. | Senna of Tripoli.  
| Sene de Tripoli.  
Grows in Nubia and Fezzan.  
3. Cassia Forskalia.  
C. lanceolata, Forsk., Lind., | C. lignestria, Batka.  
Suna, ... ARAB.  
Grows in the valley of Fatme.  
CASSIA FLORIDA. Vahl., W. and A.  
Senna Sumatreta, Rozb. Fl. Ind. ii. p. 347.  
May-za-lee, ... BARM. Manje konna, ... TAM.  
Waa, ... SINGH.  

This medium-sized tree is common in a wild state in the jungles quite at the south of the Madras Presidency and in Ceylon, also as a planted tree in avenues, topes, gardens, etc. It is of rapid growth, and ornamental. The trunk is pretty straight, and covered with olive-coloured bark. The wood is of a yellowish-brown colour, sometimes beautifully marked with irregular black streaks, close-grained, hard, and durable, but not stiff; works kindly, with a smooth surface, and stands a good polish. A cubic foot unseasoned weighs 68 to 70 lbs., and when seasoned, 58 lbs.; and its specific gravity is .928. It is well adapted for furniture, but seems to be little known or used in the Madras Presidency. In Burma it is used for mallets, helves, and walking-sticks. In Ceylon it is principally used for fuel for the locomotives; and it is said to have as good calorific  

powers as any wood known in the island.—Dr. Brandia and Mason; Colonel Beddome, Fl. Syl.  
CASSIA FORSKALII.  
C. lanceolata, Lind. | C. lignestria, Batka.  
Suna, ... ARAB.  
Grows in the valley of Fatme.  
CASSIA GLAUC. L., Lam., W. and A.  
C. surattensis, Burn. | C. cuneophylla, Royn.  
C. subh欢迎, De Geer. | Senna ebera, Van Eecke, Rozb.  
C. arborescens, Vahl.  
Wellia tagera, MALAY. Kondatanapetchet, Tel.  
A small tree with large sulphur-yellow flowers; grows in Burma, Coromandel, and Malabar coasts. Its bark, mixed with sugar and water, is given in diabetes; and its bark and leaves, mixed with cumin seed, sugar and milk, in virulent gonorrhea.  
CASSIA LANCEOLATA. Royle. Alexandrian  
Senna, ... ARAB. Nee, Eberm., TAM.  
Suna-pat, ... BENG. Nelapoona, ... MALAY.  
Suna mukhi, Nil. Nela Tangedu, ... TEL.  
This grows in the valleys of the desert south of Syene. But Dr. Royle remarks that C. acutifolia, C. elongata, and this seem the same, and he describes them all as Cassia officinalis.  
CASSIA LEAVES, Kwei-yeh of China, are obtained from Cinnamomum nitidum, C. iners, C. tamala, and other species. These were formerly esteemed as sudorific and stomachic medicines, and sent from China to Europe under the names of Folia malabathri or Tanalapathi, and are said to be still used in China and Ceylon, along with the cloves (Kwei Chi, also Liu Kwei of the CHINESE) in distillation, to form an oil resembling that of cloves, and known in the market as Oleum malabathri or Oleum cinnamomni folium. The Chinese bruise the leaves of the cinnamon tree, and use them along with warm water to wash their long black hair.—Smith.  
CASSIA LIGNEA. Cassia bark.  
Selleh, ... ARAB. Kahu-legi, MALAY.  
Ngo-si, ... BARM. Havanga, MALAY.  
Kwei-pi, CHIN. Moeedanel, DUT.  
Singrowia, NEPAL. Casian Fungh, PORT.  
Hout-Kassie, ... SANSK.  
Casen en bois, ... TAM. Tama patra,  
Kassien rinde, ... GER. Mukalla, ... SINGH.  
Dalchini; Tel., HIND. Dawul Kurunlu, ... SP.  
Kidda; Kirramen, HEN. Cassia lenosa, ... Kwei, Tel.  
Cassignina, ... Ind. Lawanga pattal, ... TAM.  
Kayu mania china, MALAY. ... pats, Tel.  
Cassia, an aromatic bark, is mentioned in Exodus xxx. 24, Ps. xlv. 8, and Ezek. xxvii. 19, under the words kiddah and ketolie. Dr. Wight was of opinion that coarse barks of the cinnamon tree, which could not be passed as true cinnamon, are classed as cassia. The Chinese cassia is from Cinnamomum aromaticum, Nees al Eacen, and C. Zeylanicum. Dr. Royle (p. 542) conceives as to the Chinese cassia being one of the producing plants, but adds that there are several distinct sources. At present this bark is produced in Java, on the Malabar coast, in the south of China, and in Cochin-China. Pereira’s Materia Medica says:—  

‘1. China Cassia-lignea, sometimes called China cinnamon, is the best kind. It is usually imported from Singapore, rarely from Canton direct. Mr. Reeves says vast quantities of both cassia buds and cassia-lignea are annually brought to Canton.
CASSIA OBOVATA.

from the province of Kwang-si, whose principal city (Kwei-sin-tu), literally the city of the forest (or grove) of cassia trees, derives its name from the forests of cassia around it.

The Chinese themselves use a much thicker bark (which they call Gun Kwei-pi), unfit for the European market, but they esteem it so highly as to pay nearly ten dollars per pound for it. A very fine quality is occasionally met with, and commands the enormous price of 100 dollars per catty (one pound and three-quarters). A specimen of it furnished by Mr. Reeves is straight, semi-cylindrical, eleven inches long, rather more than an inch wide, and about one-sixth or one-eighth of an inch thick. Externally it is warted, and covered with crustaceous lichens. Internally it is deep brown; its odour and flavour are those of cassia. Mr. Reeves also mentioned that the best cassia-liginea is cut in the third or fourth moon, the second sort in the sixth or seventh moon.

2. Malabar Cassia-liginea is brought from Bombay; it is thicker and coarser than that of China, and is more subject to foul-packing; hence each bundle requires a separate inspection. It may, perhaps, be coarse cinnamon, for Dr. Wright states that the bark of the older branches of the genuine cinnamon plant is exported from the Malabar coast as cassia.

3. Manilla Cassia-liginea is usually sold in bond for continual consumption. He had received a sample of bark ticketed “Cassia vera from Manilla,” the epidermis from which was imperfectly removed.

4. Mauritius Cassia-liginea is occasionally met with.

The Kwei-pi, Juh-Kwei, Kwan-Kwei, and Tang-Kwei of China are the products of species of Cinnamonum. The Juh-Kwei, or fleshly cassia, is exceedingly pungent and spicy, and its price is quadruple that of the Kwei-pi, or skinny cassia. — Royle, p. 542; Harris, Nat. Hist. of Bible; Has-sall’s Food and its Adulterations; Smith.

CASSIA OBOVATA. Merat.

Cassia Ethiopica, Guibourt. | Senna of Tripoli.

Senna de Tripoli.

Grows in Nubia and Fezzan; one of the species yielding the senna of commerce.

CASSIA OBTUSA. Roxb., W. and A., W. Fc.

Cassia obtusa, Wall. | Senna obtusa, Roxb.

C. Burmanni, Wall., Wight. | Nela tangua. | Tel.

It is indigenous in Mysore, Egypt, Suez, Nubia, and Central Africa. The leaves furnish the Aleppo and Italian drug. C. obtusa is common on the dry uncultivated lands of Mysore. Aleppo senna has obvolute very blunt leaflets and curved pods, with a very slight covering of down. The flowers are pale yellow.—O’Shaughnessy, p. 307.

CASSIA OBTUSIFOLIA.


According to Dr. Irvine (Gen. Med. Top. p. 131), the seed of this plant is used in medicine. The plant is scarce about Ajmir; is prescribed to cleanse the blood, in an entire state. When the seeds are pounded and then swallowed, vomiting is produced. The leaves of the young plant are eaten as a vegetable; are also applied in itch cases. — It is very common in the Dakhun. Goats and sheep are fond of the seed; one seer of the seed costs one pice.—Irvine.

CASSIA SOPHORA.

CASSIA OCCIDENTALIS. L., W. and A.

Senna occidentalis, Roxb. | Cassia xilifera, Roxb.

Cassia sophora, Wall.


Paya vera. | Mal. | Kashanda, Kasinda, Tel.

Common in Bengal; smell very offensive, used in cutaneous maladies, and also aperient. Roxburgh gives it no native name. Mr. Mason has occasionally noticed it in Tenasserim, in native cultivation for medicinal uses. It was originally introduced into India from the West Indies.—Mason. O’Sh. p. 300.

CASSIA OFFICINALIS. Gar., Royle.


C. media, Royle. | C. lanceolata, Royle.

Senna medicine Lohaje, Royle. | C. afzelii, Heuyn, Nees.

Senna officinalis, Roxb. | Eburn., Delille, Esen.

Dr. Royle remarks that C. elongata, C. lanceolata, and C. afzelii seem the same plants. He describes C. officinalis as cultivated in Arabia and Northern India, and, with the C. afzelii, known in commerce as Bombay senna, Sona mukhi. The C. elongata, known as Tinnevelly senna, was cultivated at Selluramur, Poona, near Madras, near Tinnevelly and Kaira, and C. lanceolata as growing in the valleys of the desert south of Syene, and known as the Alexandrian senna. —See Cassia.

CASSIA OIL, volatile oil of cassia bark.


Cassia bark yields a pale yellow volatile oil, the finer kind of which differs but little in its properties from that of cinnamon, for which it is generally substituted; it has a specific gravity of 1.051 (1.95). The best is manufactured in China, where the wood, bark, leaves, and oil are all in request. The cassia oil is rated at 150 dollars per kilo; and the trade in this article reached about 250,000 dollars (Simmonds, p. 396). When pure, its pale wine-yellow colour does not deepen with age. It has in a remarkable degree the cassia odour and taste. Cassia oil is imported into Bombay from China; and in Surat the oil is expressed from both China and Malabar cassia. The latter kind, which is of a dirty-brown colour, is chiefly exported to the Persian and Arabian Gulfs, Zanzibar, etc., under the name of Koolfa-ka-tel.—Paulkner.

CASSIA ROXBURGHII. D. C., W. and A.


This is a small or middling-sized tree, very common in a wild state in the South Arcont, Trichinopoly, Tanjore, and Tinnevelly districts. It is extensively planted in gardens for ornamental purposes, and is to be seen in most compounds at Madras. When in flower it is exceedingly beautiful; it is also wild in Ceylon. The wood is close-grained, hard, and durable, works smoothly, and stands a good polish. When fresh it is deep rose-coloured, but eventually turns reddish-brown. A cubic foot unseasoned weighs 78-80 lbs., and when seasoned 63 lbs.; and its specific gravity is 1-006. It is well adapted for articles of turnery, such as wheels of axe-handles and handles of instruments.—Beddome, Fl. Sylte. p. 180.

CASSIA SOPHORA. Linna. W. and A.

C. esculental, Roxb. in E. I. M. | C. coromandeliana, Jacq. c. torosa, Curr. | C. sophorodes, Collin. | Senna sophora, Roxb. | S. esculental, Roxb. \( \frac{1}{2} \) Rheelde.
Kalkasunda, Beng. 
Kalkashilla, SANS. 
Round-podded cassia, Eng. 
Brihathitara, HIND. 
Pomam tagara, MALAY. 

Grows in Bengal, Assam, Ceylon, Malay Peninsula, Peninsulas of India, and Moluccas. Its leaves are eaten in curries; bruised, powdered, and mixed with honey, are applied to ringworm and ulcers. The bark is given in infusion in diabetes.—R. Brown.

CASSIA SUMATRANA. M'Clelland.
Ma-za-lee, BURM. 
Bombay blackwood, Eng. 

This tree grows in the central province of Ceylon, where a cubic foot of its wood weighs 57 lbs., and it is said to last 50 years. It is there used for furniture and house-building. It is plentiful throughout the Haine, Pegu, and Toungoo forests, and is very plentiful especially on the Mazalee Chong, the name of which is derived from this tree. It is used in house-building. It affords a very strong wood like ebony.—M'Clelland; Mr. Mendis; Cat. Cat. 1862.

CASSIA TORA. Linn.
Oval-leaved fetid cassia.

Cassin obtusifolia, BURM., IND. 
C. foetida, Salieh. 
C. gallinaria, C. Gallad.

Kukul, ARAB. 
Daw-khy-vaali, BURM. 
Kiiueh-ming, CHIN. 
Te-aau-kiiueh-ming, 
Chakunda, HIND. 

The seeds—Kiiueh-ming-faz, CHIN.

Common all over the plains of India, and, in Tenasserim, it is one of the most abundant weeds. Its leaves are fetid, mucilaginous, and gently aperient. They are much used for adulterating senna, and in various external applications. The seeds, ground with sour butter-milk, are used with excellent effect in itch eruptions; and they are used in preparing a blue dye, generally fixed by lime-water. The root, rubbed to a pulp with lime-juice, has almost specific powers in the cure of ringworm.—O'Shaugh. p. 309; Rozb. ii. 340.

CASSIS, a genus of shells; many species occur in the E. Indies. C. rufa, the great red shield shell of the Maldives, is brought as tribute to Ceylon, and is re-exported to Italy for the manufacture of cameos.—Tenent's Ceylon.

CASSOWARY BIRD. See Casuarius; Emu.

CASSIYA FILFORMIS. Linn., Rozb. 
Calodium Coehlin-Chinese, Lour.

Akash bull, BENG. 
Kottan elle. 
TAM.

Akash-wali, BOMBAY. 
Antara valli tige. 
TEL.

Kottan ka paa, DUKE. 
Nulu tiga, Pachi tige, 

Akatsa bull, MALEAL. 
Pane tige, 

The leaves are put into butter-milk as seasoners, and are chiefly in use amongst the Brahmans in the southern parts of the Peninsula.—Ainslie.

CASTACALA. SANSK. 
A division of time equal to the 2340th part of a vicaia.—Warren.

CASTANEA, a genus of plants of the natural order Euphorbiaceae. C. Chinesis, C. Indica, C. Roxburghii, C. triboleoides, C. venosa, inhabiting the colder parts of S.E. Asia. Dr. Mason says an indigenous chestnut tree grows in Burma on the uplands, which yields abundantly, and whose fruit is sold in the bazaar; but they will not compare with the French chestnuts, nor even with the American chincapin. Two species are cultivated on the China hills. One somewhat like the Spanish, produces fruit quite equal, if not superior, to Spanish chestnut. The other is a delicious little kind, bearing fruit about the size and form of the common hazel-nut. Large quantities of both kinds were procured by Fortune, and sent on to India in Ward's cases, and many hundreds of plants reached India. The Chinese chestnut may now be considered naturalized on the hills of India, and in a few years will no doubt make its appearance in the markets amongst other fruits.—Fortune's Residence, Mason, Voigt.

CASTANEA INDICA. Roxb. Theet kha, BUMERE. A tree of Nepal and the Himalaya, of Chittagong, Khasya, Rangoon, Pegu, and Toungoo. The edible nut, Nikiri, HIND., is compared to indifferent filberts; the wood is red, and equivalent to mahogany.—Dr. Royle, p. 345, M'Clel., Mason, Voigt, p. 276, O'Sh. p. 607.

CASTANEA MARTABANICA. Mason. 
Theet kha, Zi-tham, BURM. | Nome of . . . TAVOY. 

This tree of Moumein and Martaban grows all down to the sea-shore of Tenasserim. The fruit is eaten like chestnuts.—Mason; Cal. Cat. Ez. 

CASTANEA TRIBULOIDES. Lindley. 
Wet-theet-ka, BUMERE. A tree of the Nepal and Khassia hills, and of Burma.

CASTANOSPERMUM AUSTRALE. Moreton Bay chestnut. Has been introduced into India from Australia. It is of rapid growth; rises to 100 feet high. Its wood is used for cask staves. It is indigenous in Moreton Bay. Some of its pods are 10 inches long and 8 round. They contain several seeds, in size and colour resembling horse-chestnuts, but in flavour between a Spanish chestnut and a fresh-opened bean, with a slight degree of bitterness. The natives roast them and soak them in water, to prepare them for food.—J. Backhouse, Visit to Moreton Bay, Australia.

CASTE. 

CASTE is a term obtained from the English cast, and that from the Portuguese or Spanish Casta, a breed, race, lineage, or class. It is applied to the separate sections of the Hindu races, who now usually employ the word Jat or Zat, meaning birth or descent, though the Sanskrit term Varna, meaning colour, has been in use from the most ancient times till now. Caste is the first institution of Hindu society which forces itself upon the attention of the stranger. Bumen says that the system of caste seems to have become completely formed B.C. 3000, during the formation of the kingdom of Puri; and, he adds, was in full force when the Code of Menu was composed. In the Vedic hymns nothing appears of a priesthood, properly so called. In some, Brahmans officiate, but are evidently subject to the Kshatriya, as chaplains to the noblemen. The allusion to castes is very vague, as when the five classes of beings are mentioned, which may mean the four castes of Aryans and a fifth of the barbarians. But there is one hymn in the Veda, known as the Purusha Saktika, which represents the Brahman as superior, though it does not correspond with the legend on the subject in its later form. It is given in Dr. Muir's Sanskrit Texts (p. 7), and is a mystical description of existences from original being, under the similitude of a sacrifice or as a mental sacrifice.

Sir Henry Elliot says that about the 6th and 7th centuries the divisions of castes were secular, not religious. In former times, he says, the four classes existed equally amongst the Buddhists
and Hindus of India, as they do at this day amongst the Buddhists of Ceylon, and amongst the Jains of the Peninsula, in whose temples even Brahman priests may be found officiating.

A minute division of labour is a very marked feature in Hindu civilisation. Every employment is apportioned to a separate class. This minuteness of appointment is generally the result of a very far advanced stage of society, but seems to have obtained among the Hindus from very early times. The Brahman, Sakta, Vaisya, Sudra, and Shudra, with four great divisions are recognised,—the Brahman, or learned; the Kshatriya, or warrior; the Vaisya, or merchant; and the Sudra, or labourer,—all others being Vhilecha. But in practice, at the present day, the minute differences of race, of native country, of avocation, and of religion, are sufficient to form differences of castes, in most of which no man may lawfully eat with any individual of any other caste, or partake of food cooked by him, or marry into another caste family; but he may be his friend, his master, his servant, his partner. As a rule, it may be said that the Aryan or "twice-born" castes adhere most closely to the ethical principle of division; the "once-born" or distinctly non-Aryan to the same principle, but profoundly modified by the concurrent principle of employment; while the mixed progeny of the two are almost entirely classified in modern times according to their occupation.

The Brahmans are usually divided into ten great septs, according to their locality,—five on the north, and five on the south of the Vindhya range. But the minor distinctions are innumerable. Thus the first of the five northern septs, the Saraswata, in the Panjab, consist of 469 classes. Mr. Sherring enumerates 1886 separate Brahmanical tribes.

Their sectarian religious views are now also sources of separation. In the physiological worship of the Hindus, for instance, while two classes of sectarians, the Saiva and the Lingaet, worship the form of the lingam, another set of sectarians, the Sakta, worship the yoni, in accordance with the doctrine of the Tantras. The Saiva are divided into two classes, the Dakshinachari, or right-hand Saiva, and the Vama chara, or left-hand Saiva. The right-hand worship is public, and addressed to the goddesses usually adored, but especially to the forms of Durga, Bhawani, and Parvati, also to Lakshmi and Mahalakshmi, and others. But in the worship of the left-hand divisions, the Tantraika impersonations of Durga as Deva, Kali, Sama, etc., or a living woman representing the Sakta, the worship is private, and said to be impure, and is said to have the most numerous followers. The Vira Saiva, who are known as the Jangam, also as the Lingaet or Linghadari, from always wearing the lingam, and who are very numerous in the Cenarese-speaking tract, ought not, according to the tenets of their sect, to have any caste distinctions; but they are the most bigoted of all the Hindu sects, and their caste distinctions are those of trade and avocation, and are rigidly adhered to. Among the Jains, whose religion consists principally in the practice of austerities, and in avoiding to destroy life, caste restrictions are not proscribed; nevertheless they too retain the practice of caste divisions, and the Saraswata practise many usages common to other Hindus.

CASTE.

The distinction of right and left hand castes is peculiar to the south of India. It is supposed by Professor Wilson to be of modern origin, and to have been introduced at Conjeevaram as a part of civil policy to divide the people and destroy their power. But Sir Walter Elliot is of opinion that the separation into right and left hand castes had its origin in the violent conversion of the ancient races from Buddhism to Hinduism; and he has been shown a figure of Buddha, which the artisan caste worship, that appears to worship Visvakarma, but the bulk seem to recognize Siva as their supreme deity. They all bury their dead, and in a sitting posture, like that of Buddha, sitting, with the head of the corpse close to the surface, and looking to the north; and their dislike to Brahmans is intense. In Southern India, the goldsmiths strenuously resisted the rule of the Brahmans, and for ages claimed to be the true spiritual guides, styling themselves Acharyas, 'religious teachers,' and wearing the sacred thread. The Dattas, a sept of the Kayasth or writer caste, formally renounced the position assigned to them in the Brahmanical classification of Hindu society. They claimed to rank next to the Brahmans, and thus above all the other castes. They failed; but a native author states that one of their body, within the memory of men still living, maintained his title, and wore the sacred thread of the pure 'twice-born.' In the Peninsula, caste had certainly nothing to do with religion, but related solely to race. Amongst the Tamiil people the right and left hand sections appear. The Idan-kai or Idan-gai are the left-hand caste, and the Valan-gai are the right-hand caste; and, according to Professor Wilson, the names and appellations of Right-hand castes vary in different parts of peninsular India, but are usually supposed to be eighteen in number. He names them—

1. Banjiga or trader.
2. Okhila or cultivator.
3. Jotiophana or oil-maker, employing one bulllock.
4. Raval or dyer, or calico printer.
5. Ladaru, Mahomedan traders and artificers.
10. Kumhar, potters.
11. Agasa, washermen.
12. Kota, fishermen employed as palanquin-bearers.
13. Padma Silalaya, weaver.
15. Uparanu, a tusk-digger.
16. Chitragra, a painter.
17. Golla, a cowherd.
18. Wquara, or Parvan, or Pari, who is the champion for the right-hand caste, as is the Madaga or Sakoli for the left-hand caste.

The Left-hand castes—

Edagai; Edagai kula:  [Idangai; Idam; Idakai, Edakalya, . . . KARN. ] TAM.

1. Panchala or artisans.
   a. Kammaraimu, blacksmiths.
   b. Baliga, carpenters.
   c. Kaumbar, braziers.
   d. Kallurtiga, stone cutters.
   e. Akasale, goldsmiths.
2. Berisetti, traders.
3. Devangada, weavers.
5. Gollur, money-carriers.
7. Beda, hunter, fowlers.
8. Madiga, tanners, curriers, and shoemakers.
CASTE.

The right and the left hand sections are known in the Bellary district as the Davachary and Dowang. Their enmity has been a constant source of anxiety to the police of the Madras districts.

The artisans intermarry and eat together, and all wear the zolar. They claim to be a prior Brahman race,—and learned Europeans recognise their claim. The intermarriages of castes in ancient times, and the descendants of illegitimate children, have been known as mixed castes, the Varna sanka, to whom Menn allotted suitable avocations. The ancient marriage code recognised as lawful unions of men of higher castes with females from any of the lower ones, and their offspring had a quite different social status from the progeny of illicit conceptions. In bygone times, individuals and even races have been raised to castes of higher rank, and others have been lowered. There have been occasions of rulers of the Dehkan and of Hindustan raising great numbers to the rank of Brahmans, others to the rank of Kshatriya; and many of the races now ranked as Sudra Hindus have been comparatively recent converts. Other instances are known of Brahmans as individuals and clans being degraded. In Bengal, the Ahir, Kunbi, Lohar, Mali, Tumboli, Kumar, Hajam, and Kihar are considered the clean. The Vellathoden of Travancore are said to be descendants of a Brahman who was seen to wash and starch a friend's cloth, and was in consequence thrown out of caste. Clothes washed by them are, however, received into pagodas. The ancestors of the Urolli parisha Musinmar of Travancore, who accepted gifts of land from Panisu Rana; the ancestors of another subdivision, who countenanced the murder of Bhutany Pandi Perumal, a sovereign of Malabar; and the ancestors of the villagers of Panniyar, who offered insult to the idol Varada, an object of worship of other Brahmans,—all of these have lost their castes; and although claiming still to be Brahmans, they cannot associate on equal terms, cannot eat nor intermarry with other Brahmans. There are religious mendicants who accept alms from certain castes. The caste ideas of ceremonial uncleanness are very peculiar. A Hindu visitor to a European house changes all his clothes, and uses the secretions of the cow on his return home from the visit; or, on being visited by a European, has the floor spread with fresh cow-dung. Every workman is clean in his own trade; but no Hindu will use any article of earthenware which a Whiclea has polluted by his touch; all earthen vessels are immediately broken, and brass or copper utensils are scoured with sand to free them from impurity. There are places where water is given to the natives as they walk along the road. Small brass pots are kept for the caste people, but there is no pot kept for the Pariah. So, if a Pariah wish to quench his thirst at some of these water pandals, a long hollow bamboo is provided, one end of which the thirsty man holds. Water is then poured down the tube, and he has to catch the water in his mouth after it leaves the tube. He is not allowed to put his lips close to the bamboo, for fear of defilement.

If a Jain come into contact with an outcaste, he, like the Hindu, touches fire or water to purify himself; if he have occasion to receive anything from a Pariah, he causes the Pariah to set it down on the ground, and purifies it with fire or water before he takes it up. Even shepherds and Koli incur pollution by touching the Dher race, which they remove in a similar manner. In the course of evidence before a criminal court in Gujerat, in August 1853, a Koli said, 'The shepherds Bhugwen and Rado came to me, and said they had both touched Dhers, and become impure, and asked me to give them fire. I took a lighted coal out of my hookah, and each of them touched his forehead with it. I threw it down, and they then took my hookah and smoked.' In other words, they were then purified, otherwise he could not have given them his hookah. This is a very ancient Asiatic purificatory rite. Isaiah (vii. 6, and 7) says: "Woe is me, . . . I am a man of unclean lips. . . . Then flew one of the seraphim unto me, having a live coal in his hand, . . . and he laid it upon my mouth, and said, Lo! this hath touched thy lips, and thine iniquity is taken away, and thy sin purged.' If a Sudra Hindu ask a drink of a Brahman, it will be given in a brass vessel, but from a distance, the Brahman stretching forwards and placing the pot between. It is returned similarly, but before receiving it back, water is poured over to purify it. So one of the helot races can enter the house of a Hindu, but he will stand at a distance and shout out his message. These are all illustrations of the usual operation of caste in India, which has held its own in the religions, social, and political changes of 3000 years. Since railways and steamboats have been running, and the educational system of the British has equalized all classes, much of the dread of caste defilement has disappeared, but it is still the prominent feature in everyday Hindu life.

All the great Hindu reformers have proclaimed the brotherhood of man, and have denounced castes, but their followers are only free amongst themselves.

A line in the Mahabharat is—

"Na Viseho'sti varnanam;\nBrahman idam jagat,\nBrahmano jvarakham hi;\nKarmabhir varnata'm gatam:

'There is no distinction of castes; the whole of this world is Brahmanical, as originally created by Brahma. It is only in consequence of men's actions that it has come into a state of caste divisions.'—Grose, p. 502; Forbes Rosamala, or Hindu Annals; Wilson's Glossary; Sir H. Elliot's Supplementary Glossary; Sir Walter Elliot in Ethnological Society's Journal.

CASTILLOA ELASTICA and C. Markhamiana of S. America, introduced into India in 1876 by Mr. Cross and Mr. Markham, are valuable caoutchoue plants.—Perwe. Bark.

CASTING OF METALS in S.E. Asia is very largely practised, and the processes are of great simplicity. The workmen generally prepare a mould in wax, which is embedded in moist clays, which, after being dried in the sun, is heated in the fire, the wax run out, and the metal run in. A much better plan, where accuracy is required, as in casting a brass nut or box for a large screw, is to cast the model in lead, and, having bedded it in clay, it may, when the mould is dry, be melted and run out, and the metal run in. Wax models allow the moulds to shrink in drying, and the thread of a screw-box so formed of course does not correspond. In Manblam, much ingenuity

CASTING OF METALS.
is displayed in the mode of casting articles of this kind in hollow network, etc. A core is made of plastic clay, all carefully shaped to the internal form of the fish or other object to be imitated. This core is then baked and indurated. On this, the pattern designed to be formed is painted with clean beeswax. This done, and the wax having cooled, it becomes tolerably hard. Soft clay is moulded over all. The whole is then baked, the heating indurating the outer coating of clay, but softening the wax, which all runs out of the mould, leaving empty the space occupied by it. The mould being sufficiently dried, the molten brass is then poured into the empty space, and, when cool, the clay is broken away, when the figured casting is seen. These are untouched after the casting, excepting on the smooth and flat surfaces, which are roughly filed.—Mr. Rohde, MSS.; Cal. Cat. Ex. 1862.

CASTOR.


A concrete substance obtained from two small glands in the beaver, Castor fiber, of both sexes. The 'glands' consist of two oval pyreform sacs of unequal size, which open into the preputial groove by two large orifices. Those of the adult animal are at least three inches in length, sometimes five. Those of the female are somewhat less developed. In the living animal the castoreum is an almost fluid unctuous substance of a strong penetrating and even fetid odour; when dried, the sacs have a dark-brown colour and wrinkled appearance. Both American and Russian castoreum are known to commerce, and are imported into India. In Eastern medicine, castoreum is supposed to affect especially the uterus, and is given also in hysteria and apoplexy; it was formerly used in European practice. A kind of castor is also obtained from the civet cat in the Archipelago. Hai-kau-shin, the Chinese name, means sea-dog kidney, and the kidney of a dog is often substituted.—O’Sh. p. 614; Smith; Moquin Tandon.

CASTOR and POLLEX. Their representatives in the Hindu mythology are the Aswini Kumara. See Aswin; Hridyu; Saraswati.

CASTOR-OIL.


Castor-oil is obtained by expression from the seeds of the Ricinus communis or Palma christi, which grows in all the warmer countries of the world. It is often described as 'cold-drawn castor-oil,' which is understood to express that the oil has been obtained without the aid of heat; and hot-drawn castor-oil when the seed is subjected to slight dry heat, and then pressed; but it may be doubted if any of the castor-oils of commerce are ever expressed from the seeds without prior dry, or subsequent water, heating. There are, however, two varieties of the castor-oil plant grown in India, the large and the small, and the mode of obtaining their respective oils may perhaps vary in different districts. One mode of obtaining the oil is to separate the seeds from the husks by children throwing them against a wall, then to bruise them by tying them up and beating them in a grass mat. In this state they are put into a boiler and boiled until all the oil is separated, which floats at the top, and the refuse sinks to the bottom; it is then skimmed off, and put away for use. The purest oil is said to be obtained by crushing the seeds in horse-hair bags by the action of heavy iron beaters; as the oil oozes out, it is caught in troughs, and conveyed to receivers, whence it is bottled for use. Castor-oil is used medicinally, also for lamps in the East Indies; and the Chinese are said to have some mode of depriving it of its medicinal properties, so as to render it suitable for culinary purposes. The plant is very extensively propagated by the Karens, to obtain the seeds to mix with their dyes, and fix their colours. The oil obtained from the large-seeded variety is sometimes drawn cold, and its straw-coloured specimens are scarcely distinguishable in quality from the oil of the small-seeded variety. It is, however, more usually extracted by heat, and is known as the common castor-oil of the bazar. The roasting process gives it a deeper red colour and an empyreumatic odour. The price of this oil varies in different parts of the country from Rs. 1.10 to Rs. 3.13.6 per maund of 25 lbs. As with other coloured substances, filtering and light soon decolorise the coloured castor-oil. The best filtering material is animal charcoal, and the sun's rays finally remove all shade of colour.

Castor-oil seeds, Pi-ma-tsz, CHINESE, crushed, are applied externally in Chinese medicine in a great multitude of diseases.—Rohde, MSS.; Cal. Cat. Ex. 1862.

CASTRO. Don Juan de Castro, captain in the fleet, and author of the history, of Don Stephano de Gama, which in 1540 sailed from Goa to Suez, with the intention of burning the Turkish galleys there.

CASTURI-MUNJIL. TAM. Curcuma zedoaria, CASUARINA POMANDIRA, Tha-byai-ywet-kyi, BURMESE, is found in the Pegu districts, but scarce. Timber strong and close-grained.Wood white-coloured, adapted for fancy work and cabinet-making.—M'Clelland.

CASUARINA. Several species of this genus of trees grow in India,—distyla, equestifolia, modillora, nuricata, and torulosa, and in Australia, as C. Deeaniana, C. quadrivalvis or Australian oak, C. torulosa or forest oak, C. paludosa or swamp oak or fir, and C. suberosa or cork-bark oak, from the peculiar appearance of its bark. Others, as the C. distyla, C. Fraseriana, C. glauca, are from their resemblance also called firs. The Madagascan name is Filao. The wood of some species is extremely hard, and used by the Pacific islanders for war-clubs. Whilst every other kind of vegetable and meat was eaten with the fingers, cannibal food was touched only with forks, generally made of the wood of the Nokomoko (Casuarina equestifolia, Forks,) or the vesi (Afzeja bijugia, A. Gray), bearing curious, often obscene names, and having three or four long prongs. The reason given for this deviation from the general mode of eating was a widely-spread belief, that fingers which have touched bokola are
apt to generate cutaneous diseases when coming in contact with the tender skin of children.

Kayu aru, the C. littorea, is often termed a bastard pine, and as such gave name to the Isle of Pines discovered by Captain Cook. By the Malays it is usually called Kayu chamara, from the resemblance of its branches to the ornamental cow-tails of Upper India. It delights in a low sandy soil, and is ever the first that springs up from land reclinued by the sea. In Australia there occur aberrant species. — C. Bennett; Von Mueller; Galton’s Vacation Tourists, p. 268.

CASUARINA EQUISIFOLIA. Forst.
Sary ka jarar, . . . Dek. Aruan tree, ANGOLO-MALAY.
Beef wood. . . . Eng. Iron-wood of the S. SEA IS.
Fir tree, . . . Chouk maram, . . . TAM.
Filao of MADAGASCAR. Serva chettu, . . . Tel.

This tree was introduced into India about the beginning of the nineteenth century, and grows freely, ripening its seed in great abundance. In general appearance it much resembles the larch fir. It grows in 10 years to the height of about 30 feet, generally very straight, and, where the main shoot is broken or lopped off, throws out secondary shoots readily, which are usually erect. It thrives best in sandy tracts along the sea-shore. The wood is very hard, is reddish in colour, and in density and appearance it somewhat resembles Trincomaloe. It bears a great strain, is well adapted for posts, and is said to bear submersion in water very well. The bark contains tannin, and a brown dye was extracted from it by M. Jules l’Epiné of Pondicherry. It is a favourite avenue tree, and, if kept stunted, forms a beautiful hedge. It has been very extensively planted in various parts of the Madras Presidency, on the coast and inland, but the larvae of a large species of Aceta has caused much injury to plantations near Madras. It appeared suddenly in September 1867. The larvae burrow in the sand in subterranean passages, and from the night emerge from the sand and crawl up the young trees, generally biting off the young graceful Tamarix, and it burrows in Tahiti to provide a levy for soap.—M. E. J. R.

CASUARINA MURICATA. Ruzib. Fir tree.
C. littorea, Rumpa, . . . C. littoralis, Saliéh.
H’en-roo; . . . BURN. Haria, . . . HIND?.
Tiean pine; Beef-wood. . . . Kayu aru, . . . MALAY.

This is grown in all parts of the Dekhan, where it was introduced about 1830. It is a native of Chittagong, is the only species indigenous to the Tenasserim coast, and has been diffused over Bengal. In Tenasserim, it is found only in the loose sandy soil of the seaboard, and never inland. In general outline it resembles the pine, but it is of a more slender figure, and more elegant in appearance. Growing eighty feet high, and spreading out, without a leaf of covering; its numerous fine-knotted branches, mantled with brilliant green, and hanging in drooping bunches, or floating out lightly upon the breeze like long skeins of green silk, adorn it with the most graceful appearance, and stand it in the most desirable trees for embellishing a Tenasserim park. Trunk 3½ feet in circumference 4 feet above the ground. The wood is very hard and durable; and the Tahitians in their war days chose it for the manufacture of their ingeniously carved war-clubs; hence they termed it the club-wood. They also fashioned fishing-hooks from its roots. It is imported into the United States in considerable quantities, for various purposes where a hard, heavy wood is required. The natives of Tenasserim call it by the same name as the pine. — Drs. Ruzib. iii. p. 59; Ridell and Mason.

CASUARUS, the cassowary, a genus of great birds belonging to the section Struthionidae. Three species are known,—C. galarena, a native of Ceram, C. Australia, inhabiting the Cape York district of Australia, and C. Bennettii, whose domicile is New Britain. The Malay name is Suwari, from which the European one is taken.

Casuarius galusus inhabits the island of Ceram only, and, like the cockatoos, crown pigeons, and birds of paradise, was made known to the inhabitants of the west through the Malay and Javanese, who have immemorially carried on a trade with the country of the Papuans. It is a stout, strong bird, standing five or six feet high, and covered with long hair-like feathers. Its head has a large horny casque or helmet.

Casuarius Bennettii, Gould, is the cassowary of the island of New Britain, near to New Guinea, where it is called Mooruk. The height of the bird is three feet to the top of the back, and five feet when standing erect. Its colour is rufous, mixed with black on the back and hinder portions of the body, and raven black about the neck and breast. The loose wavy skin of the neck is beautifully coloured with iridescent tints of bluish purple, pink, and an occasional shady green, quite different from the red and purple caruncles of the Casuarius galusus. The feet and legs, which are very large and strong, are of a pale ash colour. This bird also differs from the C. galusus in having a horny plate instead of a helmet-like protuberance on the top of the head; which callous plate has the character of and resembles mother-of-pearl darkened with blacklead. The form of the bill differs considerably from that of the emu, Dromaius Nova Hollandiae, being narrower, larger, and more curved, and in having a black or leathery case at the base. Behind the plate of the head is a small tuft of black hair-like feathers, which are continued in greater or less abundance along most parts of the neck. The eye is about the same size as that of the emu, and is of a dirty pale yellowish-green colour. The bird appeared to Dr. Bennett to approximate more nearly to the emu than to the cassowary, and to form the link between these species. In its bearing and style of walking it resembles the former, throwing the head forward, and only becoming perfectly erect when running; it also very much resembles the apertyx in its body, in the style of the motion, and in its attitudes. Its bill presents a great deal the character of that of a rull; it utters a peculiar chirping whistling sound, but also a loud one resembling that of the word Mooruk, whence, no doubt, is derived its native name. The male is selfish and easily irritated. It kicks always in front, its legs sometimes reaching as high as a man’s waist.

Casuarius galusus, Gould, the helmeted cassowary of Ceram, is so called from the horny helmet which surmounts the head. Its rudimentary wings consist of five long bristles like blunt porcupine quills. It runs swiftly with a bounding motion. It feeds on fruits, birds’ eggs, insects, crustacea, and tender herbage. It is a stout and strong bird, standing five or six feet high, and covered with long, coarse black hair-like feathers.

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CATAIARACTS.

Cataracts. Kami, Sair-ul-Balad Dr. no they but in but in seven. — Crawford's Dictionary, p. 84; London Athenæum, Dec. 12, 1857, p. 1551; Wallace, ii. p. 86; Dr. Bennett in a letter dated Sydney, 10th Sept. 1857; G. Bennett, p. 260.

CASVINI, the name in history of Zacaria ibn Mahomed ibn Mahomed al-Kousi al-Kazvini. He wrote the Ajaib-al-Makhlikat, or the Wonders of Creation, in the Arabic tongue. It treats of natural history, of the qualities of animals, vegetables, and minerals, as also of waters, aerial spirits, fairies, genii, and talismans; but all with a view to confute the Jewish rabbins. His work is much esteemed by Mahomedans. It has been translated out of Arabic into the Turkish language, and also into Persian. There seems to have been another Casvini, who is the person meant by Abd-al-Latif, author of the book called Lubb at Tawarik. He is cited by Golins in his Notes on Alfargani, pp. 4, 8, and 22. — History of Genizah Cat., p. 418.


Cats are found throughout the south and east of Asia. The name of the wild cat in many languages seems to be related to pass. The Persian is Puschak; Afghan, Pischik. Even the Kurd keeps his Psik, the Lithuanian is attached to his domestic Piije, and the Turk has a kindly feeling for the Puschik. They are mentioned in a Sanskrit writing 2000 years old, and there are figures of them on the monuments of Egypt of a much prior age. Mummy cats have been identified with the Felis chaus, and with F. caligulata, F. babastes, both still found in Egypt, wild and domesticated. No mention of the cat occurs in the Bible, or in any Assyrian record. Even in India Professor Max Müller is quoted as saying that it was but recently known as a domestic animal. Its Sanskrit name is Mārjāra, from a root meaning to clean, from the creature's habit of licking herself at her toilet. Her mousing habits were well known to the Romans, and even to the Etruscans, as shown by antique gems and even wall-paintings. The mouse-killer domesticated among the Greeks, called γαλάζιo, described by Aristocles, has been shown by Professor Rolleston to have been our white-breasted martin (Martes foina). The γαλάζιo δρυία o ετερι was a polecat, a foumart, larger, and a great lover of honey as well as a killer of birds. Pallas, Temminck, and Blyth believe that the domestic cats are descendants of several wild species which readily intermingle. F. sylvestris is wild in Scotland. F. lybica is the wild cat of Algiers; in S. Africa, F. cafra is wild. In India are four wild species, of which F. chaus has a lynx-like tail. F. ornata or torquata occurs at Hansi, and its home is on Central Asia. In the Isle of Man cats are taillose, and have long hind legs. The domestic Creole cat of Antigua is small, with an elongated head, and that of Paraguay, also small, has a lanky body. In the Malay Archipelago, Siam, Pegu, and Burma, all the cats have truncated tails with a joint at the end. In China a breed has drooping ears. The long silky-furred Angora cats are annually brought to India for sale from Afghanistan, with caravans of camels, even so far as Calcutta. These animals are currently known as 'Persian cats'; but Mountstuart Elphinstone remarks that they are exported in great numbers from Afghanistan but are not numerous in Persia, since once sought after by the Persians. Irwin also notices that they are bred in Kâbul and some parts of Turkestan, and very improperly called "Persian," for very few are found in Persia, and not exported. The Kabulis call this cat baruk or burak, and they encourage the growth of its long hair by washing it with soap and combing it. It is supposed to be the descendant of the F. manul of middle Asia. It breeds freely with Indian cats. There is a wild cat in Borneo. In Australia there was no feline animal, no apes, monkeys, cats, tigers, wolves, bears, or hyenas; no deer or antelopes, sheep or oxen; and no elephant, horse, squirrel, or rabbit; but it has marsupials only, kangaroos, opossums, and the duck-billed platypus. In Europe, cats play a considerable part in folk-lore; they appear and disappear unexpectedly, they haunt the paths of the night, and they are the only friends of old women with a repulse for necromancy. Whittington, so long the hero of a popular nursery-tale of England, is rivalled by the story of the Florentine Messer Ansaldo degli Ormanni. In a letter of Conte Lorenzo Magalotti in the Scelta di Lettere Familiari, published by Nardini, London 1802 (p. 139), are described his two cats, 'due bellissimi gatti, un maschio, una femmina,' which soon relieved the king of an island (Canaria), on which he had been cast by a violent tempest, from the plague of mice, and he was recompensed 'con richissimo doni.' — Earl, p. 233; Darwin's Animals and Plants; Sair-al-Balad in Osweley's Tr. i. 171.

CATABENI, an ancient mercantile race, who made Okelis their seaport. See Okelis. CATALAPTA BUNGEE. Smith. Ts'in, Hia, Chin. A large timber tree of China. Its wood is used for chestmen, chess tables, and weighing-scales frames. Formerly in China its leaves were worn as an ornament at the beginning of autumn. C. syringifolia, Sinus, a timber tree of Japan, of Ohio, and the Mississippi. Its wood used similarly to that of C. bungei. — Smith.

CATTALLIKAI. TAM. Capparis hoorida.

CATAMARAN. ANGLO-TAM. The Kattay maray of the Tamil people. A boat-shaped raft on which the natives of the Coromandel coast, for fishing, etc., cross the surf that continuously washes their shores. It is composed of three logs of wood pointed in front, made still more prow-form by wedge-like sharpened timber, and widening to the stern. The catamaran rides lightly on the sea, and rises to an ordinary surf, but is overwhelmed and tossed and rolled about by a great breaker, and the natives usually dive away to avoid the advancing angry mass of water. See Boat.

CATAKAPPA. MALEAL. Terminalia catappa.

CATARACTS. Of these there are several in India. Where the river Shirewari falls into the Gulf of Arabia it is about one-fourth of a mile in width, and in the rainy season some thirty feet in depth. This immense body of water rushes
down a rocky slope for 300 feet at an angle of 45°, at the bottom of which it makes a perpendicular plunge of 850 feet into a black and dismal abyss, with noise like the loudest thunder. The whole descent is therefore 1150 feet, or several times that of Niagara; but the volume of water in the latter is somewhat larger than in the former. The principal cataracts or waterfalls in India are near Simorrit, in Rohilkhand; at Gokak, on the Gupurtaks; on the Gairasappa, where from top of fall to surface of basin is 688 feet, and the depth of basin is 300 feet=1188 feet, and from 300 to 600 feet across during the rains; Yena, in Maha-baleswar, 600 feet; Cauvery, 370 and 460 feet; cataracts of Subnurake, Chutia Nagpur, and Hurroli Ghat,—the falls 15, 20, and 400 feet respectively, about 500 feet across.—Cur. of Sc.; Buist's Cat.


CATECHU, Terra japonica, euch. 
Shia-dza, ... Bum. ... Katchu, ... Ger. ... 
Shi-ai, ... Couch. ... Katchu; Catech. ... Guj. ... 
Coat, ... Chini. ... Cathee, ... Ir. ... 
Wu-tieh-ni, ... Chin. ... Cateeu, ... It. ... 
Wu-tieh-ki, ... H. ... Kachu (of Aacacia), ... Malay. ... 
Hai-rh-cha, ... H. ... Gambia (of Uncaria), ... Mal. ... 
Rh-eha, ... Yang-cha, ... Catech, ... Fin. ... 
Cachou, ... Fr. ... Kashi katti, ... Tam. ... 

Several astringent extracts prepared from the woods, barks, and fruits of various plants are known as catechu, euch, terra japonica, and gambier. They form articles of commerce, and are employed in tanning and dyeing. That called kut or kotech by the natives of the East, and euch andterra japonica in commerce, is an extract prepared by cutting into chips the inner brown-coloured wood of the Acaea catechu, and making a decoction, which is afterwards evaporated to a proper consistence. The extract from the Uncaria gambier is also known in the market as euch, as also is the extract from the nuts of the Areca catechu. At the Madras Exhibition of 1855, catechu was shown in the form of—1. Coarse flat cakes. This substance is covered on both sides with puddle husks. 2. Large flat cakes from the Northern Division, varying in colour from brick dust to dull yellow. 3. Round balls of a dark brown colour, the size of a small orange, from Mangalore, where a large manufacturer takes place. These sorts appeared to vary only in shape. The manufacturers from the Acaea catechu work in Burma, Canara, the western Dehkan, Behar, and Northern India. They move to different parts of the country in different seasons, erect temporary huts in the jungles, and, selecting trees fit for their purpose, cut the inner wood into small chips. These they put into small earthen pots, which are arrayed in a double row along a fireplace built of mud; water is then poured in until the whole are covered. After a considerable portion has boiled away, the clear liquor is strained into one of the neighbouring pots, and a fresh supply of material is put into the first, and the operation repeated until the extract in the general receiver is of sufficient consistence to be poured into clay moulds, which are generally of a quadrangular form. Before the extract is quite dry, it is placed in cloths, strewed over with the ashes of cow-dung, cut into small lumps, and again exposed to the sun. This catechu is usually of a blood-red colour, and is considered there to be of the best quality.

Catechu has long been employed in India for tanning skins. Its tanning properties are stated to be so great that skins are tanned by it in five days; but the leather is light, spongy, permeable to water, and of a dark reddish-fawn colour. The light-coloured variety of catechu produces a softer leather than that tanned with euch. Catechu produces but little of the deposit of bloom which is yielded by oak-bark, valonta, and divi. A pound of catechu is said to be sufficient for the production of about a pound of leather. Bombay catechu or euch is the richer in tannin; it is of a dark brownish-red colour, internally as well as externally, and of sp. gr. 1:38. Bengal catechu or terr is of a light-brown colour internally; its sp. gr. is 1:28. It has also been used in India to give a brown dye to cotton, and has been very extensively employed in the calico-printing works of Britain. The salts of copper, with sal-ammoniac, cause catechu to yield a bronze colour, which is very permanent. The proto-mururate of tin produces with it a yellowish-brown. A fine deep bronze hue is also produced from catechu by the perchoride of tin, with an addition of nitrate of copper. Acetate of alumina gives a brown, and nitrate of iron a dark-brown. For dyeing a golden coffee-brown, catechu has an entirely super-seded madder, one pound of it being equivalent to six pounds of that root.

A catechu prepared from the nuts of the Areca catechu is used solely as a masticatory. The nuts, however, yield two astringent preparations, both of which are known as catechu, and both of a very inferior quality. The preparations are respectively called, in Tamil, Katha kamb and Kashi katti; in Telugu, Kansi; and in the Dekhan, Khra katha and Acha katha. Katha kambu is chewed with the betel leaf; the latter, Kashi katti, is used medicinally. For preparing this substance, the nuts are taken as they come from the tree, and boiled for some hours in an iron vessel. They are then taken out, and the remaining water is inapsissated by continual boiling. This process furnishes kasan, or the most astrin gent terra japonica. After the nuts are dried, they are put into a fresh quantity of water and boiled again; and this water being inapsissated, like the former, yields the best or dearest kind of catechu. Sir H. Davy, in analyzing the dark and pale catechu, or the Bombay and Bengal, as they were called, obtained in 200 parts from

| Inso | Tannin. Extract. Muelage. residuum. | Dark catechu, 100 | 65 | 35 | 11
| Pale do. | 97 | 73 | 16 | 11 |

When of good quality, catechu is a more powerful astringent than kino. Catechu is much used in medicine as an astringent and tonic, being usually given in combination with aromatic and early substances.—Simmonds; Malcolm's Tr. i. 187; M'Clell. Repts.; Med. Eph. Jur. Rep.; O'Sh. Disp. p. 302; Royle; Mat. Med., p. 351; Faulk.; Kerr. Med. Obs. and Inquiries., v.; Hamil. Mysore, i.ii. See Acaea catechu; Areca catechu; Uncaria gambier.

CATERPILLAR. Uskul, Arab.; Chasil, Heb. Some Ceylon caterpillars sting. A greenish one, that occupies the Thespasia populnea (Suriya, Singh), at a certain stage in its growth descends by a silken thread, and hurries away. The moth of this is supposed to be a Bombyx, near Onesto-
CATGUT.

Two pounds weight of the fruit yield eight ounces of the concrete pulp, which forms an article of commerce. Its bark is used in tannin. The bark of the root is a strong purge.—Dr. Wight, Gibson, Irvine, Roxb. ii. p. 333, Stewart, Thompson, and Browdts; Mr. Rohde; Powell.

CATHARTOCARPUS JAVANICUS. Pers.

The Cassia Javanica, or horse cassia, is a native of Java and the Moluccas, with legumes above two feet in length, containing a black cathartic pulp, used in India as a veterinary medicine.—Eng. Cyc.

CATHARTOCARPUS NODOSUS. Roxb.

Cassia nodosa, Buch. | Guu-thei-ni, | Bumb.

Remarkable for its large pink-coloured flowers. It is highly esteemed in Bengal, and is found in the Tavoy forests.—Mason; Voigt.

CATHARTOCARPUS ROXBURGHII. D.C.


A highly ornamental tree, in form much resembling the weeping ash. It is a native of Ceylon and of the south of India, frequent in the jungle between Trichinopoly and Dindigul, and is found in Indian gardens. The wood is hard, and handsomely marked.—Roxb. ii. p. 338.

CATHAY, a name of Western China.

CATHI or Catti, the Katheri of Diodorus Siculus, are supposed to be the race which so manfully opposed Alexander. They were then located about Multan, at this period occupied by the Langa race. A portion of them gave their name to Kattyawar, in the Saurashtra peninsula. The Cathi claim descent from the Balla, an additional proof of northern origin, and strengthening their right to the epithet of the hards, Lords of Multan and Tatta. At the time of Alexander's advance they were confined to the country near the Panjnad, and their own traditions fix their emigration from the south-east part of the valley of the Indus about the eighth century. Colonel Tod describes the genuine Cathi as of a fine manly form, open countenance, and independent gait. Captain M'Murdo says, a character possessed of more energy than a Cathi does not exist. With an athletic frame, their height often exceeds six feet. They have light hair and blue eyes, evidence of a Scythian origin. Burns describes the Cathi (or Katti) as a tall, stout, and handsome race. They live in scattered villages, and move their houses from place to place, rearing immense herds of buffaloes and camels, but scarcely ever descending to cultivate the soil. Their habits are likewise predatory.—History of the Panjab, i. pp. 38, 39; Travels in Western India, p. 306; Tod's Rajputan, ii. p. 246.

CATODON, a genus of mammalia, one of the Cetacea. The species known are C. colneti, C. macrocephalus, C. polyccephus, and C. australis. The last is a sperm whale of the ocean near Australia. It is about 35 feet long.

CAT'S EYE.

Cats' eye is chiefly found in Ceylon, but also obtained from Quilon and Cochin, and in the neighborhood of Madras; also in Burma. Cat's eye is not much valued in India. It is a transparent quartz full of minute fibres of asbestos, and is cut in a highly convex form. It is of a yellow hue, slightly tinged with green, and is often set in rings. In the Moultewin market a small one
CAUCASUS.

In the middle of the 19th century, a severe cattle plague carried off vast quantities of cattle in Europe, and shortly after a similar plague in India carried off great numbers. The characteristic symptoms were dropping, cold ears, hair standing on end, frequent weak pulse, running at the eyes and nose, scanty high-coloured urine and purging, terminating in a bloody flux. As the disease advanced the body became covered with pustules, the disease generally proving fatal in a few days; but when the membranes of the brain were affected, the animal died in a few hours with the symptoms of apoplexy.

The bullock and the cow are not of equal value in India. In the parts of the country where the one sex is particularly valuable, the other sex may be of small value. The excellence of the Marwar bullock for draught is proverbial, but we never hear of the Marwar cows' milk. The male of the Gujerat buffalo was esteemed so little, that in the early part of the 19th century they were for the greater part not even reared. The males of the Mahoo breed were said to be so fierce as to be useless except for reproduction.—L. The male buffalo of the Surat breed is of great size and weight. The milch buffalo of Surat is of great value. Lands bordering upon hills are of comparatively greater value to cattle graziers, over plain districts which are put under the plough. In these the working cattle fall off miserably in the three concluding months of the fair season. There is no grazing; and were it not for the purchased food they get in the house, they would die.

CATTRA-BANGHA. Sansk. Aristolochia bracteata.

CATTU. Maleal. Wild or uncultivated; hence Cattu-Carn, Cinnamonum iners; Cattu-Casturi, Aebelmoscus moschatus, Cattu-Casturi, Aebelmoscus moschatus, Cattu-Eupla, Terminalia bellierische, Cattu-Paera, Phausolus rostratus, Cattu-Sirangam, Vernonias anthelmintica, Cattu-Tirpali, Chavies Roxburghi.

CATTY or Kati. Malay. In the Eastern Archipelago and China, a weight equal to 1 lb. or 16 talle; 10 sable equal to one liang; 16 liang make one catty. 100 catty are equal to 1 pikul, 133 lbs.—Wls.

CATTU KAMRIGA RAKTA, dragon's blood.

CATTUS SPLICIFLORUS. Linn. Analypa hispida. | Watia tali, Maleal.

A plant of Travancore; its flowers are given in diarrhoea in the form of decoction or as a conserve, and its leaves are boiled up with green tobacco leaf and infusion of rice, and applied to inveterate ulcers.

CAUA-THENTHI. Hind. Chitora ternatea.

CAUBUL, a town in Afghanistan, in long. 69° 12' E., and lat. 34° 7' N. See Kabul.

CAUCASIAN, a term applied by ethnologists to a race of which the European is the type, also to a class of languages. In the Caucasian race, there is a fine forehead, high brow and nose, long beard, tall, lithe, powerful frame, and light colour of skin.

CAUCASUS. The main chain of the Caucasus crosses obliquely, from north-east to south-west, the great isthmus which lies between the Black Sea and the Caspian, separating Europe from Asia. The chain extends on a line of more than 1000
miles from the neighbourhood of Anapa, at the entrance of the Sea of Azof, almost in a straight line to Baku and the peninsula of Apsheron jutting out into the Caspian. The crest averages a height of about 11,000 feet. The valleys on both sides are steep and narrow, and the Terek pass, 7977 feet. The principal range boasts the gigantic Elburz, 17,746 feet, and Kasibeck, 16,546 feet. The heads of these two celebrated mountains are almost always obscured with clouds; and the snow-line on them is 11,000 feet, and cereals grow up to 7000 feet.

The whole of the Caucasian region consists of the old territories of Daghestan and Circassia, north of the main chain, and of the old kingdom of Georgia on the south, to which Russia added at various epochs the Armenian districts of Erivan, Elisavetpol, and Alexandropol, and more lately those of Kars and Batoum. The Caucasus is of importance to Russia as the channel through which her trade can be carried to all parts of Central and Southern Asia, her commercial enterprise rather outstripping than following close her territorial aggrandizement. The Caucasus is like a great wedge thrust between Persia and Asiatic Turkey. It is the highway which is to lead the merchandise as well as the arms of Russia to the shores of the Persian Gulf and the Indian Ocean, sooner than any of her roads or railroads across the Ural, via Perm or Orenburg,—sooner than her almost exclusive navigation of the Caspian Sea.

The whole of the Caucasian regions is ruled by a Russian lieutenant, residing at Tiflis. It is divided into 12 governments or provinces, exclusive of Kars and Batoum. It has, in round numbers, an area of half a million square kilometres, with a population of 5,000,000. In Tiflis, the capital, out of 104,000 there are at least 20 races of men. Russians muster 90,829; but the Armenians outnumber them by 5787. Next come 22,152 Georgians of various tribes; and the rest is made up of Turks, Persians, Turks, Jews, Assyrians, and Circassians, besides various mountain tribes deemed indigenous, the Ossets, Ingush, Aisors, Khefsurs, Leseleighs, etc., with 2741 Poles, 2135 Germans, 257 French, 163 Italians, 52 English. With respect to creeds, 52,392 Russians and Georgians belong to the orthodox or Greek-Russian Church; 36,000 are Gregorian Armenians; 871 Armenian Catholics, with 36988ther Roman Catholics; 2177 Lutherans, 1276 Jews, and 4338 Mahomedans. Petroleum, in enormous subterranean lakes and reservoirs, underlies the Caucasian region from sea to sea. It is largely found beneath the steppes both north and south of the mountain chain. At Baku, at its southern end, on the Caspian, naphtha bursts forth in copious springs, sending up tall liquid columns not unlike the geysers of Iceland.—*M. Gregorov. Persia; Wheelers Hist. of India; Pont. Trans.*

**CAULIFLOWER.** Brassica oleracea, var. An excellent vegetable. In the Dekhan the seed should be sown at the latter end of August. Removing the plants occasionally, prevents their quick growth. In England the market gardeners seldom water cauliflower, and once in four days is amply sufficient in the Dekhan; no injury will accrue even if watered less frequently. In India, white broccoli is often taken for the cauliflower. Broccoli, both red and white, should be cultivated in the same manner as cauliflower.—Riddell.

**CAUVERY.**

CAUTLEY, Sir Proby Thos., K.C.B., entered the Bengal Artillery in 1819. He was employed in the field during the years 1820 and 1821, in the reduction of numerous forts in the kingdom of Ootth. In 1825 and 1826 he served at the siege of Bhartpur. He was subsequently employed as a civil engineer on the eastern Jumna Canal in the N.W. Provinces, and was the projector and the executor of the great Ganges Canal Works, which were opened 8th April 1854. He carried on extensive researches, in conjunction with Dr. Falconer, in the fossil remains in the Siwalik hills, and he presented to the British Museum an extensive collection of fossil mammalia from the Panjub. He wrote on a submerged city, 20 feet under ground, near Behut, in the Doab, Bl. As. Tr. 1854; On Fossil Quadruman, ibid.; Use of Wells, etc., in Foundations, as practised in the Northern Doab; Structure of the Sevallick Hills; Notice of a Fossil Monkey from the Sevallick Hills; Letter from Lally to the Himalayas; Description of Sivalherum giganticum, the Fossil Crocodile, Giraffe, Ghurial, Hippopotamus, Camel, Tiger, and Bear; Gold Washings in the Goomti River, in the Sevallick Hills, between the Jumna and Sutlej Rivers; On a New Species of Snake; Mastodontia dentirotes; Mastodons of Sevallicks; Manufacture of Tar in the Sevallick Hills; Panchukhi or Corn Mill; Dam Sluices; Remarks on the Fortress of Aligrur; Caramans Bridge. On leaving Calcutta for Europe, he was honoured with a salute from the batteries of Fort William, and was favourably noticed in the Government Gazette.—*Gleanings of Soc. Beng. As. S. Tr. 1854; Parlys Military Repository, Lond.; Geol. Soc. Tr. 1840.*

CAUVERY, the Chaberos of Ptolemy, a river of the Peninsula of India, which rises in the mountains of Coorg, 50 miles from Mangalore, in lat. 12° 25' N., and long. 75° 35' E., and, after an easterly course of 472 miles, it discharges into the Bay of Bengal, receiving the Magmuru, 40 miles; Bhawani, 120 miles; Noyel, 95 miles; Seringapatam, Trichinopoly, Tanjore, and Tranquebar on its banks. It passes through and from Mysore to the coast; at Trichinopoly it forms the island of Siringam; and a mound at Coiladdy prevents the junction of the two forks of the Cavery and Culerun, and the stream is led into numerous large irrigating channels that are conducted all through Tanjore. The largest of these are the Vettar, the Vellar, and Arselar, all of which enter the Bay of Bengal. Navigable for craft through the low country during the inundation. A waterfall occurs in its course. It is deemed by the Hindus a sacred river, and is called by them the Dakshini Gang, or Southern Ganges. At its source, at Tala Kavori and at Blanga mandir, where it receives its first tributary from the adjacent Hindu temples which are largely frequented by pilgrims in the Tulemas (October to November).

The Cavery drains an area of about 28,000 square miles. The area of its delta is 2760 square miles, and its irrigation system supplies about 835,208 acres, yielding a revenue of Rs. 35,30,336. Its delta has the largest area of artificial irrigation in the Madras Presidency. About 10 miles west of Trichinopoly, the Agunda Cauvery divides at the head of the island of Seringah into two branches, the Culerun and the Cauvery. Colonel Sim and
CAUVERYPAK.

Sir Arthur Cotton, about 1834-6, constructed a weir across the Cauvery, which has given great benefits to the people of Tanjore. The head of the Cauvery branch is 1500 feet wide, and the bed level is regulated by a dam. After a course of 16 or 17 miles, the Cauvery bifurcates into two principal streams, called the Cauvery and the Vennar, which irrigate nearly equal areas, and which give off numerous branches, and regulating works have been constructed at all the bifurcations. Prior to British rule, the native princes had connected the Cauvery with the Cauvery the east end of the island of Srirangam, about 20 miles from the upper Cauvery anicut, and across this channel they had constructed the Grand Anicut. In the northern delta, the whole of the distribution of water has been artificially carried out by canals, but in the Cauvery delta the principal distribution has been effected naturally by the numerous branches thrown off by the Cauvery and Vennar. The chief work left to be done by the British was to render the water supply more reliable, and this was secured by the Upper Anicut in 1836, at an expenditure of Rs. 1,88,000.

CAUVERYPAK, a place midway between Con- jeveram and Arcot. Clive gained a battle here in February 1752, and the place surrendered to him.

CAVA or Kava, also called Ava pepper, is from the Macropiper methysticum of the Pacific. Its root produces a stimulating liquor. See Ava.

CAYAGNARI. Major Sir Pierre Louis Napoleon Cavagnari, K.C.B., son of General Adolphe Cavagnari, of a noble Parmese family. He entered the service of the E. I. Company as 'direct cadet,' and served with the 1st Bengal Fusiliers in the Ouddh campaign of 1858-59, also with the 3d Gurkhas throughout the Ambala campaign of 1863, and the Hazara campaign of 1868. He received the Victoria Cross, for the daring capture of a band of murderers in connection with the Swat Canal outrage in December 1876, near the English fort of Abazia, where many workmen were killed. He accompanied Sir Neville Chamberlain on a mission to the Amir Sher Ali, and was in advance with a small body of the escort, when he was stopped by the Afghans at Ali Musjid, and compelled to turn back, an incident which was the immediate cause of the Second Afghan War. He accompanied General Sir Samuel Browne as Political Officer, and at the termination of the campaign was appointed Plenipotentiary, and in that capacity negotiated the peace with Yakub Khan at Ghazni. He and his guard were killed at Kabul, which led to the re-occupation of Kabul, Kandahar, and Ghazni.

CAYATUM PILLOO. Tam. Andropogon schoenanthus.

CAVE. Ghur, Arab, Pers.; Koo, Burmese. Chambered rocks occur in many parts of Afghanistan, also in a mountain S. of the Deo Hissar, near Singlah, and are probably of Buddhist origin. The small chambers were intended for the abode of the ascetics of the sect. There are some fine remains of this class in the upper valley of the Urganb. At Karaftu, in the Suj Bolak district of Azarbijan, is a series of ancient caves. There are numerous chambered rocks at Banian; and the Afridi tribe in the Khaibar pass live in chambered rocks.

CAVE TEMPLES.

CAVE TEMPLES and monasteries of India consist of stupendous excavations and monolithic structures, made for religious and monastic purposes. There are in India at least 1000 distinct caves. Some are opposite Prome in Burma; there are a few in the Madras Presidency; about 900 in the Bombay Presidency; several in the Hyder- abad Dominions; also in Orissa, in Behar, in Malwa, in the valley of the Indus, among the mountains of Baluchistan, Afghanistan, and Bamiyan. In Western India alone, including the Nizam's dominions, there are at least thirty series of cave-temples which have been examined by Europeans. Cave inscriptions discovered are seventeen in number, viz. six about 15 miles from Gya, in Bahar, viz. three in the hill of Barabar, three in the hill of Nagarjuni, nine in the hill of Khandagiri, in Cuttack, and two in Rangar in Sirigupa.

The Cave Temples in the southern part of India are classed by Mr. Ferguson into—

(a) The vihara or monastery caves, which consist of (1) natural caverns or caves slightly improved by art. These are the most ancient, and are found appropriated to religious purposes in Behar and Cuttack. Next (2) a verandah opening behind into cells for the abode of priests, as in Cuttack, and in the oldest vihara caves at Ajanta. The third (3) has an enlarged hall supported on pillars. The most splendid caves are those of Ajanta, though the Dherwara at Ellora is also fine, and there are some good specimens at Salsette and Junnar.

(b) Buddhist chaitya caves form the second class. These are the temples or churches of the series, and one or more of them are attached to every set of caves in Western India, though none exist on the eastern side. Unlike the vihara, all these caves have the same plan and arrangement, and the Karli cave is the most perfect in India. All these consist of an external porch or music gallery, an internal gallery over the entrance, a central aisle which may be called a nave, roofed by a plain waggon vault, and a semi-dome terminating the nave, under the centre of which always stands a dagbopa or chaitya. In the oldest temples, the dagbopa consists of a plain central drum, surmounted by a hemispherical dome crowned by a Tee, which supported the umbrella of state of wood or stone. These two classes comprehend all the Buddhist caves in India.

(c) The third class consists of Brahmanical caves properly so called. The finest specimens are at Ellora and Elephanta, though some good ones exist also on the island of Salsette, and at Mahabalipur. In form many of them are copies of and in good degree resemble the Brahmanic temples. They have not been appropriated from the Buddhists, as the arrangement of the pillars and position of the sanctuary are different. They are never surrounded by cells, as all vihara are; and their walls are invariably covered or meant to be covered with sculpture, while the vihara are almost as invariably decorated by painting, except the sanctuary. The subjects of the sculpture of course always set the question at rest.

(d) The fourth class consists of rock-cut models of structural and Brahmanical temples. To this class belong the far-famed Kailas at Ellora, the Saivite temple at Dhumar, and the laths at Mahabalipur. This last is cut out of isolated blocks of granite, but the rest stand in pits.
CAVE TEMPLES.

The Indra Subba group at Ellora should perhaps form a fifth.

(c) The fifth or true Jaina caves occur at Khandagiri in Cuttack, and in the southern parts of India, but are few and insignificant. In the rock of Gwalior Fort there are cut in the rock a number of colossal figures, some 30 to 40 feet high, of one of the thirthankara, some sitting, some standing. Their dates are about the 10th or 12th century before Christ.

The greater number of the viharas seem to have been grouped around structural tope. Their façades are generally perfect. Nine-tenths occur in S.W. India, in the Bombay Presidency, with a group in Behar, another in Cuttack, one at Mahabalipur, and two or three in the Punjab and Afghanistan. Asoka, B.C. 250, excavated the first of these in Behar, at Rajagriha, and till the 8th century they continued to be excavated by Buddhists, Hindus, and Jains. It is in Behar that the oldest caves have been found, in the neighbourhod of Rajagriha, which was the capital of Bengal at the advent of Buddha; and one, a slightly improved natural cave, the Satapanni, is said to be that in front of which the first conversation was held B.C. 543.

The most interesting group is at Barabar, 16 miles N. of Gaya. An inscription on the Karma Chopa cave there, records its excavation in the 19th year of Asoka (B.C. 245). Another, called Suddanana or Nigope, bears an inscription by Asoka in the 12th year of his reign. The Lomas Rishi is an interesting cave, as also is the Milkmaid's cave, which is probably the most modern, as it was excavated by Dasaratha, grandson of Asoka. Their dates appear to range from B.C. 260 to 200. The rock in which they are excavated is a hard, close-grained granite.

Chaitiya halls have also been excavated in several of the rocks of Western India. The oldest of these has been excavated at Bhaja, four miles south of the great Karli cave in the Bhor Ghat. It is supposed to have been before the Christian era. Another group is to be seen at Beda, 10 or 11 miles south of Karli, which has two pillars with capitals, surmounted by horses and elephants, and more like the Persepolitan than any others in India. A third chaitiya cave is at Nasik, and an inscription over its doorway states that it was the gift of a citizen of Nasik, in the reign of Krishna, one of the Andhrabritya kings, who reigned just before the Christian era. Another inscription under the pillars states it to have been excavated in honour of Badrakara, supposed to have been the fifth king of the Sunga dynasty, B.C. 129.

Karli, on the road between Bombay and Poona, has the largest, finest, and most complete of the chaitiya caves. Inscriptions ascribe its excavation to the Maharaja Bhatti or Deva Bhatti, who reigned B.C. 78.

There are four chaitiya caves in the Ajunta group. The oldest and lowest down, No. 9, is 45 feet by 23 feet in width. The next, No. 10, higher up, is 94 ft by 41½ feet internally. A third is cave No. 19, and in it Buddha in all his attitudes is introduced everywhere. Hitherto in all sculptures mortal men and women had been absent, and Buddhism was a pure theism or atheism, but at the date of this cave Buddhism has become changed into an overwhelming idolatry.—Ferguson, p. 124.

CAVE TEMPLES.

The last chaitiya of Ajunta (No. 26) was excavated about the year A.D. 600.

At Ellora, the celebrated Visvakarma cave is a chaitiya. Its age also is about the year A.D. 600. It is 85 feet by 43 feet.

The Kenheri cave, on the island of Salsette, in Bombay harbour, is 88½ feet by 39½ feet internally, and was excavated about the early years of the 5th century, when Fa Hian was travelling in India. It is a literal and a coarse copy of the Karli cave.

At Dhammar, about halfway between Kotah and Ujjaun, are a series of about 60 or 70 caves, cut in coarse laterite conglomerate. One is a chaitiya cella, in the midst of a vihara; its date probably is the 6th century A.D.

At Khovri, not far from Dhammar, is the most modern group of Buddhist caves in India. One called Arjun's house is a highly ornamented dagoba. Inside is a cross-legged seated figure of Buddha. The only excavation here is a chaitiya hall 26 feet by 13 feet.

Some of the viharas were three or four storeys in height, and containing up to 1500 cells, as at Mahabalipur, 50 miles south of Madras, and at Nalanda, 7 miles north of the old capital of Rajagriha, and 34 miles south of Patna, at which, in the first century, Nagarjuna resided. In Hiuen Thsang's time 10,000 priests and neophytes resided here; religion and philosophy were taught from a hundred chairs, and that pilgrim resided there as a student for five years. He says there were thousands of viharas, but none equal to this. It was to Central India what Cluny and Clairvaux were to France in the middle ages. Some at least of the many viharas, as that cleared out by Captain Kittoe and Mr. Thomas, seem to have been destroyed by fire.

On the western side of India, viharas have been described at Ajunta, near Aurungabad, at Bagh on the Tapti, at Beda, Bhaja, Durasoe or Durngina, Ellora, at Hazar Kotri in the Nizam's territories, at Junir, halfway between Nasik and Poona, and at Nasitt. At Nasik are three great viharas, the oldest of that of Nahapana, A.D. 100; next, Gautamiputra, A.D. 300; and the third, Yadnyaari, A.D. 400. They are a purely Buddhist group. The façades of the first and second are richly ornamented, and were formed during the rule of the Andhrabritya dynasty. At Ellora numerous viharas are attached to the great Visvakarma chaitiya. The great vihara is known as the Dherwarah, 110 feet by 70 feet. In the sanctuaries of most of these caves are figures of Buddha. In the Das Avatara the sculptures are all Brahmanical.

In the neighborhood of Perumwar, there are monasteries of Khandagiri, Takhti-i-Bahi, Shah Dehri, and Sakri Bedel. The sculptures and architecture are highly classical,—Tonic pillars, Corinthian capitals; and some antiquaries regard them as acquired from the Bactrian Greeks, while others attribute them to western influence after the age of Constantine. There are many figures of Buddha, and numerous other figures with nimbus or glories or circular discs at the backs of their heads; they are on the base of the altars or stupas, on the walls and in the cells.

The Brahmanical caves of India were excavated after those of the Buddhist and Jains. The more prominent are as follow:—

1. Saiva cave at Aihole, in the Kalalgi district, S. of Bijapur, A.D. 500 to 560.
CAVE TEMPLES.

2. Pahari caves, one Saiva and two Vaishnava, A.D. 550-579.
6. Rameswara cave at Ellora.
11. Elephanta, Jogeswari, and Mandapeshvari caves near Bombay, A.D. 725-775.
12. Patur in Bera, Budheswara, near Ajunta, Patna in Kandesh, and caves near Satara, A.D. 700-800.

The Beher caves are in the neighbourhood of Rajgir, near Asoka's rock. The Milkmaid's and Brahman Girl's cave have inscriptions in the Lat character. They are of about 200 B.C., and are the most ancient caves of India. The Nagarjunni cave and Haft Khanchi or Satghur group are situated in the southern arm of the hill at some little distance from the Brahman Girl and Milkmaid's cave. Another group is the neighbouring Karna chappaur and Lomas Rishi cave.

The caves of Udayagiri and Khandagiri hill, about 20 miles from Cuttack, and 5 from Bhuvaswara, are next in antiquity to those of Beher. They are built on the hills of Udayagiri and Khandagiri. The former are Buddhist and the older; the latter, probably, are Jain. Many of the inscriptions are in the Lat character, and this gives their age as anterior to the Christian era. The frieze sculpture in the Ganesa gumpa is superior to any in India, and resembles that of the Sanchi tope at Bhiila. In it there are no gods, no figures of different sizes, nor any extravagance. On the Buddhist caves here, there are no figures of Buddha, or any images. In a Jain temple in Khandagiri, the twenty-four thirhankara, with their female energies, are sculptured.

The Ajanta are the most complete series of Buddhist caves in India, without any mixture of Brahmanism, and contain types of all the rest. They are in a ravine in the ghat south of the Tapti. At Bang, also in a ravine or small valley in the ghat, on the north side of the valley of the Tapti, are three ancient Buddhist caves.

Those of Kavi is not so extensive as the Ajanta, but still purely Buddhist, and containing the largest and finest chaitya cave in India. Karli is about halfway between Poona and Bombay on the right-hand side of the valley as you proceed towards the sea.

The Salsette or Kenheri caves in the island of Salsette are also purely Buddhist, but very inferior to the former. The Kenheri caves are excavated in a hill situated in the midst of an immense tract of forest country, and Mr. Ferguson supposed their date about the 9th and 10th century of the Christian era. The monastic system of the Buddhists has its finest illustration in the series of dormitories, chapels, halls, and temples at Kenheri.

Dhummar, about 40 miles south-east from Nemmich, but close to Chundivass, contains Buddhist caves with a Brahmanical rock temple behind.

The Ellora caves are excavated in a porphyritic greenstone or amygdaloid. The Kailas at Ellora is a wonderful work of art—a small hill cut into a temple. The caves of Elephanta overlook the harbour of Bombay. The Elephanta caves are cut in a harder rock than those at Ellora. Those of Dhummar and Ellora contain a strong admixture of Brahmanism, and those of Elephanta are entirely Brahmanical, though perhaps of the same age as those of Ellora.

The Orissa cave temples are in two isolated hills of sandstone rock, about 20 miles from Cuttack, and 5 from Bhuvaswara. The oldest are in the hill called Udayagiri, the more modern in that portion called Khandagiri. They became Jain about the 10th or 11th century, and at the close of the 18th century a Jain temple was erected in Khandagiri hill. The oldest cave is called Hatthi Gumpa. The Aswatama rock near by has on it a copy of Asoka's edicts; and there is another at Askar, near the N. end of the Chilka lake. They are supposed to have been excavated about the time of Asoka. Another natural cave is stated in an inscription to be that of Chulakarma; and others the Pawan Garbha, Jodev Garbha, the Ganasa, Ananta Garbha, and the Rani Gumpa. In the last-named the sculptures represent hunting scenes, fighting, dancing, drinking, and love-making. The sole emblem which can be regarded as Buddhist are the swastika, the trisul, and shield.—Fergusson, pp. 105, 152, 143; Fergusson and Borges, pp. 408, 484; Cunningham's Archaeological Report.

CAVARE.

Cavial; Caviar, • Fr. Ikra, • Rus. Kaviar, • Ger. Caviario, • It., Sp. Cavials, • Tr.

Caviare, a substance prepared in Russia, consisting of the salted roes of large fish. The best, which is made from the roe of the sturgeon caught in the Volga, in the neighbourhood of Astracan, appears to consist entirely of the eggs. It is packed in small kegs, and exported; but the inferior sort is made into the form of dry cakes. It is highly esteemed in Russia, and also forms an article of considerable export,—30,000 barrels having been exported from Astracan in a single season. The manufacture consists in separating the roe from its membranes, then washing in vinegar or white wine, and drying by spreading it out on a board in the air. Salt is then well rubbed in, and it is next put in a bag and the liquor pressed out. It is then packed in kegs for sale. During the three annual seasons of fasting in Russia, the consumption of caviare is very great, as it is also in Italy during the fasts of the church. It is eaten on bread, with oil and lemon juice or vinegar. Professor Rawlinson says caviare was known to the Greeks as Tarichos anta-kaion. The sturgeon of the Borysthenes, according to Herodotus, were called Antaecei.—Tomlinson, 354.

CWA-ARANG. MALAY. A light brown or pale brown coloured wood of Penang, from a very large tree; used for furniture and ornamental work.—Frith. (Qa. Kayu arang.)

CAWNSEE, from Kani, Kairn, Tam., Tel. In Outack, a hand's-breadth. In the south of the Peninsula of India, a land measure. At Madras the standard cawnee is 24 mani or grounds, each
of 2400 square feet. The cedare is therefore 57,600 square feet = 1-322 of an English acre. Another measurement, however, makes it somewhat less than an acre. The cawnpore, in several districts in the Madras Presidency, is subdivided into 1000s; and in the re-survey of the southern districts of Madras, the decimal subdivision of the acre has been authorized.—Wilson.

CAYENNE or Cawnpur, a large cantonment and town in the Allahabad division, situated on the right bank of the Ganges, in lat. 26° 29' 15" N., and long. 80° 29' 45" E., and 580 feet above the sea. Its civil population is about 122,000, and is 650 miles square in area. It gives its name to the district of Cawnpur in the N.W. Provinces of India, in the Doab, a great alluvial plain between the Ganges and the Jumna. The district is bounded on the N.E. by the Ganges, on the S.W. by the Jumna, on the N.W. by Etawa and Farrakhabad, and on the S.E. by Futtehpur, and extends between lat. 25° 55' and 27° N., and long. 79° 34' and 80° 37' E. A small colony of Chinese settled in Cawnpur, and introduced a manufacture of leather, for which the town was long famous. During the mutiny of the Bengal army, on the 26th June 1857 Cawnpur capitulated to the rebels under Dandhu Punt Nana Rao, under promise of safe escort, but the garrison, under General Wheeler, were all destroyed; and on the 15th and 16th July, all their wives and children were destroyed and thrown into a dry well. In and above the well at the entrenchment, and in the well of the slaughter-house, lay the bones of no less than 20 civilians, military, and female children, of the town, 400 cows, and their wives, and musicians, besides infants. If to these be added the Futteghur party and those who perished outside the entrenchments, there were not less than a thousand Christians, the majority of whom were murdered in cold blood by order of Nana Rao. Seven Christian men, including Delafosse and Thomson, twelve women and six faithful natives, who entered the entrenchment, alone ultimately escaped. Nineteen Christians and five children, who remained in Cawnpur, escaped by aid of the natives, besides a few drummers. Nana Rao seems to have died in the forests of Nepal. Cawnpur was retaken by General Havelock on the 17th July 1857. On the 15th July General Havelock fought the battles of Aung and Pandu Nadi; on the next day took Cawnpur by storm; on the 17th and 18th recovered the city; and on the 19th took and destroyed Nana Rao's palace at Bitchur. On the 27th November the Gwalior mutineers and others took possession, but Lord Clyde retook it next evening, and on the 6th December he routed them with great loss. The district was pacified after the fall of Kalpi in May 1858. The district is essentially Hindu. Of the total population, 1,156,055 in 1872, the Brahmans, Rajputs, and Banyas numbered 313,278 souls; the Kayasth, 15,169; the Ahir, 113,053; the Kurmi, 58,359; the Chamar, 122,923; the Mahomedans of the Sunni sect being only 64,797 souls.—Imp. Gaz.

CAYENNE PEPPER.

Fifi-i-surkh, . . . PERS. Mallaghai, . . . TAM. 
Tabia, . . .н. BALL. Brahui muricha, . . . SANSK. 
Fifi-i-sar, . . . CAS. Mirapa-ka, . . . TEL. 
Gas-miris, . . . . . . . . . . . . . . . . . . . . . . SINGH.

The powder of the dried pods of different species of capiciun, used as a stimulating condiment. See Capsicum.

CAY-HAUNG. CHIN. Gossypium Indicum.


CAYLEY, Dr. HENRY, a British medical officer who entered the service in January 1857. In May was detailed to take Leb to Laharkhal as a Political Agent, in the territories of the Mahara of Kashmir, to protect and encourage commercial intercourse through Laharkhal between India and Central Asia, and watch political events in Central Asia and Eastern Turkestan.

CAZI, a Mahomedan judge, religious and civil.

CEDAR, the sarawat of Arabia, is a commercial term given to the woods of several distinct kinds of forest trees, the timbers of which are distinguished as red and white cedar, Barbados and Bermuda cedar, cedar of Lebanon, pencil cedar, bastard cedar, etc. Among the cedars of Lebanon, so often noticed in Scripture, is usually supposed to be Pinus cedrus, called Cedrus Libanus, or cedar of Lebanon. The lofty decidua, a native of the Himalayas, with fragrant and almost imperishable wood, and often called the Indian cedar, has been sometimes referred to the genus Pinus, and sometimes to Abies, Cedrus, or Larix, with the specific name of deodara; and Dr. Hooker is of opinion that the deodar and the cedar of Lebanon are identical. The cedar wood of Scripture is supposed to be the sandarac tree, Thuja articulata. The woods of several of the conifers are called cedars. In India, the term bastard cedar is applied to the Guanazama tomentosa; and the Iymnicodium excelsum, Chickassia tabularis, and Cedrela toona are all called cedars. In New South Wales the term white cedar is applied to Melia azedarach, and red cedar to that of Flindersia Australis. In China, a kind of cedar, probably a cyrpress, called Nau-nah, or southern wood, which resists time and insects, is considered peculiarly valuable, and is especially reserved for imperial use and buildings; and the cedar wood of Japan, according to Thunberg, is a species of cyrress. The cedar of Guiana is the wood of Ixia altissima. The white wood or white tun of Jamaica is Bignonia excelsum. The word 'cedar,' in the United States, is applied to various genera of the pine family. The white cedar of the southern swamps is a cyrress; the wood of Juniperus Virginiana is called red or pencil cedar, that of J. Bermudiana is called Bermuda cedar, and that of J. Barbadesis is called Barbadoes cedar, while the juniper of the north of Spain and south of France and of the Levant is from J. oxycedrus. The white cedar of North America, a less valuable wood than the red cedar, is yielded by Cupressus thyoides. The cedar of New Zealand is Hartighsa spectabilis. The cedar of the Amazon is from the Cedrela odorata of Von Martius. Under the term cedar, Colonel Frith described a reddish-coloured wood of Paichat, specific gravity 0.907, as a large tree, wood aromatic and used for furniture; and under the name of cedar-root he mentioned a very
aromatic wood, used for ornamental furniture in Pulpahat. These two are possibly from the Cedrela toona. The wood of the cedar of Lebanon, as now met with, is not in much esteem, but the people of the Cedrus deodara of the Himalayas really possesses all the good qualities for which those of Lebanon were prized. Specimens of the wood of the Indian cedar, Cedrus deodara, and of the cypress, Cupressus torulosa, from the Himalayas, were shown by Dr. Royle at the Exhibition of 1851; the former has been introduced into England as a beautiful ornamental tree, but appears to promise well as a useful timber tree, as the wood works well and freely. The bastard cedar are woods of Cedrela toona, Roxb., and of Guazuma tomentosa, Kunth; and the Gaon cedar is the Cupressus Lusitanica.—Funcken; Dr. Hooker; Holtzapfl; M'culloch; Williams' Middle Kingdom, p. 275; Burton's City of the Salt Lake; Harris, Nat. Hist. of Bible.

CEDRELA. A district under the Madras Presidency, in the centre of the Peninsula, now apportioned into the Bellary, Cuddapah, and Kurnool collectorates. This tract of country belonged to the Mysore sovereign Tipu, and after his death fell to the share of the Hyderabud state. Shortly afterwards, under the treaty of 1803, this share was ceded to the British on their undertaking to provide a subsidiary force of about ten thousand soldiers. Their numbers in 1868 did not exceed 5000, stationed at Secunderabad, six miles from Hyderabad, in the Dehkan. There is one large military cantonment at Bellary, and a saanatorium, 37 miles distant, at Ramnadur. The people of the district are partly Canarese, partly Teling, the linguistic boundary being a little east and south of Bellary. The minerals are iron ore, lead, antimony, manganese, diamonds, alum, muriate of soda, natron or native soda, saltpetre, gun-flints, and marble. The same term is applied to the districts ceded in 1801 by the Nawab Vizir of Oudh, which now form the eastern portion of the N.W. Provinces, and include Allahabad, Azimgahr, Farrakhabad, Etawa, Gorakhpur.—Newbolt.

CEDRELACEE, the toon-tree tribe of plants, comprising the genera Cedrela, Chickassia, Chloroxylon, Plindesoria, Soy手法, and Swietenia; several species of these grow in the East Indies. Besides the species of Cedrela below, Kurz names Cedrela multijuga of Pegu.

CEDRELA ODORATA. Macfadgen. Chun-sha, Chu-pi, Hwang-ch'nun, Chiao-pi, Chun. A timber tree of China; Its wood resembles mahogany, and is used in cabinet work. The bark of the trunk and root and the fruit are used internally as an astringent. The tender spring leaves are eaten, and the silkworm is fed upon them, and also on the leaves of the ailanthus. The leaves are mixed with those of the catalpa, and made into a wash as a remedy for baldness, and they are taken internally as an antiscorbutic. The timber is particularly recommended for wainscoting rooms, and for chests and the inside work of clothes presses and drawers, from the circumstance that vermin are not known to breed in it, and for splitting into shingles to cover houses. They are very durable.—Macfad.; Smith.

CEDRELA SERRATA. Roeyle. Hill toon, . . . Eng. Drava, Dsiwi, . . . Panj. Tuni. Hindi. Drab, Dimri, . . . This tree is found in most of the valleys of the

N.W. Himalaya, in Kulu, Kanawar, the Murree Hills, Kangra, and Kaghian, from 4000 to 8000 feet above the sea, up to near the Indus. Its wood is of very red, and has a strong fetid smell when fresh; it is lighter and of more open texture than C. toona, for which it is often sold. It stands water well, is well suited for bridges, and is made into sieves. A cubic foot weighs 31 lbs.—Dr. Cleghorn, Panj. Rept.; Stewart, Panj. Plants; Powell, Handbook.

CEDRERA SINENSIS. A. de Jussieu. An elegant tree of Europe and China; wood like that of Cedrela toona, Roxb., used for cigar boxes.—Mueller.

CEDREA TOONA. Roxb. Toon. C. hexandra, Wall. in Roxb.


This large and valuable tree grows at the foot of the Himalayas, and to the south, in Bengal and both Peninsulas of India, in varying abundance. Abundant 25 miles north-east of Travandrum; it is found in the Mysore and Salem jungles in large quantities; also along the crest of the ghats from Travancore to Goa. In Coibatore it is a valuable timber tree of large size. In the races of S. Konkan and Lower Canara, the tree is more common. It grows abundantly in some of the deep ravines in western Kandesh, and it grows in the ravines of the Konkan. At the Tumbar river, in East Nepal, Dr. Hooker measured a toon tree (Cedrella) 30 feet in girth at five feet above the ground. The wood is a choice one for cabinet purposes, but is not used for any others, except for house beams when it is invariably in sufficient quantity. It is called bastard cedar from an aromatic resin exuding from it, resembling that of the American cedar. It is often sold in Madras under the common name of Chittagong wood, and is the most valuable of the woods known by that commercial name,—the true Chittagong wood, however, being Chiccrassia tabularis. Cedrela toona has an erect trunk of great height and size, with smooth grey bark. The flowers are very numerous, small, white, and fragrant, like honey. The seeds are numerous, inbricated, winged. It seems probable that the trees known commercially as toon are at least different species; but the woods sold under this name are all red-coloured, of varying hues. The Gunner Mahalimbo wood, said to be this tree, and to be too highly common, is described as not liable to be attacked by insects, and is on that account used for making boxes, etc. The fruit and bark are used medicinally in fever and rheumatism. The bark is powerfully astringent, but not bitter; native physicians use it in conjunction with the powdered nut of the Cessalpinia bonducella, an intense bitter. M. Nees von Esenbeck has published an account of some experiments on the bark, which indicated the existence of a resinous astringent, a brown astringent matter, and a gummy brown extractive matter resembling amin. The bark was used in Java by Blume in epidemic fevers, diarrhous, and other complaints. Horsfield gave it in dysentery, but only in the last stage, when inflammatory symptoms had disappeared. Its flowers, in conjunction with
safflower, are used by the inhabitants of Mysore for dyeing the beautiful red colour called there Gul-i-nari. A cubic foot weighs 28-41 lbs.—Drs. Roxburgh, i. 635, Hooker, Mason, Gibson, Cleghorn, Stewart; Bedilome; Voigt; Powell.

CEDRUS DEODARA. Lambert. Decodar. 

Pinnus deodara, Roxb.


Cedrus deodora is a magnificent tree growing on the mountains of Keula, Nepal, and Tibet, up to heights of 7000 and 12,000 feet; as also in the woods of Almorah, at Kullu, Kangra, and Kughan. The resinous wood is very durable, lasting from 200 to 400 years. The tract in the Sutlej valley producing deodara lies between long, 77° 59' and 78° 31' E., and lat. 31° 23'/ and 31° 40' N. (Panj. Rep. p. 4). The deodora is not abundant in Hazaar (except in Kughan), and is becoming scarce. Dr. Cleghorn only observed it on the north side of the Mohchpra range, towards the Jhelum, and sparingly on Tandian. Mr. Strong measured a deodora tree in the deodora forest at Nachar after falling. 122 feet long, the butt end girth 14 feet 6 inches, and the top 12 feet 4 inches; another standing about 150 feet high, girth at bottom 18 feet 4 inches. Some he measured 26 feet in girth. The average, taking the whole forest, is not less than 15 feet girth at bottom. The trees are full of turpentine. Cedrus deodora timber is very useful for railway purposes, and 12,000 tons were sent down the Chemah in one year. Decodaria was abundant in Bussahir. In the territories of Maudi and Sukhet, and in the hill states of Koti, Kamharsen, and Bagi, which overlook the Lower Sutlej, all the good cedar trees (Kela) have of late years been removed from within three miles of the river; but the interior hills of Bussahir are extensively clothed with the finest deodara, particularly on the upper parts of the northern slopes, commencing at Nachar, and terminating near the Hangarang ridge, which forms the northern limit of this beautiful tree, and indeed of all arboreous vegetation, except birch and junipers. In travelling along the Hindustan and Tibet road, many cedars may be seen 20 feet in girth, and 100 to 130 feet in height. It is supposed to be identical with the cedar of Lebanon. Its wood is fragrant, of a reddish-yellow colour, highly resinous and inflammable; very durable; yields valuable timber, not subject to warp. The natives of the hills venerate the groves surrounding their temples and religiously conserve them, whilst to the State the wood is of the greatest importance for house and bridge building.—Eng. Cyclop.; Clegh. Rept. on Panj.; Kela and Kangra, pp. 4 to 190; Hook. Him. Journ. ii. p. 41; Hodgson's Nagasaki, pp. 342-3; Royle's Ill. Him. Bot. p. 350; Powell: Gamble.

CEDRUS LIBANI. Barr. Cedar of Lebanon, a native of Lebanon and Taurus; attains to 60 or 100 feet in height. The largest in the latter part of the 19th century measured thirty feet in diameter, and covered a circumference of about 120 feet. Their number has gradually been diminishing. In 1550 Bellon reckoned 30. In 1600 only 24 remained. In 1650 only 23. In 1700, 16; and in 1800, 7; and these seven trees are perhaps the sole witnesses from biblical times. The cones of the deodora are identical with those of the cedar of Lebanon; the deodora has generally longer and more pale bluish leaves and weeping branches, but these characters seem to be unusually developed in English gardens; for several persons, well acquainted with the deodora at Simla, when asked to point it out in the Kew Gardens, have indicated the cedar of Lebanon, and when shown the deodora, declared that they never saw that plant in the Himalaya. C. Atlantica, Manetti, is the Atlas cedar.—Hooker's Him. Journ. p. 41.

CELEBAS, the name of a cicada (Celedabra peloranta) of the tribe of Cletidae, spindle trees. The English name is derived from the Latin inadeo, to sing, a male maleus of the vesicule compact wood. In India the genera of this order are Celebas, Elodea, Anomoeus, Kurrinha, and Micrortis, with the sub-orders Hippocrates and Trigonice. Celebasa spinosa, Boyle, is a thorny shrub.

CELAERUS EEMARGINATUS. Willde. Chneenn chintoo, Tel. This shrub, which grows on the Coromandel coast, makes good fences and fuel.—Roxb. i. 622.


A scrubby, crooked shrub, found on the Coromandel coast and in barren hills, chiefly of the Dukhan. The wood, hard and durable, is sought after as a choice dunnage for roof tiles, said to last for forty years, a duration greatly exceeding that of any other dunnage material.—Roxb. i. 621; Gibson; Voigt: Rohde.


A large scrambling shrub, grows in most parts of India. The red seeds are given to cattle, and are officinal, being considered hot, and administered for rheumatism. The leaves also are officinal; and a deep scarlet-coloured oil, obtained by expression from the seeds, is rubbed externally and given internally in rheumatism. The oleum nigrum, an empyreumatic black oily fluid, is obtained by the destructive distillation of the seeds, but it does not differ in any sensible degree from the empyreumatic product of the distillation of the common fixed oils, containing naphthas and other carburets of hydrogen. Large quantities would doubtless yield paraffin and creosote. The seeds have a hot biting taste; and the oleum nigrum obtained from them was at one time largely employed in Herberi. In Ajmir the seed is imported from Marwar and Godwar; is there considered sudorific, and generally heating, and is swallowed whole in rheumatism. It is used in horse meals.—O'Sh. p. 271; Gen. Med. Top. p. 146; Dr. J. L. Stewart; Malcolmson, p. 312; Gamble.

CELEBES is called by the natives Wugi. It is an island in the Eastern Archipelago. In configuration it has been compared to a star-fish, from which the radiating limbs on one side have been removed; and this very singular form also distinguishes Gilolo, an island not far distant from the island to the eastward. Celebes occupies the centre of the tropical zone, and lies in the Molucca sea. It is
CELEBES.

composed of four peninsulas, with an area of 3578 miles. Its coast presents a great number of bays, gulfs, and capes of eccentric outline. The surface is lofty, with considerable hills, and towards the north are several active volcanoes. Some of the mountains rise 7000 feet above the level of the sea, usually with round or flat tops. Along the borders of the sea are wide plains covered with verdure; and beautiful valleys, some of which enclose magnificent basins of limpid water, raised on a smooth plateau, encircled by a rim of low hills. Thick forests cover the hills and large tracts of the level country with oak, maple, sycamores, cedars, teak trees, and the umbrella tree. These southern prongs form the Gulf of Boni, which stretches three degrees northward into the centre of the island. Its entrance is about 80 miles wide, but narrows to 30 miles, till at its head it again expands to 45 miles. Celebes, on its eastern coast, is fronted by islands; and many islands are scattered over the bays of Tolo and Tominie, or Gunong Tella. Celebes, on its north coast, is in general high, bold land. Its extreme point is called Cape Coffin; and the whole of the islands that stretch from it to Menado Bay are sometimes called Banca islands. The tongue of land in the north of Celebes, known administratively under the name of the Dutch Residency of Menado, comprehends all the northern extent of the island, from the bay of Palos in the west to the cape of Talabo in the east, and comprises the great bay or arm of the sea of Gunong Tella, which stretches in a westerly direction between the two peninsulas. The Residency of Menado includes under its jurisdiction the whole federative states of Minahassa; the small kingdom of the northern coast; also the very extensive districts in the west part of the peninsula, where Government exercise sway, besides the islands of Sangir and Talaut to the north, as well as the lesser island of the west coast and the large gulf of Tomini. In 1842 its population was estimated about 150,000 souls, exclusive of the Alfaras race. In 1881 it was 379,795.

In the S.W. Peninsula, two languages are spoken, the Mangkasa or Mangkasara (which gives its name to the Netherland capital Macassar), and the Wurung or Bugi, which originally was particularly limited to the coast of the Gulf of Boni. North of Macassar, in the most western part of the island, is another people, the Mandilar, who speak a third language. On the island of Buton, which may be regarded as a part of the Peninsula east of the Gulf of Boni, a fourth tongue is spoken. In the northern Peninsula are the people speaking the Gorontalo and the Menado languages (Bikmore, p. 97). Minahassa is in the northern extremity of Celebes. In the interior are a people whom the coast tribes call Turaju, who are said to be cannibals and head-hunters (Bikmore). Macassar is the most notorious place in the Eastern Archipelago for the Bugi people to run amok. It is in fact the national mode of committing suicide amongst the natives of Celebes, and is therefore the fashionable mode of escaping difficulties. Ten or twenty persons are sometimes killed and wounded at one of the amok. Stabbing and killing all he meets, the amok runner is at last overpowered, and dies in all the excitement of battle. It is a delirious intoxication, a temporary madness, absorbing every thought and action (Wallace, i. p. 174). Macassar men is a common name of the Bugi race. The Macassar people were taught Mahomedanism in the early part of the 16th century, but the Portuguese arrived A.D. 1525, and they embraced Christianity (Bikmore, p. 99). The Bugi are now the great navigators and traders and the most enterprising race of the Eastern Archipelago. In the beginning of the western monsoon they go in great numbers to the Aru islands, which is the principal rendezvous for the people of Ceram, Goram, the Ki islands, Tenimber, Baba, and the adjacent coast of New Guinea, a distance from Macassar of upwards of 1000 miles. They carry English calicoes, cotton goods of their own manufacture, Chinese gongs, and arrack; and the return cargoes are tortoiseshell, mother-of-pearl shell, pearls, birds of paradise, and trepang, the Malay term for all the kinds of holothuriae or sea-cucumbers. Of trepang alone about 14,000 pikuls are yearly shipped from Macassar, of the value of 600,000 dollars, or £150,000. It is estimated that the annual value of goods carried by the Bugi to the Aru islands from Macassar alone is 80,000 dollars, or 200,000 guilders; and of those taken to the Aru group from other places, 20,000 dollars, or 50,000 guilders.—Bikmore, 101.

The people of Minahassa differ much from all the other people in the Archipelago. They are of a light brown or yellow tint, often approaching the fairness of a European, of a rather short stature, stout, and well made, of an open and pleasing countenance, with the usual long, straight, jet black hair of the Malays, but disfigured, as age advances, with projecting cheek-bones. The coast people, where there has been intermixture, are coarse; but in inland villages, where the race is pure, both men and women are remarkably handsome. They are quiet and gentle, submissive to authority, and are easily induced to learn and adopt the habits of civilised life; they seem capable of acquiring a considerable amount of intellectual education, and they are clever mechanics. Since 1822, from the introduction of coffee planting and a settled government, the people, though still speaking different tongues, have become the best clothed, best housed, best fed, and best educated in the Archipelago. Much of this has been due to the tractable nature of this people, for near Menado is a race called Banter, strong, but intractable, who have hitherto resisted all efforts to improve them. Some of the less civilised tribes have semi-Papuan features and hair, while in some villages the true Celebes or Bugi physiognomy prevails. The plateau of Tondano is chiefly inhabited by people nearly as white as the Chinese, and with very pleasing semi-European features. The people of Sian and Sangir much resemble these, and Mr. Wallace believes them probably to be immigrants from some of the islands of north Polynesia. The Papuan type will represent the remnant of the aborigines. The languages contain a Celebes-Malay element and a Papuan element, the latter along with some radical elements. These derived from the Sian and Sangir islands further north, and therefore probably derived from the Philippine Islands.

Celebes has iron, tin, and copper. It has about 16 species of land mammals, and about 191 species of birds, 94 of which are peculiar to it. Professor Bikmore says (p. 378) gold in great quantities occurs over all the northern peninsula.
CELEBRY.  

from the Minhassa south to the isthmus of Palas. Livistonia rotundifolia is supposed by Mr. Wallace to be the fan-palm, and the people make water buckets and baskets of the leaf. Celebes has the Carpophaga lucrosa, a fine green-coloured pigeon, also the Coracias Temminckii, and Phainopephus callirhynex, one of the finest known cucokos. Its bill is of a brilliant yellow, red, and black. Of Ophidera radiana, the largest of our species, several of these are to be met with in Celebes. Aceripit turritatus, a beautiful hawk with a great number of large round white spots on the tail; Strix Rosenbergii and S. Javanica, the latter in all the islands up to Lombok. Phlegenes tristigmatis is the ground dove of Celebes. The Maleo, or Megacephalon rubripes, deposits its eggs in the loose sand of the sea-beach, in holes just above high-water mark; the female lays one large egg, which she covers over and returns to the forest; but many birds lay in the same hole. A dozen eggs are often found together. One egg fills an ordinary tea-cup, from 4 to 4½ inches long, and 2¼ to 2½ wide. They are very good to eat, and much sought after. The hen-bird takes no further care of the eggs, which the young bird breaks through about the 18th day, and runs at once to the forest. Each hen lays six or eight eggs in a season of two or three months. Cittura cynotus, the forest king-fisher. Meropogon Forssteni (C. geometra) is a fruit pigeon of North Celebes. Buceros cassidix, the great horn bill of Celebes. Trichoglossus ornatus, a beautiful brush-tongued parrakeet. Corvus adunca, a rare black and white crow. Anon depressicornis (Sapi utan, Malay) is the wild cow of Celebes; it is smaller than other wild cattle, and is found in the mountains. Cynopithecus cristatus, the black baboon monkey. Tachyria zarinda, a rare butterfly, with cinnaabar red wings. Idea tondana, a semi-transparent butterfly of Celebes. Papilio androcles, one of the largest and rarest of swallowed-tailed butterflies. Cincelida heros and C. gloriosa also occur, the latter of a rich velvety green colour. — Quarterly Review, No. 222; Bikmore's Travels, pp. 101-378; Crawford's Dictionary, i. p. 243; St. John's Indian Archipelago, i. p. 351; Wallace's Malay Archipelago; Horsburgh; Temminck, Coup d'Essai sur les Possessions Neerlandaises, iii. p. 68; Journal Ind. As. 1800, p. 764; Jameson's Ed. Journ. 1822, p. 402.

CELEBRY. Apium graveolens.  

Kurafe,  ❙ ARAB. ❙ Kin-tai,  ❙ CHIN. ❙  

Kuk'in,  ❙ CHIN. ❙ Ye-kin-tai,  ❙  

Celery is a hardy biennial found wild in various parts of Europe, in the southern hemisphere, and in California, by the side of ditches near the sea, where the water is brackish. It is rank and coarse, but by cultivation it is transformed into a sweet and wholesome esculent. When the plants grow in moist ground they are poisonous. The cultivated plant grows best in a rich, well-drained soil. The process of excluding the light, by covering the stems with earth, also tends to render the poison, peculiar to the wild plant, inert. The seeds are sold in every Indian bazar, and used as stimulants by the native practitioners. The roots are also employed in medicine. The essential oil, dissolved in a strong spirit, gives an essence a drop of which will communicate a strong and fine flavour of celery to a tureen of soup. Celeriac is a variety of celery, and managed similarly; root

used for stews.—Riddell; Jaffrey; O'Shaunessy, p. 357.

CELIBACY is the rule with all the Buddhist priesthood, with the gurus of most sects of Hindus, also with the men and women of the Manthow sect; the Phoongyes, Talapoinis, Lammas, and nuns of the Buddhists; the Jain priesthood also are celibates, as also since the 15th century all the priesthood of the Romish Christians. The sheriff families of Mecca affect marrying female slaves, thereby showing the intense pride which finds no Arab noble enough for them. Others take to wife Bedouin girls; their blood, therefore, is by no means pure. The worst feature of their system is the forced celibacy of their daughters; they are never married into any but Sheriff families; consequently they often die in spinsterhood. The effects of this custom are most pernicious, for though celibacy exists in the East, it is by no means synonymous with chastity. Here it springs from a morbid sense of honour, and arose, it is popularly said, from an affront taken by a Sheriff against his daughter's husband. But all Arabs condemnable the practice. —Burton's Mecca, iii. p. 33.

CELOSIA ALIBIDA. Linn.  

Booroonde,  ❙ SANSK. ❙ Gurung kura,  ❙ Tel.  

Pannay keeay,  ❙ TAM.  

This potted plant is of the order Amanran-taees. Booroondie (i. pp. 678-9) mentions C. argentea, C. cerina, C. comosa, and C. cristata. C. cerina, drooping cockscomb, is cultivated as a flower.—Irv.

CELOSIA ARGENTEA. Linn.  

Tsing-siang,  ❙ CHIN. ❙ Chish-chil, Sil,  ❙ HIND.  

Te'slu Khueh-ling,  ❙ Salyara,  ❙  

White cockscomb,  ❙ ENG. ❙ Deo-koti,  ❙  

Safed murghkes,  ❙ HIND. ❙ Gurungu,  ❙ Tel.  

Sarwari, Sar-psanka,  ❙ Panehe chetthy,  ❙  

It grows all over China. It is a troublesome weed amongst flax, but the Chinese gather and eat it as a vegetable. Its black seeds are used internally as a medicine. A double variety is cultivated. The single variety, both white and pink, is very common in the rains in the cultivated fields of India, and cattle eat the plants, especially buffaloes.—Genl. Med. Top. p. 185; Smith.

CELOSIA CRISTATA. Linn. Var. a. rubra.  

Kyet moak,  ❙ BURM. ❙ Taj i Khuruas,  ❙ HIND.  

Ki-kwan,  ❙ CHIN. ❙ Kanju,  ❙  

Created cockscomb,  ❙ ENG. ❙ Era-kodi jutta tota  

Pila Murghkes,  ❙ HIND. ❙ Kura,  ❙ Tel.  

Lal Murghkes,  ❙ Koli jutta tota kura,  ❙  

Both white and yellow varieties are cultivated in gardens. The Hindu, Telugu, and Burman names signify cockscomb, like the English.—Mason.

CELSIA COROMANDELIANA. Vahl. Kuk-shima. A garden weed in India, growing in waste places in the Dekhan, on the banks of rivers, and near still waters. The insipid juice of the leaves is given in dysenter, acting as a sedative and astringent.—Drury.

CELT.  

CELT implements of manufacture, agriculture, and for domestic purposes, used by ancient prehistoric races of the world. They have been discovered in Europe and India. Mr. Allan Hume, C.B., discovered many in Hindustan, and Colonel Meadows Taylor others at Lingsagur in the Mesopotamian district. The implements of flint or chalcedony. Mr. W. Theobold and Captain Fryer found eis or stone weapons in the country extending upwards of 200 miles east of the Toris river, and
CELTIS.

acumulated at Karo in Kirwee. Dr. Mason found them in Burmah almost identical with those found in Europe. The celt chipping or hewing stone, the thunderbolt, the coin de foudre, hierro de tonerre, the Tripoli steen of the Germans, may have been the moon-stones of Brittany, a hatchet, axe, chisel, adze, or wedge. They are numerous in the Channel Islands. These found in the Karnatic are of fibrolite, those of the Swiss lakes are of jade. The natives of Kirwee have adorned some of the celt's with a dab of red paste as Siva. Most of the Andamanese stone chips seem to be arrow-heads for shooting fish, or intended to be used with the fingers in dividing fish and flesh. Flint and chert chippings have been discovered at Kaleyur, Jubbulpur, and Kuttura. Polished celt's occur in Central India. Cores have been found near the Indus, and flakes and cores near Jubbulpur.

CELTIS, a genus of plants belonging to the Ulmaceae. C. australis and C. cananis are the Barka, Huria, of Kaghun. C. dysosyoxylon, Thw., the Gurana gase of the Singhalese, is a small tree which grows up to 5000 feet in the Central Provinces.—Cleghorn's Report; Thw. Zeyl. p. 267.

CELTIS AUSTRALIS, the lotus tree of N. Africa, S. Europe, and S. Asia, ascends the Himalaya to 9000 feet. It attains a height of 50 feet, and lives to a thousand years. Berries edible, wood hard and dense, suited forturnery and carving. The stem-wood is fine-grained, easily cleat, and of a splendid yellow tinge. The branch-wood is excellent for whip-sticks.—Von Mueller.


Fruit—Kangal mirth, Inarba, Hind.

This fine tree is common, wild, from 2500 to 8000 feet in the Panjab Himalaya, and occurs in Trans-Indus down to 1500 feet; and Dr. Griffith says it is cultivated in Afghanistan. It attains 167 feet in girth; and trees of seven or eight feet are not uncommon. Its timber is white, light, soft, weak, and subject to the attacks of insects. It is chiefly used for farmer's work, charcoal and fuel. Dr. Bellows mentions that in the Peshawur valley it is often made into charms to keep off the evil eye from man and beast, and Dr. Cleghorn states that its bark is used for sandal.—Dr. Bellows; J. L. Stewart, M.D., p. 209; Cleghorn.

CELTIS ERIOCARPAR, a nettle tree, koo of the Panjab, is found in the Subile valley between Ram-pur and Sungnam, at an elevation of 6000 feet. Bark and its shoes.—Cleghorn.

CELTIS NEPALENSIS. Planche. Baktar, Tago, of the Trans-Indus and Panjab. Dr. Stewart found it in parts of the Jhelum basin and Trans-Indus at about 2500 to 3500 feet. The Pathans are said to use its tough wood for churn-sticks—Dr. J. L. Stewart.


A tree which is pretty common all over India, and in Kuhl is planted in avenues. Dr. Buchanan Hamilton says the under bark of this tree, like that of the West India kind, consisting of numerous reticulated fibres, forms a kind of natural cloth, used by the Garo (Lin. Trans. xvii. p. 209) as a kind of rug. The Garo make several such cloths of different colours from various barks. The Garo who eerste in the plains, generally buy some small ends of cloths from the Bengalis, to attend the hants (fairs) in, not as clothing to protect them from wind and weather.—Roxb. ii. 65; Royte, Bif. Pl. 317; Cleghorn; Kulha, 80.

CELTIS TRINERIA. Roxb., iii. 65. C. Roxbighri, Planche. This good-sized tree grows in Eastern Bengal, is met with on the Eastern Ghats of the Madras Presidency, Golconda hills near Vizagapatam, at 3000 feet elevation; also on the Bombay Ghats. CELTIS WIGHTII. Wight, Ic. Not uncommon in the hot, drier parts of Ceylon.—Th. Zeyl.

CEMENT.


Lime, septarian, dolomite, magnesite, gypsum, and other substances are used in manufacturing cements. The shell lime of Soooolorpet is a pure carbonate of lime. The kankar or nodular limestone of India are more durable, though not so white. Septarian, or Parker's cement stones, accompany the strata of blue and white potter's clay and kaolin that are so common in the Madras Presidency. The best hydraulic septarian occur at Away near Madras, at Bangalore and Chingleput. A very fine hydraulic cement on the banks of the Godavery was extensively used in the construction of the Godavery and Kistna anicut. A very good hydraulic limestone occurs along with the blue slate of Cuddapah, and the dolomites of the Ceded Districts and the Northern Circars make good cements. The magnesite of Salem, Bangalore, and Vizagapatnam acquires great hardness of surface, but is deficient in adhesiveness. It possesses some good hydraulic properties, but has disappointed the expectations at first formed of its usefulness.

The ordinary Indian cement is lime in its various forms; a cement capable of bearing a pressure of 650 to 1000 pounds and upwards is produced from ordinary kankar, combined with a certain proportion of pure limestone. Kankar is a limestone mostly nodular, always fresh-water and recent,—in most cases in the act of being formed under our eyes. It is sometimes found in thick stratified beds like the travertine near Rome, and seems in this case to have been formed by calcareous springs; more generally it is met with in clay or alluvial soil, in the shape of small pieces from the size of peas or filberts to that of the hand. In the blue clay which stretches along the Indian shores it is found in vast abundance, generally assuming the most fantastic forms; indeed, it abounds in every rice field and open soil all over the country. The more recent varieties seem to be formed by the agency of the rains; when the earth abounds with vegetation, the tepid waters are charged with fixed air, and dissolve the lime prevailing in the soil everywhere around, the mineral being again thrown down as the advancing season dispels the excess of gas. It in this state absorbs the clayey matter around, and cements it into kankar. This is collected by the lime-burner, placed with firewood in small-sized conical kilns, and burnt in the usual way. It contains 72 of carbonate of lime, 16 of sand, and 11 of clay and oxide of iron. Mixed with half its weight of river sand, it makes an excellent mortar; burnt in pieces of a cube
inch or so in size, and then powdered without slaking, it forms a first-rate water cement, setting in a few minutes, and becoming as hard as stone. At Poonah the finer varieties of kankur are burnt with charcoal, in neat kilns 2½ feet high and in diameter at the base. These hold about a cubic foot of material, or about 36 lbs. of charcoal and kankur in equal parts. When burnt, it is slaked and then made up into bricks, which are sold in the bazar for the purpose of whitewashing. The finer kinds of lime and cement on the Coromandel coast are made from shells. A piece of ground about ten feet square is laid down even, and floored over with clay; an upright pole is placed at each end of this, and then, as the chips are thrown on, long back-stays spread between the poles, which are steadied with strings. On the floor a bed of shells and rice-chaff alternately, about ten inches thick and eight feet by six, is spread neatly out. Some firewood is placed along the windward side of this, and when the sea breeze sets in the wood is kindled. As the heat extends to leeward, and the shells become calcined, the lime-burners draw off the fore-parts of them with a stick, and so soon as they have cooled on the floor sufficiently to allow them to be handled, they are placed in a scoop basket, and the dirt and epidermis winnowed from them. The shells, now white and pearly, are next thrown into a small-sized vat partially filled with water; here they for some time boil from the effects of the heat and slaking. The whole in a short time settles down into a fine semi-fluid mass, which is taken out and slightly dried, and is now ready for use. A good hydraulic cement is formed of this fine clay of Malwa and shallower. But these, or similar, bricks seem to have been employed as cement in Babylon. The works of salt and bitumen even yet around Hit, give most a singular appearance to the country; and the most learned geographers are of opinion that the town of Hit is the Is of Herodotus, whence the Babylonians drew the bitumen in which they set their bricks. All over the East an exceedingly hard cement, which they use as mortar and to form the lining of baths and reservoirs, is made with equal parts of wood ashes, thoroughly sifted, and powdered lime, and by others with two parts of lime to one of ashes, but in either case these materials are well mixed. Water is then poured upon them, and they are well kneaded, after which the mass is beaten for six days by two men with large sticks, uninterruptedly, except at night; when it becomes a little solid on one side, it is turned over and beaten on the other, care being taken to moisten it if necessary, lest it should become too dry. When thus well mixed, it is folded and turned, and beaten again and again till the sixth day, when it is ready for use. In building, this cement is laid between the bricks, which are tightly pressed upon each other; for lining it is laid upon the surface that is to be covered, and spread with a flat and polished flint, for it must not be touched with the hand, as it would burn. Three layers are put on successively, and the third is washed over with oil, but of what kind is immaterial; when it is dry, nothing can equal the beauty and solidity of this cement, which is called "saroj." There is another description, called "saroj maghrebi," but it is not so much used; this is composed of one-third of hot lime, one of sifted sand, and one of pounded brick.—Ferrier, Hist. of Afghan., pp. 296-9; Skinner's Overland Journey, ii. p. 113; Dr. Bist in Bombay Times.

CENTAUREA, a genus of hermit crabs in moluscs. C. clypeata, Edw., Asiatic seas; C. rugosa, Indian Ocean; C. spinosa, Asiatic seas; C. perlata, South Seas.

CENSUS. A rough census of the population, called 'Khanm-shumari,' was always made under the Indian princes. The dislike to a census in the East appears to arise from the necessity of mentioning their women, also a vague fear that Government is plotting some mischief against them, and an unreasoning aversion to assist in rousing divine wrath by what they consider such a display of pride as that of numbering the people. Since the year 1867, the British Indian Government has had a census of several provinces, followed in 1871-72 and 1881 by a general census of all India. That of 1881 was estimated to cost twenty lakhs = 2,000,000.


Centaurea is a genus of ornamental flowering plants common in India. The flowers are fragrant, and of different shades of colour—purple, blue, yellow, white, red, brown, etc. C. atropurpurea is the sweet sultan. C. Behmen root is brought from Kabul, and is used in special diseases as a bitter tonic and purgative. The red kind, Behmen or Behmen surkh, is said by some to be the root of the Salvia lasiades.—Porell, i. 355.

CENTETES ILIGER. Smth.

Wei; Withania. | Ten-ree or Tend-ree, Exo.

Several species of this genus of mammals are said to occur in China. The bristles are made into brushes.—Smith.

CENTIPEDES are very common in the East Indies two to six inches long. They are generally supposed to be poisonous, but such is not the case.

CENTRAL ASIA is a term used differently by geographers, ethnologists, and politicians; by the last of these it is usually applied to the region intervening between Russia in Asia on the north, and Persia and Afghanistan on the south, and lying to the west of Chinese Tartary, its chief western boundary being the Caspian Sea. The Russians often restrict the term Central Asia to the second great division of the Central Asiatic highlands of their Asiatic possessions, which is mainly comprised within the Aralo-Caspian depression. The vast plateau of Central Asia proper has on its east the lofty table-land of the Bolor mountains, which form the western boundary of Chinese Turkestan and Dzungaria, and the former Irtysh; the northern boundary is Western Siberia, and Afghanistan lies south-east. The northern half of Central Asia consists of the Kirghiz desert, which is mountainous and rugged on the east, and full of saline steppes on the west. In the midst of the southern half lies the Sea of Aral, on the western side of which, up to the Caspian Sea on the west, there stretches a broad tract of desert. But on its eastern side is a fertile tract, watered by the Syr Darya and Amu Darya, the Jaxartes and the Oxus, and it is in this fertile tract that the conquists of Russia were made between 1864 and 1868. After long years spent in fortifying posts, in 1864 Russia made a sudden irrigation into the upper valley of the Jaxartes, and took three forts of Khokand, viz. Aoulletta, Turkestan,
The water-parting between the Upper Amu Darya and Indus basins.

The range seems to run north-west and south-east, between the Kashgar and the Karakorum, at a mean elevation of 20,000 feet, culminating in Mount Tagharma (Taghalma), 25,500 feet.

The Trans-Alai, seen by Kostenko in 1876, he describes as an alpine chain 10,000 to 12,000 feet high, forming the northern boundary of the Pamir, which stretches thence southwards, and which is crossed in every direction by ridges, all rising above the snow-line, and dividing it into a number of upland plains. The whole region is destitute of trees and shrubs, and even the grass grows only in isolated patches along the banks of the streams.

The great Central Asiatic plateau consists of several distinct sections, grouped round the central basin of the Tarim, which is little over 1600 feet above sea-level. South of it the land rises in successive stages from 3000 to 6000, 10,000, and 15,000 feet, the probable mean altitude of the Tibetan plateau. Above this vast table-land the intersecting ranges attain altitudes of from 20,000 to 25,000 feet, culminating in the southern scarp of the Himalaya, with peaks ranging from 26,000 to 29,000 feet. North of the Tarim basin, also, the land rises in terraces of 5000, 6000, and 15,000 feet, here culminating with the Tengri-Khan (25,000), central and highest point of the Tian Shan. Beyond the Tian Shan the ground again falls gradually to about 1500 feet in the Zangarayan depression (Tian Shan Pe-lu), north of which it attains a height of 7000 or 8000 feet in the Kobdo plateau. This elevation is maintained in North Mongolia eastwards to the head waters of the Amur, but in the central parts of the Gobi desert stretches from Lob Nor at a mean height of about 3000 feet to the Khingan range.

Lastly, the closed basin of the Koko Nor, between the Nan Shan and Burkhun Buddha ranges, stands at an altitude of not less than 10,500 feet above sea-level.

Central Asia has a hardy pastoral dwelling in the mountain region, with its vast upland downs well suited for summer pasture, partly denuded of the original inhabitants and in part composed of the many races who have swept through the country. At the foot of the mountains, in tracts of surpassing fertility, Uzbak, Turk, Bokharian, Kalnuk, Kirghiz, Kazak, Tajik, Sart, Russians, Ouigur, Manchu, Chinese, Armenian, and Indians dwell in the well-watered plains. Beyond these, in every direction, are the pathless lands, which have been tenanted by pastoral nomades ever since the earth was peopled. They have dark complexions, and dark colour of hair. The Mongol race is represented by the Kalnuk, who have dark hair, olive complexions, oblique eyes, flat faces, high cheek-bones, thin lips, and fat noses. The remaining races, such as the Mongolo-Turk and those of Turkno-Finnish extraction, present a strange mixture of types and shades of complexion. One remark among them fair men, with a regular Roman nose. Generally speaking, however, in the physical appearance of these tribes, there is observable a mixture of the Caucasian race with the Mongolian.

Its people are from two distinct sources, viz. the
settled races, descendants of Semitic and Iranian conquerors from the south; and the races who have been occupying the country from prehistoric times, and are in their habits the same as they were 2000 years ago.

I. TURK STOCK.

Uzbeks, viz. Kungrad, Naiman, Kipchak, Jalair, Andijan, in Bokhara, Farghana, and Khiva,

2,000,000

Kara Kalpak, viz. Baymakli, Khanbilek, Achamayli, Ingakli, Shaku, and Ontoturk, mainly on the south and south-east shores of the Aral,

50,000

Kathly Kulp, viz. Great Horde (Ulu-Yuz), Middle Horde (Urtu-Yuz), Little Horde (Kachi-Yuz), Inner Horde (Bukeyeskoyaya), in the steppes between Lake Balkhash and Lower Volga;

2,750,000

Kara Kirghiz (Buruts), of Tian Shan and Pamir;

400,000

Turkcomans, viz. Tekke, Goklan, Ynom; Sarik; Salor, Kara-Ali, Eli; Ersari, Chaudor of Ust-Urt, Khwarezm, Daman-i-Koh and left bank of Oxus;

600,000

II. IRANIC STOCK.

Tajiks, Sar, Persians, in Khiva, Bokhara, and Farghana;

1,000,000

III. GALICHA STOCK.

Maghians, Khant, Falgar, Mache, Fang; Yagnaub and Karateghin in Farghana, Zar-afshan, Karateghin highlands and Upper Oxus valleys;

250,000

The Turko-Tartarie race stretches from the Polar Sea to the Hindu Kush, and from the interior of China to the shores of the Danube. Vambery divides the Turks who from east to west occupy this extent, into Burut, Kara-Kirghiz black, or pure Kirghiz, properly Kazak, Kara Kalpak, Turkoman, Uzbak. The name by which Vambery designates these people is Turko-Tartars, from amongst whom came the warrior peoples known in the west as the Hun, the Avar, the Utigur, the Kutrigur, and Khazar. But the manner of living, the customs and physical conditions as then described, of the Tartar tribes whose arms reached from the Jaxartes to the heart of Rome and Gaul, have much resemblance to those of the present inhabitants of Turkestan and the people of Central Asia, particularly the nomadic tribes, in their social habits the same as they were two thousand years ago. In the tent of many a nomad chief a similar life is observable as that described by Priscus as prevailing at the court of the king of the Huns. Attila, Chengiz Khan, and Timur in historical characters resemble each other; and Vambery is of opinion that energy and good fortune could now almost produce on the banks of the Oxus and Jaxartes one of those warriors whose soldiers, like an avalanche carrying everything before it, would increase to hundreds of thousands, and would appear as a new example of God's scourge, if the powerful barriers of our civilisation, which has a great influence in the East, did not stop the way.

The Turk, wherever met with, is ever heavy and lethargic in his mind and body, but in his resolves firm and steadfast, not from principle, but from apathy and aversion to change. And it is from these characteristics that his appearance is earnest and solemn,—a profound seriousness, a marble, cold expression of countenance, with a great inclination to pomp and magnificence. An Uzbak or Turkoman has a proud bearing, as if possessed with a self-consciousness of greatness and power. The Osmanli Turk's love of independence is boundless. He considers himself born to rule, and that hunting and war alone are worthy of him, and husbandry is considered ignominious. In Central Asia, agriculture is exclusively in the hands of the Persian shoemakers, commerce and business are with the Tajak, Hindu, and Turk. The Turk is intellectually the inferior of the Iranian and Semitic nations. This defect is noticed by other nations, who apply the terms Turkulik (Turkdom), Kabalik (absurdity), and Yogunlik (thickness), Sadelik (simpleness); and with these qualities, as the Osmanli is easily taken in by the Armenian, Greek, and Arab, the Turk is as easily so by the Tajak and Hindu. In transactions the Turk are regarded as possessing more honesty, frankness, and confidence, plainness, simplicity, and uprightness. Compared with the Persians, the Turk is a faithful servant, attached soldier, and upright man. They are more brave, persevering, and love more to rule than any other Asiatic people. They are unpolished, wild, and uncultivated, but seldom cruel out of malice. They crave riches, but only to expend them. They exact much labour from their subordinates, but protect and deal liberally with them. The Turk is immodest and uncivilised, and, like other Jaws, distinguishes for hospitality. The Burut is the wildest and most savage and most superstitious of them, but less malicious than the Kirghiz and Turkoman. The Burut has not wholly abandoned shamanism, and knows little of Islam.

The Kazak Kirghiz are less brave and warlike, though readily engaging in a pillaging expedition. They form the bulk of the Turkish nomades, and are for the most part devoted to a wandering life. In very few instances have they settled.

The Kara Kalpak are considered dull and foolish. They are even less warlike than the Kirghiz. They have seldom appeared as conquerors, and are even less employed as mercenaries. They are largely occupied as cattle-breeders, and they are active, benevolent, and faithful.

Many of the Turkoman dwell in a half-settled state along the left bank of the Oxus as far as Char Kiyuni, and make their living by trade, amongst the races of Central Asia as the most restless adventurers. Throughout the whole globe it would be difficult to find a second nation with such a restless spirit and untameable licentiousness as these children of the desert. To rob, to plunder, to make slaves, is to the Turkoman honourable. They are always poor, and are dirty andavaricious. Their country is the wildest and most savage, where even keeping a few cattle gives only a scanty income.

The Uzbak are honest, upright, with much Turkish open-heartedness, and are proud of their education, and represent all the best side of the natural character of the Turks.

The nomad races of High Asia are so essentially predatory, that, according to Abai Ghazi (p. 106), they have a proverb, 'Atang yortin jan Chapa'—if the enemy attack thy father's tent, join him and share the plunder. The people are chiefly gathered about the fertile tracts. Merv, destroyed in 1784 by the Amir of Bokhara, is now a mere collection of mud huts. Khiva, in 1874, had only 5000 inhabitants. Urganji is near it. Bokhara, in 1830, had 140,000 inhabitants, but in 1889 only 7000, of
whom two-thirds are Tajaks; the loss of water from the Zor-aslan is the cause of its decay. Samar- can, on the other hand, has risen from 8000 in 1834 to 30,000 in 1880.

The double-humped camel belongs properly to high Central Asia south of the Gobi desert, and would even appear still to exist there in a state of nature. Its western boundary, where bred, seems to be among the Kazak (or Cossack), north of Bokhara. Lieutenant Wood, of Sir A. Burnes' party, who explored the Oxus to its source in the S. of Kol lake in Panir, in Wakhan, learned that it is bred only among the Kirghiz of Panir and Khokand. Burnes remarks that the Bactrian camel, which has two humps, abounds in Turkestan; they are bred by the Kazak of the desert north of Bokhara. In its proper and more elevated habitat, this animal is employed together with the yak, as observed in an easterly direction by MM. Huc and Gabet.—Porter's Travels, i. p. 112; Fortnightly Review, 1868; Dr. Jackson in Transactions of the Beng. As. Soc. iii. ; Russions in Central Asia, Captain Valnikhoun and M. Venmukh; Malcolm's Persia, i. p. 20; Stealler's Narrative; Vambery, Sketches in Central Asia, pp. 283-312; Vambery, Bokhara, p. 247; Asia, by Mr. Keane and Sir Richard Temple.

CENTRAL INDIA is the designation for a geographical and political division of British India. It is a table-land of uneven surface, from 1500 to 2500 feet above the sea, bounded by the Aravalli mountains on the west, by those of the Vindhya on the south, supported on the cast by a lower range in Bundelkhand, and sloping gradually on the north-east into the basin of the Ganges. It is a diversified but fertile tract. The Patar or plateau is about 700 miles long. Its breadth varies very much, greatest from Amjherra to Ajmir, 250 miles; from Mhow to Mokundurra, 150 miles; at Sagar and Dumooh, 75 miles; afterwards very narrow. It is highest towards S. and W.; average of Udaipur, 2000 feet; Malwa, 1500 to 2000; Bhopal, 2000; Bundelkhand, about 1000; Shahabad, 700; plain of Ajmir, 2000; Udaipur town, 24° 57', 73° 49', 2064. It slopes to N. into the Banganga river flowing in that direction; gradual fall also to the valley of the Chambal river, where it rises to Malwa; Mhow, 2019 feet; Dhar, 1908; Indore, 1998; crest of Jaum ghat, 2328; Ujjain, 1698; Adiyagurh, 1340; Amjherra, 1890; Sagar, 1940; Rhotasagarh, 700; Sonar river, at source, 1900. From the Vindhya range the surface has a generally gradual but in some places abrupt descent, as at Mokundurra and the Bindyachal hills, where the rivers occasionally fall over the brow in cascades. Shahabad district is very rocky and uneven.

This region is ruled by about 131 princes and chiefs,—Rajput, Bhil, Mahomedan, Maharatta, and Brahman,—over subject races of non-Aryan, Scythic, Aryan, Arab, Afghan, and Persian and Moghol descent, over Hindus, Baghel, Bhil, Gond, Gujar, in S. Maor, Meja, Rajput, and cultivating tribes of Kumbi, Kurni, and Mali. Their political relations with British India are superintended by the Central Indian Agency stationed at Indore, with subordinate agencies for Baghelkhand, the Bhil, Bhopal, Guna, Gwalior, Indore, and Western Malwa. The states and chiefships in Central India form a political, and are in a natural, division of British India, and include an area of 83,600 square miles, and a population of about eight millions.

The people of Rewa are indentol and untrustworthy, and they and the country generally are certainly far less civilised than the neighbouring state and people of Bundelkhand. The country and people vary greatly in their character. Nothing can be a greater contrast than the desolate wilds and jungles of the Western Satpura hills and parts of the country extending from them to the Vindhyas, with their savage inhabitants, the Bhil, tribe, who abhor field, or indeed any other manual labour, and the adjoining richly-cultivated plains of Malwa, extending, with occasional intervening tracts of hill and jungle, from the Mytho on the west to Bhillasa on the east, a stretch of close on 200 miles, and from the crest of the line of the Vindhyas to Munderissore and Oumutwarra, a distance of from 100 to 120 miles, and populated by a thrifty agricultural people. This is succeeded by the more hilly and jungly land of Oumutwarra, Serrone, and Kechiwarra, with their scanty population. Northwards towards Gwalior, the country becomes more open, except on the wild border tracts of Kotah of Bundelkhand, till we come to the carefully cultivated plain of Gwalior, stretching for a distance of 140 miles between the Chambal, Patwa, and Son rivers. A vast portion of Bundelkhand is hilly and unproductive, forming the northern slope of the table-land of the Vindhyas, but the scenery is strikingly grand (Ann. Ind. Adm. xi. p. 341). Raja Rama, Baghel, protected Humayun's wife, mother of the emperor Akbar. The Baghel are of the Solunki rajput race. The four agricultura, or fire-bom Rajput tribes, the Chahuan, Solunki, Powar or Pranwar, and the Purihar, are now mainly found in the tract from Ujjain to Rewa, near Beares. And Mount Abu is asserted to have been the place of their miraculous birth or appearance.

Though widely different in other respects, there is one characteristic common to the Baghel of Rewa, the Bundel of Bundelkhand, and the Rajput of Gwalior and Malwa,—a dislike to labour or serve away from their homes, so that they do not generally take an active part in the business of tillimg the soil, such being, as a rule, left to servile classes. They are throughout the territory generally regarded as the local heads of society or of the village communities to which they belong, and many of them possess much influence amongst those around them as the representatives of the ancient families of the respective clans. In Malwa the principal trade maris are Indore, Bhopal, Ujjain, Munderissore, Rutlam, Dhar, Jowra, Augur, Kewag, Shoojavulpur, and Bhillasa. Opium chiefly is sold in Rewa; its chief is of the Baghel race. Tin and copper are found in Udaipur.—Treaties, Engagements, and Sumnads; Tod's Rajtan; Pioneer; Ann. Ind. Adm. xi. pp. 312, 333.

CENTRAL PROVINCES form an administrable portion of British India, lying between lat. 20° 17' E. and 24° 27' N., and long. 7° 49' E. to 17° E. During Lord Canning's rule, the provinces of Nagpur and of Sanogor and Nerbudda were united under a Commissioner. They consist of perhaps the grandest plateau on the face of the globe, more than half of it covered by the densest jungle, where the wild beast finds its lair and the Gond savage a precarious subsistence. For revenue purposes it has been arranged into the four dis-
CENTRAL PROVINCES.

districts of Nagpur, Jubbulpur, Nerabadla, and Chhattisgarh.

The Nagpur province and the Saugor and Nerbadda territories occupy almost all the old territorial division of Gondwana.

Saugor and Dumoh districts are on the Vindhyah table-land.

Mandla, Jubbulpur, Narsinghbad and part of Newar are in the Nerbadda valley.

Baitool, Chhindwara, Seoni, and Balaghat are on the Satpura table-land.

Nagpur, Warda, Bhondara, and Chanda are on the Nagpur plain, in the valleys of the Warda and Wainganga.

Rajpur and Bilaspur are on the Chhattisgarh plain, and Sumbulpor is in the valley of the Mahanadi.

Upper Godavery is on the left bank of that river.

The plateau is in the very centre of the Peninsula. From it, as from a focus, radiates great rivers. To the north flow the Son into the Ganges, the Cane, the Betwa, and the Chambal into the Jumna. To the west are the Tapti and Ner badla, and to the east the Wainganga, Warda, and Peinganga, which join the Godavery. What the K<Integer>u Lam mountains are to the river system of Central Asia, and the Himalaya to Northern India, that is the Mahadeo range to the Dehkan. To the east of Bhandara and parts of the Chanda districts is an irregular expanse of water, the largest portion at Nawagan being 17 miles in circumference, with a depth in places of 90 feet, and many Hindu temples have been erected at the scenic spots. On this wide table-land there is soil of surpassing fertility; its woods are inexhaustible; and it has coal, iron, precious stones, and gold. Here all the emigrants of Great Britain for the next decade might settle and grow rich. The area is 112,912 square miles, of which 47,299 are unculturable, and in 1868 about half of the remainder was under cultivation.

Between the Census of 1872 and 1881, the population increased in the districts from 8,173,924 to 9,583,791, an increase of 1,604,967; and in the Pedutary States from 1,049,710 to 1,709,720, an increase of 660,010; or a total increase of just twenty-five per cent.

The Native States are—

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<th>Area</th>
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<td>123,204</td>
<td>Sakti...</td>
<td>115</td>
<td>8,594</td>
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<tr>
<td>Khondka...</td>
<td>174</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Makrai...</td>
<td>215</td>
<td>13,648</td>
<td>Total...</td>
<td>25,834</td>
<td>1,047,710</td>
</tr>
</tbody>
</table>

In 1872 the non- Aryan tribes numbered 2,014,751, of whom 1,669,835 inhabited British territory.

Most of the Gond chiefs have a Rajput ancestry mixed with aboriginal blood.

The Satpura plateau runs nearly east and west for 600 miles. It is the true barrier between Northern and Southern India, and is the line on which the settlers from Hindustan met the emigrants from the Dehkan and Maharashtra, each of them pressing into the richer parts of the great natural fastnesses of the mountain range. The Satpura mountain range, extending from Rajpilah to Asirgarh, is a belt of mountainous country 40 or 50 miles in breadth, with an average height of 2000 feet.

In Gondwana there are now only two millions of aborigines, one of the total population of nine millions. The remaining seven millions almost amount to a microcosm of the people in India, and justice is administered in the Central Provinces in five different languages, viz. Urdu, Hindi, Maharati, Uriya, and Telugu. In round numbers, the seven millions may be thus classified:—1½ millions speak Maharati; 1½ do speak Uriya; 4 do. speak Hindi.

Dr. W. W. Hunter gives the following as the languages peculiar to Central India:—

Ho (Kol)... Mandala... Kolami... Khond. | Kol (Sing... Rajmahali... Madi... Savara. | Gondi... Madi... Galaba. | Santal... Gayeti... Kuri... Yerukala. | Bhumij... Rutlik... Keikadi... Chentam. |}

Kolarian tribes occupy the broad belt of hilly country that runs almost continuously across India from the Satpura tracts to the Kurku settlements. The Santal in the east, and the Kurku in the west, speak a language substantially the same.

The Central Provinces Kolarian tribes are:

Bhil... Byga... Kol... Nahr? | Bibilala... Dhangar... Kurku... Aguria? | Bhunjah... Guiba... Mahito... Goli? | Bhumia... Kwar... Manji... Source? | Binjarw.

The aboriginal Dravidian tribes are:

Gond... Huha. | Bhatta Gond... Khond. | Dhunwar? | Durweh... "... Ko. | Mare... "... Maria or Gotsawar. | Punke.

Other occupants of the Central Provinces are:


with a sprinkling of Rajpute, Brahmanas, and Mahomedians in almost every district.

In the extreme west in Nimar are the Bhil. From thence, going to the north-east, we find along the Satpura range the Kurku and Gond,—the Kurku belonging to the Kolarian family, and the Gond to the Dravidian.

The Kurku are not numerous, and are chiefly to be found in the hilly part of the Ichhugnabad, and the adjoining northern part of the Chinswara district. In these localities they meet with the Gond, and a few Kurku are also found in Baitool.

The Gond are numerous in the plateau district of Son and in the south of Jubbulpur, and they are found also in the hilly parts of Jubbulpur.

The Gond, Byga, and Kol form a large section of the population of Mandla, and the Gond and Byga are also in the hilly parts of Balaghat south of Mandla.

The Oor ya occupy entirely the Sumbulpor district.

The Khond dwell in the country surrounding the Oor ya in Sumbulpor and to the south.

The Hindu races are numerous in Raipur and Belaspur, but a number of Gonds are scattered about, and the Gond are numerous in the wild parts of Nagpur and Chanda, and on the Panchita and Godavery river the Maharatta and Telung races meet.

The Maharrahs proper, consisting chiefly of Maharatta, Brahman, and Kumib, scarcely exceed half a million in number, but, owing to the pro-
CEPHALOPODA.

The Ctenophora, or comb-jellies, is a group of marine and freshwater animals, characterized by a radial symmetry and a transparent, jelly-like body. They lack true internal organs and have a scolex at the front end that is used for attachment and feeding.

The species are distributed worldwide, with the majority found in the oceanic regions. They are primarily known for their ability to change color and shape, which they use for camouflage and communication.

The Ctenophora are not closely related to the echinoderms, the group to which the sea urchins and starfish belong, but rather to the jellyfish, which are also members of the Cnidaria phylum. This group includes other well-known marine animals such as corals and sea anemones.

The comb jellies are found in both the oceanic and freshwater environments. They are often found in the plankton, where they feed on small organisms such as bacteria and phytoplankton.

One of the most interesting aspects of the comb jellies is their ability to change color and shape to blend in with their surroundings. This ability is known as chameleon coloration and is used by the animals to avoid predation and to capture prey.

Another unique feature of the comb jellies is their ability to regenerate lost body parts. When a comb jelly is attacked, it can regrow lost body parts, including its entire body. This ability is known as regenerative capacity and is also found in other marine animals such as the sea stars.

The comb jellies are not only interesting for their unique features, but they also play an important role in the marine ecosystem. They are an important source of food for many larger marine animals, and their presence can help to control the population of other organisms in the ocean.

One of the most well-known species of comb jellies is the lion's mane jellyfish, which is commonly found in the North Atlantic Ocean. It is known for its large size and distinctive appearance, with tentacles that can grow up to 40 feet long.

In conclusion, the Ctenophora, or comb-jellies, are a fascinating group of marine animals with unique features and a significant role in the marine ecosystem. Their ability to change color and shape, regenerate lost body parts, and control the population of other organisms make them an important species to study and appreciate.
rock of Southern India are numerous about Oota-
too and Trichinopoly.

CERAMIC AND BUT

CERAMOTAXUS DRUPACEA. Siebold and
Zuccarini. A splendid yew tree of China and
Japan, hardy, and rising to 60 feet. C. Fortunei,
Hooker, is a variety. C. pedunculata occurs in
China.—Von Mueller.

CERAMBYX VATICa, or Sal grub, burrows in
the wood of that tree, and is sought for by the
woodeckers. See Insects.

CERAMIC MANUFACTURES. The manu-
facture of porcelain, earthenware, etc., is an
art which has for hundreds of years been per-
fected by the Chinese and Japanese, and has also
been acquired to some extent by the Asiatic races
who have embraced Mahomedanism. But the
Hindu races, though making many beautiful
models in clays, have never finished off their work
by costly glazing. Their action in this matter
has been owing to their views as to ceremonial
imparity, which necessitates the destruction of
earthenware from many ideal pollutions; and as
to break up or throw away valuable porcelain
would be ruinous, they use largely coppered
brass utensils, which can be purified by fire or
water, and common unglazed clay-ware of little
money value, which can be thrown away. Urns
of elongated shapes have been discovered in
ancient Chaldea; and in British India, fine speci-
mens of common earthenware, ancient funereal,
domestic, and cooking vessels, are dug out of
the old tombs in the districts of Coimbatore
and South Arcot. This kind of pottery has
been found in many parts of India in tombs
usually arranged in circles, each tomb being
built of six slabs of stone, and occasionally sur-
mounted by large mounds of loose stones and
earth. They have been thought to resemble the
Druidical tombs of England, and are supposed to
be of great antiquity, there being no records of
them extant. The pottery found in them usually
consists of tall narrow cinerary urns of 18 or 20
inches in length, with three or four clumsy feet
four inches in length, and of a variety of round,
ovoid, and flattened shapes of different shapes and
sizes, some having apparently been used for cook-
ing and others as drinking vessels. The tall urns
usually contain burnt human bones, teeth, and
ornaments of brass or copper; they are made of
a coarse clay, which have not been finished with
care. Some of the flattened oval and rounded
vessels are made of a fine dense clay that has been
carefully prepared; the surfaces are variously
ornamented with wavy or crossed lines of red and
yellow, carefully painted. The pottery appears
also to have been smeared, and it resembles the
poterie antique vernissée et lustree figured by
M. Brongniart. There is great purity of form in
most of the vessels, which resemble the Etruscan
in the precision of the curves and in the angles at
which the different surfaces meet. The art of
pottery appears to have deteriorated in India since
these articles were made, and one branch of it,
viz. the making or thin glazing on the surface,
is rarely practised. Nearly all the porcelain used
in India by Mahomedans and Christians is imported
from China and Great Britain.

In Egypt, the pyramids of Abu Rowash, which
may very well date from the so-called second
dynasty of Manetho, are surrounded by heaps of
broken vessels. Beside this, the pottery made at

CERAMIC MANUFACTURES.

Thing Thao in China, in 2255 B.C., is modern.
Some made of earthenware, finely glazed with
a tawny or grey colour, and bearing the names of
such old kings as Cheop, Chephren, and others of
the pyramid-building dynasties, are not at all
common. The potter's wheel is said to have been
first used in Japan by a priest named Giyogi, a
native of Izumi, in 724 of the Christian era; and
it is stated that the art of making pure porcelain
was introduced into Japan about A.D. 1513.
The rarity of pottery all over Europe after
the fall of the Western Empire is a curious fact.
The practice of making encaustic tiles, which became
one of the most beautiful of medieval arts, betrays
a revival; and by the beginning of the 8th cen-
tury the Moorish wares of Spain had become
famous. It is from a offshoot of the Moorish
manufactories in the Balearic Islands that Ma-
joiera or Majoreca ware gave its name to all kinds
of glazed pottery. German stoneware, much of
it very beautiful, reached perfection towards the
end of the 16th century: but simultaneously the
great centre of pottery, China, wares, was
beaten by Helvénia do Rigaud, a widow of noble
family, in her castle of Oiron. Only about sixty-
seven specimens remain; but it has been decept-
ively imitated of late years.

M. Janvier asserts that the very first porcelain
made in Europe was in Venice, there being in the
archives a letter, dated 1470, from Ulculo da
Bologna, that seems conclusively to prove this
fact. This art was, however, lost, to be revived
again in France about 1659. The porcelain was
what is known as 'soft,'—that is, the materials
from which the paste, or body, was mixed, were
not thoroughly fused together. In 1709, Böttcher,
a German, after repeated failures, succeeded in
producing true hard paste at Meissen, near Dres-
den. It was not for nearly a century that hard
paste penetrated to Great Britain; but in 1800,
Josiah Spode created, or rather perfected, what was
practically a new ware, the bone phosphate porce-
lain, the only kind now made in England. The
English porcelain of this soft cream-colour, very
agreeable to the eye, and very suitable for decora-
tion. Nearly all the ordinary kiln colours can be
used on it, and beautiful wares of all kinds are
made. In Britain, before the 18th century, pottery
was rarely used; the people ate from wooden trenchers, and drank from horn cups, up
to the earlier years of the 19th century.

Earthenware or Common Pottery.—There are
three distinct branches of this manufacture in
India, which, though similar in their manipulation,
are different in their results. The most common
kind is the red porous earthenware used for pots
and cooking vessels, the black used for similar
purposes, and the fine white which resembles some
of the biscuit earthenware of Europe.
The red porous earthenware of India differs
very materially in quality according to the locality
from which the clay is selected; some are made
of a composed of coarse earthy loam, which has very
little tenacity, and yields a brittle kind of pottery,
either susceptible of much finish, nor of being
glazed. Most of the pottery of India is of this
description; it is made on a curious principle,
which is unknown in other countries, but which
has probably been followed for many centuries in
India. The Indian potter's wheel is of the simplest
kind. It is a horizontal fly-wheel, the frame of
CERAMIC MANUFACTURES.

wood, the rim heavily laden with clay, two or three feet in diameter, weight 60 to 80 pounds, and is put in rotation by the potter's hand, assisted by a stick; once set spinning, it revolves for from five or seven minutes with a perfectly steady and nearly true motion. The mass of clay to be moulded is placed on the centre of the wheel, and the potter squares before it on the ground. This machine has doubtless several defects, but it answers its purpose perfectly. The vessels, which are mostly of a round form, are thrown thick in the neck and upper parts or sides. They are cut off the wheel, and left open in the bottom, with vertical sides; they are then allowed to harden a little in the necks, and as soon as they will bear to be handled, the sides are thinned out by beating with a flat mallet upon a rounded stone or very hard round piece of wood held inside the vessel which is turned about and benton till it is closed. This is a very tedious and unsatisfactory mode of working, and the only recommendation is, that it makes a thin, light vessel, but at a great sacrifice of time. From ten to twenty-eight of these is a good day's work, while a skilful European thrower will turn out 800 in the same time. Good samples of this quality of earthenware are made at Travancore from a fine smooth micaceous loam, and the general forms are good, though heavy. A finer description of this ware is made at Hyderabad, from a tough, smooth plastic clay, and the articles are remarkable for elegance of form and extreme lightness of throwing. Some of the vessels are ornamented with gold leaf and coloured lac varnishes; others are made in imitation of Boder ware; some are painted white on a red ground; a few glazed and coloured with a soft lead glaze, composed of 24 parts Moordar Sing or litharge, 3 parts Ghar ka pat'har, and 1 part copper. Sandoor, or the red oxide of lead, may be substituted for the litharge. The Ghar ka pat'har should be well burnt, slaked in cold water, and afterwards reduced to a fine powder, and mixed with the litharge. The copper is mixed with its weight of finely-powdered sulphur, and heated in a crucible till a green scale has formed on it; it is then finely powdered, and mixed with the Ghar ka pat'har and litharge. The whole is again heated, and reduced to a fine powder once more. A small quantity of this powder is well mixed with wheat starch, and kneaded well for some time; water is then added, and it is strained through a fine cloth, and the glaze is gently rubbed in with the hand, after which the pottery is baked. This process of glazing pottery is very similar to that practised in Italy, Germany, and some parts of England, where paving tiles, green flower-pots, and common red earthenware are manufactured. The Ghar ka pat'har is probably either white felspar or pegmatite, a variety of granite very abundant in Southern India, and composed of three parts felspar and about one part of quartz; but at the bangle works at Loonar lake the stone used is chalcedony. The clay which is employed is probably more refractory than the common red clays of India, most of which begin to lose their shape or to become spongy at the temperature of melting such glazes. The native furnace is simply an excavation in the ground of variable depth, in which the ware is placed layer by layer, with dry reeds, straw, etc., and all are burnt together. This rude system must of course give way to the European method, for the construction of all the superior kinds of vessels.

Black Earthenware. In most instances is the red pottery blackened by the simple process of damping or checking the fire when it is beginning to decline, and thus throwing a great deal of smoke amongst the wares when the heat is not sufficiently intense to burn it off. A better and stronger kind of black earthenware is manufactured at Bangalore from a fine dense clay that contains both manganese and iron. This approaches the black stoneware of Egypt, and is strong and sonorous when struck.

White Earthenware.—Light and elegant goblets, butter pots and vases, are made at Arcot. This branch of the art is conducted with more care and cleanliness, attention being paid to the sifting of the materials and to the orienting and finishing of the articles. The material selected is a decaying white granite resembling the Cornish stone of England or the granua of Germany. This is carefully washed and decanted to free it from sand or impurities; it is then allowed to subside, the water is poured off, and the soft clay is collected on a clean cloth and laid on a heap of white wood ashes to dry; a small percentage of alkali is thus absorbed through the cloth, and is incorporated through the mass by kneading. This decayed white granite is the true Kao-lin or porcelain earth of China and Europe. It is particularly abundant in India, and occurs in beds of enormous extent, and of every variety of colour. It possesses the valuable qualities of combining with a large percentage of silica, felspar, baryta, or other stony bodies, and of resisting the most intense heats; but in India it is employed alone, and produces a soft, brittle, porous ware, which is not susceptible of being well glazed. Numerous attempts have been made to glaze this description of pottery, but the glaze crazes or cracks all over the surface, and allows water to penetrate to the body. The reason is that the Kao-lins require flint, felspar, or stone to open them, and exposure to a long-continued and steady heat before they are thoroughly burnt in the biscuit state. They also require a hard fritt or porcelain glaze, which cannot be prepared without expensive machinery. The firing also involves a great consumption of fuel, as the heat must be kept up steadily for 40 or 60 hours.

In China, the districts of Ping-le and Kot-kow in the province of Kiang-si are the most noted for their plastic clays of all the eighteen provinces of China. Very excellent plastic clays are also found in Wy-chow, in the province of Ngan-huy; the clays are soft, smooth, and, with one exception, uniform in point of colour. The excepted clay alluded to is streaked or veined, and is preferred by many potters. Kin-tie-ching, a town near Ping-le and Kot-kow, from the most ancient times has been pre-eminent for its china-ware factories. The clays are classed as Kao-lin and Pe-tun-tse. The Pe-tun-tse is taken from the quarries to the pounding mills, and then thoroughly crushed in large mortars, by means of pestles moved by water-wheels. It is then thrown into a pond and well mixed with the water. The heavier parts fall to the bottom, but the cream-coloured liquid on the top is drawn off into another basin, where it is well stirred by labourers who walk about in it. The heavier parts that sink
CERAM LAUT. A cluster of islets are lying off the south-eastern extremity of the large island of Seran or Ceram. They produce tortoiseshell, mother-of-pearl shell, beche de mer, wild cinnamon, wild nutmegs, and birds of paradise. Ceram Laut is the most westerly and the largest of the range of small islands which extend 15 or 18 miles eastward. Ceram Laut means Ceram lying to seaward. The islands are low. Ceram Laut is the great place to which the Bugi carried the Papuan slaves stolen from New Guinea. Ceram Laut and Goram are seldom visited by Europeans. The natives of the Ceram Laut islands repair chiefly to the northern coast of Papua, or the island of New Guinea, from which they are distant only about a day's sail, to procure the various articles of produce we have mentioned, that part of this vast island being called by the Bugi, Papua Nothing. Mother-of-pearl shells are, however, procured by the Bugi themselves in greater quantities at the Aru islands.

CERASTIUM CORDIFOLIUM. Robx. A herbaceous annual of Bengal. C. Indicum, W. and A., is chickweed. C. dichotomum and C. vulgatum also occur.

CERASUS, a genus of plants of the natural order Amygdalaceae, which are arranged into the true cherries, the bird cherries, and the cherry laurels. Wallis and Roxburgh mention C. Nepalensis of Nepal and Kamaon, C. piddum of the Himalaya, and C. triloba of China. Dr. Clegborn mentions the Gilas, Kashmir cherry, as from one variety of cerasus, and Aro ballu, the Kâbul cherry, as from another variety, both grown in gardens of the N.W. Himalaya. Griffith mentioned that there is in the Tenasserim Provinces one species of the almond tribe which abounds in prussic acid. C. caucasia, the cherry tree of Europe, the Himalaya, Caucasus, etc., in Kashmir is called Aloo baloo. The kernel of this fruit contains the elements of hydrocyanic acid, and is accordingly much used for communicating its peculiar flavour to brandy and liqueurs. C. Japonica is a native of Japan, but long known in English gardens as the double dwarf almond. It is one of the most beautiful flowers that appear in the month of March. C. cerasus, or the cherry laurel of Trebizond and Afghanistan, is cultivated in Europe. The distilled water of the leaves is much used in Europe as a vehicle for ointments and other anodyne medicines, in doses up to one ounce.—O. Sh. p. 827. See Cinnamomum.


This is found in the Sutlej valley between Rampur and Sunamganj, at an elevation of 7000 to 627
CERASUS PSEUDO-CERASUS.

10,000 feet about Simla. It grows to a large size.

CERASUS PSEUDO-CERASUS, the Ying-tau or Chinese cherry, is met with in Kiang-nan, Hu-peh, and Honan; but there seem to be several varieties, some of which have been introduced into England. It has a bright red fruit.—Smith.

CERASUS PUDDUM. Wattle.

Prunus puddum, Lindley.


This is found in the Sutlej valley between Rampur and Sungnam, at an elevation of 3000 to 7000 feet. Occurs in Kaghan as far as the Indus; also in Kamaon. It is a sacred tree among the Hindus. The bark is called pudmank, and used in medicine by the natives, as it is also in America.—Cleg. Panj. pp. 65, 81.

CERASUS SERRULATA, the fine-toothed cherry, is a native of China. C. Nipalensis, Ser., is a small tree of Nepal and Kamaon. C. triflora, Walt., is a shrub of Nepal and China.

CERASUS VULGARIS, common cherry.

Prunus cerasus, Linn.

Yuh-li. | CHIN. | Gila. | PANJ.

This grows in China; is found wild in the woods of Asia Minor, where it acquires a very large size. Dr. Royle considers the cherry to be wild in Kashmir.—Eng. Cyc. p. 826.

CERATONIA SILIQUA. W. Carob tree.


The carob tree was introduced into the Saha-runpur gardens, and has been tried at Madhopur and other places in the Panjub, as at Lahore, and succeeds fairly. A thick, pulpy, flat, brown, curved pod contains hard red seeds resembling those of the tamarind, embedded in red fibrous pulp. Used by the natives in coughs attended with much expectoration. The pods are used for food, both for men and horses, along the coasts of the Mediterranean, and are said to improve the voice of singers. The seed of this tree is the original of the carat of jewellers.—Powell, Hand- book, i. p. 342; Spruy's Suggest. p. 54; Ainslie.

CERATOPETALUM APETALUM, the coachwood, leather-jacket, and light-wood of New Zealand and Australia, is abundant about the Illawara district. It grows to 45 and 50 feet high and 6 feet round. Its wood is soft, fine-grained, light, and has a agreeable fragrance. It is valued for cabinet work and coach-building, but will not bear exposure to wet. C. gunniferum, the chiropterae tree, is used by the Australian colonists, is used for decoration at Christmas times. It is wild near Sydney; grows straight to 15 or 30 feet in height.—G. Bennett.

CERATOPHORA STODDARTII, a lizard of the Kandykan hills, remarkable for having no external ear. It acquired its generic name from the curious horn-like process on the extremity of the nose. This horn, as it is found in mature males of ten inches in length, is five lines long, conical, pointed, and slightly curved up.—Tennent.

CERATOPTERINA, a group of fishes, in which occur—


CERATOSTEMA. Roxb. A genus of plants. Roxburgh described C. vaccinacea, Roxb., and C. variegata, Roxb., the jalamoot of Bengal, both of them shrubs. The latter is a native of mountain forests near Chittagong, Sylhet, and on the Garo hills, where it blossoms during the cool season, when its numerous, most beautiful, large, variegated, rosy flowers are highly ornamental; the seed ripens in July.—Roxb. ii. p. 413.

CERBERA, a genus of plants belonging to the natural order Apocynaceae. Dr. Roxburgh described C. fruticosa, C. odallam, Gurt., and C. maculatum, Willde. C. tanghin, the tanghin tree, was formerly used in Madagascar for the trial by ordeal. C. thevetia is a large shrub with leaves like the oleander, and bell-shaped yellow flowers. Its milk is poisonous, bark bitter and purgative, also said to be powerfully febrifuge, two grains being affirmed to be equal to a common dose of cinchona. According to Royle, perfectly naturalized in India.—O'Sh. p. 446; Riddell.

CERBERA MANGHAS. Linn.

C. lactaria, Buch. | C. quaternifolia, Roxb.

Kulouca, | BURM. | Kaner zard, | PERS. | Pili karbir, | HIND.

This tree grows in Pegu, Tenasserim, Tayoy, Penang, Singapore, Java, Moluccas, and the adjacent islands, in wet situations. Its fruit is used very extensively by the Burmese, to make an oil which they burn in their lamps and use to anoint their heads. The kernels are described as emetic and purgative. The leaves are said to be used in Java as a substitute for senna, and the bark is said to possess purgative properties.—Roxb.; Voigt; Mason; Eng. Cyc.

CERBERA ODALLAM. Gurt. Odallam tree.

Cerbera manghas, Sims. | Tanghinia odallam, Don. Odallam, | MAREL. | Kat-arali, | TAM.

Common on the western coast of India, Maldives, and Laccadives. Wood white and spongy. Nut narcotic and poisonous. The green fruit is employed to kill dogs.—Roxb. i. p. 692.

CERBURA, in the mythology of the Hindus, a varied-coloured dog, one of the dogs of Yama. He has a second dog, called Syama, or black. Cerburn is undoubtedly the Cerberus of the Greeks. Cerburn has other names, all meaning spotted, but it is also called Tri-sira or three-headed. See Yama.

CERCOTRICHAS, a genus of birds in India, known as bulbulis, C. erythropherus, C. Luzonensis, C. macrourus. See Bulbul.

CEREAL GRAINS. CEREALS of several kinds are cultivated for food. The seeds of all the grain crops, those that are eaten as food are capable by cultivation of becoming superior. The value of grains, generally speaking, is directly as the size of the carpus, and inversely as the thickness of the pericarp. When the grain abounds in persperm, it is heavy; when the envelope is thick, the grain is, on the contrary, light, thus:—

100 seeds of wheat weighed 450 grains.

100 " barley " 385 "

100 " rye " 260 "

100 " oats " 250 "

The chemical composition of the grain influences materially the quality of the resulting bread. If the gluten be too fat, no fermentation takes place in the dough; if the gluten be in excess, the bread is heavy and acid. Wheat flour may be considered the type of all that is suitable for alimentary.
purposes, and in the degree of deviation from this standard consists the inferiority of the other grains. The grains or ears of nearly all the cereal grains are subject to diseases resulting from attacks of certain species of fungi, animalcules, and insects. The liability of the seeds of grasses to parasitic infection is explained by the large amount of nitrogenized matter contained in them, and to their softness of texture; and some of the diseases occasion the greatest injury to the agriculturist. Little is known as to the native countries of the cereal grains. The prevalence of particular grains in the earth's zones and continents, has resulted not alone from climate, but has been determined by the civilisation, industry, and traffic of the people, and often by historical events. Without cultivation, all the cereals degenerate. As they now exist, they seem to have been greatly improved from their natural state. Wheat has five, six, or seven distinct species, barley three, and oats two, three, or four. In the south and east of Asia, the following grains belonging to the grasses (Paniaceae or Graminaceae) are the more largely cultivated:—

<table>
<thead>
<tr>
<th>Sorghum vulgare</th>
<th>Penicillus rubra</th>
<th>Zea mays</th>
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</thead>
<tbody>
<tr>
<td>Water, 11.95</td>
<td>11.8</td>
<td>13.5</td>
</tr>
<tr>
<td>Nitrogenous substance, 8.65</td>
<td>10.18</td>
<td>9.9</td>
</tr>
<tr>
<td>Dextrin, 3.92</td>
<td>3.92</td>
<td>3.92</td>
</tr>
<tr>
<td>Sugar, 1.40</td>
<td>1.40</td>
<td>1.40</td>
</tr>
<tr>
<td>Fat, 3.84</td>
<td>4.62</td>
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<td>Starch, 7.03</td>
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<tr>
<td>Sorghum bicolor, 8.65</td>
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<tr>
<td>S. cornum, 8.65</td>
<td>11.5</td>
<td>9.9</td>
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<tr>
<td>S. saccaratus, 8.65</td>
<td>11.5</td>
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<tr>
<td>S. vulgare, 8.65</td>
<td>11.5</td>
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<tr>
<td>Triticum vulgare, 8.65</td>
<td>11.5</td>
<td>9.9</td>
</tr>
<tr>
<td>var. (a) aestivum, two varieties.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) hyperbum,</td>
<td>64-5</td>
<td></td>
</tr>
<tr>
<td>Zea maya, 8.65</td>
<td>11.5</td>
<td>9.9</td>
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</tbody>
</table>

Rajputs, Goori seems to be the analogue of Ceres, and on the festival of the Alabera, or Muhurat ka Shikar, they hunt, slay, and eat the wild boar.

CERES, a genus of the Caucteae. About twenty species introduced into India. Many of the species produce beautiful flowers. The stems are angled and jointed; the blossoms open in the evening or during the night, and die away towards the morning. C. flagelliformis, S. America, which grows in Asia and Africa, is the creeping cerasus; C. grandiflorus, Mill, is the night flowering cerasus. C. hexagonus, Linn.; C. senilis, the old man's torch thistle; C. speciosissimus, C. triangularis, Linn., and C. truncatus, occur.—Voigt.

CERIOPSIS CANDOLLEANA. Arnot. Chowrie or Kiree, SIND. A tree of Sind. Wood used for building boats and barges; makes useful keels. The barks of Ceriops candolleana and Rhizophora mucronata are much used in Sind in tanning.

CERIOPSIS ROXBURGHIANUS. Arnot. Rhizophora decandra, R. | Bruguiera decandra, Gr. Garan, . . . . . BENG. | Ka-by-ain, . . . . . BURM. Grows on all the coasts of tropical Asia. Wood dark reddish, hard, and durable; flowers large, white, and sweet-scented. The bark is used in India for dyeing.—Voigt; Malcolm.

CERIOPHIS MELANOCEPHALIA and C. satyra, Argus pheasants.

CERITHIADÆ, the Corite family of molluscs, comprising several genera, mostly recent. CERNE, the name given by the Portuguese to the island of Mauritius on its discovery. Subsequently, while in the possession of the French, it was called l'Ile de France, the Isle of France.

CEROPEgia, a genus of plants of the nat. ord. Asclepiaceæ. They are creepers and trailing plants. C. Arnottiana, Wight, is the Oo-ta-lung of the Burmana. C. bullosa, esculenta, lucida, juncea, Lushii, elegans, Stephanotis, stelpeia-formis, and tuberosa occur in India. C. bulbosa, Roxb., occurs in many places, and every part of it is eaten by the natives. Its roots are of the size of a small apple, and when fresh taste like a turnip.

CEROPEGA ESculenta. Edgeworth. Galat, Panu. In Multan its acid leaves and tubers are used as a vegetable.—Dr. J. L. Stewart.

CEROPEGIA JUNCEA. Roxb. A twining plant; grows all over India. It is succulent, with an agreeable acid taste, and is much eaten as a salad by the people.—Mr. B. Brown.

CEROPEGIA TUBEROSA. Roxb.

C. candelabrum, R. Bach-chali-manda, Pulla manda, . . . Tel. The word manda is applied to several species of ceropegia.—Voigt.

CEROSTERNA GLADIATOR, a longicorn beetle of India. It eats the bark of casuarina trees.

CEROXYLON ANDICOLA, or wax-palm, a native of the Andes of Columbia, of immense height, often attaining 150 to 180 feet in its length. From fissures in the trunk there flows spontaneously a liquid of great waxy substance, containing two-thirds of resin and one-third of wax identical with that formed by the bee. Melted with a little water, this wax makes excellent tapers. Its introduction into India merits attention.—C. australi, Martins, is of Juan Fernandez; C. Kloptockia, Martins, of Venezuela.—O'Sh. p. 641; Von Mueller.
CERVIDE.

Spotted deer of the Sunderbuns. It inhabits the eastern and northern shores of Bengal and Hindustan, and the Sunderbuns. It inhabits reedy marshes and the islands of great rivers, never entering the mountains or forests. The tail is short, with no caudal disc and no heavy mane.

(f) Ruia equina, Curv., Ham. Smith.

Ruia equina, Raphis, C. equina, Curv.
Ruia hippelaphus, Elliot, Cat.
Ruia etam of the people of Sumatra.
Ruia etam, Malaysian.
Ruia kumbang, Malay.
Ruia kumbang, Eland or elk of Dutch sportmen.

It inhabits the Dekhan, S. Maharashtra country, Sumatra, Borneo, and Banka. It is of a pale brown colour. Considering the similarity of colours and size of C. equina, hippelaphus, and Aristotelis, Mr. Elliot is probably right in considering all three as varieties of the great Indian stag, described by Aristotelis under the designation of *Hippalaphus.* Ruia and C. Peroni, Curv. (Cervus du Timor), may probably be added as a fourth variety.

(g) Ruia hippelaphus, Curv.

Cervus hippelaphus, Curv. C. Temorensis, Muller.
C. mulleasi, de Graaf.

It inhabits the great forests of India, Bengal, Sumatra, and Java. It is about the size of the common stag. In winter is of a greyish-brown, and in summer it is of a brighter and more golden brown. The crown is pale yellow, and the tail is brown, terminated by rather long hair, which is rough and hard; and all about the head and neck and cheeks grows long, like a mane and beard.

(b) Ruia Aristotelis, Curv., Grey, Samber.

Cervus Aristotelis, Curv. C. heterocerus, Hodgson.
C. bengalensis, Schinz.

It inhabits the great forests of India. It is not gregarious, and runs and drops its horns in spring. Mr. Hodgson describes four varieties of this deer.

(2) Ruia dimorphae, spotted rusa.

Gower, ... HIND, ... HIND.

Occupy the sal forests of India. Colour of a red brown.

(j) Ruia Peroni, the smaller rusa; inhabits Timor, Lombok, Bawian, and Ternate.

(k) Ruia Philipinus.

Cervus Marianus, Curv.

The Philippine rusa.

Cervus de Philippines of Desmarest.

(l) Ruia lepitha, the Sundevall rusa, a native of Java, scarcely as large as a roebuck.

(m) Axis maculatus, Ham. Smith, Gray.

Axis is described by Erzeleben, Cervus nimipalpebra, apud Gmelin. Cervus exilis, Elliot.
C. pseudaxius, Gervais.

Axis maculatus.
Russ bunga, Malay of Peninsular India.

Spotted deer of India.
Chitra, ... Sansk.
Chital deer of Hodgson and Elliott.

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Inhabits India, the Malay Peninsula. In size and form it resembles the fallow-deer, and at the shoulder its height is two feet six or seven inches. The ground colour of the skin is at all times a rich fawn spotted with white, but is nearly black along the back and snow-white below. It has a white longitudinal line on the flanks. It lives near water in the jungles; feeds at night. It is timid, indolent, and gentle; is easily domesticated, and propagates in captivity. It is the spotted deer of Indian sportmen. The skin and horns of this graceful deer are articles of commerce. In the years 1851 to 1855 Liverpool imported about 700 skins and 20,000 horns a year. They are not so generally distributed as the sambur, but in many districts are far more plentiful. They go in herds of from six to sixty. So many as six have been killed by one gun during the brief cool stalking hours of the morning and evening. A. porcinus, Cuv., is the hog-deer of Jordan.


This animal does not seem to differ in any respect from the kijang of the Eastern Islands. A young male of this species is of a deep chestnut colour, which becomes browner as the animal grows older. It obtains its Canarese name from its habit of frequenting the kans or natural forest gardens.


Inhabits Ceylon, India, and Assam. Its legs are shorter than those of the axis; it has no black dorsal streak, and no white streak on the haunches. Horns generally short, with short snage. They live in herds on the plains, and do not ascend mountains.

Cervus punilis of H. Smith is supposed to be a variety, and Cervus dodur of Royle is supposed to be a distinct species.


It inhabits Sumatra, Banka, Borneo, and Java. Its height at the shoulders is about 2 feet 2 inches. On its face are two rough raised folds of skin, marking it with the letter V, the point below; colour, reddish brown or a light brown; belly and front of thighs, pure white. In Java it occupies districts with long grass, and the Sacciarum (Holeus) spicatum (alia-alang, Jav.), and Phyllanthus emblica are its favourite food; but Hibiscus, Grewia, Urena, and other malvaceous plants are eaten by it. It is inoffensive and confineable. The points of its horns are turned forwards; it is about the size of the antelope, which, with the exception of the horns, it resembles in general appearance.—Lowe's Sarawak, p. 76.

bones of the neck are so compressed as to leave the animal without the appearance of a neck. Some of them eat plants, or are phytophagous; some are zoophagous, or animal-eaters. Seven new species of cetaceans have recently been described from the Bay of Bengal, six of the family Delphinidae, the seventh belonging to the sperm whales Physoideridae, to be called Physieter (Euphyso-
tetes) sinmus. Professor Owen described the follow-
ing species from collections made mostly near Vizagapatam by Sir Walter Elliot.—Delphinus fusio-
formis, D. godama, lentiginous, D. maculinen-
ter, and D. pomegera; also Phocaena brevirostra, and Physyter sinmus. The Cetacea are divided by naturalists into two great families, the Balaenidae or whales, the Delphinidae or porpoises.

Whales.
(a) Balaena mysticetus, the Right Whale. B. Groenlandica, Linn. | B. Rondoletti, Willoughby. B. vulgaris, Brisson.
Right whale, ... ENG. Var. a. Nord kapper whale. Whalebone whale, ..., Var. b. Rock-nosed whale.
Southern whalebone whale of Nunn. Var. c. capper whale.
Inhabits the South Seas; and multitudes were seen by Sir James Ross in very high latitudes. It is of a uniform black colour. (b) Balaena japonica, the Japan whale, inhabits the coast of Japan, which it visits periodically. Its skin is covered with barnacles. (c) Balaena antarctica. B. antipodarum, G. New Zealand whale. Inhabits the New Zealand ocean.

Finners.
(f) Balaenoptera Indica, Blyth, is the Indian fin whale. B. boops, L., the great roqural, and B. musculus, L., the lesser roqural, are both found in European seas. (g) Megaptera kuzina, the kuzina. It inhabits the Japanese seas. (h) Physalis Iwasi, the Japan finner. It is very rare. In 1760, one 25 feet long was cast ashore at Kii. (i) Physalis antarcticus, G. An inhabitant of the Falkland Islands. (l) Physalis australis, the southern finner, inhabits the seas of the Falkland Islands.

Sperm Whales, Physoidericae.
Its principal food are the septide or cuttle-fish, but it swallow small fishes. (m) Cetodon Colneti, the Mexican sperm whale, is an inhabitant of the North Pacific, the South Seas, and the equatorial oceans. (n) Cetodon polycephalus, South Sea sperm whale. The cachalot or sperm whale inhabits the Southern Ocean. (o) Cetodon kogia, Gray, taken near the Cape of Good Hope. It has a short head, and is supposed to be the young of C. polycephalus. (p) Balaena Linki, has been taken off the coasts of Australia, where it represents the white whale B. catodon, Cetodon macrocephalus. (q) Physieter sinmus, Owen; Euphysoetes sinmus, a new species. (r) Globiocephalus Indicus, Blyth; the Indian C'ang whale. In 1852 a saol (schule or school of sailors) was carried by a current into the salt water lake near Calcutta.

Delphin, Dolphins.
(a) Neomeris phaxenoides, Gray. Delphinus melas, Ternua. A dolphin of the Indian Ocean. (b) Phocaena communis. Phocaena Rondoletti, Will. | Delphinus phocaena, Linn. Common porpoise, or porpessa. (c) Grampus sakamata, Schlep. Sakam kuzia, ... JAPAN. Found off the coast of Japan. (d) Grampus Sieboldii. Naiso gata, ... JAPAN. A native of the coasts of Japan. (e) Grampus macrorhynchas, black fish of the South Sea whalers; it inhabits the South Seas. (f) Delphinapterus Peroni, right whale porpoise of whales. It is found on the Brazil bank, off the coasts of New Guinea, and the higher southern latitudes. It lives in large schools, and its flesh is esteemed a delicacy. It is black; but the beak, the pectoral fins, and under part of the body are white. (g) Delphinus.—Seafaring people call the species of this genus bottle-nose, bottle-head, flounder-head, grampus, porpoise, porpessa, or porpus, sometimes even whale, and give the name of dolphin to the Coryphena, a scemaborid fish which changes colour when dying. There are several species of Delphinus:—
(h) Delphinus Heavisidii, the hastated dolphin, inhabits the South Sea and Cape of Good Hope. (i) Delphinus obscurus, the dusky dolphin, inhabits the Southern Ocean and Cape of Good Hope. (j) Delphinus abusalam inhabits the Red Sea. (k) Delphinus eupropia inhabits the Pacific Ocean and Chili. (l) Delphinus Nova Zealandiae, the New Zealand dolphin. Blyth. New Zealand and Cape Gable. (m) Delphinus Forsteri, Forster's dolphin, inhabits the Pacific Ocean between New Caledonia and Norfolk Island. (n) Delphinus sao inhabits Madagascar. (o) Delphinus longirostris, the Cape dolphin, inhabits the seas about the Cape of Good Hope and the Southern Ocean. (p) Delphinus perriger, Elliot, Blyth, the black dolphin, Bay of Bengal. (q) Delphinus plumbeus, Dussamier, the plum-
bean dolphin of the Malabar coast. (r) Steno attenuatus, Gray. (s) Steno Malayanus.
CEYLON.

Dolphinus plumbeus, Duck, Cur.
Dolphinus Malayanus, Lesson upon Cav.
Dolphin venus roux of Paris Museum.

Inhabits the Malabar coast and coasts of Penang. It is numerous, and rather heavy in its movements, but is rarely captured, except by chance in the stake-nets. It eats small fishes, Clupea and Gephyrinus celestins, Cur.

(f) Steno frontatus inhabits the Indian Ocean and the Pacific.

(vi) Planisata Gaertnica.

D. rostratus, Shaw.

Delphinus, Shawensis, Blainville.

Planisata, Pliny. Sou-sou, Ceylon.
Dauphinedu Gange, T. Cuv. Susa, Buffon.

Inhabits the Ganges and Irrawadi.

(vii) Planisata Indi, Blyth, the purpoise of the Indus, larger and more robust than P. Gaertnica.

(viii) Halicore dugong.

Trichebus dugong, Gmel. Dugungus Indicus, Ham. Indian Dugong, Eng. Le dugong des Indes, Fr.

Inhabits the shallows of the Indian Ocean and about Ceylon, where the water is not more than two or three fathoms deep. It does not appear to frequent the land or the fresh water. Its fluke is delicate. The dugong was noticed as occurring in Ceylon by the early Arab sailors, by Magasthenes (Frgm. lix.) and Zelian, and subsequently by the Portuguese. It is this creature which has given rise to the tales about mermaids which have till the present day occupied the world, and doubtless had their origin in the tales of the Arab sailors. They are phytophagous or plant-eaters.

CETONIIDE, or rose chafers, a family of the Coleoptera. These and Buprestidae, or metallic beetles, are the largest and most brilliant of the Coleoptera.

CETRARIA ISLANDICA. Aca. Iceland moos. It is chemically allied to starch; it swells in water, and when boiled becomes gelatinous.

CEYLON is called by the Hindus, Lanka. Sinhal-diva, its local name, was corrupted into Serendiva or Serendip by the Arabian mariners; and it is still known amongst the Mahomedians by the last name. The Arabs, however, in addition to Serendip, call it also Sinkul. To the ancients it was known as Tam-ba-pani, from which came the name Taprobane used by Milton when he wrote of—

'The Asia kings and Parthian among these:
From India and the golden Chersonese,
And utmost Indian isle Taprobane,
Dusk faces with white silken turbans wreathed.'

The chronicles of the island extend in an unbroken series to 543 B.C. From the Honourable George Turnour's epitome of the sovereigns of Ceylon, it is observed that ancient history commenced with Vijaya, B.C. 543; and the last king of Kandy was Sri Vikrama Raja Singha, who was, in 1798, deposed by the British, and died in captivity at Vellore on the 30th January 1832. Mr. Turnour gives the following fixed points in the chronological history of Ceylon events:

B.C. 543. The landing of Vijaya, in the year of Buddhism's death.
307. The mission from Dharm Asoka to establish Buddhism in Ceylon.
104. Conquest of Ceylon by the Mahabars.
90. Founding of Abhaya girl by Wala Gaurabah.

A.D. 209. Date of the Vaitulya heresy, in Vaivahara reign.
222. Revival of dito in the reign of Golu Abhna.
301. Death of Mahi Sena.
545. Another revival of the Vaitulya heresy, in Ambakira's reign.
1153. Accession of Prakrama Baha.
1290. Accession of Salassa Mallawa.
1266. Accession of Pandita Prakrama, Baha III.
1347. Accession of Bhuvanika, Baha IV.

The first authentic account of Ceylon or Taprobane is given by Onsticules, the Macedonian admiral, who lived B.C. 329 or 330. Didorius Siculus, B.C. 44, gives an account of it; Strabo also mentions it; and Dionysius, who flourished A.D. 36, confirms former accounts, and alludes to its elephants. Sinbad also speaks of it in a volume, perhaps a compilation and in part a romance, as does Abdoor Razak; and still more recently Ribeiro also gives a notice of it.

In the reign of Claudius Caesar, a Roman publican, who farmed the custom duties of the Red Sea, was driven from Arabia by storms on to Ceylon, where he found a flourishing kingdom and an enlightened sovereign, whom he persuaded to send an embassy of four vessels to Rome, by way of the Red Sea, for the purpose of negotiating a commercial treaty. Ceylon is famed in the literature of India as the scene of Rama's exploits, and as a place to which Asoka sent a mission. In A.D. 1153, a Singhalese monarch fitted out a fleet of five hundred ships to resent an insult offered to his ambassador. Ceylon seems to have been subjected to frequent invasions from Southern India, immediately before and after Christ. Ceylon was occupied by the Portuguese in 1596, was taken possession of by the Dutch in 1658. In 1782 the British took possession of Trincomalee, but Admiral Suffren recaptured it. In August 1795 the British again took Trincomalee, and in February 1796 they took Colombo, but in 1803 and 1804 they met with reverses. In 1814-15 General Brownrigg invaded Kandy, and on the 2d March 1815 the British assumed the sovereignty of the lowlands. But a serious outbreak occurred in 1817, which required the troops for a year, and in 1818 the king of Kandy was taken prisoner to Vellore, where he died in 1832.

The island lies between lat. 5° 55' and 9° 51' N., and long. 79° 41' 40" and 81° 54' 50" E. Its extreme length from north to south, from Point Palmyra to Dondera Head, is 2714 miles; its greatest width 1574 miles, from Colombo on the west coast to Sangeman Kande on the east; and its area, including its dependent islands, 25,742 square miles, or about 1-6th smaller than Ireland. Its circumference is about 900 miles, giving a superficial area of nearly 24,000 square miles. The mountain system in the south has an area of 4212 miles, and the following are the most remarkable heights:

<table>
<thead>
<tr>
<th>Mountain</th>
<th>Height</th>
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<tbody>
<tr>
<td>Pilurattala galla (8300)</td>
<td>Adam's Peak (7120), 7400 ft.</td>
</tr>
<tr>
<td>Kirigal potta, 7480 ft.</td>
<td>NaNanu kale, 6740 ft.</td>
</tr>
<tr>
<td>Totapella, 7720 ft.</td>
<td>Plain of Neuvaallia, 6210 ft.</td>
</tr>
</tbody>
</table>

Like the Peninsula of India, it has a belt of low land of varying breadth, consisting of tertiary strata, running round its coast. Numerous lagoons exist on the east coast, at Nilla voeli, Baticola, etc. Adam's Bridge, between Ceylon and Rammad,
consists of several ledges of conglomerate and sandstone, hard at the surface, and growing coarse and soft as it descends, till it rests on a bank of sand, apparently accumulated by the influence of the currents at the change of the monsoons. The Mahavelli Ganga river has its source near Adam's Peak, and, after a course of 200 miles, enters the Bay of Bengal at Trincomalee. The Kalani Ganga and Kali Ganga are on the western coast, and the Walawya Ganga on the south-east. A rich and well-watered plain runs between Colombo and Galle, covered with cocanut, bread-fruit, and jack-fruits trees.

The census of 1871 showed the total population to be 2,406,000, in the proportion of 1,286,000 males and 1,120,000 females. Pure Singhalese, 1,670,000; Tamils, about 542,000; Moormen (of Arab descent), 160,000; these three classes making up 2,372,000, leaving only 34,000 for all other races. Malays (Mahomedians by religion as well as the Moormen) make up 6800; all other pure Asiatic or African races—including Afghan, Armenian, Bengali, Burmese, Kafir, Chinese, Maharatta, Parsee, Rajput, Sikh—comprise a few thousands more; and European descendants of the Dutch, Portuguese, English, etc., make up not more than 10,000; while pure Europeans, including English, Scotch, Irish, and a few Germans, French, etc., number, exclusive of the military, about 4500.

The numbers of the religious denominations of the inhabitants of Ceylon may be thus stated:—

Buddhist, 1,520,575; Saivite, 564,414; Roman Catholic, 182,613; Mahomedan, 171,542; Episcopalian, 24,756; Wesleyan, 6071; Presbyterian, 3101; Baptist, 1478. Of the entire population, one in 723 is insane, one in 160 is deaf and dumb, and one in 357 is blind.

The Tamils of Ceylon belong to the same race as the Tamils of Southern India, and have been on the island for centuries, chiefly in the N.E. portion of the island; and the two towns to which they chiefly resort are Jaffna and Trincomalee. Their main occupation is agricultural. Tamil coolie labourers come over in large numbers from the continent during the coffee season.

The Singhalese proper range themselves under the heads of Kandians, low-country Singhales, and Rhodia. The Kandians inhabit the hill country, and are a hardy, robust race, never till recently intermixing with their low-country brethren. Their language is made up of three component parts,—Elu (or Singhalese pure), the Pali, and the Sanskrit. They possess an extensive literature, and their religion is Buddhism. The low-country Singhales are Buddhists, Roman Catholics, or Protestants. Among the Kandians, and them only, a form of polyandry is prevalent, and the wife has the possession of all brothers. The children call the eldest brother father. A man can bring in another, not a relation, to have joint nuptial rights with himself; indeed, the first husband can so introduce as many as the wife will consent to receive as husbands. In Kandy, in the Beena marriage, the husband goes to reside in the wife's house, and the woman shares the family inheritance with her brothers. The husband, in this marriage, can be dismissed summarily by the family of the wife. In the Deega, a more respectable form of marriage, the wife leaves her own house for that of her husband, forfeits all claim on the property of her parents, but acquires some claim on that of her husband, and the wife cannot obtain divorce, unless with the full consent of the husband. Divorces are constantly sought for by women on trivial pretences. A child born within nine months of the divorce, must be maintained by the husband. Sirr (Ceylon) says the principal castes are four, viz. the Surya Vansa or Royal race, which has two divisions, viz. Gos Wans, cultivators, the most numerous in the island, and to it belong the nobles, chiefs, priests, and nearly all the government servants, and (2) the Nille Makevaya, or shepherds, form the second division of the Surya.

Brachmam Vansa, descendants of Brahmanas.

Wiepa Vansa, cultivators and shepherds.

Shoodra Vansa has 60 subdivisions.
The Rhedia race is regarded as unclean; very numerous; forbidden to approach a temple, or any of the higher castes.

The Gataroo is an outcaste race.

Burger is the name applied to those of mixed European and native origin. One race in Ceylon wear their hair, which is long and luxuriant, dressed like a woman's, with one or two very large tortoiseshell combs fastened in it, which, to a European eye, imparts a peculiarly unmanly look to the wearer. The dresses of women differ little from that of men, but they mostly wear a kind of bodice with long sleeves. An aversion to carrying the heaviest burden prevails in Ceylon, and the poorest tradesman or servant generally employs a coolie to carry a bundle which a European gentleman would take in his hand.

The vegetable productions of Ceylon are coffee, cinnamon, coir, sugar, rice, tobacco, cotton, cocoa, areca nuts, cocoanuts, cardamoms, pepper, rice, arrowroot, maize, manioca, arrack, cocoanut oil, essential oils of cinnamon, citronella, and lemon grass, dye-wood, ebony and other furniture woods. The sugar-cane was brought to Ceylon from the Mauritius by a merchant of Colombo about 1832. European settlers have largely engaged in coffee planting. This latterly became less remunerative, and tea, cocoana, cinchona, and the Liberian coffee were introduced. At the end of 1880, about 5400 acres were under cacao. In 1880 the export of cinchona bark was 1,161,980 lbs., valued at Rs. 12,00,000. The mineral and animal products are precious stones, pearls, ivory, and chink shells. Precious stones are found in the flat country around Ballansgodde, S.E. of Ratnapura, on the western plains between Adam's Peak and the sea; at Neureella, in Oovar, at Kandy, at Matelle in the Central Provinces, and at Kurnel near Colombo, at Matura, and in the beds of the rivers eastward towards the ancient Mahagam; but the chief gem district is in the plains at the foot of the stupendous hills of Safragam. The ruby, amethyst, topaz, sapphire, and cinnamon stone, are found in great abundance, but not emeralds. Spinell, chrysoberyl and corundum are also found. Sapphires, red, purple, yellow, blue, white, and star-stone, are met with at Matura and Safragam, and rubies and sapphires in the neighbourhood of Avisavelli, and on the Neureellapatan. The corundum of Battagama is frequently found in large six-sided prisms, and is commonly of a brown colour, from which it is called by the natives Curundu gallo, cinnamon stone; occasionally it is to be met with

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partially or entirely covered with a black crust, which is merely the stone with an unusual propor-
tion of iron. In the beds of the rivers south and
cast of the mountain chain in Ceylon, the sands are so rich in comminuted fragments of mica,
quartz, sapphire, ruby, and jacinth, as in some
places to be used by lapidaries in polishing the
softer stones, and seeing elephants' grinders into
plates. Dr. Gygax considered the original matrix
of these rubies to be a stratum of decomposed
grey granite at Ylima Pohura on the south-eastern
decline of the Pettigallo Kanda. Corundum is
very plentiful at Battagamana, on the banks of
the river Agiri Kandura. The great bulk of the
gems, however, come from Ratnapura, which
means the city of gems. Ceylon affords all the
varieties of quartz, as rock-crystal, amethyst,
rose-quartz, cat's eye, and prase. Rock-crystal
occurs in abundance, both massive and crystallized,
of various colours, good quality, and in large
masses. Amethyst also is pretty abundant; very
beautiful specimens are found in the alluvion,
derived from the decomposition of gneiss and
granite in the mountains and the Seven Korals.
Adularia is very abundant in some parts of the
interior, particularly in the neighbourhood of
Kandy, where it is occasionally the predominating
ingredient of the rock. Ceylon produces the finest
cat's eyes in the world,—indeed, the only kind that
is highly esteemed, and that bring a high price.
The best specimens have been found in the granitic
alluvion of Safframag and Matura. Prase is of
rare occurrence amongst the pebbles on the shore
of Trincomalee. Belonging to the schorl family
are topaz and schorl. The topaz commonly passes
under the name of the 'white or water sapphire.'
It is generally white, or bluish or yellowish
white; it is commonly much water worn, perfect
crystals of it being very rare. It occurs in many
places in the alluvion of granitic rock.
The zircon family is richer in Ceylon than in
any other part of the world. It is found in the
districts of Matura and Safframag, and is most
abundant near the town of Kandy. Matura diamond
is the name applied to its finest variety by the dealers
in gems. Besides the two well-established species,
common zircon and hyacinth, there is a third,
massive, opaque, and uncrystallized, and of a dark
brown colour. Specimens of it from Safframag
weigh two or three ounces. The yellow varieties
of zircon are sold by the natives as a peculiar kind
of topaz,—the green as tourmalines, the hyacinth
red as inferior rubies, and the very light grey as
imperfect diamonds. All the varieties are found
in the beds of rivers, or in alluvial ground,
which, both in Safframag and Matura, is of the
same kind.

For the ruby, Ceylon has been long celebrated.
Four species of it, viz. spinell, sapphire, corundum,
and chrysoberyl occur. In gneiss or granitic
rock, spinell is comparatively rare. Ceylon has many animals—elephants, buffaloes,
chameleons, deer, tigers, leopards, hyaenas, black
partridge, red-legged partridge, peafowl, jungle-
fowl, quail, snipe, ducks, widgeon, teal, golden
and other kinds of plover, a great variety of
pigeons, innumerable snakes, and the crocodile;
but it is free of the tiger, wolf, hyaena, and cheeta.
Elephants are now only found in the thickly
wooded forests. In one mode of snaring them,
CHABUK. Hind. A; also, in Chinese, the camellia.

CHABUR. Hind., Port. Tea; also, in Chinese, the camellia.

CHABUR, or, following the Persian pronunciation, Tsab, an Arab tribe who occupy the lower part of Mesopotamia. They are a tall, martial race, strong-limbed and muscular, active and healthy. At Baron de Bode's visit they extended on the north as far as the territories of Shushter and Ram Hormuz, eastwards to Behbahan; and, including Hindlyan in their possessions, they spread south along the head of the Persian Gulf; on the west they do not extend beyond Haniza. They became known to the British in the latter part of the eighteenth century, in consequence of their piratical exploits on the Persian Gulf, and their having captured some British vessels sailing in those latitudes. —De Bode, ii. pp. 110–122.

CHABAI MALAY. Species of capiscum; Chabai Java, Chavica Roxburghii, long pepper; Chabai of Lombok, Capsicum frutescens; Chabai sabrang, a species of capiscum.

CHABANAH. Hind. The name given to all parched cereals and pulses,—from Chabuna, Hind., to chew,—because eaten alone.

CHABAQ. Hind. Salicornia bracteata? also root of the black pepper vine.

CHABERIS of Petnelly, the river Cuavy.

CHABUK. Hind. A; hence Chabak-sowar, a jockey, literally a whip-rider.

CHABUKCHURI. Hind. Hiphtage madabolta.

CHABUTRA. Hind. A raised platform, a dais or terrace; a flat masonry platform or edging to a well, etc., for sitting on.

CHACH is the name of the great plain to the east of the Indus, immediately opposite to Ohind, which may have been named after the Brahman dynasty of Ohind, as the Banar plain was named after raja Banar. The Brahman dynasty of Sind was also established by a Chach in A.D. 641; and this date corresponds with the period of the expulsion of the Brahman dynasty from Chichito, or Jajhoti, by the Chandels of Khajura. Several places on the Indus were named after the Chach dynasty.—Chachpur, Chachar, Chachgaon, Chach, Chach was a Brahman who usurped the kingdom of the Rai dynasty of Sind. He was a contemporary of the Shahram or Shahrear, and he is supposed to have invented the game of chess. He seems to have reigned about A.H. 2, and to have been succeeded by his brother. The Rai dynasty had ruled from Kashmir and Kanouj to Makran and the port of Dahal on the shores of the sea of Oman, and from Surat to Kandahar and the Sulimana range. The commencement of this dynasty has not been ascertained, but in the time of Rai Diwaj the capital was Alor. He was a powerful chief, who contracted alliances with the rulers of India. He was succeeded by his son, Rai Shhars I. Rai Shhars was the celebrated son of Rai Shhars, and the next was Shhars II., who reigned 42 years, and was killed in battle. After Sahasi II., a Brahman dynasty succeeded. Their reign seems to have extended to 137 years, and to A.D. 479.—Elliot; Cunningham's Ancient Geog. of India, p. 55.

CHACHEON or Chachiyon. Hind. Rhododendron arboresum.

CHACH-NAMAH, also called the Tarikh-i-Hindo-o-Sind, is a Persian translation from an old Arabic history, made about A.D. 1216 (A.H. 613) by Mahomed, then residing at Uch in Sind. The ancient Arabic seems to have been written before A.D. 753. It is largely drawn upon by Nizam-ud-din, Fersish, Mir Masum, and others. The Chachnamah Persian work is descriptive of the Arab conquest of Sind. The Arab occupation of Sind was only temporary. On their retreat, the territory reverted to the rule of native princes, and was practically independent until its absorption into the Moghul empire during the reign of Akbar, in A.D. 1592, for the successes of Mahmud of Ghazni made no permanent impression on them. —Elliot's Hist. of India, p. 9.

CHACHI. Hind. Myrsine Africana.

CHACHUNDI or Chichundi. Hind. The shrew or musk rat, species of Sorex. S. eurulseos, S. Indicus, and many others.

CHACKLER. ANGLO-TAM. A Tanner, a shoemaker; properly, Chakkili.

CHACRA. Hind. A wheel, a circle, a cycle of years; a weapon of a circular form often placed in the hands of the Hindu gods. Rasi chaera, the zodiac. Varahaspati chaers, the cycle of 60 years. Nachatra chaera, the sphere of the fixed stars. Prachara, an epicycle on which the degrees of precessional variation are counted. Chacaradhari, or wielder of the discus, the most ancient weapon of the Indo-Gotie race. A name of Krishna.—Warren, Kola Somhita.

CHADACHRY. Tam. A small tree of Palghat; wood of a light-brown colour, used for buildings and carts.—Colonel Frith.

CHADACULA. Tam., Tel. Dammer, resin; Vateria Indica.

CHADR. Hind. A sheet, a dam, a sheet of sheet iron, a scarf. Phul ki chadar, a flower sheet spread on graves.

CHADARGHAT, the site of the Residency of Hyderabad, on the left bank of the Musa river, which is there dammed. It has been irregularly built over, but contains many Christian families, and many wealthy Hindoos and Mahomedan residents, bankers, and merchants.

CHADUR KUL, a lake 110 miles N.W. by N. of Kanouj, 11,300 feet above the sea. It was visited by Captain Trotter in 1873.

CHLEROHYLLUM SATIVUM. Lam. Anthirrhinus cerfeolium, Hoffmann.

The chervil, a good culinary herb.—Von Mueller.

CHLETODON. This genus belongs to the Squamipennes, which includes the Chletodontes and other curious fishes, as the coachmen, the horsemen, and others.

Chletodon aranesis, the Gal handak, a singular and much-admired fish, about 3 inches long; has a delicate and white flesh, greatly esteemed.

Chletodon praetextatus, Cantor. Like other species of this and the neighbouring genera, the present expires immediately when removed from its element. It appears to be allied to C. reticulatus and C. lunula, Cuv. and Val.

Chletodon rostrata, the bearded and rosseted Chletodon of the fresh-water rivers of India, when it sees a fly alighting on any of the plants which overhang the shallow water, approaches the place cautiously, till directly beneath the object of its attack. Then, placing itself in an oblique direction, with its mouth and eyes beneath the surface, it remains a moment
immovable, and, taking aim like a first-rate rifleman, darts at the insect a drop of water from its tubular snout, but without showing its month above the surface, from which only the drop seems to rise—and that with such effect, that though at the distance of four, five, or six feet, it very seldom fails to bring its prey into the water. Another small East Indian fish, the Toxotes jackson, catches its food by a similar dexterous display of archery. Mr. Hommel, governor of the hospital at Batavia, first noticed the habits of the Chetodon rostrata.—Wood's Zoography; Cantor.

CHAGA, also Chaga-laga. Tel. Sanssevieria Zeylanica, Rosacea.

CHAGDA or Chackradah is an abyss said, in Hindu fable, to have been made by the chariot-wheel of Bhrigar. The legend points to an antiquity which is not borne out by any old vestiges or ancient population. The place is at best a mart, or outlet, for the agricultural produce of the neighbouring districts, being crowded with warehouses.—Trs. of a Hindu.

CHAGHTAI, a Turki race to which Biber belonged. He spoke and wrote in Chaghtai Turki, which continued in use at the court of Delhi until a late period. There were two races, two languages, and two religious sects at that court,—the nobles of Iran and Turan, Persia, and Turkistan, the former of the Shiah persuasion, who spoke Persian, the latter Sunni Mahomedans, who spoke Turki; and in the latter days of the empire the contentions between the two races were a source of its weakness. Tod says (Rajasthan, i. pp. 6, 60, 322) Chaghtai are the Sakatla of the Hindu Puranas, from Sakadwipa, changed by the Greeks to Scythia. The political limits of the great Getic nation in the time of Cyrus, six centuries before Christ, were little circumscribed on the rise of Timur. At this period (A.D. 1330) the kingdom of Chaghtai was bounded on the west by the Dhaasht-i-Kapchak, and on the south by the Jaxartes or Jihon, on which river the Getic khan, like Tomyris, had his capital. Kojend, Tashkand, Otorar, Cyropolis, and the most northern of the Alexandria cities were within the bounds of Chaghtai at this period. There were two races, two languages, and two religions, the former of the Shiah persuasion, the latter of the Sunni sect. Chaghtai on the throne of Transoxiana from 1222 to 1362. As the Chaghtai dynasty drew to its close in Eastern Turkestan, the priestly element began to increase. In 1678, Galdan Khan, sovereign of the Eleeuth or Kalmuk tribes of Dzungaria, established the kohjaks of the White Mountain. But, after a century of disensions, in 1757 the Chinese brought the Turkestan states under their rule. We are to contrast the literary and commercial developments of the Chaghtai princes with those of their contemporaries of Europe, the balance of lore would be found on the side of the Asiatics, even though Elizabeth and Henry iv. of France were in the scale. Amongst the princes from the Jaxartes are historians, poets, astronomers, founders of systems of government and religion, warriors, and great captains, who claim our respect and admiration. Tod says (Rajasthan, i. pp. 6, 60, 322) Perrier's Afghans, p. 423; Vaux, pp. 157-159.

CHAGOS ARCHIPELAGO, a group of islands belonging to Great Britain, and a dependency of the Mauritius, about 250 miles S. by W. from the southernmost of the Maldives islands. They are rented in kind to persons of French extraction; the population, 564 in number, chiefly Negro.

Pigs are abundant, and poultry plentiful. They were surveyed in 1786 by Lieutenant Archibald Blair, and in 1837 by Captain Moresby. Diego Garcia, called Great Chagos island, extends from lat. 7° 13' to 7° 26' S., and its centre is in long. 72° 24' E. The Great Chagos bank occupies the centre of the Archipelago. The other islands are the Six Islands or Egmont islands, Dungeness, or Dungeness, Eagle island, the Three Brothers, Nelson island, Peros Banhos, and Solomon islands. The Chagos, Laccadive, and Maldives Archipelago are groups of atolls and madreporic reefs, low coral islands, densely clothed with coconut trees. The Maldives have upwards of 1000 islands and reefs. The Laccadives are seventeen in number. The Chagos group has some ordinary atolls, some annular reefs rising to the surface, but without any islands on them, and some atoll-formed banks neither quite or nearly submerged. The Chagos bank is a half-drowned atoll.—Darwin.

CHAGUL. HIND. A leather vessel for carrying water to a journey.


CHAH. PERS. A well. Hence chah, belonging to a well, or lands irrigated from wells. Many places have this as a distinctive appellation.

CHAHAL. PERS. Forty. Hence Chahlum, the forty days of uncleanness after childbirth.

Chahal Dakhtar, a halting-place in the valley of the Murghab, 60 miles N. of Herat on the left bank of the Khushk river; has a shrine to the memory of 40 virgins who were carried off by Turkomans.

Chalah Minar. See Kermanollah.

Chahal Sitan, a palace at Ashraf in Persian Mazandaran, built by Shah Abbas. It has a beautiful enclosed garden. Here Shah Abbas in 1627 received Sir Dodmore Colt, the English ambassador.

Chahal Sitan, a palace at Isfahan, in the middle of an immense square (Morier).

Chahal Sitan, Lithium pyrogyne, the stone tower in Mount Meru.

Chahal-Wasti, or captain of forty, amongst the Nasiri, a nomadic race who occupy the Tolito and Hotoki countries in summer, and the Daman or skirts of the Suliman range in winter. In their migrations, they appoint a chahal-wasti, or captain of forty, and a director-general. See Afghan; Nasiri.

Chahal Tan is a cave on the Kabil road, between Chardeh and the city of Kabil, accessible only by a narrow aperture. It is believed that if a person enter it he will be unable to squeeze himself out, unless pure and free from sin. It is therefore not much visited (MacGregor, pp. 212-13). Masson says (i. p. 85) there are many places of pilgrimage (ziarat) called Chahal tan, and that Kabil has one near Argandi.

Chahal Tan is the loftiest mountain in Baluchistan, its highest peak being 12,000 feet. It forms the western boundary of the valley of Quetta or Shawal.—Pottinger; Postans; Masson; Cook; MacGregor, p. 110, iv. p. 3.

CHAIH. HIND. A small masonry tank, used by soap-boilers.

CHAIHILL. CHAHIR. A Rajput tribe in Hissar, of which the greater part is now converted to
Mahomedans. There are a few in the Hissar district and on the borders of Bikar. Though Mahomedans, they nevertheless retain charge of the tomb of Goga Chauhan, a Hindu prince now esteemed a saint.—*Edith; Wilson.*

**CHAITHANYA.**

A tree of Akyab; grows to a moderate size, and is plentiful in Ramree and Sandoway districts. Used in house-building. (Qu. Is this *Coriaria myxa*?)—*Col. Cat. 1862.*

**CHAHYUMAN,** the Chauhan Rajput tribe.

**CHAI. ARAB. Tea.**

**CHAILA. MALEAL. Oldenlandia umbellata.**

**CHAIBAR.** Many of the Arabian tribes had been converted by the Jews who fled from the destruction of Jerusalem by Titus. Chaibar was their principal city in Arabia; it was taken by Mahomed a.d. 623-7. Chaibar was in the neighbourhood of Medina; they were removed into Syria by Omar. Hira also was the residence of a Christian prince, who had reigned there 600 years before he was conquered by the Mahomedans.

**CHAILE. HIND.** A tree of Chutia Nagpur, furnishing a hard, white, grey timber.—*Col. Cat.*

**CHAIN.** low caste races in N. India.

**CHAI NU. HIND. Panicea pilotum.**


**Chait, a Hindu month (March-April), commences when the sun enters into Pisces.*

**Chait of Sikkim (borrowed from Tibet) is a square pedestal, surmounted with a hemisphere, the convex end down, and terminated with a cone, crescent, and disc. These are erected as tombs to lamas, and in memory of illustrious people, and are venerated accordingly, the people always passing them from right to left, often repeating the invocation, 'Om mani padmi harm.'—*Journal of the Asiatic Society of Bengal,* No. 29, p. 427.

**CHAITANYA, a Hindu religious reformer.** He was born a.d. 1485. His father was a Brahman, who had come from Srihatta, Syihet, or Tibet, and settled at Nadiya, where Chaitanya was born. In his early youth he married the daughter of a celebrated sect; but in 1469, when twenty-four years of age, he seems to have abandoned the world and domestic life, and, after long journeying, repaired to Cuttack in Orissa, where for twelve years he laboured to extend the worship of Jagannath at Purii, and devoted the rest of his life to the propagation of his views, aided by Adwaitananad and Nityanand, two men of domestic habits. The age in which he was born had been preceded by one of great religious reforms and innovations. There had been Ramananda, who had revived the ascetic movement; and Kabir, who set aside alike the Hindu Shasters and the Koran, and preached a universal religion. In Bengal, Buddhism had maintained its supremacy up to the 10th century. On the accession of the Sena princes, Saivism gained the ascendancy, and predominated in the land. Under coalition with Saktaism, the worship of the emblems of the energy of man and the fruitfulness of woman, it had degenerated to the very licentious creed of the Tantra-Shastras, which culminated in the worst forms of libertinism about the time of Chaitanya. Two thousand years before, a greater reformer had viewed with disgust and a relenting heart the bloody rites and sacrifices of the Vedic Yagya, and to reform the abuses Buddha had promulgated the doctrine of non-creality to animals. In like manner, the baccchanalian orgies of the Tantrika, and their worship of a nudity exposed female, had provoked the abhorrence of Chaitanya, and roused his energy to remove the deep blots upon the national character. He commenced his labours by holding meetings of his immediate friends at the house of Sri Bhasa. His labours lasted through six years, when he retracted him from the Nityananda propaganda. Having visited the Nityananda; and it is to Nityananda that the origin of the Gosi is owing. Chaitanya was brought up in the faith of a Vaishnava, but his opinion took a great tinge from the doctrines of his two immediate predecessors. From his early childhood Chaitanya gave signs of an eccentric disposition, but he possessed a very superior intellect, and the purest morals. He had also a very affectionate heart, and simple, winning manners. From 1509, when Chaitanya, styled Nemi, formally renounced the world by embracing the life of an ascetic, he wandered from place to place, travelled to Gour, proceeded to Benares, visited Vindraban and Puri, teaching his sentimental theology, making numerous converts, and devoting all his energy, time, and life to the fulfilment of his mission. His peregrinations lasted for six years, at the end of which he returned to Nilchah near Jagannath, and, settling there, passed twelve years in an uninterrupted worship of that divinity. He became afflicted with epileptic seizures, which received the name of Pran Prapal. While still in the prime of life, however, he was afflicted with hallucinations and benific visions, and in that state of mental derangement he disappeared in a.d. 1527, supposed to have drowned himself at Nilchah or Cuttack, where he had resided, adding energy and repute to the worship of Jagannath. It was a main part of Chaitanya's doctrine to abolish all caste distinctions amongst his followers, and that they should bestow implicit faith with incessant devotion, which he termed Bhakti. All persons of all castes and occupations are admitted to the sect from the conviction that all are equally capable of feeling the sentiments of faith and devotion. His doctrine was essentially the worship of Krishna as an incarnation or avatar of Vishnu; and his sect worship Krishna as Parmatma, or Supreme Spirit, prior to all worlds, and alike the cause and substance of creation. In his capacity of creator, preserver, and destroyer, he is Brahman, Vishnu, and Siva; and in the endless divisions of his substance or energy, he is all that ever was or will be. Besides these manifestations of himself, he has, for various purposes, assumed specific shapes as incarnations or avatars,—as asana or portions, as anansa or portions of portions, and so on ad infinitum. His principal appearance, and in fact his actual sensible manifestation, was as Krishna, and in this capacity the sect believe he again was present as Chaitanya, who is worshipped as the deity, as are the other forms of the same god, particularly as Gopal the cowherd, or Gopi Nath, the lord of the milkmaids of Vindraban (Bindran); his asa or spirit. His disciples form the largest sect in British India, numbering nine or ten millions, and to be found in every village of Bengal. The date of his birth has also been given as a.d. 1479, also 1485 and 1486, and those of his death 1527 and 1534, at Nilchal or Cuttack. All castes are admitted into Chaitanya's fraternity, and, once admitted, are associated with
on equal terms by all the brethren. His predecessors, Ramman and Kabir, had taken low caste men for their disciples. But he scrupled not to permit even Mahomedans to enter his fold; and two of his most eminent followers, Rupa and Sanatana, were originally Mahomedans, ministers in the court of Gour.

The Gosi marry; most of the Banya of Bengal follow their tenets, but their doctrines are held in little esteem. They are regarded as gurus or teachers, and no scandal has arisen from them. The Gosi observe none of the Hindu festivals except those of Krishna; but the anniversaries of the deaths of their founders are observed as such. They do not, says Mr. Ward, reject the mythology, or the ceremonies of the Hindus, but they believe that those of Hari (Krishna) only are necessary. On the death of their festivals, the initiation invocation, or some sectarian exclamations, may be heard resounding through the streets of Calcutta: Hari, Krishna; Hari, Krishna; Krishna, Krishna; Hari Hari; Hari; Ram; Hari, Ram; Ram, Ram, Hari, Hari.—Calcutta Rec.: Cole, Myth. Hind. 240.

CHAITANYA-CHANDRODAYA, the Rise of the Moon of Chaitanya, a drama in ten acts, by Kani-karna-putra.—Dawson.

CHAITI, spring or Rabi harvest. The gudi padva ceremony, or flying of paper kites, is held as the new year, on the new moon of Chaitra, about the 5th April.

CHAITRYA, written variously Kashatrya, Chettri. Amongst the Aryan Hindus the Chaitrya was a warrior branch taking social rank after the Hindu Brahmans. Menu, writing of their duties, says: "To defend the people, to give alms, to sacrifice, to read the Vedas, to shun the allurements of sexual gratification, are in a few words the duties of a Chaitrya." How this soldier branch broke up is extremely obscure; but it is generally supposed that none of the races now in India can trace their lineage to that tribe of Aryans, though some of the Rajput families doubtless belong to them. Their quarrels amongst themselves seem to have led to their own destruction. There seem to have been two branches of the Chaitrya tribe, the Solar, who traced up to Ikshawu, and the Lunar, who traced up to Budha, who married Ha or Ella, daughter of Ikshawu. These martial Chaitryas do not appear to have adopted Brahmanism readily; and the Brahmans, to overcome them, consecrated by fire on Mount Abu a warrior body, who still remain, and are known as the four Agnicala Rajput tribes. A common spelling of the word is Kashatrya.—Warren's Kola Sanhita; Tod's Rajastan, i. p. 37. See Hindu; Suryavansa.

CHAITYA. Sansk. From Cht, a funeral pile, a heap of objects worshipped by the Buddhists, as a tree, an altar, a temple, as well as any monument raised on the site of a funeral pile, as a mound or pillar; and is probably applicable both to the Buddhist chodden, or offering to the deity, and the dugunget, a bone or relic receptacle, but is used by the Jains and Buddhists to indicate a temple containing a chaitya. In Nepal and Tibet, and in Buddhism Sanskrit literature, the word is applied to the model of a stupa placed in the temples, and to which the term dagoba has been applied. These chaityas or dagobas are an essential feature of chapels or temples constructed solely for purposes of worship, and to which the term chaitya caves has been proposed to be applied. The later forms have a pradakshana, or passage for circumambulation. The stupa or chaitya of Indian Buddhism are supposed to have been erected subsequent to the cave temples and viharas or monasteries. The chaitya of the Buddhists is the ch'ihatra of the Brahmins. One chaitya at Sanchi is structural, but all the others known, in number 20 or 30, are cut in the rock. Seemingly the aisle which surrounded the ape could be lighted from the exterior. The ancient stupa were originally meant as receptacles of either the Buddhas, or the Bodhisattwas and the kings who encouraged the propagation of the Buddhist faith. The chalot or chorten of Tibet are similar to the stupa. They consist of a cylindrical vase, and have a cupola over them. They serve as relic repositories, remains of revered human, sacred writings. But they are principally offering receptacles, and no Tibetan passes by without depositing some offering or oblation.—Hardy's Eastern Monachism, p. 43; Cunningham's Bhilas Topes; Ferg. and Burg. Cave Temples of India.

CHAJ. Hind. A winnowing basket.

CHAJJAN, a fibre recently come into use at Lahore, owing to the rise in the price of other fibres. It can be purchased in Lahore at from £8 to £10 a ton.

CHAK, a portion of land divided off, an arrondissement.

CHAK of Sutlej, Hordeo hexachiston.

CHAK. Beng. Chowk, Hind. A market-place or square.

CHAK or Jag. Bhot occupants of the central part of northern Tibet. Mr. Hodgson supposed them a mixed people, engaged in predatory pursuits.

CHAK, a circle or marked-off plot; a wheel of a cart; any wheel; a potter's wheel.

CHAK or Chuk. Hind. An extract, very sour, eaten in Ajmire to give appetite and promote digestion. It is probably the extract of chuka or sorrel. One tola is sold for one anna.—Gen. Med. Top. p. 132.

CHAKAN, also Chakan tubanna. Beng. Celts orientalis.

CHAKAR. Hind. A servant; hence Chakari, service; generally, however, duplicated, as nonkri chakri.—Elliot. Chakran, in Bengal, land set apart to provide funds for the village office-bearers.

CHAKKI. Cis-Sutlej. A pan for receiving sugar-cane juice when boiled.

CHAKKA R, in Malabar, a class of out-caste Brahmanas.—Wilson.

CHAKKAN, also Chakkala. Hind. An oil-press.

CHAKKLI. Hind. A small mill.

CHAKKILI. Tam, Mal. A carrier, a tanner; shoemaker, the village shoemaker, known to Europeans as a chuckler. The Chakkili is one of the non-Aryan races of India.—Wilson.

CHAKLA. Beng. Hind. A large division of a country, comprehending several parganas. Shah Jahan, about A.D. 1772, divided Bengal into 13 chakla. The chakladar is the superintendent of a province.

CHAKLA. Hind. A stone slab for grinding on; also a pastry roller and board.

CHAKMAK. Hind. Flint. In Tamil, chakimukuli.

CHAKOLTI. Hind. A light, pale, yellow-coloured wood, not strong. Plentiful in the
Santal jungles from Ranibahal to Nonihaut for 35 miles. Furniture, tables, palkis, venetians, and doors are made from this wood.—Cal. Engineer’s Journal, July 1860.

CHAKKOOLYA. Beng. Hemionitis cordifolia.

CHAKKOONDA. Beng. Cassia tora.

CHAKOKON SEEDS, seeds of Cordia myxa. An ointment prepared from them is an excellent application for ringworm.

CHAKOR. A small coin; a country cart, a hackery.


CHAKRA. A small class of Rajputs in Ghazipur.—Wilson.

CHAKWAN. Hind. A weed which grows common in mango groves in the N.W. Provinces, and used as a pot herb.

CHAL. Hind. Manners, customs, commonly duplicated into Chal Chan, or use and wont. The chal of the Hindu, like the mores of the Romans, or costume of modern Italy, is significant alike of the mental and external habit. In the moral point of view, it is the path chalked out for him by the sages of antiquity; in the personal, it is that which custom has rendered immutable. Kya boora chal chalta,—In what a bad path does he march? says the moralist. Bap, Dada, chal chhora,—He abandoned the usages of his ancestors, says the stickler for custom. Nek-chal, good, and bad-chal, bad habits.—Tod’s Rajasthan.

CHALA. Hind. Cicer aritinum.

CHALA CARNA, written Chila carma. This Hindu astronomical term means the true distance of a planet from the earth, in contradistinction to its mean distance, or the radius of the Caasha or deferent. See Carma.

CHALAI of Kaghan, Juniperus excelsa; J. arborea, pencil cedar. See Charai.

CHALAN. Hind. A permit, any invoice; a pass, a list. Chalaoni, current coin.—Edict.

CHALAN BII, a large marsh in the Rajahsheel district of Bengal, about 21 miles long and 10 miles broad. It is said to give rise to outbreaks of cholera.—Imp. Gaz.

CHALAPACHAI. Tel. Indigofora enneaphylla, L.

CHALAR. Hind. The Persian wheel of a common well transferred to the bank of a canal, margin of a jil, or high bank of a river.

CHALAVADI. A small delicately perfumed variety of Chalava, common in the S. Indian trade. The flowers are used for perfume and soap. See Chalava.

Musa paradisiaca, L.; a small delicate kind of plantain. Perhaps Chakra should be read Sakka, ‘sweet.’

CHAKRAM. Sansk. A wheel. It is now sacred to Vishnu. Chakrakam, a brass stamp; the discus of Vishnu stamped hot on his followers’ arm. Chakrastambha, a pillar supporting a chakra.

CHAKRA VAKA. Sansk. Ruddy goose; the birds are supposed to be separated through the night. See Chakwa; Casarea rutila.

CHAKRAVARTA. Sansk. A paramount sovereign, an emperor. Literally, one on whom the discus of Vishnu abides. A few sovereigns in ancient times laid claim to this title, but it is now heard of only as the tribal name of a Brahman family in Bengal, under the altered form of Chuckerbutty. In Buddhism it means a universal emperor, endowed with supernatural powers; but it was in use long prior to the advancement of Buddhism. The Empress Victoria is a Chakravarti.—Hardy’s Eastern Monachism, p. 435.

CHAKRAVARTI KURA. Chakrawarti. Tel. Chakravarti Kura.

CHAKOR. Beng. Also Chaktrak, Kuk, Chakrakudu, Tel. An oilman. Chakri. Hind. A disc or flat circular piece of skin, also a disc of leather used on the axle-boxes of carriage wheels.

CHAKWAEN. Tel. Chakwaen.↑

CHAKWA. Tel. Chakwa.↑

CHAKRA. Hindu. The discus of the god Vishnu, resembling a wheel or quoit; a sort of missile weapon, whirled round the middle finger, and used as a weapon of war. The chakra, in Hinduism, is mythologically described as a circular mass of fire, darting flame in all directions, which, thrown by the gods, slays the wicked, and then returns to the hand from which it is thrown. The Sikh Akali used to have several of them on their conical caps. They fly with great rapidity, and strike hard, but with most uncertain aim. They are expensive, and are almost useless weapons.

CHAKRA, or district of Kuru-Kahetra, is also called Dharma-Kahetra, or the ‘holy land,’ which is Hwen Thsang’s ‘champ du bonheur.’ In his time the circle of pilgrimage was limited to 200 li, equivalent to 20 kos.—Cunningham’s Indo, p. 382.

CHAKRA. Hind. A small coin; a country cart, a hackery.

CHAKRA-KELI ARITI or Aritiel. Tel. Chakrakam, a brass stamp; the discus of Vishnu stamped hot on his followers’ arm. Chakrastambha, a pillar supporting a chakra.

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CHAKRA. Hind. A small coin; a country cart, a hackery.
The Chaldea, the Chaldean Dagon, who first instructed men in the elements of civilisation, in the rudiments of art, science, and letters, and laid the germs of the civilisation which in after time bore such rich fruit in the schools of Babylon and Nineveh. This contact, in the midst of western Asiatic culture, was the seed of three of the most ancient cities of the Chaldaean empire. In the immediate neighbourhood of the Shat-el-Hiie, which leaves the Tigris at Kut Amarah, and enters the Euphrates near Gommerick, after a winding south-westerly course through marshes of the Afaqij district, are to be found, on the north bank, the mounds of Warka and Niffer, which mark the sites of the ruins of Erech and Kalneh, cities of Nimrud; and M. de Sarzec brought to light the ruins of another city contemporaneous with the cities of the mighty hunter's kingdom. On the west bank of the Euphrates, at Tel Mughlir and at Rata, are the ruins of cities closely connected with Semiitie and Biblical traditions, the former being the site of Ur, the birthplace of Abraham, while Chaldesian tradition locates the 'garden of Eden,' with its sacred tree, in the city of Erilthu, whose position corresponds with the modern town of Bozra. The evidence both of the historic records of Chaldea point to this region of southern Chaldea, the Sunni of the inscriptions, the Shinar of the Bible, as the cradle of the learning and wisdom of Chaldea.

The inscriptions of Sennacherib and Assur Bani-pal and the lines of sculptured bas-reliefs show that these marshlands were the dwelling-places of a race distinct from the Assyrians and Babylonians, and who bore many traces of being relics of the aboriginal population. During the explorations of Sir Henry Rawlinson and Mr. Loftus in these regions, some few inscriptions and bronze implements were obtained from a mound called Tel Ho, on the Shat-el-Hiie, near to the marshy shores of the Waaut lake or pool. By his exploration in this mound, M. de Sarzec has brought to light the ruins of an important edifice, either a palace or temple, which dates from the earliest days of Chaldaean monumental history, and whose builder was the king Afaddj, whom the Chaldeans call Saosducbinius, and the Orphanus of the classiees, the builder-king of Ur. In these ruins Chaldea, the Chaldean fire-worship. So impenetrable are the marshes of the Afaqij, and so little subject to external influence, that the name which more than 40 centuries ago denoted the Chaldaean Pyropolis, is still extant in the Arabised form of Zergaul, as the local name of the region in which Tel Ho is situated. From the monuments we are able to trace two types of people, whose features are transmitted to us with extreme fidelity by the primitive sculptors. The first is a beardless type, with a head, as far as we can judge from the statue, of a brachycephaline type, but with distinctly orthognathous features, and therefore with no tendency to the African Negro type. The features, as judged from the finely-carved head discovered by M. de Sarzec,
CHALDÆA.

are distinctly of the Mongoloid type, and of the Ugro-Finnic branch. This first type, again, bears a remarkable resemblance to the Elamite and Sasanian people as figured on the sculptures from Nineveh; and this ethnic similarity receives additional support from the philological agreement which is found to exist between the language of these inscriptions and those of the Turanian tribes of Elam and Media. The head found by M. de Sarzec represents the figure as wearing a close-fitting cap bound round with a decorated turban, a type of head-dress worn by the Elamites in the time of Sennacherib and his successors, and by the Tartar tribes of Central Asia. The second type of features preserved to us, is that of a bearded race with a more Caucasian type of features, with long straight hair. The type is somewhat difficult to recognise, but it is certainly distinct from the first or from the Semitic Assyrian.

Thus, in the very earliest dawn of Chaldean history, we find people of a distinctly Mongoloid or Turanian type in the oldest cities of the empire, with inscriptions written in an agglutinative dialect, and in a script bearing, as M. Terrisse de la Cooperie has shown, a curious resemblance in its commonest ideographs to the script first propagated by the Hundred Families of the Celestial Empire. An ingenious attempt has recently been made to assign a Chaldean origin to Chinese. In 1842, M. Pauthier attempted to prove the identity of the Egyptian and Chinese system of figure-writing.

The discovery of bronze figures and implements in the excavations, the former bearing inscriptions of Gudea and of other early primitive kings, show that at a very early period metallurgy had reached a considerably advanced stage among the settlers in these low, marshy regions. The city of Sergulla was, as the great fire-city, also the earliest seat of the workers in metals, who from this primitive centre supplied the surrounding cities with weapons or statues for their temples and tombs.

The elaborate network of canals which thread the plains, rendered the internal communication of Chaldaea of a highly perfect character. On the banks of these ancient canals we find the most ancient cities of the empire; and the flow of commercial intercourse which made Babylonia the chief of merchant-land, was greatly stimulated by this excellent system of trade intercourse. The Shat-el-Hie, through which the fleet of Senacherib was navigated in its expedition against the tribes on the shores of the Persian Gulf, was the grand junction canal of Southern Chaldaea; while the Yussifan canal, which crosses the upper plain of Chaldaea some 20 miles below Bagdad, was the chief artery of Upper Chaldaea or the province of Akkad. The mound of Abu Hubba marks the site of the ancient city of Sippa, the Chaldean Heliopolis, one of the dual cities of Sepharvaim. Bit Parra, the chief sun-god in Sippar, was not only the dwelling-place of the patron deity of the city, but was also the chief law court and chancery of the district, and the centre to which flowed all the commercial and fiscal transactions of the province of Akkad, or Northern Chaldaea. The excavators at Abu Hubba penetrated into the Bit Nizirti, or treasury of the temple, and within it were found stored over ten thousand inscribed tablets relating to the commercial and fiscal life of Babylonia. The bronze figures of priests in the British Museum, and the statue of the mother goddess, bearing an inscribed legend of Kurdurnabug, are both examples of the founders' art and product of the forges of Zerguhl.

Astronomy seems to have originated with them. They invented and employed a saros, or restoration period of 18 years. They latterly chose the heavenly bodies as types of the divine attributes, and in later times made them objects of adoration, particularly revering planets. They were acquainted with the precession of the equinoxes, making use of a tropical year of 365 days 5 hours 49 minutes 11 seconds (only 25 seconds too great), and a sidereal year of 663 days 6 hours and 11 minutes. They knew the art of dialling. By the saros period they were able to calculate and predict lunar eclipses, and the days on which the sun's eclipses might be expected. This period is still used by astronomers. The great centre of Chaldean mathematical learning was the city of Larsa, from the library of which came the tables of square and cubic roots. It is therefore very interesting to find that some of the tablets from this ancient city, rudely-drawn plans or geometrical figures. These tablets seem to point to a school of geometry as in existence in this ancient seat of Chaldean learning. There are already in the British Museum fragments of tablets which have come from Babylon, Calah, and Nineveh, which show that divination by geometrical figures was in use among the primitive magicians of Chaldaea.

The first metrical weight was determined by the Euphrates; for the Babylonian talent, which they originated with the mine and chisel, corresponded exactly with a Babylonian cubic foot of water at the mean temperature of that country. The talent, mine, and chisel became the monetary standard of Western Asia. They divided the circle into 360 degrees, and these again into 60 fractions of a degree; the figures reached to a hundred; yet they also had special names for 60, or a sossas, as well as for the saros or square of the sossas, and they invented the positional value of figures.

In the Chaldean mythology—

II or Ra—Ra is Chalde, II is Semitic; from II is El, Elohim, Allah—is God.

Anu, God, the Supreme.

Anata, the female of Anu, the power of Anu.

Beltis, wife of Bel Nimrud, in Chaldee called also Mulitta or Enutes. In Assyria she was called Bilit or Billa Nippata, and Bit Ana. 

Hos or Hes, god of life, the third deity of the triad. He is god of knowledge, the king of rivers, and came from the sea to teach the Babylonians. His emblems are a wade, a serpent.

Dit King, wife of Hoss.

Sin or Hurki, the first god of the second triad in the moon deity.

San or Sansi, the sun-god; in Semitic Shamus; also probably Parr, perhaps the Th ra or Fr ra of the Egyptians.

Ai, Gula, or Amanit, the female power of San. She presides over life and over fecundity. Her emblem was an eight or a six rayed star.

Vul or Iva, the god of the atmosphere, is the third deity of the second triad, moon, sun, and atmosphere—the rain-giver.

Bar, Nin or Ninip, the fish god; lord or master; the analogue of Hercules. His emblem the man-bull.

Bel Merodach, the planet Jupiter.

Zir Banit, wife of Bel Merodach.
CHALIYYA.

preparations are used in the arts and in medicine.
Black chalk, used in the arts, is a dark-coloured clay.—Royle; Funkhner; Ainslie; Smith.

CHAL KUMRA. Hind. Beninecho cerifera.
CHALIA. Hind. A thumb ring, and a great toe ring.


CHALLA MUNTA. Tel. Fluggea leuco- pyrus, Willd.

CHALM-CHI. Hind. A wasi-hand brass basin.

CHALO-DIONA. Uria. Erythrina Indica.

CHALODHA. Hind. Elesueine coracana.

CHALON. Hind. Populus eiliata.

CHALUKYA, also called Salunki, a race known as one of the four tribes of Agnecula Rajputs, the other three being the Chauhan, the Pramara, and the Purhara. The Chalukya claim to have been princes of Soor or the Ganges. They are divided into sixteen branches, viz.:

Bhagela.—Raja of Bagheeleand (capital Bandungpur), Raos of Pittapur, Theraud, and Adaluj, etc.

Bipura.—Rao of Lundawara.

Bihula, Chauhan in Mewar, styled Rao, but serving the chief of Solumbra.

Bhurta and the Kalacha.—In Baru, Tekra, and Chahir, in Jeyasurim.

Langaha.—Mahomedans about Multan.

Togra.—Mahomedans on the Punjund.

Briku.—Mahomedans on the Punjund.

Surki.—In Dokhan.

Sirwurcal.—Girnar in Saurashtra.

Raoja.—Thoda in Jeyyore.

Rankia.—Daisoon in Dewar.

Kharura.—Allote and Jawura in Malwa.

Tantia.—Chambdur; Sakunbari.

Almeteh.—No land.

Kulamor.—Gujerat.

The Chalukya once held sway in Gujerat, Kandes, Kaliuni, and Warangal.

This is the oldest ruling race of which we find satisfactory mention made in the records of the Dehkan. The inscriptions collected by Sir W. Elliot relate to four dynasties of princes, reigning over the greater portion of that part of India now denominated the Dakshina or Dehkan, but at that time Kantula-desa.

The Pallava were the dominant race in the Dehkan previous to the arrival of the Chalukya. In the reign of Trilochana Pallava, an invading army, headed by Jaya Sinha, surnamed Vijayaditya, of the Chalukya Kula, crossed the Nerbadda, but failed to secure a permanent footing, and he seems to have been killed. His queen gave birth to a posthumous son, in the house of a Brahman named Vishnu Somayaji. This son was called Raja Sinha, but afterwards assumed the royal titles of Rana Raga and Vishnu Vardhana. He successfully renewed the contest with the Pallava, and married a princess of that race. A copper sasanam of his son and successor Fulakesi, bearing date s.s. 411 or A.D. 429, is in the British Museum. From Raja Sinha's first conquest, the whole period of their rule would be about seven centuries. Raja Sinha's great-grandson, Kirtti Varma, had two sons, one of whom ruled in Kalyan, the other in Telingana, after conquering Vengapuram, the capital of Vengidesan.
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The Chalukya branch was subverted for a time in the end of the 9th or beginning of the 10th century, and the emigrant prince or his son succeeded by marriage, in A.D. 931, to the throne of Anhaltara Pattan in Gujarat, which his descendants occupied with great glory until A.D. 1145. But in A.D. 973 the dynasty of Chalukya was restored in the person of Tailapa Deva, and ruled with greater splendour than before, till its extinction in A.D. 1189 by Bijjila Deva, the founder of the Kalabhuria dynasty.

The branch in Telugana fixed their capital at Rajamahendri, the modern Narasarnadupury. They appear to have effectuated their entrance into Telugana Balaghat by the conquest of Vengi in the 6th century, and, after several changes, the dominion passed by marriage to Rajendra Chola, then the dominant sovereign of Southern India, in whose person the power of the Chola dynasty reached its height. The following were the rulers of the Chalukya dynasty of Kalyan:—


Vijayaditya III. began to reign A.D. 695. Vikramaditya II. began to reign 735.


Ayya or Kirtti Varma IV. Vijayaditya IV. Tailapa Malla II. or Vikrama-
ditya II. in A.D. 973, restored the monarchy, which had some been some time usurped by the Ratta Kula. He died A.D. 997.

Satasangara I., Irivi Bhuja-
ga Deva, A.D. 997. Vikramaditya v. began to reign about A.D. 1005.

Jaya Sinha Deva, Jagadikula Malla, about A.D. 1018. Somewar Deva I., Tailo-
ky Malla, Ahawa Malla, about A.D. 1040.

Somewar Deva II., Bhu-

bhuvana Malla, A.D. 1182, dethroned by Bijjila Deva, the last of the Kalabhuria line.

The style and titles of the Chalukya of Kalyani were Chalukya Kula, Manayunasa Gotra; Harit putra; whose royal power was the gift of Kau-
sika, nourished by the seven mothers, worshipping Swami Mahasena; having the boar signet (lanch-

hana), the gift of Bhagavan Narayana. Their insignia of royalty consisted of the Swetata Patra, the white canopy. Sanka, the conch (chank) shell. Panca Maha Saka, the martial drum. Hala Keta, the plough ensign. D'aka, the drum. Varaha lanchhana, the boar signet. Mayura Pincha, the peacock fan. Kunta, the spear or mace. Sinhasana, the throne. Makara Vanaanam, the royal arch. Kannaka-Tanam, the golden sceptre.

Their boar ensign was the most celebrated, and was the symbol invariably represented on their money and on their seals, sometimes, in the latter, accompanied by the conical, the drum, the peacock fan, or a lotus, an elephant gond (ankus), candabala, a seat or stool, the swatika cross ☧, and latterly a sword. It was from the boar on the Chalukya coin that the people of the Penin-
sula of India give the name ‘Varaha’ to the pagoda, varaha mudra, or boar stamped. Chalukya dynasty of Rajahmendri:

1. Vishnu Vardhana II., or Kuhja Vishnu Vardhana; conquered Vengi, A.D. 605.


hania IV.


13. Vijayaditya II., or Guuna Gunanka Vijayaditya; conquered Kalinga.


15. Vijayaditya III., or Kola Devara Vijaya.

16. Amma Raja I.

The country fell under the sway of Warangal. The family spread southwards into what is now known as Mysore, where they were afterwards the parent stem of the Hoysala Bella dynasty of Dwara-samudra. They seem to have been of the Aina faith, but to have subsequently adopted the Vaishnavas and Saiva forms of Hinduism. A ruined temple at Buchropuli, near Hyderabad, and temples at Hammonconchad, near Warangal, are in a style of architecture followed during Chalukya supremacy. At Warangal also are four pillars, Kirti-Stambha, which were set up by Pratupa Rudra, who had also erected the great temple at Hammonconchad.—Thomas' Princep's Antiquities; Sir W. Elliot, M. L. S. J., 1858; Elphinstone; Ferguson, Architecture, pp. 389, 731; Tod's Rajasthan, pp. 80-97. See Hoisala Bella. CHALUN of Kotgarh. Populus ciliata. CHALUNDAR. Hind. Iris Neapalisia. CHALYBEATES. There is no one district in which they have been found more frequently than another, unless the outer ranges of the Himalaya; the woods in the Neighbourhood are said often to have them. None of the Indian chalybeates are thermal; and none of those known, except that at the beautiful spot Nagconda, appear to be strong ones; there are many undescribed chalybeates in the Himalayas. One at Chamba may prove of value.

CHAMA. Tel. Colocasia antiquorum. CHAMA, a genus of the mulluscæ. C. albidæ, C. asperella, C. echinulata, C. gigas, C. graphoides, C. cryphoides, and C. unicornis occur in India. C. cryphoides (C. gigas, Linna.) is famous for its enormous size. Individuals have been known to weigh above 300 lbs. The byssus by which it adheres to rocks is so tough, that in order to procure the shell it must be cut with an axe. The animal may be eaten, but its flesh is very tough. One of the valves is sometimes used as a font for baptism in the country churches of Europe. The species are confined to the warmer seas, the Medi-
terranean being the locality of the lowest temperature, where any of them have been hitherto found. —Eng. Cyc. p. 931.
used for tinder. Its leaves, pfurah or phurra, are fabricated into baskets, fans, brushes, sieves, shoes, sandals, pouches, platters, and ropes for water-wheels. Large quantities of the stones of the fruit (which, Trana-ludus, ripens about July) are exported from Gwadar to Muscat, en route to Mocca, to be manufactured into rosaries for the pilgrims.—Stewart, Pres. Pl. p. 243; Seemann.

CHAMAI-DOOO-POO, TAM. Camomile; Antheim nobilis, Liu. 

CHAMAKHRI, HIND. Michelia champae. 

CHAMAK PATHAR, HIND. Oxide of iron, magnetic iron ore. Chamak, 'glancing.' 

CHAMALU. Tel. Opilismenus frumentacevs. 

CHAMANTI. Tel. Applied indifferently to all the cultivated kinds of chrysanthenum.

CHAMAR, a scattered race in India. In North, the Chamar race is generally said to be subdivided into seven sections, Jatooa, Kacen, Kooril, Jyswara, Jhoseea, Azimgurhea or Birhoares, and Koree or Korehhman, who do not eat together nor intermarry. The Jatooa are chiefly in the north-west, Delhi, Rohilkhand, and the Upper and part of the Central Doabs. The Kacce are in Bandelkhand and Sangor. The Kooril occupy the greater part of the Central and Lower Doabs. The Jyswara meet them in the neighbourhood of Alahasabad, and extend through Jumnpur, Mirzapur, and Benares, to the neighbourhood of Sydpur Bhitree, where they are met by the Jhooseea, who occupy Ghazipur and Behar. The Azimgurhea have their seats in Azimgur and Gorakhpur; and the Kooril or Korehrrnan in Oudh. The last are generally engaged in the occupation of weaving. Others are mentioned besides these, as the Jlattoe of Rohilkhand, the Ahurwar, Sukwar, and Dol or Central Dob; but as the Jhooseea and Jyswara have some connection with the Kuril, they may perhaps be included in that tribe. In Behar we meet also with subdivisions of Gureya, Magahi, Dushkini, Canouen, as well as the Jhooseea and Jyswara above mentioned, —all tending to show that the division into seven clans is imaginary.

The Dolur are mentioned in Steele's Summary, p. 128, as existing in the Deken along with Kutun (cobble) and Dupigurs (Dubur, maker of oil-bottles); but he does not include them amongst Chamars, of whom he enumerates the following classes: Sultunner, Marthe, Paradox, Purdees, Harahblutted, Dubali, Woje, Chour.

Chamars are a dark race, and a fair Chammar is said to be as rare an object as a black Brahman.

Kurea Brahman gur Chammar. 

In ke saath na ootriye par.

That is, 'Go not in the same boat with a black Brahman or a white Chammar, both objects being considered of evil omen.' Many of the Chammar of the Central Provinces have joined the reformed Sat-nami sect. The Chammar of Hindustan, in respect to members and avocations, are in the same position as the Parihars, Chakki, Mhar, Mhang, Hollar races of the south of the Peninsula, where the designations of tanners and leather-workers are—

Sanigar, Madiga. CAN. Madara, Madiga, Coog. 

Chammar.... HIND. Mhag. 

Mhag.... MAHR. 

| Chamari | TAM. Madiga, Madiga. | CHAKKILI. | Mhag. | MAHR. | Tel. |
The Mang or Mhang are scattered through all the north-western parts of the Indian Peninsula, in the Bombay Presidency, in Gujarat, Khandesh, the Konkan, and Kolhapur.

Tanners and leather-workers are perhaps the most humble of all the settled races in the south of India. There they dwell outside the walls of the villages. They are deemed wholly unclean. They are tanners, workers in raw hides and leather, shoe and harness makers, messengers, scavengers, and executioners. They are never horse-keepers, and only a very few have ever been known to have the ability to read or write. The race, as a rule, are of a dark, black hue, short in stature, and of very slender frame; lower limbs particularly slight, and calf and foot delicate. They still eat creatures that most races regard as unclean, and likewise eat animals which die of disease. In rural villages they perform the lowest menial offices, such as messengers and scavengers, and are paid by portions of the crops and some small privileges, but are not permitted to reside within the village walls. The Madarun and Madigaru are predial slaves, and seem identical with this race. The Madaru make baskets. In Northern India and in Bengal the Chamar race are workers in hides and leather, tanners, and shoe and harness makers, and there form the great bulk of the labourers, taking the place of the Dher and Pariah of the Peninsula. There are many sections of leather-workers throughout the Hyderabad country, and in Berar they serve as scavenger, guard, watchman, and executioner. Their signature mark is a knife. They are part of the Baluth, and, like the Pariah, are the predial slaves of the village. The Pendi Mang are athletes. The Mhang worship the leather ropes which they make. They also make cakes, which they place in the ground, and over it five stones and a lamp, and worship these. They also worship the spirits of departed men who have led evil lives. They claim the right to have food cattle and camels and horses that die of disease, but so long as villages this is disputed by the Dher or Pariah; and in the village of Dangopura, in 1866 and 1867, this point was for twenty months under litigation, the ultimate decision being in favour of the Dher. In the Northern Dekhan are the sections Mang Garoro, Hollar Mang, Dekhan Mang. The Mang Garoro are also styled ‘Pharasti’ or migrants, as they have no settled abode, but move from place to place begging; their men and women assume other clothes, and smear their foreheads with the red kuku, a mixture of turmeric and safflower. They also are conjurors and sleight-of-hand adepts, from which they have their name Garori. The men also beat the drum.

The Bandela and Kuillar Chamar is a tanner and shoemaker; Maharra Chamar, a shoemaker; Pardesi Chamar, a cobbler; Mang Chamar, who makes sandals; Mahommed Chiar, who is a bookbinder; Katai Chamar, who make shoes and sandals, and labour in the fields at seed and harvest times. The Katai are identical in personal appearance with the Chuckler (chakillii) of the very south of India. The Chamar of Aurangabad worship Mariamma and Sita. They marry when under age amongst themselves, proceeding on foot to the goddess Sita, whose shrine they circumambulate five times. The expense is about a hundred rupees. They speak Hindi. They burn their dead; but some very intelligent men at Aurangabad did not know that anything followed death.

In the great isolated plain of Ch’hattegaur, where the jungle has not even yet been thoroughly mastered by man, the Chamar, who make up some twelve per cent. of the population, are nearly all cultivators. The creed adopted by them is the ‘Satnam’ or ‘Rai Dasi,’ a branch of one of the most celebrated dissenting movements in Indian religious history. No images are allowed; it is not even lawful to approach the Supreme Being by external forms of worship, except the morning and evening invocation of his pure name (Satnam), but believers are enjoined to keep him constantly in their minds, and to show their religion by charity. Even if the creed be weak as a moral support, it is strong as a social bond; and, no longer weighed down by a sense of inferiority, the Satnam hold together, and resist all attempts from other castes to re-assert their traditional domination over them. They are good and loyal subjects; and when they have grown out of a certain instability and improvidence, which are the natural result of their long depressed condition, they will become valuable members of the community.


CHAMBA. Hind. Ehretia aspera.

CHAMABA, Chawri, or Chowri. Hind. A whisk, made sometimes of peacock’s feathers, sometimes from the tail of the yak, sometimes of the shavings of sandal-wood, of horse hair, or of grass, and used for the purpose of driving away flies, mosquitoes, and other insects. They are usually seen in the hands of the attendants of the Hindu gods. The chamar or chawri from the white bushy tail of the Tibet cow, was, in ancient India, fixed on a gold or ornamented shaft, between the ears of the horse, like the plume of the war-horse of chivalry; the banner or bannoret, with the device of the chief, rose at the back of the car; sometimes several little triangular flags were mounted on its sides. ‘The waving chawri on the steed’s broad brow points backwards motionless as a picture.’—Coleman, p. 376; Hindu Theatre, i. p. 199.

CHAMARFO of Spiti, a deep red earth used in dyeing.

CHAMAR GAUR, a division of the Gaur Rajputs, the highest class, although from their name liable to the suspicion of intercourse with Chamaras. They claim for themselves the designation Chaun-har-Gaur, from a Raja named Chaunar, or sometimes Chiman-Gaur, from a Muni called Chiman.—Wilson.

CHAMARI. MAIR. Premna integrifolia.

CHAMAR LENA, Jaina caves near Nasik.

CHAMATEE-PATEE. Beng. Papyrus deshisia.

CHALAYEN, a small section of the Gujar tribe in Panipat Bangar.—Wilson.

CHAMB. Hind.? Land that receives the drainage of higher lands, generally a heavy blackish clay.

CHAMBA is a state in the Himalaya ruled by a Rajput dynasty. It is within the government of the Panjab. It lies north of the Kangra district, between lat. 32° 10’ 30” and 33° 13’ N., and long. 75° 49’ and 77° 3’ 30” E., with an area of...
CHAMBA.

3216 square miles, and a population of 140,000, composed of Rajputs and Gaddi. The district includes the mountain valleys of all the sources of the Ravi, and a portion of the upper valley of the Chenab, between Lahlul and Kishwar. It has Kulu on its east; in the N.W. it is separated from Jammu by a chain of mountains through which the Pahalgam pass leads from Jammu to Chambara, elevated 11,000 feet. The Sahc pass, elevated 14,800 feet, leads over the range in the north, dividing Chambara from Kishwar. In 1847 a summad was given to Raja Siree Singh, assigning the Chambara territory to him and to his male heirs. In 1854 the saunatium of Dalhousie, in the Chambara territory, was made over to the British by the raja, and a summad was given to the raja conferring on him the right of adaption. Its ancient capital was Varmapura, or Barmawar, on the Budhil river, where many fine temples, and a brazen bull of life size, still exist to attest the wealth and piety of its early rulers.—Cunningham, Ancient Geo. of India, p. 141; Altechon's Treaties; Hooker f. et Th. p. 294.

CHAMBA, an idol of the Tibetans.

CHAMBA, Hind. Michelia champaca; also Prinsepia utiliss, Jasminum grandiflorum, and J. officinale.

CHAMBAGADDA, a race who occupy the Kangra valley, near the Chambar range of hills. They call themselves Rajputs, and may always be known by their peculiar conical caps, with lappets to turn down over their ears, like an English travelling cap. They are shorter and stouter and stronger than their neighbours, are sharp and able, and impose upon their less knowing neighbours. Most of the witch-finders are Chambagadgi. When Europeans first visited the Kangra valley, they would drink or eat from their hands, and had very slight notions of caste, but since their intercourse with the people of the plain they have become as bigoted as any Hindus.

CHAMBAI. MALAY. Chavica seriboo.

CHAMBAL, a tributary of the river Jumna (Jamuna), which it joins 40 miles below Etawa town as a great river. It rises in Malwa about eight or nine miles S.W. of the cantonment of Mhow, 2019 feet above the sea. — Imperial Gazetteer.

CHAMBL, Hind. Ranunculus arvensis.

CHAMBATT. Hind. Kämpferia rotunda.

CHAMBELL, Hind. Jasminum grandiflorum.

CHAMBOGUM, Tam. The most beautiful tree in appearance on the coast of Malabar; it has a very close-grained wood, and throws out rather a pleasant smell when cut. It is generally found in the forests of Travancore of about 18 inches in diameter, and from 20 to 25 feet long. It produces a small round fruit, which the natives use medicinally.—Edge, M. and C.

CHAMBOOLEE. DUKH. Buchinia Vahlill.

CHAMBRA. Hind. Artemisia Indica.

CHAMELEON, a genus of a family of reptiles of the section Squamata and order Sauria. There is but one genus, the Chameleo, or chameleon, the thirteenth of the Hebrews, of which there is one species in India, C. Zeylanicus. Also, of Ceylon and India. There are twenty-one in Madagascar, bifurcatus, cucullatus, nasutus, Parsonii, rhinoceros, and verrucosus; C. tiariss occurs in the Seychelles, and C. pardalis in Bourbon. The E. Indian species, C. Zeylanicus, has many synonyms.

CHAM GADDI. BENG. Cynopterus marginatus, Jerdon.

CHAM HARAIL. TIBETO-CHINESE. A sacred dance of the Buddhists; a masquerade of Hindu gods going in procession, after a model employed at Yung-ho-Kung in Pekin; it lasts two days.—Elkden.

CHAMI. Tel. Premna spicigera, Linn.

CHAMARI. HIND. Prunus piddatum.

CHAMAT. HIND. Desmodium tiliafolium.

CHAMKHARAK. HIND. Carpinus vininea.

CHAMLOO, one of the seven Kazzilbash tribes.

See Kazzilbash.

CHAMMA. Tel. Canavalia gladiata.

CHAMMA. HIND. Salix alba.

CHAMMAH.A. PERS. A grateful dish, made by boiling dried apricots to a consistency, with butter, seasoned with spiccs.—Masson, ii. p. 69.

CHAMNO, Khem, and Rempi, three Assyrian deities of Semitic extraction. See Ken.

CHAMOIS LEATHER.

Chamois, ... Fr. Camoscio, ... It. Samischleder, ... Ger. Semsehainu, Koshi, Rus.

A prepared skin of the chamois, or of the common goat, kid, or sheep. It is of a yellow colour, soft and pliant, and used for cleaning silver plate.

CHAMOMILE, Anthemis nobilis.

Babunuj, ... ARAB. Babune phul, ... HIND. Kan-kiah-wa, ... CHIN. gao, ... PERS. Kuhkiah-wa, ... ... CHAMENDAPU, ... TAM.

The flowers of the Anthemis nobilis. An aromatic herb, leaves used in garnishing; the flowers infused as bitters, and in fomentations. Of easy culture, raised from seed; held in estimation both in domestic and scientific medicine.

CHA-MORE, a lake in Ladhak, 15 miles long and 2½ miles broad, 15,000 feet above the sea. It is surrounded by mountains, some of which rise to 5000 feet from the water's edge.

CHAMPA, a province in the peninsula of Cambodia. Before its subjugation by the Cochinchinese, it was a considerable state, under a chief, who lived at Phanrye, lat. 11° 10' N. In the 15th century an intercourse subsisted with the Malaya and Javanese, and about the middle of the 15th century the queen of the principal sovereign of Java was a Champa princess. The people are called Loye or Loi in the Anam language, and profess a kind of Hinduism resembling the worship of Buddha or the Jains. Tradition ascribes to ancient Champa sovereignty over all the neighbouring kingdoms to the frontiers of Pegu and China.—Mouhot's Travels, i. 223; Yale, Cathay, i. p. 104; Crawford, Embasy to Siam; Dict. Ind. Islands.

CHAMPA, also Champaka. HIND. Michelia champaca. The flower is one of five with which the Hindu Kama, the god of love, ornaments his arrow. When Yasant'ha, the personified springtime, is preparing the bow and shafts for his friend,

'He bends the luscious cane, and twists the string
With bees, how sweet! but oh! how keen their sting!
He with five flowerets tips the routless darts,
Which through five senses strikes enraptured hearts.
Strong Champa, rich in odorous gold;
Warm Aner, nursed in heavenly mould;
Dry Nga-Kosur, in silver smiling;
Hot Kitiok, out dense fragming;
And last, to kindle fierce the searching flame,
Love-shaft which gods bright Bela name.'
CHAMPA CHASTI, a Hindu festival in the west of India, held about the 2d December, on the 6th of Margha shirsh-shud. It is held wherever there is a shrine of Kaudoba, as at Jijiri in the Dekhan.

CHAMPAI, a deservedly esteemed wine, named from the province of France producing it. There are two distinct classes of this wine, viz. white and red, each either still or sparkling; but there is a great variety in the flavour of the produce of different vineyards.

CHAMPAI, a tree which grows on the summit of the lofty hills north of Khatmandu; measures in height – Smith’s Nepa.

CHAMPA-KALI. HIND. Necklace.

CHAMPA-KULA. BENG. Musa sapientum.


CHAMPARAN, a district in Bengal, bounded on the north by Nepal, and at its side are the Gaukhal and the Baghmati rivers. Population in 1872, 1,140,815 souls, viz. 974,451 Hindus, 199,267 Mahomedans, 21,450 Tharu. The aborigines numbered 31,203 souls. The Tharu are an honest, industrious, Indo-Chinese race, inhabiting the malignant Terai. They utilize the hill streams for rice culture. The Maghya Dom, about 800 souls, are a nomadic tribe, inveterate thieves; the Dosadh are 60,556, and the Chamar 89,061. The Hindu and other races are—

Brahman . 65,315
Baban or military . 77,641
Brahmans . 35,102
Brahmans . 49,288
Artisan . 141,140
Rajputs . 69,578
Fishermen . 62,757
Gola . 333,413
Koeri . 82,074

The Bettin raja is a Babban. The Nuniya are salt-makers.—Imp. Gaz.

CHAMPA - ZARD - RANG. HIND. Amongst dyers, a yellow colour like the champa flower.

CHAMPHUNG, a rude tribe in Munnipur, of about 30 or 40 families, near the source of the Frawadi. See India.

CHAMPI KATTA. TEL. Broom grass.

CHAMPOOING. MALAY. A timber tree of the Archipelago, used as a furniture material at Banda.

CHAMPU, in Hindu literature, a style of composition, a mixture of prose and verse.—Ward, iv.

CHAMRA. HIND. Skins, hides, leather, parchment.

CHAMRESHI, also Sunbar. HIND. Rhododendron campanulatum.

CHAMREM. HIND. Ehretia aspera.

CHAMULI. HIND. Michelia champaca.

CHAMUNA. HIND. The edible bulbs of Cyperus bulboas and allied species.

CHAMUNDA, in Hindu mythology, as related in the Durga Mahatmya, an emanation of the goddess Durga, springing from her forehead to encounter the demons Chanda and Munda, detached to seize Durga by the sovereign of the Daitiya. Sumbha having slain the demons, she bore their heads to her parent goddess, who told her that, having slain Chanda and Munda, she should henceforth be known on earth as Chamunda. She is also termed Kali from her black colour, and Karola or Karalavadana from her hideous countenance (Hind. Theat. ii. p. 57). It is to this goddess that all human sacrifices are made by Hindus. One of the ancient Hindu dramatists, Bhava Bhutta, who flourished in the 8th century, in his drama of Malati and Madhava, has made powerful use of the Aghora in a scene in the temple of Chamunda, where the heroine of the play is decoyed in order to be sacrificed to the dread goddess Chamunda or Kali. The disciple of Aghora Ganta, the high priest who is to perform the horrible rite, by name Kalapa Kundala, is interrupted in his invocation to Chamunda by the hero Madhava, who thus describes the scene (Act V. scene 1):

‘Now wake the terrors of the place, beset
With crowding and malignant fiends. The flames
From funeral pyres scarce lessen their light,
Clogged with their flamy prey, to dissipate
The fearful gnom that bems them round.
Well, be it so. I seek, and must address them.'

How the noise,
High, shrill, and indistinct, of chattering sprites,
Communicative, fills the central ground.
Strange forms, like foxes, fit across the sky;
From the red hair of their tusk bodies darts
The amorous ray, otter from their mother’s breaths that stretch
From ear to ear, thick-set with numerous fangs,
Or eyes, or beards, or brows, the radiance streams.
And now I see the ghoul host: each stalks
On legs like palm-trees, a gaunt skeleton,
Whose limbs are bowed by starting sinew,
And scantily cased in black and shrivelled skin.
Like tall and withered trees by lightning scathed,
They move, and as amidst their sapless trunks
The mighty serpent curls, so in each mouth,
Wide yawning, lolls the vast blood-dripping tongue.
They mark my coming, and the half-chewed morsel
Falls to the howling wolf;—and now they fly.'

The belief in the horrible practices of the Aghori priesthood is thus proved to have existed at a very remote period, and doubtless refers to those more ancient and revolting rites which belonged to the aboriginal superstitions of India, antecedent to the Aryan-Hindu invasion and conquest of the country. The worshippers of Sakti of Siva, under the terrific forms of Chamunda, Chinnunvata, and Kali, are called Kerai, and represent the Aghora Ganta and Kapalika. The word Chamunda, according to Ward, is from Chari, good, and Mundu, a head. She is said to be identical with the goddess Rani.—The People of India, by J. F. Watson and John William Kaye; Leyden, Asiatic Researches ii. p. 302.

CHAMUNDIBETTA, hill of Chamundi, is a precipitous hill 2 miles S.E. of the fort of Mysore. It is 3489 feet above the sea. There is on its summit a temple at which human sacrifices were made until the time of Hyder Ali. Half-way up the flight of stairs is a well-executed colossal figure of Nandi in a recumbent attitude, hewn out of the solid rock.—Imp. Gaz.

CHAMUTLI, HIND. Michelia champaca. Tulipa stellata.

CHAMY. CAN. Panicum milaceum.

CHAMYARI. HIND. Of Murree hills, Cerasus pudum, Prunus pudum; bird cherry.

CHANA, also Chanaka. HIND. Cicer arietinum; also species of Vicia.

CHANAKYA, a Brahman of the city of Takskia, who lived B.C. 350, the early friend and subsequent counsellor of Chandragupta. The drama of Mudra Raksasa, attributed to Visakhadatta, is founded on the story of Chanakya, who is celebrated as a statesman and writer on politics. It was he who plotted against Mahapadma, the last of the Nanda dynasty, and placed Chandra-
CHANDANAVATA.

CHANDANA, an ancient name of Baroda.

CHANDANAVATA, an ancient name of Baroda.
CHANDANAYATRA.  CHANDANA-VIBHUTI.

CHANDNI.  See Tripundra.

CHANDANAYATRA or Chandniatsava.

Sansk.  The ceremony of offering sandal paste or other perfume to an idol.—Wilson.

CHANDA-NAYIKA.  Sansk.  From Chanda, furious, and Nayika, a female attendant on Durga.

CHANDAN-HAR, also Chandarmah, and Chand-bina.  Hind., are articles of female jewellery.

CHANDANNAGAR or Chandernagore, a French settlement on the banks of the Hooghly river, in lat. 22° 50' 40" N., and long. 88° 24' 50" E.  Its population in 1877 was 22,539.  It was reduced by the fire from the ships of Admiral Watson on the 23rd March 1757, while then under the governorship of M. Law.  The place became a French settlement in 1673.

CHANDA SAHIB, a relative and son-in-law of Ali Dost.  In the early part of the 18th century, from 1752 till his death in 1753, he threw himself, on the support of the French under Duplex, against the British and Muhammad Ali.  He was an able leader, and, when occupying Seringham, Law, anxious for his safety, treated with Monajee for his escape; but Monajee, on getting possession of Chanda Sahib, kept him prisoner for several years in the fort of Tanjore, and ultimately put him to death.  He was humane, generous, and brave.

CHAND BIBI, also known as Chand Sultana, wife of Ali Adal Shah of Bijapur, one of the most distinguished women that have ever appeared in India.  When the emperor Akbar sent an expedition into the Dekhan, there were four parties in the field supporting claimants to the throne of Ahmadnaggar, and this princess was acting as regent for her infant nephew, Bahadar Nizam Shah.  She appealed successfully to the belligerents to unite against the Moghuls.  Nehang, an Abyssinian, cut his way into Ahmadnaggar while the Moghuls were in the act of investing the place, and the other two joined the Bijapur army then marching against the Moghuls.  Prince Muhammad Khan and Monajee's forces were rendered useless by the counter moves of the besieged; a third mine created a wide breach, and Chaud Bibi rushed to defend it, in full armour, and a naked sword in her hand, and a veil over her face, and, after an obstinate continuance of the assault, the Moghuls withdrew in the evening, and they were afterwards bought off with the cession of Berar (February 1596, a.h. 1004).  The Moghuls had not long withdrawn, when Muhammad Khan, whom Chaud Bibi had appointed her prime minister, plotted against her authority, and called in the aid of Prince Murad.  An indecisive battle was fought on the banks of the Godavery, and Akbar sent Abul Fazl, and subsequently he himself left the Panjabs in 1598, and reached the Dekhan before the middle of 1599, and sent forward Prince Daniyal and the Khan-i-Khanan to invest Ahmadnaggar; and Chaud Bibi was negotiating a peace with them, when her mutinous solodicy burst into the female apartments, and put her to death.  In a few days the Moghuls stormed the fort, and gave no quarter to the fighting men.  Chaud Bibi is the favourite heroine of the Dekhan, and is the subject of many fabulous stories, which even Khaft Khan and Kazi Shahabud-Din perpetuate.—Elphln. pp. 459-460.

CHANDERI, a Rajput tribe spread through the N.W. Provinces.  They have many divisions, and are supposed to have come from Muhoba in Bundelkhand.  They claim to be of the Lunar race, and they give their name to the Chandeli or Chandari district.  There are four subdivisions of them in the Lower Doab, who suffix to their names the regal terms Rao, Ravat, Rao, and Rana.—Elliot; Wh. II. of I.

CHANDELI.  Hind.  A very fine cotton fabric made at Chandari, on the left bank of the Betwa, from the cotton of Amroati.  Great care is bestowed in the preparation of the thread, which is prepared so fine as even to sell for its weight in silver.  The weavers work in a dark underground room, of which the walls are kept damp to prevent dust flying about.—Elliot.


CHANDESWARI, in the Tamil country, the prototype of Durga or Kali.

CHANDI, the last day of the month Asoj, ushers in the Hindu winter (sard riv).  On this day nothing but white vestments and silver (chandi) ornaments are worn, in honour of Chandra, who gives his name to the

'Pale and common drudge 'Tweed man and man.'

An intercalary month is the mode followed by Hindus to adjust the annual seasons, their ordinary calculations being by lunar months, and such are called lunar.  On the Asoj there is a procession of all the Rajput chiefs to the Choungan, and on their return a full court is held in the great hall, which breaks up with 'obeisance to the lamp' (jote ka mohra), whose light each reverences.  When the candles are lit at home on this day, every Rajput, from the prince to the owner of a 'skin (chursa) of land,' seated on a white linen cloth, should worship his tutelary divinity, and feed the priests with sugar and milk.—Ted's Rajasthan.

CHANDIA, a Balouch tribe, some of whom are found in the Dehra Ghazi Khan district.—MacG.

CHANDI-MANDAPA, chapels in private dwellings in Bengal.  Chapels face either the west or the south, never the east nor the north.

CHANDIPAT or Chandipatha, also called Devi-Mahatmya, a Sanskrit poem of 700 verses, forming an epic of the Markandeya Purana.  It celebrates Durga's victories over the Asuras, and is daily read in the temples of that goddess.  Chanda was a name of the goddess Durga.—Dowson.

CHANDILA, Hind.  A small wafer-shaped gold or silver ornament worn by Hindu women on the forehead between the eyes; also the painted mark made by women on their forehead.  The Ratanamala says, 'Dressed in sixteen garments, a woman without a Chandia does not appear beautiful.'

CHANDNee, Hind.  Caloncoryx Roxburghii, CHANf5NY CHOWK, or Silver Street of Delhi, is a name that has become common to the principal avenue in all the great cities of Northern India.  In Calcutta, however, the street of that name is not inhabited by bankers or goldsmiths, but by stable-keepers.—Tr. of Hind. ii. p. 278.

CHANDNI.  Hind.  Silver; a white cloth spread on a carpet; a canopy.

CHANDNI, or Chaudi.  Hind.  The practice amongst Brahmins, Charans, and others, of
wounding or killing themselves, in order to extort alms or payment.—Wilson. See Chandi.

CHANDO, a caste of toddy-drawers in Ceylon. See Chandi.

CHANDOO, the extract of opium which is employed in opium-smoking, called by the Chinese Yen-kau and Shuh-yen. The opium, as exported from Calcula, is in boxes containing forty balls, each of the size of a 32 lb. cannon shot. These balls are enclosed in a husk of compressed poppy leaves, and contain a certain quantity of moist opium inside, but which in this state is unfit for smoking, for which it is prepared by four processes, in the following manner:—About three or four o'clock in the morning, fires are lighted, and, as the first process, a ball is divided into two equal halves by one man, who scoops out with his fingers the soft part inside, and throws it into an earthen dish; frequently during the operation moistening and washing his hands in another vessel, the water of which is carefully preserved, into which also is thrown the hardened poppy leaf husks, when all the removable opium is obtained.

In the second operation, the husks are boiled until all their adhering opium is dissolved, strained through a double filter of cloth and China paper. The strained fluids are then mixed with the opium that was scooped out in the first operation, and boiled down in a large iron pot to the consistence of treacle. The refuse is dried and sold to Chinese, who adulterate good opium with it; and the filter paper is used by the Chinese as an external application in affections of the lower bowels.

In the third operation, the dissolved treacle-like mass is seethed over a charcoal fire, strong and steady but not fierce temperature, during which it is worked, spread out, and again and again worked up to expel the water, but prevent it burning. When brought to the proper consistence, it is divided into half-a-dozen lots, each of which is spread like a plaster on a nearly flat iron pot, to the depth of from half to three-quarters of an inch, and then scored in all directions to allow the equal application of heat. One pot after another is then placed over the fire, turned rapidly round, and then reversed, so as to expose the opium itself to the full heat of the red fire. This is repeated three times, the time and proper heat being judged by the workman from the aroma and colour. In this part of the process the greatest delicacy is demanded, for a little more or less fire would destroy the morning's work, or 300 or more dollars' worth of opium. The head workmen in Singapore are men who have learned their trade in China, and from their great experience are paid very high wages.

The fourth operation consists in re-dissolving this fired opium in a large quantity of water, and boiling and straining it, until it be reduced to the consistence of the chandoo of the shops, the degree of tenacity being the index of its complete preparation, which is judged of by drawing it out by slips of bamboo. The quantity of chandoo obtained from the soft opium is about 75 per cent. But from the gross opium, that is, including the opium and the bark, the proportion is not more than from 50 to 54 per cent.

In this lengthened seething process, the chandoo or extract becomes less irritating and more soporific, the vegetable matter, the resin and oil, the extractive matter, being all thrown out in the refuse matter.—J. F. A. No. 1, Jan. 1848; Dr. Little; Cameron, pp. 215, 216.

CHANDO-OMAI, or moon goddess. (Qu. Chando Ammal.)

CHANDPUR, the name of many towns in India. CHANDPUR SAKUMBARI of Tantia are described by Col. Tod as desperate robbers. He saw this place fired and levelled in 1807, when the noted Karim, Pindari, was made prisoner by Sindia. It afterwards cost some British blood in 1817. Though now desolate, the walls of this fortress attest its antiquity, and it is a work that could not now be undertaken. The remains of it bring to mind those of Volterra and Cortana and other ancient cities of Tuscan,—enormous squared masses of stone, without any cement.—Tod's Rajistan, i. p. 100.

CHANDRA. Tel. Acacia sandra; Machilus odoratissimus? and Tetraandra Roxburghii. Beng., Ophioxylon serpentinum. E.

CHANDRA. Sansk. The moon, from Chad, to shine. This is a frequent affix to names, as Chandra-Prabhu, shining lord; Chandra-Raya, shining ruler; Chandra-Shekara, shining mountain peak, a name of Siva. See Amas; Chand; Graha; Haft Dhat; Uma.

CHANDRA, a son of Atri, and father of Budha by Tara. Tara was the wife of his teacher Vribhapti.

CHANDRA, in Hindu mythology, the moon. Moor tells us it is usually a male deity; sometimes, however, feminine, Chandi, and in such character is more commonly applied to Parvati or Devi, the consort or Saci of Siva, than to any other goddess. Lakshmi Devi, or simply Devi, as the consort of Vishnu is often called, occasionally coalesces with Parvati; and both, as well as Saraswati, spouse of Brahma, may be identified with the moon or Luna. Thus, in Hindu mythology, the sun and moon, being sometimes regarded as male deities, the three principal female divinities hold a similar union with their respective solar lords. According to Coleman, Chandra or Soma, the moon, is described as the male, and is painted young, beautiful, and of dazzling fairness, two-armed, and having in his hands a club and a lotus. He is usually riding on or in a cart drawn by an antelope. The moon is occasionally represented as Chandi, a female, in which character being visited by Surya, she produced a numerous family called Pulinda. In the third volume of the Asiatic Researches, this sexual change is accounted for by Colonel Wilford, who says, when the moon is in opposition to the sun, it is the god Chandra, but when in conjunction with it, the goddess Chandi, who is in that state feigned to have produced the Pulinda. The moon was also worshipped as male and female, Luna and Luna, by the Egyptians, the men in reference to it as Luna, the women as Lunus; and each sex on these occasions assuming the dress of the other. The Hindus have in their zodiac twenty-seven lunar mansions, called Nakshatra, or daily positions of the moon; and as to perfect the revolutions some odd hours are required, they have added another not included in the regular chart. These twenty-eight diurnal mansions form the zodiac, having been invented by Daksha; are personified as the daughters of the deity, and are the mythological wives of Chandra. In the chart of the
lunar mansions they are curiously represented as a horse's head, a yoni, razor, an arrow, a wheel, a bident, a house, etc. The Diit Mayores of the Rajput are the same in some respects as those amongst the Greeks and Romans, being the deities who figuratively preside over the planetary system. Their grades of bliss are therefore in unison with the eccentricity of orbit of the planet named. On this account Chandra or Indu, the moon, being a mere satellite of Ella, the earth, though probably originating the name of the Indian race, is inferior in the scale of blissful abodes to that of his son Budha or Mercury, whose heliacal appearance gave him importance even with the sons of Vaiva, the sun.—Cole, Myth. Hindu. p. 131.

CHANDRA-BIHA GA, a river formed by the junction of the Chandra and the Bhaga, and is then styled the Chenab river, the Ascension of the Greeks. In the parts of Ladakh through which the Chandra and Bhaga rivers run, on their banks the people are Bhot up to their junction; after the Hindoos. See Ladakh.

CHANDRA BHUNDA, a tribe employed in the Sunderbuns in the manufacture of salt.

CHANDRAGIRI, a town and taluk in the North Arcot district, near Madras, where the rajas of Vijayanagar resided after the defeat at Talikot, and where, in 1640, was signed the treaty granting to the E. I. Company the site for Fort St. George, Madras.—Imp. Gaz.

CHANDRA GOPAL PAL, commonly called Gopal Bhar, was the principal humorist at the court of Krishna. He was a Kümär or potter by caste, and was a native of Nadiya. Some say he was a Nápit, or of the barber caste. He was fond of music, and patronised musicians and khawaths of the Upper Provinces. He delighted in charpads and kheéls, and was a great connoisseur in matters regarding the rágas and ráginis regulating oriental music. He was a great encourager of architecture. He constructed the large building for puja in the Rajbari. It is of Gothic style of architecture, and is considered a splendid dalan. He also built a marble staircase for going down the sacred well Gyan Bapí, in Benarcs, for the benefit of the pilgrims. He was universally considered the head of Hindu society, and was the arbitrator on all questions of caste.—Calcutta Review, No. 109, p. 110.

CHANDRAGUPTA, the Sandracottus or Sandracottus of the Greeks, the founder of the Mauryan dynasty of Magadha. He was the illegitimate son of the last Nanda, by the beautiful but low caste Maya, whom he obtained the designation of Maurya. In the Mudra Rakshasa, a Sanskrit drama detailing his elevation, Chandragupta is, however, frequently named Vrihala, a term said to be equivalent to Sudra; and as Nanda himself was the son of a Sudra woman, there can be little doubt that the celebrated Maurya family were of Sudra extraction. In the early part of his career, Chandragupta led a wandering life in the Panjab (see Tournour, Introduction to the Mahawanso, p. 41, quoting the Tika or Commentary), and was probably engaged with his fellow-counymen in opposing Alexander. His chief adviser, the Brahman Chanakya, was a native of Takshasila or Taxila, the capital of the Western Panjab; and it was in that country that Chandragupta first established himself by the complete expulsion of the Greek troops left by Alexander (Justin xv. 4: 'Auctor Libertatis Sandracottus fuit'). It would appear that the Greek colonists in the Panjab had first been placed under Philip, while the civil administration of the country remained in the hands of its native princes, Taxiles and Porus. Afterwards, on the murder of Philip by the mercenary soldiers, Alexander (Anabasis, vi. 2, vii.) directed Eudemos and Taxiles to govern the country until he should send another deputy. It is probable, however, that they continued to retain the charge; for, after Alexander's death in b.c. 323, Eudemos contrived, by the treacherous assassination of king Porus by his general Eumenes, to make himself master of the country (Diodorus, xix. 5). Some few years later, in b.c. 317, he marched to the assistance of Eumenes with 3000 infantry and 5000 cavalry, and no less than 120 elephants. With this force he performed good service at the battle of Gabiene. But his continued absence gave the Indians an opportunity not to be neglected, and their liberty was fully asserted by the expulsion of the Greek troops and the slaughter of their chiefs (Justin. xv. 4: 'Praefactos ejus occiderat; again, 'Molenti deinde bellum adversus praefactos Alexandri'). Chandragupta was present when Porus was murdered. He afterwards became the leader of the national movement, which ended in his own elevation to the sovereignty of the Panjab. Justin attributes his success to the assistance of banditti (Justin. xv. 4: 'Contractis latronibus Indos ad novitatem regni solidavit'). But in this Colonel Cunningham thinks he was misled by a very natural mistake; for the Aratta, who were the dominant people of the Eastern Panjab, are never mentioned in the Mahabharata without being called robbers (Lassen, Pentapat Indica: 'Aratii, alias latrones, et Bahici latrones'). The Sanskrit name is Arashtra, the kingless, which is preserved in the Adrastae of Arrian, who places them on the Ravi. They were the republican defenders of Sangala or Sakala, a fact which points to their Sanskrit name of Arashtra, or kingless. But though their power was then confined to the eastern Panjab, the people themselves had once spread over the whole country: 'Ubi fluvii illi quivi ... ibi sedes sunt Arattorum.'—Lassen, Pentapat Indica, from the Mahabharata. They were known by the several names of Bahika, Jarritika, and Takha; of which the last would appear to have been their true appellation, for their old capital of Taxila or Takka-sila was known to the Greeks of Alexander; and the people themselves still exist in considerable numbers in the Panjab hills. The ancient extent of their power is proved by the present prevalence of their alphabetical characters, which, under the name of Takri or Takni, are now used by all the Hindus of Kashmir and the northern mountains, from Simla and Sabathu to Kābul and Bāmanī. On these grounds, Major Cunningham identifies the banditti of Justin with the Takka, or original inhabitants of the Panjab, and assigns to them the honour of delivering their native land from the thraldum of a foreign yoke. This event occurred most probably about 316 b.c., or shortly after the march of Eudemos to the assistance of Eumenes. It was followed immediately by the conquest of Gangetie India (Justin. xx. 4), and in 310 b.c. the rule of Chandragupta was acknowledged over the whole northern Peninsula, from
the Indus to the mouth of the Ganges. Authorities differ as to the length of Chandra Gupta s reign. The Mahawanso gives 34 years; the Diphawanso and the Yuvn Pirama give only 24 years. This difference may perhaps have originated in two distinct reckoning of the date of his accession, the one party counting from the death of Nanda Mahapaduna, in B.C. 325, and the other party from the conquest of India, in B.C. 315. Some assumption of this kind is clearly necessary to reconcile the different authorities, unless, indeed, we take the only alternative, of adopting the one and of rejecting the other. At this period the capital of India was Pataliputra or Palibrotha, which was situated on the Ganges, at the junction of the Erranaboas or Ahas river. The former name has been identified with the Sanskrit Hiranyabahu, an epithet which has been applied both to the Gandak and to the Sone. The latter name can only refer to the Hi-le-an of the Chinese travellers, which was to the north of the Ganges, and was there undoubtedly the Gandak. In-Ied, this river still joins the Ganges immediately opposite to Patna, that is, the city, or metropolis, as its proper name (Patna) implies; the junction of the two rivers is now known as Patna. But as there is good reason for believing that the Sone once joined the Ganges at Bakipur or Bankipur, immediately above Patna, it is quite possible that the Erranaboas may have been intended for the Sone, and the Ahas for the Gandak. According to Megasthenes, Palibrotha was 80 stadia or nearly nine miles in length, and 15 stadia or one mile and two-thirds in breadth. It was surrounded with a deep ditch, and was enclosed by lofty wooden walls, pierced with loopholes for the discharge of arrows (Arrian, Indica, x., and Strabo, xv., both quoting Megasthenes). But when Alexander s successors were at peace with each other, the great Seleucus turned his arms towards the east, with the intention of recovering the Indian provinces of Alexander, but Chandra Gupta formed an alliance with Seleucus, whose daughter he received in marriage. He also received, at his court, of Palibrotha, Megasthenes as an ambassador, and in return sent ambassadors presents with an ambassador to Seleucus Nicator to Babylon. The Hindu drama Mudra Rakshasa records the memorable political event of his usurpation. His name occurs in an inscription at Sanchi, also on one at Ujjain. Tod says he was of the Takshak race. He died c.e. 289. His successor died B.C. 261; and Asoka, the great Buddhist sovereign, the grandson of Chandra Gupta, then succeeded. Asoka had murdered his brother, whose son converted him to Buddhism, and he was crowned B.C. 289-288, at Patalipura, in the third year of his reign. Asoka engraved on rocks numerous inscriptions incalculating Buddhist doctrines, and erected, it is said, 84,000 chaityas, many of which still remain.—Bhulisa Topes, Cunningham, pp. 87-91, 141; Ibbnasa, Egypt, iii. 544; Tod, Rajasthan, ii., Cal. Review, Indische Nachrichten, May, 1887, and ii. pp. 1161, 1162, Jo. As. Soc. Ben. p. 146; Thomas Prinsep, i. pp. 61, 276; Burgess and Ferguson, pp. 190, 725; Tenants s Ceylon.

CHANDRA GUPTA II., a king of the Gupta dynasty, who a.d. 400 made gifts to the tope at Sanchi, which are recorded on the rail of that monument.—Fergusson, 32.

CHANDRA KANTHA. Tex., Mirabilis jalapa, L. In Sanskrit the moonstone.

CHANDRA OTATA, an ancient town at the foot of the Aravalli mountains. It was anciently the capital of the Pramara rajas, vassals of the Hindu rulers of Gujarat. Its ruins are situated about 12 miles from the foot of the Abu mountain, on the banks of the Bunas, and in a fine, well-wooded country. When Ahmad, grandson of Jaka, styled Wajah-ul-Mulk, resolved to found Ahmadabad, he chose a site occupied by a community of the Bhil race, whose predatory habits were the terror of the neighbourhood, and resolved to create his new capital by means of the city of Chandraota, the materials of which he used, and compelled all its people to follow the spoils of their temples and dwellings to the uninteresting, unhealthy, low flat on the banks of the Sabarmati. It is now only marked by mounds of ruined temples and palaces. Ahmadabad was taken by General Goddard 15th February 1790.—Tod s Travels, p. 134.

CHANDRA PALA, a prince mentioned on an inscription at Oomya, A.D. 1439.

CHANDRAPODA. Tex., Argyria speciosa. CHANDRASECHA, a mountain in the N.W. Himalaya. See Kali. Chandrasekharan, the moon-crest. One of Siva s many names.

CHANDRA SENA, a ruler at Ujjain about A.D. 50, who followed after Vikramaditya about 100 years. He restored the Hindu kingdom to its entirety.

CHANDRASENI KAYASTHA, a caste of clerks in Poona, who claim to be descended from a raja named Chandrasena, and therefore claim to be regarded in some degree as Khatriya, and to be entitled to perform the ceremonies of the Vedas,—a claim not recognised by the Brahmins. There are two divisions,—the Patani Prabhu and the Dawai Prabhu. The former are found at Bombay and other towns, the latter at Goa. It is this caste whom the British call Purvo.—Wilson.

CHANDRAVANSA or Indavansa, or Lunar race, a race that reigned in Antarkveda and Kasi, but afterwards in Magadh (Behar) and Indraprastha (Delhi). In this dynasty are included the kings of Kasi (Benares), the line of Pura, and the line of Yadu.

Atri—Muni.
Soma—Lunas, the moon.
Budh—Mereury; married Ila, daughter of the sun. Alias or Pururavas.
Ayu—kings of Kasi descended from him.
Nahusha—Devasahusaha, Dionysos, Bacchus (Wd.).
Yayati—father of Puru and Yadu.

According to Tod, the following are synchronisms of the Solar and Lunar races:—

Budha of the Lunar race married Ila, the sister of Kshwaka, s. l.

Harischandra, s. l., contemporary of Parasaruma of Lunar line.

Sagara, cot. of Taljanga, of Parasaruma.

Ambarisa, cot. of Gahdi; founded Kanouj.

In the line of Pura occurs Hastin, who built Hastinapur and Vichitravirya.

Indu, Som, Chandra, in Sanskrit mean the moon;
hence the lunar race is termed the Chandravansas, or Induvansas, or Somavansas. They are divided into two great branches, the Yadava, who are descendants from Yudh, to which Krishna belonged, and the Paurava, who claim from Puru, to whom belonged Dushyanta with the Kuru and Pandu princes.— *Tod; Thomas’ Prince’s Indian Antiquities; Dowson.* See Magna; Pandu; Rama; Surya.

CHANDRAWUT, descendants of Chandra, one of the most powerful vassal classes of Mewar. Rampura (Bhampura) was their residence, yielding a revenue of five lakhas (£110,000), held on the tenure of service from an original grant from Rana Jugjot Singh to his nephew Madhu Singh. Chandra obtained an appanage on the Chambal.

—*Tod’s Rajasthan,* i. p. 261.

CHANDRAYANA, a Hindu penance, which consists in the sinner or devotee ‘eating for a whole month no more than thrice eighty mouthfuls of wild grains, as he happens to meet with them, keeping his organs in subjection.’ The reward of this is attaining the same abode as Chandra, the regent of the moon; and it absolves a Brahman from the sin of slaughtering a thousand small animals which have bones, or of boneless animals enough to fill a cart; and it is also the common penance for killing a Sudra, a Hindu of the fourth or servile class.—*Coleman,* p. 92.

CHANDRIE. Hind. Calonectomy Roxburghii.

CHANDHIKJA, a name of Lakshmi.

CHANDHIKI-KHAR. H. Ophioxylen, sp.

CHANDUS. Hind. Cotton cloth, coloured border and ends.

CHANDWAR, of the 12th century, is the modern Firozabad. The fields around form the memorable battle-ground on which was decided the contest between the Hindu and Mussalman for the sovereignty of India. The heroes Alfa and Udal, two brothers, fell here; but their memory is preserved in the songs and traditions of the people, amongst the Mahoba and the Rahores and Chandals of the Doab. The last Hindu raja, Jye-Chand of Kanouj, here closed his career by leaping into the Ganges.—*Tr. of a Hindoo,* i. p. 378.

CHANG. A deity of the Assamese, replaced in 1665 by Hinduism.

CHANG. HIND. Salix alba.

CHANG, CHIN., is a measure of 10 che, or Chinese cubits of about 14 inches each.—*Staunton’s Narrative,* pp. 43, 73.

CHANG. BURM. A fortified city.

CHANG, a beer made by the Bhot race from malted barley; also the barley Hordeum hexastichum.

CHANGA DEVA, a Hindu devotee, whose equipage was a tiger, but other holy men have adopted the tiger as a vehicle. A pious personage of this description was reported to have visited Sri-ranga-patna (the city of Sri Ranga, or Mahadeva, commonly Seringapatam) about the year 1797, and although a Hindu, to have been hospitably invited by Tipu Sultan. He was attended by ten disciples, and declined the royal civilities, saying a tree was sufficient shelter for him. Chang Deva was of that class which pandits call Yug-saddan, or Yug-brashat, or Yug-Vyasa, who by extraordinarily pious pains obtain miraculous longevity; they prolong their existence, it is hyperbolically said, to some hundreds of years.—*Coleman,* p. 426.

CHANGA GADDA. Tel. Sanseviera Zeylanica.

CHANGAL or Champal. HIND. A moderate-sized tree of Akyah, not plentiful. Wood used for boats.—*Cal. Cat. Ez.* 1382.

CHANGALI GADDI. Tel. Panicum comutatum, Nees; P. ciliare, L. i. 290.

CHANGALI KOSHTU. Tel. Costus Arabicus, Heyne.

CHANGAR, a predatory tribe of the Punjab.

CHANG BHAKAR, a small native state of Chutia Nagpur, with a population of 5,919. Its hills are clothed with the sal trees. Its people are Kolarian aborigines (Musai Kurn), 3,195, and Dravidian aborigines, 2,655, viz. Gond, and are poor.—*Imp. Gaz.*

CHANG-CHEN-MO. This place gives its name to a route of about 16 marches between Luddah and Eastern Turkestan, said to be the easiest from India to Upper Asia, much easier than the more westerly Kara Korum route traversed by Schlagintweit and Mr. Jebson. The heights vary from 19,000 to 21,000 feet, but the mountains are generally rounded, and fuel and grass are abundant, save at one stage. Gumbah is equidistant between Ilchi and Yarkand, and the Kara Korum route meets this route at Shadala.

CHANGEZ KHAN or Jenghiz Khan, anameme from the Uigur chang, firm, and Kisser ghiz, powerful. Temuchin, afterwards known as Changhiz, was born of a Mongol tribe on the banks of the Onon in 1162. He conquered and expelled Mahomed the Kharasman, and defeated his son Jalaluddin, on the banks of the Indus. Aung Khan of the Kerait Mongols, celebrated in Europe under the name of Prester John, was a contemporary of Changhiz Khan, whom, at the instigation of jealous enemies, he attempted but failed to destroy.—*Elliot,* p. 498. As the result of Temuchin’s successes against the nations of Tartary, he was saluted in 1206 by the diet of his nation as Changiz Khan. According to Quatremère, Changez did not use the higher appellation of Kahn (or Qaan), which was adopted by his son Okkodai and his successors as their distinctive title, identical with Khaqan, the Xagans of the Byzantine historians. Properly a distinction should therefore be preserved between Khan, the ordinary title of Tartar chiefs, and which has since spread to Persian gentlemen, and in India became a common titular affix to the name of Mahomedans of all classes, and Qaan as the peculiar title of the supreme chief of the Mongols. The Mongol princes of the subordinate empires of Chaghtali, Fersia, and Kapehak were entitled only to the former affix, though the other is sometimes applied to them in adulation, and claimed by all Afghans. The conquest of China was commenced by Changez, although it was not completed for several generations. In 1206 he invaded Tangut, a kingdom occupying the extreme north-west of China, and extending beyond Chinese limits in the same direction, held by a dynasty of Tibetan race, which was or had been vassal to the Kin. This invasion was repeated in succeeding years; and in 1211 his attacks extended to the empire of the Kin itself. In 1214 he ravaged their provinces to the Yellow River, and in the following year took Chimgtu or Pekin. In 1219 he turned
his arms against Western Asia, and conquered all the countries between the Bolor and the Caspian, and southward to the Indus, whilst his generals penetrated to Russia, Armenia, and Georgia; and a lieutenant, whom he had left behind him in the east, continued to prosecute the subjection of Northern China. Changez himself, on his return from his western conquests, renewed his attack on Tungut, and died in that enterprise, 18th August 1227. Okkodai, his son and successor, followed up the subjugation of China, extinguished the Kin finally in 1234, and consolidated with his empire all the provinces north of the Great Kiang. After establishing his power over that part of China, Okkodai raised a vast army and set it in motion towards the west. One portion was directed against Armenia, Georgia, and Asia Minor; whilst another great host, under Batu, the nephew of the Great Khan, conquered the countries north of Caucasus, overran Russia, making it tributary, and still continued to carry fire and slaughter westward. One great detachment, under a lieutenant of Batu, entered Poland, burned Cracow, found Breslan in ashes and abandoned by its people, and defeated with great slaughter, at Wahlstadt, near Liegnitz (April 12, 1241), the troops of Poland, Moravia, and Silesia, who had gathered under Duke Henry of the latter province to make head against this astounding flood of heathen. Batu himself, with the main body of his army, was ravaging Hungary. The king had been very slack in his preparations, and when, eventually, he made a stand against the enemy, his army was defeated with great loss, and he escaped with difficulty. Pesth was now taken and burnt, and all its people put to the sword. The rumours of the Tartars and their frightful devastations had scattered fear of them throughout Europe, which did not end at Liegnitz raised to a climax. Indeed, weak and disunited Christendom seemed to lie at the feet of the barbarians. The Pope, to be sure, proclaimed a crusade, and wrote circular letters, but the enmity between him and the Emperor Frederick II. was allowed to prevent any co-operation, and neither of them responded by anything better than words to the earnest calls for help which came from the king of Hungary. No human aid merited thanks when Europe was relieved by hearing that the Tartar host had suddenly retreated eastward. The Great Khan, Okkodai, was dead in the depths of Asia, and a courier had come to recall the army from Europe. In 1255, however, a new wave of conquest rolled westward from Mongolia, this time directed against the Ismaili or Assassins on the south of the Caspian, and then successively against the Khilifs of Baghdad and the King of Persia. This expedition under Hulaku may be considered to mark the climax of the Mongol power. Mangu Khan, the emperor then reigning, and who died on a campaign in China in 1259, was the last who exercised a sovereignty so nearly universal. His successor Kablai extended, indeed, largely the frontiers of the Mongol power in China, which he brought entirely under the yoke, besides gaining conquests rather nominal than real on its southern and southeastern borders, but he ruled effectively only in the eastern regions of the great empire, which had now broken up into four, viz. (1) the immediate empire of the Great Khan, seated eventually at Kuanbalik or Pekin, embraced China, Corea, Mongolia, Manchuria, and Tibet, and claims at least over Tungking and countries on the Ava frontier; (2) the Chaghtai khanate, or middle empire of the Tartars, with its capital at Almalik, included the modern Dsungaria, part of Chinese Turkestan, Transoxiana, and Afghanistan; (3) the empire of Kapchak, or the northern Tartars, founded on the conquests of Batu, and with its chief seat at Sarai on the Wolga, covered a large part of Russia, the country north of Caucasus, Khwarizm, and a part of the modern Siberia; (4) Persia, with its capital eventually at Tabrez, embraced Georgia, Armenia, Azerbaijan, and part of Asia Minor, all Persia, Arabian Irak, and Khorasan.

The conquests of Changez Khan, and of his successor Okkodai Khan, in the first half of the century, brought China a vast influx of Ugoor and Toongzani immigrants. Atabeg, also Atabak, in ancient Persia, was an officer or prince, ruler of a province. Luristan seems to have been the latest territory so ruled, until Changez Khan, with his destructive hordes of Tartar and Moghul, overwhelmed the land. Changez Khan, with respect to religion, was the apostle of the most complete toleration. Mahomedans relate that he had the subject discussed in a mosque of Bokhara, and there laid down the principle that he required only faith in one all-powerful God, leaving all the rest to be supplied by man's free study and judgment. But the creed of Changez Khan was Buddhism.—Princely of Tibet, Tartary, and Mongolia, pp. 3 and 4; Yale's Cathay, *xxivii., 1522; Osborn's Islan; Vanbery, Bokhara, p. 120.

**CHANG-GARH. ASSAM.** A house raised on posts with a space open underneath,—the ordinary house of the Miri, Burmese, and Malay.

**CHANG-LIA-KHIOU, a pass from the great wall of China, in the province of Pe-che-kuin, about a hundred miles to the westward of that of Kou-pee-kuin, by which the embassy of Lord Macartney crossed the wall in 1793, and Sir George Staunton later. The words mean the gate of the Chang family.—Staunton's Narrative, p. 22.

**CHANGLA.** Tel. Aucklandia costus.

**CHANGO, a Tibetan race, a branch of the Lhapa of Butan. The Chango dialect has a considerable amount of glossarial peculiarity with Tibetan, but in other respects it is entirely Tibetan softened and slightly changed in phonology. It is spoken along that portion of the northern frontier of the valley which extends from the Binji Doar to the confines of the Kuriqnara Doar, or from about long 90° to 92° E. Neither its northern limit nor the numbers speaking it have been ascertained. The inhabitants of this tract occupy the lesser elevations of the southern Himalaya range, and are generally speaking, agricultural. Their physical appearance exhibits a few shades of distinction noticeable between them and the tribes of the Sub-Himalaya. They are smaller, less muscular, and the hue of their skin possesses a deep isabelline tint. From the latter circumstance, probably, they derive their appellation, the term Chango meaning black.—*Journ. Ind. Arch.*, April—May 1853, p. 192. See India.

**CHANGMA.** HIND. Populus balsamifera, P. nigra, also Salix alba.

**CHANG-MAI, a mode of spelling Zunmauy of**
CHANGRA. HIND. Capra hircus, L.

CHANG-THANI. TIR. On the northern plains to the north of Ladakh, supposed to be the Chatae Systhe of Ptolemy.—A. Cunn.

CHANG TIEN-SZ, the chief of the Taoist priests, living at Kiang-si.—Smith, p. 5.

CHANGU. TIR. Canis laniger, Holgs.

CHANI. TEL. Aderanterha aculeata.

CHANJAN WALE. HIND. Asparagus Paujabensis.

CHANK. HIND. A harvest ceremony in several parts of Northern India, differing in each province. After the heap of grain on the threshing ground has been raised a foot high, a man, in silence, standing with his face to the north, a winnowing basket in his right hand, his left hand being full of grain, commencing from the south, goes round from east to west, and again to the south, pressing his basket against the bottom of the heap. This is repeated, changing hands, and when complete, he joins his hands, bow to the heap, and supplicates in a few words, either Farmeshwar or Anna Deota, as,

'Anna Deota ji, Sahas goona hajiy.'

In the Lower and Central Doab and Sauagor, a circle is made with cow-dung or ashes round the Ras and Thapa at the same time, commencing from the east, and going from south to west till the east point is again reached, the operator taking care all the while to hold his breath. A superstitious observance in the highlands of Scotland bears a remote resemblance to this.—Elliot.

CHANK. HIND. Also Chanka, and Chhapra. A stamp cut in wood, with the words Akibat ba 'kharibad.—May the end be prosperous; or Iman ki salamati,—Safety in your honour; and impressed on a cake of moist earth (barkat ki matti) on stacks or heaps of grain which are left in the care of one of the parties between whom it is to be divided. The words on the stamp mean, 'May the end be happy,' and 'Safety on honour,' implying that the grain is left to the honour of the person keeping it. The seal is then placed on the sides of the heap, never on the top, lest the increase of corn be thereby prevented. It is the system of making an article over to the Supreme Being, common in Africa and the Archipelago, under the term Taboo, and it is similar to the Ch'hu-toor of the Hindu.

CHANKEE. MALAY. Cloves. Caryophyllus aromaticus.

CHANK SHELLS, Konk, Conch.

Sukk, . . . . . . DUKH. Sanka, . . . . . . TAM. Senkham, . . . . . . SANSK. Sangu, . . . . . . TAM. Shenkum, . . . . . . " " " " " " Tel.

These shells are species of the genus Turbinella, fished up by divers in the Gulf of Mannar, on the coast opposite Jaffnapastam in Ceylon, in about the fathom of water, and in Travancore, Tuticoric, Kila-Karei, and other places. Large beds of fossil chanks have also been found. They form a considerable article of trade in India, as they are in extensive demand all over the country. The fishery is chiefly worked at Kila-Karei in the Rammed territory, and Tuticoric in the Tinnevelly district. They lie at the bottom in from 2 to 5 fathoms of water. The divers carry a bag round their necks, and dive and grope over the bottom; 20 chanks are a very good haul for one plunge. The rents paid to the zamindar of Rammed are £500, and to the British Government £1000. The fishing season is from October to March.

Chank shell was one of the insignia of royalty of the Chalukya dynasty when ruling at Kalian. The Chank and the Voluta species are used for making the shell ornaments of Daeca.

They are sawn into narrow rings or bracelets, armlets, heads, and are worn as ornaments for the arms, legs, fingers, etc., by Hindu women. Many of them are also buried with the bodies of opulent and distinguished persons. Those which, from being taken with the living mollusce, are called green chanks, are most in demand. The white chank, which is the dead shell thrown upon the beach by strong tides, having lost its gloss and consistency, is not worth the freight up to Calcutta. The value of the green chank depends upon its size. A chank opening to the right, called in Calcutta the right-handed chank, is so highly prized as sometimes to sell for 400 or 500 or even 1000 rupees. Even 20,000 rupees have been named. The Jangam religious mendicants and those of the Vemunatty sect blow them as horns. The commercial returns show an exportation from Madras of ten to twenty-four lakhs of these shells in one year.

1852-53. . . 15,15,495 Rs. 54,780
1853-54. . . 24,60,727 1,04,481
1854-55. . . 10,84,575 56,165
1855-56. . . Not given 26,171

They are classed as Patty and Pajel, or short and pointed headed, and Wallampory, or right-hand chanks. Bertolacci mentions, as a peculiarity observed by the Ceylon fishermen, that all shells found to the northward of a line drawn from a point about midway from Mannar to the opposite coast at India are of the kind called Patty, and are distinguished by a short flat head; and all those found to the southward of that line are of the kind called Pajel, and are known from having a longer and more pointed head than the former. The former is distinguished by a deviation from this singular law of nature. The Wallampory or right-hand chanks are found of both kinds. Chanks are alluded to in Cosmic Indicopleustes, and by Abu Zaid in Voyages Arabes, showing that so early as the 6th century this shell was fished for. 'The fishery until a few years ago continued a government royalty. The Sankasari of Daeca are famed for their skill in working with the chank or sank. Turbinella rapa is used as a trumpet, a hole being bored through its base. When blown into it gives a loud, sharp, and piercing sound. It is used in Hindu worship to call the attention of the gods to their worshippers. The conch shell, used for pouring water
on the gods, is a smaller one, the Mazza raga of naturalists. The pictures and figures of the Hindu god Vishnu always represent him with a chank shell in one hand, and a discus or chakra in the other. In ancient times, the Indian warriors used the chank as a trumpet. Chankangan of Shahpur is a silver armlet worn with churis or bracelets.—Rohde, M.S.; Ainslie, Mat. Med. p. 143: Tennant’s Ceylon; Hooker, ii. 254.

CHANNA. HIND. The pulse Cicur ariciatum, called Bengal gram, gram, and chick-pea. Channa siya is black gram, and Channa Kabuli, Kabul or white gram. Its principal use is to feed horses and cattle, but the people of N. India often eat it. An acid forms on the leaf of the channa, a mixture of oxalic and acetic acids, which is used in chemical processes, and in the preparation of nitric and nitric acids. Cloths spread on the plant become moistened by the dew, and absorb the acid.—Elliot.

CHANNA, also Channu, on the Chenab, etc. Populus alba, the white poplar.

CHANNI. HIND. Daphne oleanoides.

CHANOO. BENG. Aipium involucratum.

CHANS ARGENTEUS. Bloch. The milk fish. C. salmonesus, introduced from the sea into a tank in Canara.

CHAN-PA, the Tibetan name of Great Tibet. It means snow-land. See Lhasa.

CHANTABURI, CHANTABURI, or Hopapda. SUMATRAN. Fruit of Arctocarpus integrifolia.

CHAORI. Population; the village forum.—Elliot.

CHAO. HIND. A police station; the village forum.—Elliot.

CHAOI. HIND. This is made of ivory, bone, or shell, and is the most ancient ornament of the Indo-Scticcian dames. It appears in old sculptures and paintings. In a very old Gothic church at Moissac in Languedoc, the porch, attributed to the age of Dagobert, is the only part left. Sculptures on it represent the conversion of Clovis. Some sculptured figures below are of a distinct age, of an Asiatic character, showing the scarfs, the champa-kuli or necklace representing the buds of the jessamine (champa), and chauri.—Tod’s Rajastan, ii. p. 284.

CHAOUS. TURK. A herald, a running footman, an interpreter. The word is supposed to have originated the English phrase, to chase, or cheat, as the Turkish interpreters so frequently misinterpret.

CHAOU SEEN, the native name of Corea.

CHAP. HIND. An impression from a stamp or seal, from the verb chapa, to stamp or seal. The Chineso ‘chop’ is a stamped permit; hence also the Hindi term Chapa-khana, a printing press. properly Chap. Chap-ka-lac, scaling-wax.

CHAP. HIND. The refuse of the jhurbuce, after the pala is beaten from it.—Elliot.

CHAP. BRAHUI. Stone circles of different kinds, commemorative of weddings amongst the nomad Brahni.

CHAPADA, or Choparda. Fruit of Artocarpus integrifolia.

CHAPA JANNA. TEL. Fish roe.

CHAPAO, a raid, an inroad. The Turkoman inhabitants of the deserts have ever been famous for their terrible inroads into the Persian provinces. They are of the Sunni creed, a cruel and rapacious race, and always prefer flight to facing a superior force. The arms of the Turkoman are a spear 10 feet long, and a sword. They are excellent horsemen, and pass their lives in pillage and rapine. When a chief determines upon making a chapao, a month is given to his followers to get their horses into proper condition. Spies are sent out, and news being brought, the whole party gallops swiftly on the prey, whether caravan or village. In a few minutes all is over, the people carried off into slavery, and the village burnt. The prisoners are tied to the saddle-bows of the captors, and are treated with horrible cruelty, until they are finally sold in the slave markets of Khiva. The horses of the Turkomans have been known to go over 600 miles in six days.

CHAPAR. HIND. A thatch of straw, also roofing slate.—Elliot.

CHAPATTI. HIND. An unleavened cake baked on a girdle, eaten by the people of Hindustan. Prior to the mutiny of 1857, wheaten cakes were circulated amongst the people. The meaning of that act remains unknown.

CHAPKAN. HIND. A jacket fitting close to the body, opening at one side of the front, and prefixing.

CHAPLASHA. HIND. Artocarpus chaplasha.

CHAPLET, or immortelle, made of the flowers of an ‘everlasting’ (Helichrysum, sp.), commonly hung about tombs.

CHAPLI. HIND. Leather or leaf sandals.

CHAP'TALIA GOSSYPIA. —?

Orsosia lamina.

Shepherd’s tinder, Enc. Kuff, Kufic, Sookta, Pn. This is found in the Sutlej valley between Rampur and Sungnam, at an elevation of 7000 to 9000 feet. The tumentum or downy filament on the under surface of the leaves is employed by the hill people as tinder.—Cleyborn.

CHAPT-LAC. HIND. Shell-lac.

CHAPU. TEL. Fishers.

CHAR. HIND, PEBS. Four. Char-yar, lit. four friends, a Sunni Mahomedan, who maintains that Abubakr, Omar, Osman, and Ali were the rightful succeeding khilifs. Char in composition is softened into chau. Char-Abru, the beard, the moustaches, eyebrows, and hair on other parts of the body.—W.
CHAR, also Char-Charoli. MAHR., Buchanan latifolia. Valeriana Wallachiana, Valeriana Hardwickii, Quercus semecarpifolia.

CHAR or Char. HIND. A shoal, a sandbank. Baluchur, land covered by a deposit of sand.

CHARA. HIND. Fodder, forage, green grain; wheat or other crop cut for forage or fodder; also a trunk, a sheaf, grass, food for animals.

CHARA CHETTU. Tel. Buchanania latifolia. Fruit called Chara pappu, Charu mammidi.

CHARADRIUS, the plover genus of birds, species of which are common to India and Europe. Ch. hiaticula, the ringed plover of Europe, N. Asia.

CHARAI. J. Arboresce. J. arborea; pencil cedar.

CHAR AIMAK. Aimak is a Mongolian, Manchu, and Turki word, meaning a tribe. Of these, there are in Kâbul and Persia four, the Char Aimak.

CHARAN. HIND. A lamp. Charaghan-i-Zandah Shah Madar, a Mahomedan festival held on the 17th Jamadi ul Awal, in honour of Badi-ul-Din.

CHARA. Tel. Latham’s Ethnology; Ferrier’s Hist. of Afghan, p. 3; Vambery, Sketches of Central Asia. See Aimak; Mongols.

CHARA-INA. HIND. Armour-plates worn by the Sikhs.

CHARAITA. DUKH. Agathochis chitrata, G. Don. This valuable bitter is largely employed in medicine, being a perfect substitute for the gentian of Europe. Several plants are, however, used under this general name. The Andrographis (Justicia) paniculata is one of the best of these, and the Ophelia elegans is another.

CHARAKA, a medical writer who lived in Vedic times. He states that he received the materials of his work from Agniwesa, to whom they were delivered by Atreya. Professor Wilson gives the 9th or 10th century A.D., as his era. His book was translated from the Sanskrit into Arabic before the end of the 8th century A.D.—Dowson.

CHARA KANDA. Tel. Colocasia nymphaefolia, Roiye.

CHARAN, a sacred race in the west of India, whose character and pursuits almost resemble those of the Bhat, or Bards, and the origin of both is involved in fable. In Hindu mythology, the Bhat are said to have been produced to amuse Parvati, from the drops of sweat on Siva’s brow, but they sang the praises of Siva only, which so offended Parvati, that she turned them out of heaven, and condemned them to lead a wandering life upon earth, to sing there the martial deeds of heroes and the praises of the gods.

According to another legend, Mahadeva created a bard to attend to his lion and his bull, but the bull was daily killed by the lion, on which Mahadeva, tired with daily creating a bull, formed the Charan to be their attendant. The Charan was equally devout with the Bard, but of bolder spirit, and from that date the bull was never destroyed by the lion. It is an allegory of brute violence and justice.

The Charans of the Murr or desert in the sandy tract of the Indus, are mendicants who attend at marriages and festivals, and threaten to injure themselves if not relieved. The Charan is generally revered, and follows the profession of a bard, herald, and genealogist, and as such is often taken as personal security, the breach of which was followed by the death of the Charan, or of some member of his family. On this account it was usual for travellers in Mawra and Gujerat to hire a Charan to protect them, and the sanctity of his name was generally sufficient. If robbers appeared, he stepped forward, waving his long white garments, and denouncing in verse, infancy and disgrace on all who should injure travellers under the protection of the holy members of Siva. If this failed, he stabbed himself with a dagger in the arm, declaring that his blood was on their heads; and if all failed, he was bound in honour to stab himself to the heart. It is these Charans that are termed Charali. The Charan, young and old, are not merely taught to desire to die when the honour of the family or clan require it, but one and all are eager to be the first to die. Charan are divided into two tribes, the Kachilli, who are merchants, and the Maru, who are Bards. These, again, branch out into 120 clans. The Kachilli and Maru do not intermarry, but the latter intermarry with Rajputs. The Charan are taught to read and write. The mercantile tribe, who traffic in camels and horses largely, are shrewd men of business. The Maru tribe are genealogists and Bards, celebrate the praises of heroes in legends and songs. The warlike tribes esteem the heroic lays of the Bard more than the homily of the Brahan. The Charans are throughout revered by the Râtor, and hold lands literally
on the tenure of 'an old song.' A colony of Charanars from the frontiers of Cutch Bluj was founded at Murah, near Chitore, by rana Hamir, who is celebrated in the history of Newar; he had a leprous spot on his hand, to remove which he made a pilgrimage to the shrine of Hinglo, upon the coast of Makran, the division of Arran's geography. The Murah Charans are of the tribe Kaucholeah, and are grain-carriers. The sanctity of their office made their persons sacred, and the immunity extended likewise to their goods, and saved them from all imposts; so that in process of time they became the free-traders of Rajputana. This community collectively advanced to receive Colonel Tod at some distance from the town. The procession was headed by the village land and all the fair Charani, who, as they approached, gracefully waved their scarfs over him. It was a novel and interesting scene: the mainly persons of the Charan, clad in the flowing white robe, with the high loose folded turban inclined on one side, from which the mala, or chaplet, was gracefully suspended; the naiks or leaders, with their massive necklaces of gold, with the image of the pitriswam (manes) depending therefrom, gave the whole an air of opulence and dignity. The women were unarm'd and attired in dark brown cambric, having a bodice of light-colored stuff, with gold ornaments worked into their fine black hair; and all had the favourite churi, or rings of lati-dant (elephant's tooth), covering the arm from the wrist to the elbow, and even above it. The founders of this little colony accompanied rana Hamir from Gujarat in the early part of his reign, and although five centuries have elapsed, they had not parted with one iota of their nationality or their privileges since that period; neither in person, manners, nor dress had they anything analogous to those amidst whom they dwell. Indeed, their air is altogether foreign to India; and although they have attained a high place amongst the tribes of India, their affinity to the ancient Persian is striking—the loose robe, high turban, and flowing beard being more akin to the figures on the temples of the Guebres than to anything appertaining to the Char-bourun or four classes of the Hindus.—Rejksudan, ii. p. 622.

CHARANA. Hind. Footprints of the Jaina thirhankara, Reshabhanata. See Rayana.

CHARAN-AMRIT, Hind.; also Charanodaka, water in which the feet of a Brahman has been washed.—W.

CHARANDAIN, disciples of Charan who lived in the days of Ramana. Their ceremonies and habits are similar to those of Vaishnava, Bairagi, and Kabirpanthi.—Sherring's Tribes, p. 267.

CHARAN DAS, founder of the Charan Das sect, was born at Dehra, near Ulwar, in s.1760 (A.D. 1703). When very young, he was taken to Dehl. He was a good musician. He died s. 1839 (A.D. 1782). The sect keep images in their temples, and respect Brahmanas. He lived in the time of Alam-gir ii., and Sahaini Bai, his sister, was his first disciple. Charan Dasi are Vaishnava Hindus, who worship Krishna and Radha. Charan Das were also known as Auras, gowda, and Murlinh. All are residents of Dehl. His followers are both clerical and secular. At Dehl is the samadhi or monument of their founder.—Wilson. See Hindu.

CHAR-ANGLI. Hind. of Salt Range. Bouclesis edulis.

CHAR-ANKH. Hind. A meeting; literally, four eyes.

CHARAN-PAD, also called Padka, two feet engraved on the top of the tombstone of a Gosain, to mark his tomb or samadhi.

CHARA-PUPPU. Hind. Buchanania latifolia.

CHARAS, in Kachar, seedling rice for transplantation.

CHARATI. Sansk. Iodinium sufrutescens.

CHARAY, also Charay. Hind. A knife, any knife; also the knife of the Afghan, a long single-edged dagger, used with much effect by them. It is about the size of the old Roman sword, and speaks volumes for the courage of the wielders.—Burton's Seinde, i. p. 267; Pilgrimage, i. p. 329.

CHARAYUM. Tam. Arrack. Charaya karan, Malex., is a distiller or vendor of spirituous liquor.

CHARAZ, also Chars. Hind. of S. India. Syphoeotes auritus, Latham.; the florikin.

CHARBAR, Charia, or Chewabad Bay, the best in Makran, is formed by Ras Maleedkum or Koolkpb point on the west, and Ras Charhar on the Cher poleh, is a town of 1500 inhabitants; it is surrounded by a mud wall. The inhabitants and the cattle live entirely on fish, oysters, crabs, and shell-fish, those for the cattle being mixed with dates. All on that coast, which is the country of the ancient Ichthyophagi, have similar food.

CHARCHARILA. Hind. Pernelia Kamtchadalis, and other species of Pernelia.

CHARCOAL.


In the south and south-east of Asia, coal being found only in distant localities, and the cost of carriage great, charcoal are in great request. In the Peninsula of India, the common native mode of preparing them is to set on fire a heap of small wood, and, after allowing it to burn for some time, to quench it either by water or by heaping earth upon it; but charcoal so prepared is of little value in reducing iron ore, and the process is wasteful. The destruction of firewood in the neighbourhood of ironworks is grossly extravagant. Native iron-smelters only employ fuel from one to three inches in diameter; and to procure this they take saplings, or the tops and branches of the largest hardwood trees, allowing the trunks to decay. They do this because large trees are not adapted for fuel for native smelting, as the cost of splitting them adds greatly to the expense; and unless the logs be split, the inner wood is not carbonized. Charcoal, to be good, should be of wood burned with as little exposure to the action of the air as possible, and be black, brittle, easily pulverized, perfectly insipid, solid, and inodorous. Charcoal is mostly used as a fuel, but also in the manufacture of gunpowder. For the forge, the best is that prepared from bamboo and from stems of the bamboo Charhar (Tati kom aloco, Tel.). The tama-rind yields a good charcoal for the same purpose, as do most hard woods, but the charcoal of the Acacia sandra is said to be amongst the best.
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for this purpose. Other woods used in the S. of India are the vella-marda, karra-marda, erool, Indian gooseberry, the poohum, the nux vomica, and the eassau. In Northern India, Acacia catechu, A. modesta, Cassia fistula, Butea frondosa, Capparis, sp., Pinus longifolia, Prosopis spicigera, Salvadoria. For gunpowder, the roots of the milk hedge, Emphorbia neriifolia, and of the Calotropis gigantea are preferred. At the Madras Government Powder Mills, that of the gram bush, Dolichos uniflorus, and in those of Bengal and Bombay, the Cajanus indicus, or pigeon-pea stalks, are used. Charcoal used for gunpowder manufacture is generally made from small shrubs or herbs, as Vitex, Cajanus, Calotropis, and Parkinsonia aculeata, the Parkinsonia being said to yield a very good charcoal for gunpowder, though the gunpowder considered the best is manufactured from the Sesbania-egyptiaca. The gunpowder charcoal used at the Dumout coal-works is made from an acacia. The Sikhs employed Justicia adhatoda, which is said to be an A-Aden, and Arabs prefer the Calotropis, probably because it is most easily procured. The grain of all these plants is open, whereas in England closer-grained and more woody trees, especially willows, are preferred. In India, gunpowder charcoal is also made from the Adhatoda vasica, Alnus, Butea frondosa, Ccebrookia oppositifolia, Cornus macrophylla, Daphne oleoides, and Hamiltonia suaveolens. In China the gunpowder charcoal is made from the Cunn-ninghamia Sinensis. Charcoal is burned as a disinfectant on the last days of the year, in all Chinese houses. Charcoal powder, Pan-moh, Chin., is used internally in China, mixed with water, in metallic poisoning, in acute diseases of the throat, and in dysentery.

In Ceylon the cashew nut tree is considered the best sort of wood for charcoal for ironsmiths, and is sold for this purpose only. At Darjiling that of the chestnut wood is used by blacksmiths. In Nepal the best is made of the wood of the bahang, or holly-leaved oak. In Kulu and Kangra the wood chiefly used for charcoal is Chil, Pinus excelsa; but the alder (kaunch) and Alnus Nepalensis, which fringes the tributary streams, is also employed for this purpose, as no hard woods are available. The lighter woods generally yield lighter and more combustible charcoals. Nevertheless the dogwood of Britain, the wild cornel tree, which makes the strongest of the British gunpowders, and is exclusively used for the powder of the breechloading firearms, is a dense, comparatively heavy, slow-growing wood. In Brittain, the alder, the willow, and dogwood are the only woods used for charcoal in the Government establish-ments,—the two former for cannon powder, the last for small arms. Private makers use the same woods, and they use the last for the forest sporting powder. The three woods grow well in England, but they are chiefly obtained from Belgium, Holland, and Sussex, the dogwood selling at £12 to £15 the ton. Coarser woods are used for common blasting powder. There are many circumstances connected with this ingredient of gunpowder not yet understood, but it seems to be the variations in charcoal which cause the differences in the powder. Charcoal is little liable to decay. The best charcoal for a dentifrice is that of the betel-nut. Charcoal possesses remarkable antiseptic properties, as it resists the putrefaction of animal

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matter, and destroys the smell and colour of many substances.—Mr. Faulkner; Mr. Roade; Dr. Cleghorn; McCulloch's Dict. p. 286; Mr. Wall's Report in G. O. 17th July, No. 1940 of 1857; Hooker's Jour. 1. p. 9; Edge, Mal and Can.; Dr. J. L. Stewart; Quarterly Review, July 1865.

CHAR-DEH, in Persia, a mode of dividing fields. See Dangah.

Char deh, the town of Kabul is built at the foot of a hill of gniss that rises 1000 feet above it. The town bends round it from the south-east to the south-west, where, with the dip of another hill opposite, is formed the pass, 150 yards broad, that leads into Char-Deh. Kabul may be described as lying at the foot of a range of hills whose direction is from north-east to south-west. The country is thus divided into the plain of Kabul, and the Char-Deh, or four villages. See Kabul.

CHARDIN, Sin John, travelled in Persia and the East Indies from 1664 to 1670. The first part of his Journal du Voyage was published in London 1686, and the second and third at Amsterdam in 1711. In 1811 his travels were republished in Paris.

CHARGUL. Hind. An ornament worn by women in Hazara.

CHARI, the doe of the Antilope Arabiea.

CHARI. Hind. Stalks of millet, etc., sown close for fodder; also Sorghum vulgare; Carex Indica? Rang-Chari is Elsholtzia polyctchaeta.

CHARIKAR, a town in long. 68° 59' E. and lat. 34° 28' N. It is near Beghurn, and 30 miles north of Kabul. From Charikar to Jellalabad the road is open, and it is supposed that Alexander, whether he recrossed the mountains at Bamiyan or at Beghurn, marched by this route on India. It is on the high road between Kabul and Turkestan, and the valley offers supplies of all kinds.—MacGregor, p. 211.

CHARIKONA SHIM. Beng. Goa beau; Psophocarpus tetragonolobus.

CHARI-MARAM. Tam. Ebony.

CHARIOT. In Judges iv. we are told that Sisera had 900 chariots of iron. From the Sanskrit word called the Dhamurveda, it appears that the Hindus had war chariots similar to those of the Persians. They are described as having had many wheels, and to have contained a number of rooms. The war chariot was peculiar to the Indo-Scythian nations, and was in use in India from the days of Dasaratha and the heroes of the Mahabharata, to the conquest of the Hindus by the Mahomedans, when it was laid aside. On the plains of Kurukhet, Krishna became charioteer to his friend Arjuna; indeed, the title Dasaratha means a charioteer. The Gotic hordes of the Jaxartes, when they invaded Europe in the 3rd century, followed the plains of Arbela, had their chief strength in the war chariot. The war chariot continued to be used later in the south-west of India than elsewhere; and the Caddhi, Comani, Comari of Saurashtra have, to recent times, retained their Scythian habits, as their monumental stones testify, expressing their being slain from their cars.—Toel's Rajasthan. See Hindu.

CHARITA, the first degree in the Saiva system.

CHARIZM, in the 6th century of the Hijira, a Charizmian empire rose on the ruins of the Seljukids, which extended itself over Tartary and the greatest part of the Persian provinces. During the reign of Mahomed, Chengiz Khan overr
CHARJ.  

the Chazirian empire.—Dow's Hindostan.  See Kharasun.

CHARJ. Beng.  Otis Bengalensis.

CHAR-JAMA. Hind.  A sort of horse housing in two pieces, one for each side under the saddle.

CHAR-JATI. Hind.  The four classes of the first class of the Khatri, viz. Seth, Marbota, Khanna, and Kuppor.

CHARJU, in lat. 39° 5' N., and long. 63° 40' E., a town in the district of the same name, 6 miles inland from the left bank of the Amu. It has about 4500 inhabitants. The Saugan (Cyprius calbayetus) and the lakka (Siluris glansis) attain a large size at this part of the Amu.

CHARKA. Hind.  Letsea, sp.

CHARKARI MAHAL, in the Panjab, the portion of a doab requiring well irrigation.

CHARKH. Hind.  A pulley over which a water-ropes run; a wheel; the sheave of a block; a needlemaker's grinding wheel; a cotton-cleaning wheel; also the rope-twister's apparatus; a spinning-wheel.

CHARKHAHEII. Hind.  Chequered muslin; also called Zilnail.  Charkhi, a kind of silk of Kabul.

CHARKH PUJA. Hind.  Cheeldul, Tam.  A bangle used among the lower classes and low castes of Hindustan of India.  By self-inflicted wounds, or being suspended in the air by hooks passed through the back, individuals hope to expiate their sins.  It is commonly called the Swinging Festival, because the more prominent form of expiration amongst Hindus is that of swinging, suspended by hooks through the skin over each shoulder-blade, and connected by ropes with one end of a lever, traversing an upright post, to which a circular motion is given.  It is held when the sun enters Aries.  But children of tender years, aged five or six, were to be seen with bamboo sticks through both checks.  Hooks from a lever are passed through the skin over each shoulder-blade, and the lever is made to rise high in the air and revolve with the hooked person.  Wood and iron and snakes are passed through the tongues, the cheeks, and the skin of devotees and of young children.  The devotees were hailed Gajan, and had a charm of Siva that they inflict tortures on themselves.  The British Government about the middle of the 19th century prohibited its practice in British India.  See Siva.

CHARKHI. Hind.  Carpinus viminalis.

CHAR-KUCHOO, Beng.  Colocasia antiquorum.

CHARLANG, a section of the Bakhhtiar tribes.

CHAR-MAGHIZ. Hind.  Juglans regia; the walnut, lit. 'the four-kernelled fruit.'

CHARMS.


- Charms are in general use amongst all races; and amulets are worn and used both to work for good and to work for evil.  The custom of inscribing mystic characters upon the person as a safeguard, or having them engraved in the form of an amulet or charm, is of the most remote antiquity.  Cairs have a mark set upon him, which denoted the bearer to be placed under the immediate protection of Heaven, so that no man might slay him.  The blood sprinkled on the door-posts of Israel in Egypt was a sign that the destroying angel was not to enter, the inmates being under the divine protection.  A similar preserving token is referred to in Ezekiel ix. 2, where the man 'clothed in linen,' having a writing inkhorn by his side, was commanded by God to set a mark upon the foreheads of those who were privy for the determinations of Jerusalem.  ' Behold my sign,' says Job xxxvi. 35, according to the marginal reading; or, ' Behold, here is my Thun' (a mystic mark), as Calmet renders it.  Paul, probably alluding to some acknowledged sacred sign, observes, ' Henceforth let no man trouble me, for I bear in my body the marks of the Lord Jesus.'  Portions of St. John's Gospel were worn by the early Christians, and verses of Scripture were even placed upon horses.  Among the Anglo-Saxons, amulet gems were much esteemed.  King John had a large collection; and, in the 16th century, amulets were warehoused in England in large quantities, and usually worn round the neck, as a protection from pestilence (Gage's Haarvgre, p. 155).  A ms. poem on the virtues of gems, written by Pierre de Boniface in the 14th century, says: 'The diamond renders a man invincible; the agate of India or Crete, eloquent and prudent; the amethyst appeases anger; the hyacinth provokes sleep' (Milner's Seven Churches of Asia, p. 127).  The six descriptions of charms or mantra known in Gujarat, are described in the Mantra Shatra.  Marun Mantra has the power of taking away life; Mobun Mantra produces ocular or auricular illusions; Shambhun Mantra stops what is in motion; Akurshun Mantra calls or makes present anything; Wesheekurun Mantra has the power of enthraling; and Oochhatun Mantra of causing bodily injury short of death (Rasamala, Hindu Annals, ii. p. 406).  Charms, amulets, talismans, and phylacteries all belong to the list of articles which produce imaginative cures, seeing that the persons who trust to them believe in some good obtainable from them, in pursu or in person, in health or in welfare.  The amulets, hung in a little bag around the neck, are very widely credited with the power of the charm of disease.  One especial kind of amulet is the phylactery, a bit of parchment on which a few sacred words have been written; if worn on the person, it is a safeguard against disease and calamity.  The Jews in the East used to carry such an amulet written with a Hebrew verse from the Bible; and some of the Mahomedans with an Arabic sentence from the Koran.  The Burmese insert lumps of gold beneath the skin, to procure invulnerability, and Burmese are said to conceal gold in that manner.  Many of the charms worn by Hindus and Mahomedans are merely to distract or avert the evil eye.  A not unfruitful one, in sickness, is a string formed of hair of the head, to which is attached a piece of the Acorus calamus root, a cowrie shell, a marking nut, and the eye of a peacock's feather.  In the Ushai Namah (section 12), it is mentioned that women, during parturition, derive considerable benefit from wearing a charm composed of certain ingredients made into a little ball, which must be perforated with a hog's bristle (Ouseley's Travels, i. p. 227).  Most of the Mahomedan pilgrims, when moving towards Mecca, have a charm or tawiz suspended around their necks; and almost all Mahomedans,
when setting out on a journey, bind a piece of money on their arm, as a votive offering to the Imam Zamin. In Arabia, the instant a foal is born, a charm is tied round its neck in a bag of black cloth, and sometimes in this the pedigree is placed. Many of the Mahomedans of Turkey and Asia carry talismans about with them, especially in war, consisting of verses of the Koran, to which they attach extraordinary influence; and with one Mahomedan soldier, who had fallen in battle, a whole Koran was found wrapped in the rolls of his turban. The Mahomedans put up charms over the lintels of the doors, on the walls of their houses, and almost constantly use them on their arms as amulets, for the cure of aliments, to cast out devils, to ward off demons, fairies, enchanters, and to cleanse a haunted house. In exorcism, certain names (Ism, sing.; Isma, pl.) are used by Mahomedans. The ism-jallali, or fiery or terrible attribute, is used; also the ism-jamali, the watery or air attribute; and with these they cast out devils, and command the presence of genii and demons. Amongst Mahomedan women love-philters are in frequent use; and engraved amulets, and leaves and roots of plants, are worn by them to retain or win affection. The Rev. Mr. Ward saw a Mahomedan woman dropping slips of paper into the river, and upon inquiry found that they contained some sacred words, and that the woman was presenting those papers to the river-saint, Khaja Khizr, in hopes of obtaining relief. Persians consider the number thirteen so unlucky, that, in general, they will not even name it. When they have occasion to allude to this number, instead of mentioning sechleh (thirteen), they say ziyad (much more) or hoch (nothing). In ancient Rome, the ladies wore the phallic emblem to overcome their sterility. It was a mango-fruit, given by a rishi to Jamisinha's father, and eaten by his mother, which begot that famous Maghada prince of old. To this day, very often do barren Hindu women, and those who lose their children in the cradle, repair to the most reputed shrine of Siva in their neighbourhood, and by fasts and vigils ensure his blessings for progeny.

Lane says in Egypt the most esteemed of all hegab or charms is a mushaf (or copy of the Koran). This and others are worn by many women, generally enclosed in cases of gold, or of gilt, and plain silver. Next in estimation to the mushaf is a book or wallet containing certain chapters of the Koran, as the 6th, 18th, 36th, 44th, 55th, 67th, and 78th, or some others, generally seven. The ninety-nine attributes of God, written on a paper, and worn on the person, are supposed to make the wearer a particular object for the exercise of all the benevolent divine attributes. The names of Mahomed's relics are also charms. These relics, called Mukhallatun Nabi, were two sabbahs (or rosaries), his mufshaf (in unarranged fragments), his mukhul'uh (or the vessel in which he kept the black powder with which he painted the edges of his eyelids), a furdah or kind of woolen covering. Sometimes, for the cure of diseases, and to counteract poisons, etc., a draught of water from a metal cup having certain passages from the Koran, and talismanic characters and figures engraved in the interior of the vessel, is given to the patient. Water from the sacred well of Zem-zen in the temple of Mecca, and pieces of the black brocade covering of the Ka'ba, small oblong flat cakes of a kind of greyish earth, mixed with salvia, supposed to be composed of earth from over Mahomed's grave, are believed to be a cure for every disease. They are sold at the prophet's tomb, and are occasionally eaten. The Chinese have a written charm, praying for the three manyus, happiness, long life, and sons; and nine lies, prosperity, dignity, longevity, etc.; koo-tung-king, the old brass mirror, to cure the looker of insanity. The Singhalese believe that certain charms are efficacious in protecting them from the violence of bears.—Skinner's Overland Journ. ii. p. 70; Ward's View of the Hindoos, t. p. 71; Milher's Seven Churches of Israel; Herklots Kanou-i-Islam; Tr. Hind. ii. p. 3.

CHAR-MUGHZ, Pers.; also Girdghian; Jouz-i-roomi. Juglans regia; walnuts.

CHARNOCK, JOB, the founder of Calcutta. In the end of the 17th century he dwelt at Barrackpur, which the natives have named Acharak, after him. He resided there so as to be near the grave of his wife,—a Hindu woman, whom he had espoused after rescuing her from burning on the funeral pile of her deceased husband. The mausoleum over her remains is the oldest piece of masonry in Calcutta. His sorrow for the loss of his wife was unbounded. So long as life lasted, he on the anniversary of her death sacrificed a cock in her mausoleum in the cemetery of St. John's Church. His epitaph—

D. O. M.
Jobus Charnock, Armiger,
Anglus. et mup. in huc
Regno Bengalesi
Dignissimus Anglorum
Agens.
Mortalitas sue exuvia
sub hoc marmore deposita
et in ape beatae resurrectionis ad
Christi Judicis adventum
diberiment.
Qui postquam in solo non
sue peregrinatus esset diu,
reversus est domum sue ater
nitas dedicando die Januarii
1692.

CHAR-PAI. HIND. A sleeping cot or bedstead; literally, four legs.

CHARRAH. ARAB. Lagernaria vulgaris, Sen.
CHARRAS, the gum-resin of the hemp plant, Cannabis sativa. It exudes from the flower heads, and also from the seed when ripe. In the Punjab, when the seed is gathered, the heads are rubbed with the hands, and the charras collected. The finest charras is produced in Yarkand and Kashgar. A kind called garda is much in use, and of this again there are three sorts, surkha, bhanga, and khuk. It is brought into the Punjab from Ladakh via Kulu, Kangra, and Kashmir; also from Yarkand and Persia via Peshawur and Dhera Ismail Khan on the western frontier of the Punjab. A small quantity placed in the hookah and smoked, produces almost immediately an intoxicating effect. It seems to have been employed as an intoxicating substance in Asia and Egypt from very early times, and even in medicine in Europe in former times, as Dr. Royle mentions in the Pharmacognosy (p. 138) and Murray (Appar. Medicaeinin, iv. pp. 608—620). In Central India, the Sangor territory, and Nepal, charras is collected during the hot season.
Men clad in leathern dresses run through the hemp fields, brushing against the plant with all possible violence; the soft resin adheres to the leather, and is subsequently scraped off and kneaded into balls, which sell at from five to six rupees the seer. A still finer kind, the Monia, or waxen churra, is collected by the hand in Nepal, and sells for nearly double the price of the ordinary kind. In Nepal the leathern attire is dispensed with, and the resin is gathered on the skins of naked coolies. In Persia, it is stated by Mirza Abdul Nassar that the churra is prepared by pressing the resinous plant on coarse cloths, and then scraping it from these and melting it in a pot with a little warm water. The charms of Herat is considered to be the best and most powerful of all the varieties of the drug. It is said also that when the bang leaves are picked off and the stalks remain, the little knots which occur wherever a leaf issues from the stem, are picked and collected as ganja, and these contain much resin. Indian hemp secretes a much larger proportion of resin than is observable in the European plant, but a difference is observed in this point in India; between plants grown in the plains and those of the mountains, and also when grown thickly together. The natives plant them wide apart, to enable them to secrete their full power. In Europe, the thick sowing, and moisten, often dull, climate will prevent the due secretion of the peculiar principles of a plant of the Persian region.—Powell; O'Shaugh.

CHARRI. HIND. The royal or imperial rod, a long staff or javelin, and often placed by Hindu princes on the royal crown or throne. It is an emblem of authority, and Charri men zor hai—His rod is strong—is meant to indicate that the authority is obeyed.

CHARSA of Ptolemy, the modern Kas.

CHARSA. HIND. A huge bucket made of hide, for a well.

CHARSUDDA, a town in the Peshawur valley, near which the Swat river joins the Kabul river.

CHART.

Zeekarten, . . . DET. Patu, . . . . MALAY.
Cartes marines, . . . Fr. Cartas de marcar, . . . Port.
Seekarte, . . . Ger. Carta de navegar o'.
Naqsha, . . . . HIND. de marcar, . . . Sp.
Carte marine, . . . It.

marine charts of coasts, seas, and oceans.

CHAR-TARA, a musical instrument, literally four-stringed, as the sāl-tarn is three-stringed.

CHARŪ. MAEAL. A jungle tree which grows to about 40 feet high, and 2 feet in diameter. It is used in building native villages, particularly for planks, but is not very durable.—Edge, M. and C.

CHARU, in Hinduism, one of the five Jagna, who consist of the Bali, Charu, Baswadeva, and Agnihotra.

CHARUKAR, a town in Afghanistan. It was burned 3d October 1842.

CHARU, the predial slaves in Malabar, whose name Wilson derives from Chera, in Malale, the soil. They follow the rule of Maruma-katayam. They are very diminutive, with a very black complexion, and not unfrequently woolly hair.

CHARUNG, a difficult pass in the Himalaya, in lat. 31° 24' N., and long. 78° 35' E. The crest is 17,348 feet. See Kunawar.

CHARVADAR, in Persia, the chief muleter of a caravan, and generally owner of the animals. He employs a certain number of the Ratichi or mule-drivers as his servants or assistants.

CHARVAKA, a Hindu philosopher who lived about the third century of the Christian era, and founded a school of materialism. The atheistical philosophy which he put forward is called Loka-yata, and its followers Loka-yati. It forms one of the six atheistical systems of philosophy current amongst the eastern Aryan race in India. The other five are the Yogachara, Sihlanta, Wai-bashika, Madhyamika, and Digambara, all full of indeterminate phrases, and containing a jumble of atheism and ethics. The derivation of Charvaka is from Charso, insinuating, and Vaka, a word. Charvaka, as the founder of the materialistic school of the Hindus, was the Pyrrho and Epicurus of India. The Charvaka system does not recognise the authority of the Vedas. The sect maintain that in this world of continual changes, which is developed out of four principal elements, prosperity is heaven and adversity is hell, and that there is neither heaven or hell besides these conditions. The Hindu philosophy is based on the nature of the soul and its relation to the Supreme, called the Adwika, the Dwaita, and the Visishtha adwika, are derived mostly from the views of the three great apostles of the Vedantist school, who flourished in Southern India, viz. Sankaracharya in the ninth century, Ramannja in the twelfth century, and Madhavacharya a little later.

Dwaita, the doctrine of duality held by many Hindus, distinguishes two principles in creation, spirit and matter, as opposed to the Adwika or Monad doctrine, which acknowledges the reality of spiritual existence only. Ananda Tirthachari was the founder of the Dwaita school. Sankara-charya was the propagator of the Adwika doctrines. The Vivishadwika school, non-duality with a difference, was founded by Ramannja-charya. It maintains an intermediate doctrine that the universe is a reality depending upon and supported by the body. The universe is the soul; that the divine and human soul are in some respects identical; yet that for all human purposes they are regarded as distinct, and that, in life, the human soul is subordinate and responsible to the divine soul.

CHAR VALAYAT, four territories under Afghanistan, comprising Maemana, Anikhi, Shibbongaun, and Siri pul, with a population of above 250,000.

CHARWAHA, a herdman, a grazer, of North India.

CHAR-YARI. HIND. Char, four, and Yar, a friend. A Sunni Mahomedan who acknowledges Abubakr, Omar, Osman, and Ali as the four legitimate khulifs.

CHAR-ZANOO. HIND. Lit., on four knees, i.e. sitting cross-legged.

CHAS, also Apayumm. Sansk. Opium. Chas is said to be derived from Khas khas, poppy seed.

CHAS, a Bengal cultivator. Chasa signifies a cultivator of the ground.

CHASARFO, a yellow earth of Spiti.

CHASHM. HIND. Pers. The eye. It is deemed amongst Eastern Mahomedans an organ of the body by which they can swear, possibly originating in the old practice of blinding persons. The Persian expressions 'Ba-chashm' and 'Ba
CHATSUKU.

CHATURTHI.

CHATRIYA, a warrior branch of the Aryan Hindus, taking social rank after the Brahmans. Menu says, 'To defend the people, to give alms, to sacrifice, to read the Vedas, to shun the allurements of sexual gratification; such are in a few words the duties of a Chatriya.' How this martial race broke up is extremely obscure. They were a brave race, and all Rajputs claim a Chatriya descent.

CHATTA-PAT. HIND. Leaf of Licuala peltata.

CHATTO. HIND. A canopy of royalty.

CHATUKHAM. TAM. Chatkar, HIND. A caravansary, temple, or choulter.—Wilson.

CHATTHRI. HIND. Agaricus campestris.

CHATURANGA-BALAM. TEL. An army of the four arms, horse, foot, elephants, and chariots.

CHATUR-BHUJ, a name of Vishnu with four arms. In a deed of conveyance by Maharao Sri Joy Singh, this deity is invoked. The deed runs thus: 'At this time, Brother Mann Singh, I bestow upon thee, of my own free will, the village and lands of Jaetoora. This donation shall not look to rankroos (physical infirmity), su-poot (worthiness), ca-poot (unworthiness); your issue shall enjoy them. Of this intention I call the four-armed divinity (Chatu-bhuj) as witness. You are my own child (chooroor); wherever and whenever I order, you will do my service; if you fail, the fault be on your head.'—Ted's Rajasth. i. 610.

CHATUR-BHUJA DEVY, a form of Durge, represented sitting on a padmaasana or lotus seat.

CHATUR-DASI, in Hindu astronomy, the 14th day of the lunar Paacha.

CHATUR-DASI, in the Hindu religion, festivals held on the 13th and 14th of the month Chet, in honour of Kama, the god of love. Madana, he who intoxicates with desire, or Kama, is both epithet and the god of love. The festivals on the 13th and 14th are called Madana triodas (thirteenth) and Chaturdasi (fourteenth). On these days the Rajputs of Udaipur sing hymns handed down by the Bards: 'Hail, god of the flowery bow! hail, warrior with a fish on thy banner! hail, powerful divinity, who causeth the firmness of the sage to forsake him! Glory to Madana, to Kama, the god of gods; to him by whom Brahma, Vishnu, Siva, and Indra are filled with emotions of rapture!' There is no city in the East where the adorations of the sex to Kama-deva are more fervent than in Udaipur, the city of the rising sun.—Ted's Rajasth., i, p. 577.

CHATUR-JEE, properly Chaturu paddhayya, the name of a family of Brahmans in Bengal learned in the four Vedas.—W.

CHATUR-MASYA, SANS. Four kinds of sacrifices—Vaisvadeva, Varuna Praghasa, Sakamedha, and Smasiriya, to be offered in four consecutive months, or every four months, consisting of roasted cakes of rice-flour, offered in the first to the Visvadevas, in the second to Varuna, with two figures of sheep made of flour, in the third with vegetables to Agni? and in the fourth to Indra.—W.

CHATURTHI, the fourth day after the new and full moon, sacred to Vighnesvara. On the Ganesh Chaturthi, or Chautthi, was born Ganesh, called also Ganapati, made from the turmeric and oil off the head of Parvati. He is the god of wisdom, who removes obstacles, and is invoked at the commencement of all undertakings. Ganapati has a man's body with the head of an elephant.

CHATTU, also the Hindi words, 'Mere sar aor ankh par,' meaning 'Your order be on my eyes,' are usual responses on receipt of an order, and acknowledging that it will be obeyed, on the penalty of the broken eyes. The evil eye is the Chattri-bad or Bad chashm of the Mahomedans of Persia and India. Chashm-i-khoras, Abrus precatorius, Linn. Chashm-i-maidah, cat's eye; the gem so called. See Evil Eye.

CHASKU. HIND. A cloth dyed with kusum-bhâ and printed.

CHASMAH-I-BAD, a spring in Khorasan on the road from Astarabad to Danjan. The people believe that if its waters be defiled, a furious wind rages till a tribe of the neighbourhood restore its purity.—Eastwicth; Morier; Fraser; MacGregor.

CHASNÎ, a sugar-boiler; syrup of sugar; a vessel for taking out boiled cane juice.

CHASTE. HIND. Vitex negundo, Linn.

CHATAI. HIND. Cicendia hy-sopifolia, Adana.

CHATAM. HIND. A mat.

CHATANULU. HIND. The Chaitanya.

CHATERA, CHATISGHAR, CHASNI, CHASKU. 

CHATE. HIND. Chaitanya.

CHATERA. HIND. Chaitanya.

CHATERA. HIND. Chaitanya.

CHATAI. HIND. Cicendia hy-sopifolia, Adana.

CHATARI. HIND. A mat.

CHATANULU. HIND. A mat.

CHATNEE, CHATNEY, CHATNEY. HIND. Whitewash.

CHATRA. HIND. Lecuas cephalotes.

CHATRANGA. TEL. The Chaturanga, the game of chess, so called from imitating the formation of an army, the four (chatur) bodied (anga) array, of elephants, chariots, horse, and foot, in Indian armies. See Chess: Shatranj.

CHATRANGA. HIND. The Kayastha or Kaet race, in the Peninsula of India, claim this mythological person as their ancestor. They say he was the secretary to Yama, the god of the infernal regions.

CHATRIYAL. HIND. Euphorbia helioscopia.
His head is said to have been cut off or destroyed by Siva, when Ganesh tried to prevent Siva entering the chamber of Parwat when bathing. Clay images are made and worshipped for from one to nine days, and then thrown into water. The Chinchor or Chinchwad, who resides at a village of that name near Poona, is believed to be an incarnation of Ganesh, who promised an ascetic named Moroba, who lived in Sivaji's time, that he would be incarnate for seven generations in his family. The earth image of Ganesh is one of three forms, in which the earth deity Mrittika is worshipped by Hindus. The first is the Nág-pancham, in which a feast a snail of clay is worshipped; the second is Gokul Ashtami, when a clay image of the infant Krishna is worshipped; and the third occasion is that on which Ganesh is worshipped, and this last day of the worship of Mrittika is observed with great pomp. The vañan or carriage of Ganesh is a rat. The feast in honour of his birth is held on the 4th of the month Bhadrapad, and falls on the first day of Scorpio, and has some planetary or seasonal connection. Ganesh is brought to the house with much pomp.

CHATURUPADHYAYA. Sansk. The name of a family of Brahmans in Bengal, commonly pronounced Chaturjia or Chaturjee.

CHATURVEDI, Sansk. Meaning a Brahman who has studied the four Vedas. It is usually pronounced Chauti. The term is now applied to a class of Brahmans who are not always of a literary character; and in the Upper Provinces they are usually boxers, wrestlers, and the like. — Wilson.

CHA. Hind. Four. Chau-bach'ha, in former times, in the Delhi territory, a levy of revenue on four things, the poll-tax, hearth-money, and hornegeld.

Chaubasi (24), any tract containing 24 villages in the occupation of a particular tribe.

Chaurai (84), a subdivision of a pargana embracing 84 villages.

CHAUDRAYATNI, also Chaturdasa-ratna, in Hindu mythology fourteen precious articles, called gems, obtained by churning the ocean. The second incarnation of Vishnu was in the form of a tortoise, hence known as the Kurma avatar. The principal incident in it was the churning of the ocean with the huge mountain Mandara as a churn-rod, using the great serpent Sesha as a churning rope; while Vishnu, in the form of a tortoise, sustained the vast load. The produce was the fourteen precious articles (or gems), the chao-da-mtni, or more classically the chatur dsa ratna, one of which was medicine, another poison. See Vishnu.

CHAUDHARI, the headman of a town in tribes; the headman of a village; also, in Hindu temples in the Peninsula, the figures at the corners of the temple supporting each succession of platforms. See Dhara.

CHAUGHAN, a game of Tibet resembling hockey. It is played on horseback, on a plain about 60 yards broad and 350 long, with a stone pillar at each end as the goal. The ball is somewhat larger than a cricket ball, and is called in Tibetan, Pulu, and now known to the British as Polo. The stick or Byntu is of the strong and straight bough of the almond-tree, about 4 feet long, and let in at the top and passed quite through to the other end of a curved piece of solid birch-wood, about the size and shape of a drenching horn. The game is mentioned by Baker. It is played in every valley in Little Tibet, Ladakh, Yessen, Chitral. See Chieane; Chotugha.

CHAUHAN, one of the principal Rajput races, descended from Prithi Raj, the last Hindu ruler of Iundra-prostha, or Delhi, and spread through Malwa and Rajasthan. The principal families are the Khich, Hara, Bhadauria, Rajkumar, Rajor, Pratapnir, Chaknagar, and Manchana. The head of the Manchana is the raja of Manipuri. This was the most valiant of the Agniwala Rajputs, and of the whole Rajput race. Its branches (saca) long maintained all the vigour of the original stem; and the Hara, the Khibi, the Pecora, the Sonigurra, and others of the twenty-four, have their names immortalized in the songs of the Bards. The derivation of Chauhan is.cecal with his fabulous birth,—the four-handed warrior Chatooor-bhooja, Chatoore-baha, Vira. Their name is often written Chaloun, also Chaluman. They are in every part of the N.W. Provinces, as well as in Malwa and Rajasthan; the chief of this tribe now in the Raat district of Ulwar claims to be the living representative of Prithi va Raj.— Tod.

CHAU, Hind. A market-place.

CHAUWA. Hind. A cleared space in which a Hindu cooks his food or performs any religious ceremony.

CHAU-KALASA. Mah. A section of the Sudra, so named from their having four (chau) ornaments (kalasa) to the bridegroom’s litter in a marriage procession.

CHUKAT. Hind. A window frame or a door frame.—Elliot.

CHUKI. Hind. A police station. Chaukidar, a watchman, policeman. Chaukidari, a tax levied to defray the cost of the village watch.


CHUULMOOGRA. Hind. Gynnoecrida odorata.

CHAU-MUKHA. Sansk. A quadruple image, or four images of a Jaina thirthankara placed back to back.

CHUJNI. Hind. Cleome pentaphylla.

CHUNSHI. Hind. Berchemia, sp.

CHUPAN PAL, or Pahal of Kashmir; shepherds who tend the flocks of other people.

CHUPAT or Chusara. Hind. A game played with dice.

CHU-PHIRA of the Shan race, means lord, ruler. It is the Taan-bwa of the Burmese.

CHURARAJ SCYTHE. Ptolemy, supposed to be the people of Khor, a territory S.E. of Ladakh, and eastward of the Bylta.

CHUR-ANGA. Sansk. Lit. a square altar or pedestal for the linga.

CHURAPUPPOO, Charul, also Chironji, of Hindustan, is the seed of the Buchanania latifolia, removed from the small stone or kernel of the achar or fruit; it is very palatable and nutritious, especially when roasted; is used also in medicine, and considered heating; one-seer and a half costs a rupee. The fresh fruit is very agreeable.—Gen. Med. Top. p. 131.

CHURASSA, Hind., from Char, four, is often applied to square tools. Churassa, a spiter for making holes in a wire-drawer’s plate. Churas bira, a narrow chisel. Churas mehli, a small square awl; Churas reti, a square or two-faced file.
CHAVICA BETLE. Miq. Betel vine.

This trailing plant is cultivated in many parts of India and through the Archipelago for its leaf (pan), which is used to enwrap ingredients—betel-nut, quicklime, aromatics, astrigents—presented to guests on ceremonial visits. The plant thrives best in a stiff soil. This is well Ploughed or dug, thoroughly cleaned and levelled, then enclosed with stakes and brushwood, and covered with a roof of south grass, Sescharum procurrens. Shallow trenches 2 feet wide and 5 or 6 inches deep, and about 5 feet apart, are next scooped out and filled with water, and when the ground is thoroughly saturated the planting begins. A full-grown plant is cut down to the roots, which are separated and laid horizontally, and the sprouts, which in three or four days arise from the joints, each forms a separate plant. Planting goes on from February to April, and each row receives two or three waterings daily. The stripping of the leaves commences about the middle of June, and continues regularly for about a year, when the site is abandoned. The leaves are packed in bundles of 200, called dholi, and the dholi are sold at from 15 pice to 14 annas per dholi, according to the quality and age of the leaf. Pan plants are grown to protect fences, calliadiums, and other foliage plants from sun and frost. See Betel.

CHAVICA ROXBURGII. Miq.

Piper longum, Linn., long pepper.

Dar-filil, ARAB., Chabai jawn, MALAY.

Fili-dur-dara, AR., Pers., Tabee, Tabe.

Pipul, Pippol, BENG., Katta terpal, MALEAL.

Pai-khoven, BURM., Pippaul, SANSK.

Pipal, Pipali, ALMAS., Krishna pipuli, SANSK.

Pipali, DEK., Tipil, TAM., SINGH.

Pipla mul, HIND., Pipal, Pipul, TEL.

This plant is extensively cultivated, but it grows wild on the banks of streams in the Circar mountains, S. Konkan, Bengal, Sylhet, and on the banks of the Irawadi. The dried catkins of the female plant form the long pepper of commerce.—Rozk.; Voyt; Useful Plants.

CHAWUL. Hind. Husked rice.

CHAWURA or Chaur, tribe once renowned in the history of India, though its name is now scarcely known, or only retained in the chronicles of the Bards. Of its origin, says Col. Tod, we are in ignorance. It belongs neither to the Solar nor Lunar races. The capital of the Chawura was the insular Deobunder, on the coast of Saurashtra; and the celebrated temple of Somnath, with many others on that coast, dedicated to Balnath, or the sun, is attributed to the tribe of the Saura, or worshippers of the sun. The Balabhi princes were succeeded in the rule of Gujerat by the Chaura, who finally established their capital, in A.D. 746, at Anhalwara, now Patan, and became one of the greatest dynasties of India. The last raja dying in A.D. 981 without male issue, was succeeded by his son-in-law, a prince of the Rajput tribe of Salonka or Chalukya, whose family were chiefs of Kalian in the Dekhan, above the Ghats.—Elphinstone's History of India, l. p. 411; Tod's Rajasthan, l. p. 101.

CHAWUT. MALAY. Back cloth from Artocarpus elastica.

CHAYAU. By. Chenopodium viride, Rosz.

CHAYA. JAP. A tea-house.

CHAYA. SANSK. A shadow, from Cha, a covering, or disappearance. See Surya.

CHAYA. BENG. Ærta janata, Juss.

CHAYAU-KA-YOE. BURM. Aroma rohutaka.

CHAYNPFOLLA. Tr. Trichosanthes cucumerina.

CHAYROOKA. MALEAL. Capparis Hecanea.

CHAY ROOT. ANGO-TEL.

Emboorel, TAM. Teberi velleo, TEL.

Rammissorem vayr, Chaya veyr.

This is the root of a small biennial plant, the Oldenlandia umbellata, which is largely used as a scarlet dye. It is extensively cultivated in Ceylon and the Peninsula of India, but also grows wild, and the Singhalese prefer the wild plant. The plant grows in light sandy ground near the sea, where its roots strike very deep. The colouring matter resides entirely in the bark of the root, the inner portion being white and useless. This root is of great importance to the S. Indian dyer, yielding a red dye similar to munjee, Rubia cordifolia. The celebrated red turbins of Madura are dyed with it. That of Madura is considered superior of its kind, but this superiority is probably owing to some chemical effect which the water of the Vigay river has upon it, and not to any particular excellence of the dye itself. Wild chay roots are shorter, and are considered to yield one-third or one-fourth more colouring matter than the cultivated root; this probably arises from too much watering, as much rain injures the quality of the root. Roots of two years' growth are preferred when procurable. It is said that chay root rapidly deteriorates by being kept in the hold of a ship, or, indeed, in any dark place. When cultivated, the minute seeds are gathered, together with the surface sand, and sown in land previously prepared. It is watered for a year, and then dug, and sells at Rs. 20 the candy of 500 lbs.
CHAY ROOT.

If left longer in the ground it increases in value, and does not require further watching.

When first sown, it is immediately watered with water in which cow-dung has been dissolved. This binds the surface, and prevents the seeds being blown about by the winds. The dyers in the Peninsula of India test the value of the root by mixing some of the pounded root and quicklime. If good, the mixture soon assumes a fine red colour, if the mixture become pale or brown, or if no change of colour take place, it is considered of little or of no value. If a white colour prevail in the inside of the bark and on the wood, it may be pretty certain that the root is spoiled; a green colour is a sure indication of its goodness (Rhode, MSS.). It furnishes the colouring matter for the durable red for which the chintzes of S. India are famous. Chay root forms a considerable article of export from Ceylon. It grows there spontaneously on light, dry, sandy ground on the sea-coast. The cultivated roots are slender, with a few lateral fibres, and from one to two feet long. Attention was drawn to it as a dye-stuff in 1796 by a special minute of the Board of Trade recommending its importation; but Dr. Bancroft's report discouraged its further importation.

Dr. Heyne's description of dyeing cotton yarn with chay root is as follows:

The yarn, being washed and untwisted, that it may not become entangled, and being so separated that every part may be equally penetrated by the colouring matter, is divided into bundles of thirty or forty threads, through each of which at the middle and extremities a cotton thread is loosely sewed, but so as to allow of every thread being exposed to the sun's rays when hung up, and the threads spread out on a bamboo.

The yarn is washed and cleansed in cold water, aided by half an hour's manipulation; it is then kept in water in covered vessels till it acquires a putrid smell, which takes place in from twenty-four to thirty-six hours, during which it is occasionally pressed and worked for a quarter of an hour together; it is then to be washed as clean as possible, beaten on a stone or earthen pot, and then hung up to dry.

While this process is going on, a lye is prepared of the ashes of the plantain or other tree in cold water. It is an object to have this lye of sufficient strength, which is determined by adding to a small quantity about half as much gingelly oil and giving it to a gentle motion. Should it turn immediately white, having no visible globules of oil swimming on the surface, it is good.

The quantity required of clean lye being poured off and strained, sheep dung, in the proportion of three ounces to a pint of lye, is dissolved in one-half of it, and this solution is again strained. The other half of the lye is mixed with half its bulk of gingelly oil and half as much tsiky (the saponaceous water procured during and retained from former process, being, in fact, a solution of soap in water); the two liquors are then mixed together, and if things are favourable a milky scum arises.

The proportions required for say half a pound of yarn would be,—gingelly oil, half a pint by two pints; tsiky (soapy liquor from former process), a quarter of a pint; sheep dung, two or three ounces.

The yarn having been thoroughly imbued with this mordant, is dried in the sun for some hours; it is then again soaked and dried as before. The same night it is treated with an additional portion of mordant, is put into covered vessels, and allowed to remain till morning. If any mordant remain, the same process is again repeated.

The yarn is at night moistened with the lye first prepared, diluted with one-third of its bulk of water, and put into covered vessels. The yarn in drying, it should be remarked, should have the position constantly changed, to prevent the mordants or lye from accumulating in the lower part.

Next day the yarn is spread out to dry on the bamboo. It is taken in at night, and treated with lye. This alternate soaking or thorough moistening with lye at night and exposure during the day are continued without intermission till the yarn appears saturated with lye, or, in fact, till the oil is converted into soap. This, if the lye is sufficiently strong, may occupy five days. This is ascertained by washing a few inches from off the bundle in water holding some astringent in solution; a whitish scum will arise, and it is from the feeling of this scum when worked between the hands, and the appearance of it afterwards, that they determine the state. The workman being satisfied of the completion of this process, the yarn is again moistened for one day, morning and evening, with much diluted lye or plain water. The yarn may be immediately washed, but the process is much improved by retaining it for some weeks, probably to allow the amalitzing matter to get fixed.

Before washing it thoroughly, the yarn is washed in a small quantity of water, which, receiving the soapy particles in solution, is retained by the dyer under the denomination of tsiky. It gradually acquires some consistency and a disagreeable smell. The yarn is then washed in a tank till nothing of the mordant seemingly remains, but the smell and a certain softness to the touch. Occasionally the whole process is again repeated.

The yarn being thus thoroughly impregnated with the mordant, a cold infusion of cassa leaves in water is made, and after some hours the yarn is put into the vessel immersed in such an infusion. The manner as to expose every thread to its action. It is allowed to remain therein all night. The quantity of leaf used in the infusion is so great that it resembles a paste.

Next morning the water is wrung out from the yarn, the adhering leaves are shaken off, and fresh ones with an equal quantity of chay root substituted; for half a pound of yarn a handful of each is sufficient. After two hours the yarn is laid in the liquor.

The same process is repeated on the third day; by this time the yarn usually changes to a reddish-yellow colour, with occasional red spots. A liquor in which to soak the yarn is now prepared of a handful of chay root in water.

On the fourth day the yarn will appear in the evening of a light red colour. It is to be treated in the same manner as on preceding days, and a Tullar liquor to the last-named is prepared for soaking it in at night.

On the fifth day the yarn is washed in a tank, and afterwards dried in the sun. As usual, for soaking it in at night, a liquor is prepared of
pounded cessa leaves, mixed with gingelly oil sufficient to form a dry paste, of which about half an ounce is mixed in the usual portion of water; after standing two hours, a handful of clay root is added, and the yarn immediately immersed for the night.

The mode of proceeding on the sixth day is precisely similar, but the liquor for the night is prepared wholly of clay root.

On the seventh day the yarn is again washed, dried, etc. On this and the next day it is immersed in a liquor composed of equal parts of cessa leaves and clay root in water.

The yarn is now boiled in a liquor composed of that strained from it at the last night's process, with the addition of clay root, a handful for half a pound of yarn, and sufficient water to give room to agitate the yarn freely. The pot containing the liquor is placed on the fire, which is kept up briskly till it begins to boil; it is then kept simmering till a rose-coloured froth rises and covers the surface, when the fire is withdrawn, and the pot with its contents allowed to cool gradually. During the boiling the contents of the pot are stirred quickly, so as to expose the yarn as little as possible to the action of the air. When cold, the yarn is taken out and washed in a tank, beaten as usual, and dried in the sun; its colour should be a bright and lively red. If it fail, it is occasionally brightened by steeping once more in a liquor composed with cessa leaves and clay root, the former being mixed first with a little gingelly oil. A temporary brilliancy is further given by putting it in a cold infusion of safer wood.—Rehbe; M. E. J. R.; Simmonds, See Dyes.

CHARYUKA. Maleal. Caparris Heynemana. CHE-ANX, literally six annas, a clan of the Garo, who are rated at six annas.

CHEAYTI. Beng. Agathotes cherayta. CHEBULIC MYROBALAN. Six kinds of chebulic myrobalsan are used in India, all known as Haliloh:—

H.-i-Zira, is the fruit dried when just formed, and the size of a cumin seed or Zira.
H.-i-Javi, the fruit dried when the size of a Jao or barley-corn.
H.-i-Zingi, the fruit dried when of a larger size, and black like a Negro.
H.-i-Chini, larger than H.-i-Zingi, and greenish.
H.-i-Asfar, the fruit near maturity, and yellow.
H.-i-Kabuli, the fruit at full maturity. Mature Kabul myrobolans sell for a rupee a piece in the Bombay market, under the name of Sarwar-i-Hindi.

CHECHAR. HIND. Rhins buckianela. CHECHER, under the Mahomedan system of land-tax, lands which had suffered from inundation or excessive rains, the rent of which was remitted for five or six years. See Khiraj.

CHEDA. Pers. A funeral pillar erected by the Brahui nomades, modern representations of the ancient Buddhist chodten or chaitya. They are, like the cairns or tsulai of the Afghans, piled over the graves of their holy men and martyrs.—Bullen.

CHEDARASI. Tel. Mollago spargula, L. CHEDDI or Cheri, T.M. A tree, a plant.

CHEDUL. TAM. The charcoal piano.

CHEDULU. Tel. White ants.

CHEDI, a kingdom in Samadhra to which Krishna resorted, once as a fugitive, and again as a conqueror. See Krishna.

CHEDUBA, a moderately high island, extending from lat. 18° 40' to 15° 50' N., its greatest breadth being almost 15 miles. Its N. peak is in long. 95° 31' E. Area, 120 square miles. It is a volcano island, lies off Arakan, and is about 1760 feet high; it was lifted 10 feet up about the year A.D. 1750. Population in 1872, 22,078. Petroleum is found in several parts of the island; and at the N.W. corner is a site, known as the volcano, from which issues an inflammable gas. The neighbouring seas of Cheduba and Ramree need careful navigation. Hallstead gives an account of it in Bl. As. Trans., 1841, x. p. 350. It was taken from the Burmese on the 27th May 1854.—Horsburgh; "Dr. Budj; "Imp. Gaz."

CHEDU RADDU DUMPA. Tel. Dioscorea pulechella, R. iii. 801. The name signifies 'bitter climbing tuber.' Not uncommon in the forests of the Manyam lands, in the hill country of Vizagapatam and Ganjam. Chedub bira, Buda amara, R. iii. Chedu potla, Trichosanthes cucumerina, L. CHEEEHEE, a Gujar tribe.

CHEEEL, also Cheer. HIND. Pinus longifolia. Plentiful on the lower hills of the Himalaya; its upper limit is 6000 feet.—Captain Gerard.

CHEEEL. HIND. A kite. The word is applied to the Hillasturr Indus, which is called the Sankaar cheel, or Siva's kite, and is known to Europeans as the Brahmany kite; also name of the Milvus ater or common kite of India, Malayana, and E. of Europe.

CHEENA. BENG. HIND. Panicum miliecum. CHEENAPU. TAM. Lagerstratiana Indica, Linn. CHEE-NEB. BURN. This tree, of maximum girth 4 cubits, and maximum length 24½ feet, is abundant in Tavoy and Mergui. When seasoned it sinks in water. The flowers have an intolerably fetid, sickening smell, hence its name. It is used by the Burmese for boxes, tables, etc., and is a long-fibred, tough wood when new, but rots readily.—Captain Dance.

CHEENEI, a subdivision of the Jat race in the Punjab. See Jat.

CHEEP. GUI. Mother-of-pearl shell; a corruption of the Persian sphi, any shell or mollusc. CHEER, a peasan of the Himalaya, also called Charr; Phasianus Wallachi. CHEERA MELLA. HIND. Phylanthus longifolius.

CHEERI. SANSK. Mimosa hexandra; also Wrightia antidysenterica.

CHEERONJI. HIND. Buchanania latifolia. Its Oil.

Charuli ka tel, HIND. Sare pappu nuna, TEL. Sar-e pappu yennai, TAM.

The kernels of the fruit are eaten by the natives of India to promote fatness; they abound in a straw-coloured, sweet-tasted, and limpid oil, which is seldom extracted. The tree grows plentifully.—Mad. Ex. Jur. Rep.

CHEESE.


Cheese is made by the natives of India, but that used by Europeans is imported, and is known in

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the market by names derived from the places of manufacture, such as single and double Gloucester, Stilton, Cheedar, Dunlop, Dutch, Cheshire, etc. Cheese is made from milk in China, also from a mixture of cream and butter, and called tsing- shwut. In Britain the chief season for cheese-making is from May to September, and it is carried on in nearly every county; but particular districts have acquired great repute. In Cheshire cheese, the salt is well mixed with the curd, and not merely rubbed on the outside. This, which is the most celebrated English cheese, is made in quantities amounting to nearly 14,000 tons annually. The average annual produce of cheese in Great Britain and Ireland is 80,000 tons, most of which is made in Cheshire, Gloucestershire, Shropshire, and Derbyshire. The rich cheese called Stilton is made in Leicestershire; it is not sufficiently mellow for use under two years old. Double and single Gloucester cheese is also well known. The former is made of the milk and cream, the latter of the milk and half the cream. Bath and York are famous for cream cheeses. Good cheeses are produced in large quantities in Holland. In Gouda cheese, which is considered the best in that country, matric acid is used instead of rennet. However, this cheese from Parma, in Italy, is skim-milk cheese, owing its rich flavour simply to the fine herbage on the banks of the river Po. Swiss cheese, especially that of Gruyère, is pleasing to some tastes. It is flavoured with herbs. — Toulminson, p. 359; Faulkner; M'Culloch's Commercial Dictionary, p. 271; Statist. of Commerce.

CHEESE-MACARONI, Ju-sien, Chinese, is made by the Chinese.

CHEETA. HIND. The several leopards and panthers of India are so named. The word, meaning spotted, is so used by the natives of India, but they prefix another word to indicate the particular animal intended. Generally, by the word cheeta is meant the Felis pardus, Sechb. The F. pardus is called the tewwa, also chita and chita-bag; it is the larger cheeta or pard or panther, and the hunting leopard the shikari cheeta. The black or kala cheeta is supposed to be kept to hunt the Tiger. The smaller variety, the leopard, is the gor-bacha or bor-bacha, or bibia-bag. The hunting leopard, the Felis jubata, is carried to the field on a flat-topped cart without sides, drawn by two bullocks. Each animal has two attendants, and is loosely bound by a collar and rope to the back of the vehicle, but is also held by the keepers by a strap round the loins. A leather hood covers their eyes. By skilful management the cart approaches within two hundred yards of the game. The cheeta is then unhooded and loosed from its bonds, and it drops quietly off the cart. It approaches them at a slow, crouching canter, masking itself by every bush and inequality of ground. As soon, however, as they begin to show alarm, he quickens his pace, and is in the midst of the herd in a few bounds, rolls over the one he fixes on, and in an instant is sucking the life-blood from its throat. The moment that the deer is pulled down, a keeper runs up, hoods the cheeta, cuts the victim's throat, and, receiving some of the blood in a wooden ladle, thrusts it under the leopard's nose. The antelope is then dragged away and placed in a receptacle under the cart, while the cheeta is rewarded with a leg for his success. Jerdon regards as one species the three cheetas of India, viz. the two varieties of Felis pardus, the panther and the leopard; also the black cheeta or black leopard, Felis melas, Debr. The hunting leopard or shikari cheeta is the maned leopard, Felis jubata, the parent of the ancients.—Schreber; Mundy's Sketches in India.

CHEETA-MEENA, a branch of the Meena race, from whom spring the Mair or Meera clan, the mountaineers of Rajputana, one of the aboriginal races of India, whose country is styled Mairawar or 'the region of hills.' The Mair branch of the Meena is also called Mairote and Mairoi. Mairwara is that portion of the Aravalli chain between Komulmir and Ajmir, a space of about 90 miles in length, and varying in breadth from 6 to 20. Rajputana rises from 3000 to 4000 feet above the level of the sea. Meera is 'a mountain' in Sanskrit; Mairwara and Mairote, 'of or belonging to the mountain'; the name of the Albanian mountaineer, Maimote, has the same signification. The Meena race consists of as many branches as their conquerors, the Rajputs. All these wild races have the vanity to mingle their pedigree with that of their conquerors, though in doing so they stigmatise themselves. The Cheeta-Meena accordingly claim descent from a grandson of the last Chaulan emperor of Delhi. Unail and Anoop were the sons of Lakha, the nephew of the Chaulan king. The cocoonat was sent from Jeymosulm, offering princesses of that house in marriage, but an investigation into their maternal ancestry disclosed that they were the issue of a Meena concubine, and their birth being thus revealed, they became exiles from Ajmir, and associates with their maternal relatives. Unail espoused the daughter of a Meena chieftain, by whom he had Cheeta, whose descendants enjoy almost a monopoly of power in Mairwara. The sons of Cheeta, who occupied the northern frontier near Ajmir, became Mahomedans about the 15th century, when Dudoth, the sixteenth from the founder of the race, was created Dawad Khan by the hakim of Ajmir; and as Aithoon has his residence in the Meena region, he is considered the chief of the Mairotes. Aithoon is still the chief town of the Mair race. Chang, Jhak, and Rajasi are the principal towns adjoining Aithoon. Anoop also took a Meena wife, by whom he had Burrar, whose descendants have continued true to their original tenets. Their chief places are Burrar, Bairawara, Mundilla, etc. The Meena were always notorious for their lawless habits; and importance has been attached to them so far back as the period of Biscidico, the celebrated prince of Ajmir, whom the Bard Chand states to have reduced them to submission, making them carry water in the streets of Ajmir. Like all mountaineers, they break out whenever the hands of power are feeble. In the autumn of 1882 the Meena committed a cruel outrage in the Jeypore territory.—Tole's Rajistan, i. p. 681.

CHEETO, a famous Pindari chief of the early part of the 19th century, who would not yield to the British, but sought refuge in forests, where he was deserted by all his followers. His mangled body was at length found in a tiger's lair, with his sword, and a letter-case holding some important papers.—Heber, ii. 551.
CHEITUL. Hind. The spotted deer. Axial maculatus.
CHEITZ. Mahr. Tamarindus Indica, Linn.
CHEGA. Tel. Sanseveria Roxburghiana.
CHEGA GADDA. Tel. Vanzueria spinosa.

CHEGO, a race in Malabar, who seem to be noticed by Wilson as the Chegavan or Chekvavan, and whom he describes as a man of low caste, commonly a Tair, one whose occupation is drawing toddy. The tradition is that the Chego came originally from Ceylon, where they belonged to the military caste. The Chego say that in the time of Cheram Perumal, a washerwoman, whose house adjoined that of an Ajari (carpenter), being occupied as usual in washing a cloth in water mixed with ashes, and having no one at hand to hold the other end of it, called to a young daughter of the Ajari, who was alone in the house, to assist her. The child, not knowing that this was an infringement of the laws of her caste, did as she was requested, and then went home. The washerwoman was emboldened by this affair to enter the Ajari’s house a few days afterwards, and upon the latter demanding angrily how she dared to cross his threshold, the woman answered scornfully that he belonged now to the same caste as she did, since her daughter had helped to hold her cloth. The Ajari, learning the disgrace that had befallen him, killed the washerwoman. Upon this her friends complained to Cheram Perumal, who espoused their cause, and threatened the carpenters, whereupon the latter combined together to take refuge in Ceylon, where they were favourably received by the king of Kandy. Cheram Perumal begged the king of Kandy to save the back, promising to do them no injury. The Ajari did not place entire confidence in these promises, but asked the king to send with them two Chego and their wives, to witness Cheram Perumal’s conduct towards them, and to protect them. The king granted their request, with the stipulation that on all occasions, such as weddings and deaths and other ceremonies, the Ajari should bestow three measures of rice on each of these Chego and their descendants, as a tribute for this protection,—a custom which still exists. If the Ajari is too poor to afford the outlay, he is still obliged to present the requisite quantity of rice, which is then given back to him again,—the rights of the Chego being thus maintained. From these two couples all the Chego of Malabar are said to be descended. This caste comes next below that of the Sudras, but is considered much less honourable. In times of civil war and rebellion, the Chego are bound to take up arms for the lawful sovereign; and some princes employed them as soldiers on other occasions, if they had not a sufficient force of Nairs. Their principal occupation is that of drawing coconuts toddy, which is compulsory on their caste. The Chego are subdivided into two castes, the Chego and the Tewn Chego.

CHEHAL TAN, properly Chahal Tan. Near the Jahan Nuna, in Shiraz, is a building called Chahal Tan, ‘the forty bodies or persons;’ another the Haff Tan, or ‘seven persons,’ from the number of holy men there buried.—Onslow’s Travels.

CHEHIL-WASTI, or captain of forty, amongst the Cherihi, a nomade race who occupy the Tothi and Hotuki countries in summer, and the Daman or skirts of the Sullman range in winter. In their migrations, they appoint a cheli wasti, or captain of forty, and a director-general.

CHEHOORO. Sing. A pale brownish-coloured cordage of Birbhum, coarse, and of moderate strength.—Royle.

CHEIRANTHUS ANNUUS. Linn. Na-farmani, ... Hind. [Tood sadaf, ... Hind.]

The natives of India recognise five kinds of seed, which they distinguish by their flowers. Lab or surkh, red, and zard, yellow, appear to be wallflower seeds. Safaid (white), nafarmani, and nila (blue), are stock seeds.—Powell’s Handbook.

CHEIRANTHUS CHEIRI, wallflower, from Cheir, the hand, and Anthos, a flower, derives its English name from growing wild on old walls and ruins in England. It is of a light yellow colour, but, when cultivated in gardens, assumes a rich dark tint, mixed with brown; the double variety of a yellow colour, and striped with deep orange. In the Punjab it is called Lahori subi. It has small linear, acute, reddish seeds (todi surkh, tal toodi), and the flowers said to be cordic and emenagoge, are used in paralysis.—Powell.

CHEIRONECTES, the frog-fish of the British, in India, belong to the family of Lophidae or anglers, and are met with in many seas. In this group the bones of the carpus form arms that support the pectoral fins, and enable these fishes to walk along the moist ground, almost like quadrupeds. Cheironecites immaculatus, Ruppell, has feet or claws rather than fins. Hartwig mentions a frog-fish of the Asiatic islands and the southern hemisphere, remarkable for its hideous appearance and its capability of surviving for several days on land.—Tennent’s Ceylon, p. 550. See Fishes.

CHEIROPTERA, the bats.

Chauve souris ... Fr. Nottoli, ... It. Fleder mauser, ... Gen. Vespertiliones, ... Iat. Gadihil, ... Hind. Shub para, ... Pers. Pipistrelli, ... It. Trinjan, ... Tam.

A sub-order of mammals of the order Primates.

The bats, or fitter name, derive their scientific name from the two Greek words, Cheir, a hand, and Pteron, a wing, from the circumstance that a membranous fold of their skin, commencing from their neck, spreads out between their fore feet and their fingers. They include four families, viz.,

3 Gen,—Pteropus, 4 species; Cynopterus, 2 species; MacroGLOSSUS, 1 species.

Fam. Vampyridae, Vampire bats, Sub-Fam. Megadermatinae.

1 Gen,—Megaderma, 4 species. ... Sub-Fam. Rhinolophidae.

5 Gen.—Rhinolophus, 11 species; Hipposideros, 10 species; Cynopterus, 1 species; Rhinopoma, 1 species; Nyeretia, 1 species.


1 Gen.—Taphozous, 5 species. ... Sub-Fam. Noctilionidae.

2 Gen.—Nyctinomus, 1 species; Cheirodomes, 1 species. ... Fam. Vespertilionidae. Sub-Fam. Scotophilinae.

3 Gen.—Scotophilus, 11 species; Noctulinia, 1 species; Nycticeius, 8 species. ... Sub-Fam. Vespertilionidae.

8 Gen.—Lamprologus, 1 species; Murina, 2 species; Kerivoula, 5 species; Vespolina, 7 species; Myotis, 6 species; Plecotus, 3 species; Barbastelus, 3 species; Nyctophilus, 1 species.

Some of the frugivorous bats are eaten in the East. The Indian fruit-bats are Pteropus Edwardsi and Pt. Leschenaultii; that of Australia, Pt. poliocephalus; and Cynonotus collaris is the collared fruit-bat.

CHEITUN, a Brahman of Nadia, who in the
beginning of the 16th century introduced the reforma of Rama-nand into Bengal.

CHEKAVAN or Chekavan, Mal. A toddy-drawer in Malabar.—Wilson, See Chego.

CHE-KIANG, a province on the east of China, of 57,000 square miles. It is washed by the China Sea. Its chief towns are Hang-chau, Niumg-chot, and Wau-chao.

CHE-KIANG RIVER, or Pearl river, disem- bogue after a course of 500 miles. As it passes Canton, it divides into two branches, which, embracing the island of Honan and the Flat islands, re- unite below the Flat islands to form the true Pearl river, which flows on in a broad stream, receives many tributaries, and finally empties itself by many mouths into the sea below the Bogue Forts. It drains 150,000 square miles. The channels are narrow, but most of them are navigable by boats to all the large towns in the province. One, the Lung-tung and Kwang-ai.

CHEKONADI, Tel. Cuddapah India, Lam.

CHEKURI TIVVA. Tel. Pentatropis microphyla, R. ii. 35.

CHEL. HIND. Cannabis sativa.

CHELA. HIND. Alangium decapetalum.

CHELAH means literally an adopted depend- ant. It neither applies to a slave nor an adopted child, but to a person who is admitted to the claims of a dependent relation. In use, it means a disciple, a pupil, a slave. Tod (ii. 608) says it includes servitude or domestic slavery, but implies at the same time treatment as a child of the family, or disciple. Tod mentions that at Bhynsor the head of the establishment came forth to bestow his blessing on him and to beg something for his order. He, however, in the first place elected Colonel Tod one of his chela, or disciples, by marking his forehead with a tika of bhaaboot, which he took from a platter made of dhak leaves. Tod gives the name: Arctocol, Central India.

CHEL-PIPU. Beng. Calingia scibifera.

CHELIDONIUM MAJUS. Smith. Chi-mu, ... Chin. | Celandine, ... Eng.

Its use is as an expectorant.

CHELIFER. Amongst the insects which infest books in India are two genera, which are usually regarded as accomplices in the work of destruction, but which, on the contrary, pursue and greedily feed on the larvae of the death-watch and the numerous acari which are believed to be the chief depredators that prey upon books. One of these maligned genera is a tiny tailless scorpion (Chelicer), of which three species have been noticed in Ceylon, the Ch. librorum, Temps., Ch. oblongum, Temps., and Ch. acaroides, HerriauII, the last of which is believed to have been introduced from Europe in Dutch and Portuguese books. Another genus of book insects is the Lepisma, the fish insect genus, and called so by Fabricius from its fish-like scales, which are the chief oreatures which feed on the acari and soft-bodied insects that infest books. There have only been two species described, viz., the L. nivo- fasciatus and L. niger, Temp. It has six legs.

CHE-LING-TCHA-POO, a division of the country of the Kalkas, in the district of Pola, adjoining the Russian district Selingsky.

CHELDA DUDUGA. Tel. Unona disolor.

CHELLAWN, HIND., properly Chilian. An invoice, a passport, from Chilans, to forward.

CHELLU. Tam. Termites, white ants.

CHELLUMBRRUM, a town in S. Arcot district, famous amongst Saiva Hindus for its shrine, called Sabanaike Koll, to which pilgrims repair. It was built by one of the kings of Chola Mundaum. The Hindus of Ceylon and the Natta Kotta mer- chants of Madura contribute largely to its support. The single blocks of granite in the gateway and roof are each 30 feet long and 5 feet square. In one part there is a roof supported by 1000 solid granite columns; and the lights from the Gopuram, 122 feet high, can be seen at sea 10 miles distant.

CHEL-MAR-ZAI, one of the four divisions of the Med, a seafaring and fishing population on the seaports of the Makran coast; the other three divisions are Guzbar, Hormari, and Jellar-zaL.

CHELMERI. HIND. Cica disticha.

CHEL-MON ROSTRATUS. Lin. One of the archer fishes. Chetolozon rostratus, Shaw, according to Sir J. E. Tennent, is the archer fish of the fresh waters of India. On seeing a fly settle overhead on a leaf, it propels a drop of water and brings it down. See Chelotol oxotoxes.

CHELONIA, an order of reptiles, known as tortoises and turtles, generally considered the first by zoologists. They are also termed Testudinata, from testudo, the Latin for a tortoise. They belong to the section Cataphracta or shielded reptiles; and the families, genera, and species in S.E. Asia are as under:—

SUB-CLASS, REPTILIA PROPER.

The Order of Tortoises—Chelonia.

1. Land Tortoises, Testudinidae.

Testudo elegans, Schöpf., Peninsula of India, Ceylon.
T. Horsfieldii, Gray, Afghanistan.
T. elongata, Blyth, Gamboja, Arakan, Mergui.
T. indica, Gmel., Ceylon.
T. radiata, Shaw, Madagascar.
T. stellata, Vizagapatam.
T. platynotus, Blyth, Burma.

2. Freshwater Tortoises, Emydidae.

Cuora amboinensis, Daud, Eastern India.
C. flavomarginata, Gray, China, Formosa.
C. trifasciata, ... China.
Cyclemys Oldhami, Mergui, Gamboja.
Syndactyla Monnieta, Ceylon-China.
Notobrachys platynota, Singapore.
Geocemydia spinosa, Tenasserim, Pegu.
G. grandis, Gamboja.
G. tricarinata, Blyth, Ceyhassa.
Emys ocellata, D. E., Tenasserim, Pegu.
E. Bolet, Gray, Southern China.
E. Thurgii, ... Bengal, Penang.
E. mutica, Canton, Chusan.
E. nigricans, Gray, Southern China.
E. muelhah, Blyth, Java.
E. nigra, Blyth, Tenasserim.
E. sebae.
E. Sinensia, Gray, Canton, Formosa.
E. crassieoliis, ... Mergui, Malay Peninsula, Gamboja.
G. Reevei, Ceylon-China, S. China.
E. trijuga, Schweigg., Peninsula of India, Ceylon.
E. macrocephala, Gray, Siam, Gamboja.
E. Hamiltonii, ... Lower Ganges.
Pangshura teeta, ... Dekhan, Indus.
E. tentoria, Schleg., ... S. China.
E. flaviventer, Glhr., Bengal?
E. Smithii, Gray, Panjab?
Batagur faska, Gray, Gamboja, Irawadi, Penang.
E. Thurgii, ... Central India.
E. Berdmorei, Blyth, Pegu.
E. ocellata, Dunn, Calcutta.
E. trivittata, ... Moulineim.
E. bicarinatus, Gray, Nepal, Moulinein.
E. Elliott'i, ... Kistna River.
E. allinii, (Bantor, Malay Peninsula.
E. bhongoka, Gray, Nepal, Assam.

Platysternum megacephalum, Gray, China, Pegu.
CHEM MUNDO.

CHEM PURI.

CHEM VON. Tel. Euphorbia tirucalli, L. cuttanamu. See Cuttanamu.

CHEMULA or Chemula, the Semylla of Greek writers.

CHENA. Hind. Panicum milliaceum. It is sown and reaped in the hot season after all the rabi crops have been cut. It needs much water, hence the saying—

‘Chena j ka lena, Chondhal pani dena, Byar chalo te, na lena na dena.’

To get the chena crop, water it fourteen times. If a blast strike it, then neither harvesting nor selling. It is a very precarious crop.—Elliott.

CHENAB, next to the Sutlej, is the largest of the five great rivers of the Panjab. It is also called the Trimab. Ptolemy called it Sindabal or Sandablis, but the Greek historians of Alexander called it Akesines. Its source is in the high land of Tibet, about lat. 32° 50’ N., and long. 77° 40’ E., near the Bara Lacha pass. The Chandra and Bhaga rise on opposite sides of the Bara Lacha pass, which is in lat. 32° 45’ N., and long. 77° 22’ E.; and as their junction form the Chenab, they give also its Sanskrit name, Chandrabhaga, or moon garden. It runs north-west to Murumurdwam; south-west to its confluence with the Jhelum, thence south-east to the Sutlej, or continuation of the Sutlej. Its length to the Ghanta is 765 miles. It descends at the average rate of 40 feet per mile. Its estimated elevation for the first 200 miles is 5000 feet. It receives the Suruj Bhung, Murumurdwam, and the Dharl, all short streams. It becomes navigable for timber rafts at Aknur. Above Darwas it is a rapid river, running through a deep rocky channel.

The portion of it which passes through the territories of the maharaja of Kashmir is about 200 miles long. From the junction of the Chandra and Bhaga at Tanki, in British Lahul, to Aknur, where the river debouches upon the plains, its length is about 300 miles. The fall, according to General A. Cunningham, is 34 feet per mile from Tanki to Kishtawar, and 26 feet per mile from Kishtawar to Aknur. The flora of the upper valley agrees in most respects with that of Kumawar; lower down there is an approach to the vegetation of the Upper Himalaya. In the basins of the Chenab and Jhelum are four distinct races, but all of Aryun origin, viz. the Dogra, Pahari, Kashmiri, and Chaibati. The races on its valley call it Sanda Bhung, Jenab, Ghenh, Jenal, and Ghenal.—Powell, 532; Thomson’s Tr. 348; Cleghorn, Rep. 134, 153; Panjab, i. 10, 11.

CHENA CULTIVATION. ANGLO-SINGH. In Ceylon, Chenab means scrub land, patches of forest, burned, cleared, and cultivated for two or three years, and then abandoned and allowed to become forest lands again. This destructive form of cultivation is known as Kumari on the western coast of India.—Tenent; Dr. Cleghorn. See Kumari.

CHENA-GHANRI. Beng. Xyris indica. This is one of the large species of xyris used in house-building; plentiful in the Ramce and Sandoway districts.—Cal. Cat. Ex. 1862.

CHENK PURI, also Thungon-Puri. BURM. The elytra or wing-cases of the genus Buprestis, order Coleoptera. See Beetles. They are used for ornamenting the dress and person; 5000 maunds procurable during the rains. Price in Akyab, from 6 to 7 rupees per maund.
CHENNA.

CHENNA, also Chinna. TAM. Small. Many towns seem to be called from this word.

CHENNA. HIND. Cicer arietinum, Linn. This is called Bengal gram, in contradistinction to Koolti or Madras gram, Dolichos uniflorus, Properly Chann.

CHENNAI. Tel. Lagerstromia macrogyna, R, and L. parviflora, R. ii. 505.

CHENAPPAPA NAYAKKAR, father-in-law of the Nayakkar of Chingleput, a petty local chieftain; a feudatory of the Chandrangi raja, from whom the English obtained possession of a little fort on the coast, which they converted into a fortified factory, and it became the fortress and town of Madras, which is known to the native inhabitants as Chenapatam.

CHENNAT NAIR, a forest near Palghat, with well-grown Terminalia glabra, Pterocarpus marsupium, and Inga xylocarpa trees.

CHENPODIACEÂ, the goosefoot tribe of plants, many species of which grow in the S. and S.E. of Asia, of the genera chenopodium, beta, bitumin, salticaria, spinacia, basella, saolosa, and atriplex. Several species are used for culinary purposes. Garden orach (atriplex), chard-bet, beet, mangold wzel, belong to this order, and soda is obtained from species of salticora and salticaria. Ch. album (beta sag), common in Bengal, is used as a pot herb; Ch. laciniatum, an erect annual, and Ch. virede, of which there are two varieties. Ch. ollicos, stinking goosefoot, smells like putrid salt fish, and exhales ammonia gas. It is employed as an emenagogue and astringent.—D'Ohne, p. 523; Voigt.

Chenopodium album, Linn. Kulf, . . . . ARAB. Ructanala, . . . SANKE. Kuhlje baji, . . . . DUKH. Parupu kire, . . . TAM. Bhata, Bathu, . . . . HIND. Pappu kura, . . . . Tel. Bathu, . . . . PANJ. Chakra varli kura, . . . .

Grows all over India, coming up with the spring crops in N. India and the Punjab hills. The poorer people use it largely as a pot herb. Chenopodium auricomum, Lindley, a tall perennial herb of the Darling river to Aramuri's land, furnishing a nutritious and palatable spinach. It can live in arid desert regions.—V. Mueller.

Chenopodium bitumin, R. Mueller, Bitumin virgata, Linn. An annual herb found from S. of Europe to India, cultivated as a spinach plant; fruits furnish a red dye.—V. Mueller.

Chenopodium rubrum, Chih-hien and Hentsai of the Chinese. Much cultivated in Hu-peh, in China, as a vegetable.

Chenopodium viride, Roxb. ii. 58. Rockeb el jammel, ARAB. Betoya, . . . . BENG. Beto sag, . . . . BENG. Chawut, . . . . BY.

Chenopodium vulgare, Bhatwa of Panjib. Goosefoot is found in the Sutlej valley between Rampur and Sungnang, at an elevation of 7000 feet. Entirely a rain-crop; grows to six feet high; seeds considered nourishing.—Clephorn, Report.

CHEN-PO. CHIN. Michelia champaca, Linn. CHEN-SUAR, a wild, half-savage forest tribe inhabiting the Eastern Ghats of the Peninsula of India. They are known to their settled neighbours as the Chenchu kulam, Chenchwar, and Chensuar. They seem to be the people whom Wilson names Chenchi-yadu (vadu, Tel., a man). They are about 1200 in number, and dwell in the tract of jungle covering the westernmost range of the Eastern Ghat line, between the Penmar river and the Kistna, and known locally as the Nulla-Mulla and the Lankamulla; occupy the Palencondah hills to the west of the Nellore district, but chiefly in the Nandikandah pass, on the road between Cumbum and Ghooty, where they serve as watchmen and guides. They inhabit clearings in the forest, live in beehive-shaped huts like the African, Nicobarians, and other of the ruder Asinian tribes. These are of wicker work, with walls about three feet high, and a conical straw roof, with a screen for a door. The women dress like the wandering female basketmakers, whom they resemble in features. They speak Telugu with a harsh and peculiar pronunciation. They look on weaving and other manufacturing arts with contempt. Some of them occasionally visit Nellore, living in patchwork tents, from which they are named Bonta Chenu. They bring for sale bamboo seed and bamboo flutes. They never engage in cultivation, but live by hunting deer, wild hog, hares, using darts which they throw by hand. They also collect forest products, wax and honey; and a few rear sheep, goats, and cattle. Their food consists of all kinds of flesh, with bamboo seed, wild roots, and ragi, when obtainable. A few firearms are in their possession. They build small round huts of stone and grass, in clusters of ten or so. The men are almost nude; they wear piece of cloth about their loins, sometimes a cloth round the waist. The more savage members of this race are said to wear leaf-/prongs, and never to leave the forests. Their colour varies from dark brown to black. The men are shorter than the neighbouring Hindus, slightly but well made, except above the knee, which is large, and the leg. The features of the men are small and animated; cheek-bones higher and more prominent than in the Hindu in general; nose flatter, and nostrils more expanded; eyes black and piercing. Their hair is more shaggy and less straight than that of the Hindu, and they wear it very long, and rolled up at the back or near the crown like that of a woman. They bury their dead, but sometimes burn; and the Nandial Chenchwar, like the Tartar, carry the deceased's weapons to the grave. They use the spear, axe, or matchlock, or bamboo bow and reed arrow tipped with iron. They are patient hunters. In the lower Ghats, like the Chensuar, are a continuation of the wild forest Surah of the mountainous tracts further north in the line of the Eastern Ghats. They have large dogs; and a few are employed as hill police in the pass from the Kuman to Badwail. Vocabulary of six of the non-Aryan tongues—the Kond, Savara, Gadaba, Yerukala, and Chentsu—are given in Beng. As. Soc. Journal for 1856.—Newbold in R. As. Soc. Journ. 1845; Logan in Journ. Ind. Arch.

CHENSU KARRIR, a wandering race mentioned by Buchanan as residing in the hilly tracts near Coimatore. They are described as without houses or cultivation; but by shares, or with the bow, catch birds or large game, which they dispose of for rice. The white ant is said to be used by them for food. They approach their game under the shelter of a cow or buffalo, which they have taught to stalk. Their language is a dialect of the Tamil, with a few Canarese words intermixed. Those near towns learn the use of Telugu words. A Tamil man is unable to understand their language. A few reside in little huts out-
side on the outskirts of villages, and have a little blanket, but their ordinary clothing is a loin-cloth. In the denser forests they dwell in caves or hollows of trees, or under the shelter of a hut made of branches of trees, and use only a few leaves for covering. They describe the Animalley as their original country. They seem to have disappeared from that locality.

CHERPANG. Haiyu, and Kusunda, three uncivilised Bhot tribes who reside amid the dense forests of the central region of Nepal, to the westward of the great valley; they dwell in scanty numbers, and nearly in a state of nature. They live in huts made of the branches of trees, on wild fruits and the produce of the chase. The Chepang are slight, with large bellies. Mr. Hodgson says they are of Mongol descent. Their language is akin to the Lhopa. The Chepang, Haiyu, and Kusunda seem to belong to the Rawat group of frontier populations. They are named by Mr. Hodgson, the Durre, Denwar, and Brahmo. They occupy the districts where the soil is moist, the air hot, and the effluvia miasmatic.—*Tatham.*

CHEPATI. HIND. Cakes made of wheaten flour and water or milk, baked on the griddle. They form the principal article of diet of the Hindus of N.W. India and of the Rajput races.

CHEPU-NARINGI. TAM. *Indigofera eunamphylla, Linu.*

CHEPURU VAELLU. Tel. A grass grown in Kinnedy, from the roots of which neat table mats and teazing-brushes are made.

CHEPU TATTA. Tel. This term is applied to several plants. *Desmodium polycarpum, D. C. Hedysarum purpureum, R. iii. 358.* Coldenia procumbens, *Asarum Europoeum,* and *Elytraria crenata.*

CHER, in the Panjab, statute labour.

CHERA or Kerala, an ancient dynasty in the south of the Indian Peninsula. They seem to have risen on the fall of the Pandiya sovereignty, and to have ruled over a small state between the territory of the Pandiya and the western sea. It comprehended Travancore and parts of Malabar, Coimbatore, and Salem. It is mentioned in Ptolemy, and may have existed at the commencement of the Christian era. It spread at one time over the greater part of Karnataka, but was subverted in the 10th century, and its lands partitioned among the surrounding states. The Chera princes appear to have been established first at Scandapura in the Malabar coast, and subsequently at Talad or Dalavanpura on the Caunery and Mudi-gondapattam, perhaps the same as the modern village of Mujugonoor, on the road from Seringapatam to Koonghul. The Carura regio Cechoborthi has been supposed to indicate that Carour in the Coimbatore country was one of their earliest seats. They were powerful in the 4th and 5th centuries. Their 16th king boasts of having conquered Andhura and Kalinga; and their 20th king, Kong-nut Raya i, boasts of having conquered Chola, Pandiya, Dravida, Andhura, Kalinga, Varada, and Maharstra desas, as far north as the Nerbadda river. *Vira Chola* (A.D. 927-977) seems to have checked their victorious career; and Ari Vera Deva, another Chola king (A.D. 1004), to have completed their destruction. He also boasts of having carried his victorious standard over the Nerbadda, and to have been a benefactor to Chillumaram. After this, the Bollala of Mysore, and the Chalukey in Central India, seem to have become dominant.

The Kongu Desa Rajakal is a book describing the series of the Kongu or Chera princes, from Vira Raya Chakravarti to raja Malla-deva.—*Elphinstone's History of India,* p. 414; *As. Res. xv.* p. 40; *Ferguson,* p. 321; *J. R. As. Soc. viii.* p. 5. See Kerala; Narapat; Pandiya.

CHERRAITA. HIND. Valuable bitters, equivalents of gentian, obtained from the genus *Ophiopogon,* *Excama,* *Agathotes,* *Adenema,* and *Andrographis* (Justinia).—*Dr. Coghorn, Ed. New Phil. Mag.* No. 6 of 1856. See Chirretta.

CHERRAKEN. JAV. Croton seed.

CHERAN, a name of the Chera race, who ruled at Kerela on the Malabar coast.

CHERAT, a hill cantonment and sanatorium, near the Markultan pass in the Peshawur district, 84 miles from Peshawur in the Panjab, in lat. 33° 50' N., and long. 72° 1' E., on the west of the Khatak range. It is 4500 feet above the sea. —*Imp. Gaz.*

CHERI. TAM. A town, a village, a hamlet. Paraicheri or Parcherry, the Pariah district of a town, Tellicherry, Pondicherry.

CHERIBON or Cherimal, a mountain in lat. 6° 54.5' S., and long. 108° 26.4' E., in the north of Java, 10,538 feet high.—*Horsburgh.*

CHERIMELLE, Cheramella, or Harrippal. BENG. Cheremin, MALAY. *Cherambola,* PORT. In Japan this fruit is pricked all over with a needle, and laid in water. For use it is boiled up with sugar, and kept with syrup in glass bottles. These fruits are often eaten with tea. They are sometimes eaten unmarried with a little salt, and may likewise, when in that state, be preserved in salt. Sometimes they are eaten ripe, and have then a subacid taste.—*Thunberg's Travels,* ii. p. 292.

CHERIMOYA. Anona cherimola.

CHERIN. — a form of divination.

CHERKH.Pers. A breed of hawks used in Persia in hunting antelope. They are trained to fly at and pounce on the deer's head, so as to enable the dogs to come up with the antelope.

CHERROOTS, the dried leaves of the tobacco plant, wrapped in small rolls for the purpose of smoking. In Europe, Havana cigars are usually reckoned the best. In India, Manilla cigars are most esteemed. Imitation Manillas, Chinsurah cheroots, Lunka, Dindigul, and Trichinopoly cheroots are the chief kinds manufactured in India.

CHERRAPOONJEE or Charapunjee is a hill station in the Khassya hill district of Assam, 4588 feet above sea-level, in lat. 25° 15' 58" N., and long. 91° 46' 42" E. Its average rainfall during 1874, 1875, and 1876 was 868.41 inches, and in 1861 the fall was stated to be 805 inches. The station stands on the first of a series of hills that rise abruptly from the plain of Bengal, and catch the vapour of all the clouds that roll up from the sea. The principal race in the neighbourhood are the Khassya, an able-bodied people, who differ little from the Garo. They are arranged in petty relations in the Khassya hills. They build their houses on piles; they trap fish like the people of Borneo, Java, and Sumatra. A bed of coal is raised on an insulated summit; sandstone, composing here as elsewhere the base of the coal-measures, forms the lofty front of the mountains facing the plains. The lower beds consist of a
CHERU-PUNA.

Coarse conglomerate, resting on greenstone, after the manner of similar conglomerates in nearly all countries in which their fundamental rocks have been observed. Between Rinhut and Cherra-poonje, and at other places in the hills, are bridges made of the fibre of the India rubber tree. The Khasya race inter their dead in places where they erect oblong pillars, hewn or unhewn, three to thirteen in number.—*B. As. Trans.* iii. p. 25, xii. p. 614; *Dr. Buiss's Catalogue; Latham.*

**CHERU NALMAPPELLA.**

**CHERO-POONA.**

A light brown-coloured wood of Travancore, sp. gr. 0.483, used for making canoes.—*Col. Frith.*

**CHERO-PUNA.**

A dark-coloured wood of Travancore, used for building houses.—*Col. Frith.*

**CHERO-TIMBA.**

A dark-coloured wood of Travancore, sp. gr. 0.843, about 3 feet in circumference, used for house-building, tools, etc. —*Col. Frith.*

**CHERRU.**

Tel. A tank.

**CHERRU-PINAKOTTE.** Can., Maleal. Calophyllum calaba.

**CHERRY.**


The fruit of the Prunus cerasus. The bird cherry, *P. padus*, occurs in the Panjab, the N.W. Himalaya, and Afghanistan. It has a mawkish taste.

**CHERRY LAUREL.** Cinnamomum cerasus.

**CHERRY-STONE OIL.** Oil of Prunus cerasus.

**CHERRY TREE OF Norfolk Island.** The bark is used for tanning; and it furnishes one of the most useful woods.

**CHERSYDRUS.** A genus of sea-snakes. *C. annulata* and *C. granulata* occur in the sea at Madras. See Hydrida; Reptiles.

**CHERU.** Aborigines in Ghazipur, part of Gorakhpur, the southern part of Benares, Mirzapur, and Behar. They are sometimes said to be a branch of the Bhur. They seem to be the same as the Sivira or Scoree, but Buchanan considered them distinct. Cheru declare themselves to be descended from the great serpent, from which they may be supposed to be the Nagbans of Magadha. Remains of buildings attributed to them are found near Buddha Gya, Saaram, and Ramghur, and the images of Siva and Hanuman found in them indicate that they belonged to the Hindu religion. They appear to have been expelled from their ancient abodes by the Pramara of Bhobjur, the Hyobum of Hurli, and the Bhoonar, a little before the first Mahomedan invasion, about which time there seems to have been a general commotion in N. India, during which several tribes of this class possessed themselves. The features of the Cheru are said to resemble the occupants of the Vindhyas mountains. They live by cutting timber, collecting drugs, and killing game; and though their numbers are very low, they continue to create a raja for every five or six houses, and invest him with the tilak in due form. The emperor Sher Shah subdued Multara, a Cheru zamindar of Behar, which seems to have been a last but strong effort of the Cheru race. The chief of Singrowlee in Mirzapur is a Cheru, though he calls himself a Benbas. Sir H. Elliot suggests that the Sivira, Scori, and Cheru may perhaps be the Sauraseni. In the Harivansa is the following passage: 'From this race came the Sauravira and Saurasaeni. The great king Saurasaeni has given his name to the country over which he reigned' (Elliot, *Glos.*). They have almost disappeared from the seat of their ancient splendour. Once rulers of Behar, a petty population (2377) now represents the nation there. Not above 400 remain in their old home on the plateau of Shahabad, and about 3000 live in the land bordering on Nepal. They were driven into the Nepal Terai, and into the highlands of Chutia Nagpur, where they number 17,852, but are a very humble class of cultivators and day-labourers. They are usually of a light-brown colour, with high cheek-bones, small eyes obliquely set, low, broad noses, and large mouths with protuberant lips, but considerably softened by the alliances with pure Hindu families, which their ancient power and large possessions enabled them to secure. The village of Munka in Palanam belongs to a Cheru. The Cheru and Kharwar and Kol observe triennial sacrifices. Every three years a buffalo and other animals are offered in the sacred grove 'Sarna,' or on a rock near the village. They also have, like some of the Kol, a priest for each village, called Pahn. He is always one of the impure tribes, a Bhutia, or Kharwar, or a Parbeya, and is also called Byga, and he only can offer this great sacrifice. No Brahmanical priests are allowed on these occasions to interfere. The deity honoured is the tutelary god of the village, sometimes called Daur Pahar, sometimes Dharti, sometimes Purghahul or Daknai, a female, or Durn, a sylvan god, the same, perhaps, as the Darka of the Kohls.—*Elliot; Wilson; Dalton, Ethnol.*

**CHERUMAN,** a class of predial slaves in Malabar, whose name Wilson derives from Chera, Maleal, the soil. General Briggs names a non-Aryan race Cherumar. They follow the custom of Maruma Katayam.—*Wilson; Briggs.*

**CHERUMA PERUMAL, a viceroy of the 9th century, who governed the whole Malealim country of Chera or Kerala, including Malabar and Travancore, but afterwards established himself as an independent ruler. He is supposed to have founded the town of Calicut, and all the royal races of Malabar claim descent from him.**

**CHERU PINAY.** Tam. Calophyllum squamum, also C. calaba, Linn.

**CHERU-PUNA, Tamil,** is the small leaf or real mast poon, which is preferred for the masts of ships or vessels. The peon or puan woods are similar in shape and growth; the large sort is of right, bright yellow, and in the forests of Coromandel and Canara, it grows to a length of 150 feet. At Mangalore, Mr. Edye procured a tree of this sort that would have made a foremast for the Leander sixty-gun ship in one piece, for the sum of 1300 rupees, or £149 sterling. Poon of the forests of Cochin and Travancore is of a very inferior quality to that before stated; one sort is named the Karapa pusa, which is dark poon; and Malai pusa, meaning the hill poon; and another sort, the Vellai puna, or the white poon, is small, not more than 12 or 18 inches in diameter, and 18 or 20 feet long. In Canara, another sort, named Merchie pusa, grows to 28 inches or three feet in diameter, and from 30 to 50 feet long, and is very much like American birch. It is generally
defective and not durable; when filled, it opens and splits at the top and butt for many feet in length. The weight of the poun may be said to be from 40 to 48 pounds the cubic foot; but the lightest Edey met with was 343 and the heaviest 50 pounds the cubic foot when dry. The leaf of this tree is small and oval, about two by one and a half inches broad, and the fruit grows in bunches; it is about the size of coffee-berries. From this the natives extract oil, which is used for various native purposes.—Edge, M. and C.

CHETVIL, Chaerophyllum sativum. The leaves are used in soups and salads.

CHES, the Shatranj of the Persians, is supposed to have been invented by a Brahman who succeeded the dynasty in Sind. In Hindu legend, the wife of Ravana invented chess to wile him from his martial propensities.

CHEST, the commercial form in which opium is sold. A chest of Behar opium, consistence 75, made at Patna, contains 105-107 lbs. avoirdupois.

A chest of Benares opium, consistence 70, made at Ghazipur, contains 98 1 lbs. avoirdupois. The 'consistence' is the percentage of fine opium, excluding all water.

A chest of Malwa opium is usually assumed to range a little above 126-128 lbs., of 90 to 95 per cent. of fine opium.

A chest of Behar opium contains 83, and a chest of Benares opium at most 78, of the contents of a chest of Malwa opium.

The actual cost of a chest of Benares opium is Rs. 373, and of a chest of Behar opium, Rs. 436. The amount paid to the cultivator is Rs. 43 to Rs. 6 a seer, at 70 per cent. consistence.

CHESNEY, General F. R., an officer of the Royal Engineers, who in the years 1825, 1836, and 1897 conducted an expedition for the survey of the rivers Euphrates and Tigris, and wrote the reports.

CHESTNUTS.

The fruit of the Castanea vesca of Europe. The chestnut tree grows to a large size in China, and one, two, or three nuts are found within the large, dehiscent-spiny fruits. They are constantly spread for sale in Chinese streets in both the raw and roasted forms. Chestnut of China is Southwellia balanghas.

Horse chestnuts are the fruit of the Aesculus hippocastanum, Linn., an Asiatic tree, planted in Europe for shade and ornament; they are used for feeding sheep, horses, etc.

Water chestnuts are the horned fruits of species of Trapa, T. bicornis, T. biapinosa, and T. natans, Linn., growing in ponds, lakes, etc., in the temperate climates of Europe and Asia. In China and Kashmir they are largely used for food.

CHETAN. Mal. On the Malabar coast, a man-servant, a slave, a weaver of a particular caste.—Wilson.

CHETANA SWAMI, a Hindu religious reformer, the preceptor of Baba Lal, who founded the Baba Lal sect.

CHETCHEN, a tribe of the Eastern Caucasus, a branch of the Mitchehdegen or Kists, of one of the seven clans of that range. They dwell along the banks of the Terek. They are Mahomedans and fanatical, and plunder and enslave their pagan neighbours, receiving assistance from the Lesghi and all Mahomedans. They headed the opposition to the Russians on the eastern, as did the Circassians on the western, side of the Caucasus, whilst there rallied round them the smaller tribes, Abechas, Ubiche, Tschegitian, Tartar (Karatschais), and Kabardan, related with the Adighe by blood and tongue. They inhabit the beautiful mountain chain between the high Caucasian chain and the Terek. Shamyl was their leader in opposing the Russians.

The Chetchenzi tribes were considered the most formidable of all those which inhabit the innumerable rocky valleys of the eastern line of the Caucasus. Their predatory excursions, whether in large or small bodies, were not only a dread to their own immediate neighbours, tribes like themselves, though of less extent and power, but their sudden descents, ambuscades, and continued warfare, kept the disciplined Russians constantly on the alert. These lords of the mountains seemed never to rest, day or night. Unwaryed in their watch for prey, and like lightning in attack, for they struck or were lost to sight as quickly. The bride always brings a dower, consisting of cattle, etc. She is brought home to the house of her betrothed husband, and then the ceremony is completed by dancing, drinking, and carolling.—MacGregor; Porter's Travels, p. 62.

CHETEK, a climbing vine of Java; its sap is poisonous.—Bikmore, p. 53.

CHETTI POTILA. Tel. Trichosanthes cucumis. See Castanea.

CHETTIPA. Tel. Hymenodictyon excisum. CHETTKA. From this town to Neilung, on the Jankee or Jannubee branch of the Ganges, is the lofty pass of Chungsakhago, not under 18,000 feet. See Kanawar.

CHETKOOL. From this place to Burasoo in Garhwal the road leads over the Sungsia pass, about 16,000 feet high. See Kanawar.

CHETRIYA, commonly pronounced k'hetri, in the Hindu castes; also written Chatriya, Ch'hatri, Khetri, and properly Kshatriya. All Rajputs claim to be of this caste, but none of the ancient race are supposed to have survived their incessant wars. Menu says (Art. 43, 44, ch. x. p. 346) that several of the Chetriya tribes—Paudrakra, Odra, Dravira, Camboja, Yavana, Saca, Parada, Pahlava, China, Cirata, Derada, Ch'asa, Cirata, and Derada—had gradually sunk from the second to the Sudra class, owing to their omission of holy rites and to their seeing no Brahmas. See Chattri; Khetri; Kshatriya.

CHETTU. Tel. A tree.

CHETTU-KARAN. Maleal. A toddy-drawer; a grass-cutter.

CHETTY, pl. Chettiar, a titular distinction for the traders and financiers of the Peninsula of India, under the forms of Seth, Seth, Sethi, Chettiar. It is applied without any reference to caste or race, to the Zoroastrian Parsee engaged in trade, to the Mahomedan Borah, the Telign Komati, the Tamil Velleler, the silk-weaver, the Kavvay; and amongst the Telugu races the title is conceded to the Gajoolla baliya bangle-makers, the Vaniar oil-pressers, the Elavianar cloth merchants, and the Komati (Comati) grocers and general dealers. In the Tamil country to the south it is allowed to the Nattoo kottiyar, keen, enterprising

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CHEUNAKA.  SANSK.  Cicer arietinum.

CHEYA CHETTU or Mrunu.  Tel.  Red-wood timber.

CHEYANESSIA ESCULENTA, a creeper cultivated in British Burma.  See Caoutchouc.

CHEVIKAM.  MALEAL.  Piper nigrum.

CHEVUKURTI CHETTU.  Tel.  Slevogtia verticillata.  D. Don.;  Adenema hyssopifolium.

CHEVALILLI TIGE.  Tel.  Ipomoea pes-caprae.  Siwet.

CHEWA.  HIND.  Ephedra Gerardiana.

CHEWAGIR-CHHATRA.  HIND.  Morechella semilibera.

CHEWANG, a chief of one of the vassal states into which feudally governed China had been divided.  He made himself sovereign of the empire, under the title of Chheng.  He was a great conqueror, and was successful in opposing the invasions of the northern barbarians, the Heung noo or Huns, one of his measures to withstand whom was the erection of the celebrated Great Wall.

CHEWKA.  Tel.  Tamarindus Indica.

CHEYAIH, a tributary of the Penner river; also a tributary of the Palar river.—Imp. Gaz.

CH'HACH'H.  HIND.  Butter-milk.

CH'HAAE or Chhai.  HIND.  A pad to prevent laden bullock from being galloped.


CH'HAIH.  HIND.  A basket used in winnowing.

CH'HAKRA.  HIND.  A cart or carriage without sides, used for conveying cotton.  The garri has sides.—Elit.

CH'HANTI.  HIND.  A coarse cloth.

CH'HAP.  HIND.  A stamp, a seal; in North India, the Pottadar's stamp.  The Chinese chop.  In Delhi and the Upper Doab it is the name applied to a small bundle or heap of thorns about a foot high.  When large, it is called Khewa, q.v.

Ch'hapa-Kaghaz, a newspaper, a printed paper.

CH'HAPPAR.  HIND.  Thatch, or a thatched roof.  Chhappar-band, a thatcher.

CH'HATAPUR, the chief town of a feudatory state in Bundelkhand of 1240 square miles, and a population in 1875 of 170,000; revenue, 225,000.  Its chief is a Puar Rajput.  Its troops, 62 horse and 1178 infantry and police, with 32 guns.—Imp. Gaz.

CH'HATIN.  Beng.  Alstonia scholaris.

CH'HATISGARH, the S.E. division of the Central Provinces, lying between lat. 20° 1' and 22° 30' 30" N., and long. 80° 28' and 84° 26' E.  The area of the plains of Chhattisgarh is computed at about 10,000 square miles, including most of the zamindari estates, but excluding tracts of hill and forest.  The population in 1866 was 2,103,165.  The ChhantAR castle maintain here a numerical preponderance.  They are not, however, leather-workers, but are enterprising and industrious agriculturists; and nearly a fourth of the cultivation of the land must be in their hands.  About the middle of the 19th century, under the teaching of Ghazi Das, they became monotheists; every evening they fall prostrate before the sun, exclaiming Sat Nam! Sat Nam! from which they have been styled the Sat Nami, meaning worshippers of the Pure God.  But serpent-worship seems to have largely prevailed in former times in many parts of the Central Provinces; and other races are spirit-worshippers, believe in sorcery and witchcraft, and have recourse to the ordeals.  See Central Provinces; Chamar; Gond; Rai Dasi; Rajpur; Satnami.

CH'HATRI.  HIND.  An umbrella; a small ornamented pavilion built over a place of interment, the cenotaph of a Hindu chief.

CH'HATTOOR, also Ch'hattar.  HIND.  The name given in Northern India to a covering placed over the globe winnowed on the Ghagh.  It is from the Hindi Chhatar, an umbrella, but is known also by the names of Bhurhawn and Chank, q.v.  In Benares it is generally a mere cake of cow-dung; elsewhere it is a shoot of grass or a dry stick of the arhar, Cajanuss Indicus, with several (generally five) projecting twigs, on each of which a small piece of cow-dung is placed, or a flower of the ak or meddar (Calotropis gigantea).  Sometimes a spear is stuck in the ground at the side of the heap; and sometimes an artificial flower is placed at a short distance from the bottom of the heap.  The object in view is to prevent the effect of an evil eye, or the injury which is sure to be sustained from the praises of any casual visitor, or any eye-biter, as an Irishman would say.  That this strange opinion was entertained among the ancients, is known to every reader of Virgil and Theocritus.  It is a prevalent opinion not only among the Scotch and Irish, but with almost every other nation on the globe.  The Ceylonese and many other Indians also are devoutly believed to offer a sure safeguard against the disastrous effects of fascination.  If his rasc or heap be but provided with this protection, the husbandman may sleep secure; but as sure as he neglects it, should an evil eye fall upon the grain, he will have to weep over the lost hopes of a year's labours.

Nam quoqueque sciem horribilem intensioni iibi omnes Cernere erat subito afflatus languescere flores.

Semp que anni agricole meest i lever caudum.'—Elliot.

CH'HAIH.  HIND.  A custom in the N.W. Provinces of India, of walking a boundary with a raw cow-skin on the head, under a solemn oath to decide correctly; five sticks are held in the hand, to imply that the arbiter is the representative of the people.

CH'HAYA.  Beng.  Erua lanata.

CH'HAYA means a shadow.  In Hindu astronomy, Vishvaha ch'haya, the shadow of a gnomon, when the sun is in the equinoctial points.  Madlyana ch'haya, the mid-day shadow of the same at any other time of the year.  Sama mandala ch'haya, the mid-day shadow of the same when the
sun is east or west of the gnomon. Ch'haya suta, one of the names of Saturn, meaning born from darkness.—Warren.

CH'HAYA. Hind. A shade, a spirit, the shade of a goddess or deity. In the hysterical or cataleptic seizures which happen to Hindu devotees, where a deity is supposed to take possession, the expression used to denote it is Ch'haya aya or Sayya aya; and the body of the possessed is said to be filled, ang-hbara. In Hindu mythology, Ch'haya is the wife of the sun.

CHIPEDA. Hind. A destructive little animal similar to the weevil (Calandra granaria), from Ch'hed, Hind, a hole, the verbal root of Chhedana, to pierce. It is also the name of the disease which grain sustains when affected by the ravages of this insect.—Elliot.

CHIPENKA. Hind. A network made of strings or cords; to place anything on the cords of a bhangi.

CHIPENTA, also Ch'hinti. Hind. From Ch'heente, to sprinkle. A field in which peas and linseed have been sown by broadcasting while the rice crops are standing on the ground. When the rice is cut, these crops are left to grow, and are harvested in the beginning of the month Chait. In Delhi the Ch'heente is applied to throwing more seed among a growing rice-crop. The same word is employed in Gorakhpur to signify lands in which seed has been scattered after a single ploughing; more particularly at the extremities of villages, with a view to secure possession.

Ch'heente is also a drop of water. Ch'heentecheute paran, spitting of rain. Dud'h ki handi men, pani ki ch'hinti dalna, to sprinkle water into a jar of milk, meaning to cause unnecessary annoyance. From this word is the English chintz. —Elliot.

CH'HIL-TAMBA. Hind. Oxidized copper filings.

CH'HINDWARA, a town which gives its name to a British district of the Central Provinces, with an area of 3852 square miles, and a population in 1872 of 316,095. The midland Gond Kingdom of Deogarh had its capital in this district; the hill parts have long been held by Gond or Kurku chiefs, and the British have allowed the petty rajas to retain their lands and rights as tributaries. The Gonds in 1872 numbered 109,469, besides Bhard and Kurku; Ahar or Gaoli, 23,814; Bhoyar, 10,606; Dher or Mhar, 27,390. The others are Hindus, Brahman, Kumbi, Tel. Ch'hindwara is 2200 feet above the sea. Coal of the same quality as that of Ramganj occurs. The Ch'hindwara forests are very extensive, and lie principally on the southern slopes of the Satpura mountains.—Imp. Gaz.

CH'HIPA or Ch'hipi, a printer of cottons, a stapmer of chintz.

CH'HIPA, or village in the Gonda district in Oudh, in lat. 22° 3' 30" N., long. 78° 59' E. It has a handsome Vaishnava temple of stone and marble, erected by Sahijanand, a religious reformer in Western India, who is regarded by his followers as an incarnation of Krishna, and is worshipped as Swami Namayan. His descendants are at the head of the sect at Junagarh. Many Hindu pilgrims visit the birthplace of their deified leader.—Imp. Gazetteer.

CH'HITUA. Hind. Broadcast sowing.—Elliot.

CH'HOD-TEN, an offering to a Buddhist deity; a Buddhist temple. These are numerous in Tibet, consecrated to the celestial Buddha, in contradistinction to the dungen, which are built in honour of the mortal Buddhhas, and which ought to contain some portion of relics, either real or supposed. See Buddha; Chaitya; Dungten; Tope.

CH'HOLA. Beng. Cicer arietinum.

CH'HONCHOO MOORMORI. Beng. Isopis squarrosa.


CH'HOTA, Ch'hoti. Hind. Ch'hoto, Beng., small.

Ch'hota-kela, Asparagus racemosus.

Ch'hota-lewar, Andromeda fastigiata.

Ch'hotl-land, Sueda fruticosa.

Ch'hotl-mahani, Solanum xanthocarpum.

Ch'hoti, van, Salvadorica Persica.

Ch'hoti-mai, Tamarix orientalis.

Ch'hoto, Akundo, Calotropis herbacea.

Ch'hoto-bich tarnika, Argyreia argentea.

Ch'hoto-doodhe, Ophiorrhiza argyrophylla.

Ch'hoto-doodhe-luto, Gymnema sylvestre.

Ch'hoto-genda, French marigold, Tagetes patula.

Ch'hoto-gotheoobee, Cyperus dubius.

Ch'hoto-jaluknas, Leucas aspera.

Ch'hoto-jalgantree, Panicea pennina.

Ch'hoto-ka, Elatostema hirtum.

Ch'hoto-jam, Eugenya caryophyllifolia.

Ch'hoto-juan, Utricularia lancifolia.

Ch'hoto-kechu, Crotalaria prostrata.

Ch'hoto-kentze, Euphorbia chamisseea.

Ch'hoto-ki, Sicyonia verticillata.

Ch'hoto-kokshim, Vernonhia cineria.

Ch'hoto-kulp, Trichodesma indicum.

Ch'hoto-kut, Sagitariar sagittifolia.

Ch'hoto-looniya, Portulaca meridiana.

Ch'hoto-ma, Hemialaeha polysperma.

Ch'hoto-musoor, garden tare, Ermum hisatum.

Ch'hoto-mutur, grey pea, Pismum sativum, P. quadratum.

Ch'hoto-neelapudmo, Nymphaea stellata.

Ch'hoto-okra, Zapania noeliana.

Ch'hoto-pan-chooele, Villarisa cristata.

Ch'hoto-phocticia, Osbeckia aspera.

Ch'hoto-pine-nutee, Cynodon hififormis.

Ch'hoto-kra, Sicyonia verticillata.

Ch'hoto-sada-malkhum-slim, Canavalia corytho-sperma, flore albo.

Ch'hoto-shundhi, Nymphaea edulis.

CH'HOTA UDAIPUR, also called Mohan, the chief town of a tributary estate in the province of Gjerat; area, 873 square miles, and population 62,913, 86 per cent. being the Bih and Koli. The chief is of the Chauhan Rajput. During the rebellion in 1858, the chief refused to admit Tantia Topi into his capital, and Tantia was defeated there by General Parke. Revenue, £50,000; and tribute, 15050.—Imp. Gaz.

CH'HURA. Hind. A big knife used by Afghans as a weapon. Ch'huri, a small knife.

CH'HURI-KA-BANDHA. Hind. A ceremony, formerly in use in the Maharatta country, of formally investing a Soudar with a bill-hook, in imitation of the investiture of the Brahman with the cord.

CH'HUTTEE. Hind. A Mahomedan rite on the sixth day of a woman's confinement.—Herk.

CH'HUTTHIE, a subdivision of the Jat race in the Panjab. See Jat.

CHIA KAI. MALEAL. Pods of Acacia concinna.

CHIAN and Cyprus turpentine, gum-resins, products of a pistacia. See Guns.—

CHIBBUR. Sind. Cynemis pubescens.

CHIBBH, a tribe south of Kashmir, but little reconciled from barbarism either by Hindu or Mahomedan conquerors.
CHICACOLE. CHICHAR

CHICACOLE, in lat. 18° 17' 25" N., and long. 89° 56' 25" E.; a town in the Ganjam district of the Madras Presidency. It is four miles from the sea on the Languliga river. It was at one time the Kalinga capital. It gives its name to a district with a population of 169,094 souls, mostly Vaishnava Hindus, and speaking Telugu and some Urya. It forms part of the Northern Circars, which have been under the Reddi or Gajapati; during the 16th century under the Kutub Shashi, in the 18th century under the Nawabs of Hyderabad and Aroet. In November 1753, M. Bussy obtained it for the French E. I. Company, but it was afterwards ceded to the British. In 1791, and again in 1866, Chicacole suffered greatly from famine. — Imp. Gaz.

CHICANE of Languedoc is the game of Choughan, once universally practised throughout Persia, and formerly often played on a level piece of ground near Shiraz. As a game on foot, we have it in the cricket of England, the golf and shinty and hockey of Scotland, and the hurling matches of Ireland. Pietro della Valle (Viaggio, Lettera de Casvin 25 Iuglio 1618) discovered it in the Florentine Calcio. Ci' e solo questa differenza tra il giuoco di Persiani e 'l calcio de Fiorenti, che i Fiorentini guciano con molta gente a piedi, etc.; Ma i Persiani, piu nobilmente guciano a cavallo. The chicisme of Languedoc is played as in Persia, with a wooden ball and a club headed like a mallet or hammer. — Ouseley's Travels, i. p. 346. See Choughan.

CHICHA. In a battle fought here A.D. 1772 by the British, the forces of the Bhu-tar raja were defeated.

CHI-CHAY, CHI-CHOU, CHI-CHUNA. In the Himalayan range, the hill villages are covered with woods, where, in the whole village lands were parcelled out in lots of equal value. — W.

CHICHI. A division of the Gujar tribe.

CHICHRI. Chand. Acer palmeri. A climbing shrub abundant in the Dry Zone of Ceylon.

CHICHUNDA. A small tree close-grained, and rather light in weight, used for cabinet making. It is known as the 'chiknur' of the Madras Presidency.

CHICHUNDA. A tree of India, belonging to the family of Leguminosae. The wood is hard, and is used for cabinet making.

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CHILAS. This country is bounded on the north by the Indus river, on the south by the watershed of the ridge over Loolooosur lake, on the east by the watershed of the same ridge as above Loolooosur lake, culminating in the lofty peak of Munga Farbuth; the Astor boundary marches with Chilas here on the west to a point beyond the village of Sazeen, where the Indus takes a turn to the south-west. It is affected by good pasturage, but rice is under snow for a considerable portion of the year. The Sheem, claiming an Arab descent, are the proprietary and governing class. Crime is rare; women have more liberty and power than among Mahomedan tribes, and breaches of chastity are punished by death. They were visited in 1866 by Dr. Leitner, at the request of the Bengal Asiatic Society. Their language seems distinct from Pushtu, Persian, and Hindi, and is not understood by their neighbours the Syud race, who inhabit Durrell and Tankeeer to the west of Gilhght. According to their own traditions, the inhabitants of Chilas were conquered about the middle of the 16th century, and converted to the Mahomedan faith. Up to about 1840, the Kahgan Syuda received quantities of gold-dust as religious dues from the people of Chilas; but when the Syuds, aided by the Sikhs, failed in an attack on Chilas, the dues were discontinued. A second attack by the Sikh nation was successful, and a small annual tribute of 3 tolas of gold-dust and 100 goats is paid to the Kashmir durbar.

CHIL. BINJ. HIND. Strophanthus potatorum, clearing nut.

CHILCHIL. HIND. Celosia argentea.

CHILDREN.

Aulad, . . . . ARAB. Bateh-Katch. HIND. Batehe, . . . . HIND. | Pulli, . . . . TAM. |

Male children are greatly longed for by all the races inhabiting the south and east of Asia. One prevailing feeling regarding them is such as is expressed in Psalm xxvii. 4, 5: "As arrows are in the hand of a mighty man, so are children of the youth. Happy is the man that hath his quiver full of them: they shall not be ashamed, but they shall speak with the enemies in the gate. Most persons will hesitate to attack a large united family. Amongst Hindus and Chinese, with all of whom spirit-worship prevails, sons are particularly longed for, in order to obtain from them duties to the manes of their parents. The eastern custom of nursing a child from the hip or side, as in Isaiah lx. 4, lxvi. 12, is still continued; and a child born after vows is still, as in Proverbs xxi. 2, called the son of a vow; and many Hindu children of both sexes, but principally girls, are devoted to the gods. As in Genesis xxv. 6, the children of Mahomedans, born of a wife of humble birth, or of a harman woman, are not deemed equal in social rank to the children of a high-born woman. Infanticide is still continued amongst certain Rajput races, but the causes are not for fulfillment of any vow, or from any religious duty, but pride or poverty induces them to destroy their female children, and many Rajput tribes have the utmost difficulty in obtaining wives. The British Indian Government, in the early
part of the 19th century, declared the throwing of children into the Ganges to be criminal, and has made continuous efforts to prevent the destruction of children. The Chinese have complete power over their offspring, even to life, but in no country of the south-east of Asia is the sacrificing of children, on religious grounds, continued; though, down to comparatively recent historic times, the Phoenicians, Carthaginians, Arameans, Syrians, Babylonians, and even Israelites, and their neighbours on both sides of the Jordan, sacrificed their children with the hoped-for object of averting any great and serious misfortune. A Phoenician legend is of El, the strong, offering up his son Yedut or Yedut, that beloved,—El being the Kronos (Bunsen, iii. 286). Malek Bel was the same as the Tyrian Hercules, or Moloch or Bal-Moloch, to whom, as also to Hecate and Meleket Artemis, dogs were sacrificed. In Exodus xiii. 18, xxxiv. 20, the animal's neck or backbone had to be broken unless redeemed. The principal sacrifices offered to Hercules Usoo, as well as to his mythical companion, were human beings, who in Luocica of Phoenicia might be ransomed by a doce. At Carthage, the practice of sacrificing their favourite children, and those of the highest rank, in honour of Hercules, continued down to their latest wars. The legend of the Grecian Hercules is that he became insane, burned his own children, as well as those of his twin brother Iphicles, and murdered his guest Iphitus.—Bunsen, iv. 212, 213. See China; Harm; Infanticide: Rajput.

CHI-LE-CHOU and Chi-le-tung-chi, prefects in the Chinese province of Kwang-Tung.

CHILGOZA. Hind.; corruptly Galgotha. The nuts or seeds from the cones of the edible pine, Pinus Gerardiana, in India, are the seeds of the Chil, P. excelsa and P. longifolia, are so called.

CHILLANWALAH. A drawn battle was fought here on the 13th January 1849, between the British and the Sikhs, where 14½ per cent. of the British soldiers fell in the action. It lies between the Chenab and the Jhelum rivers.

CHILI PINE, Araucaria imbricata. The harsh, rigid, scale-like and persistent foliage of dark green, and its singular mode of branching, render this tree very conspicuous. The seeds, borne in large round cones, are eaten in Chili, where it forms widespread forests between lat. 37° and 48° S. The cones are about the size of a child's head, each enclosing between 200 and 300 nuts; and not unfrequently twenty or thirty cones are borne on a single tree, so that eighteen Araucarias are reckoned to maintain a single person for a whole year. The nuts, in form like an almond but twice the size, are eaten by the Indians either fresh, or roasted, the latter mode of cooking giving them a flavour something like a chestnut. They might be introduced into India.—Dr. Poopiga.

CHILIVA. Hind. The Indian bleak of N.W. India, a lonely little fish, seldom reaching more than two or three ounces; he is active, playful, and ravenous; his appearance is like new silver (the scales being used in making false pearls), and he ranks among the most delicate at table. Lady anglers, with a long, graceful wand, whip for him with great success on fine clear evenings, near the cold season, with tiny midges of rainbow hue, begirt with gold tinsel. Five pounds' weight and more of these pearly playthings have been the reward of a lady party on one evening, caught without much exertion from a boat, and under the shade of contiguous tops and groves, along the river Rapti. Besides the artificial fly, the chilliva greedily seize everything from a mosquito to a butterfly; and a grub or flesh maggat, a bit of paste, or a large grain of tough rice, are equally good. He is essentially a surface fish, active and cleanly in his predilections; of a delicate constitution, he soon dies after handling, especially if he has been hooked. The casting net is the proper modus operandi to get stock fish for a water, and the supply should be kept very few together, or they will rapidly die; earthen pans carried on a pole across a man's shoulder by night are best. This fish is very prolific, but his enemies are abundant in proportion. From his surface habits, he falls an easy prey to the ducks, fish-hawks, kingfishers, snakes, turtle, etc. To feed them or cause them to congregate, burn a little ghi or fat in a pot over the fire, and when it begins to smoke, empty out the contents on the pool or lake, and the chilliva will soon be seen hunting this new food on the surface. Coarse flour slightly melted and thrown in will also attract a great number; the casting net thrown on the spot will gather quite a silvery load. The Indian angler prizes the little chilliva beyond all his confreres, for he is the shining bonne bouche which, when properly spun on a first-class rapid, tempts the majestic mahseer of discreet 50 to 120 lbs. from all his propriety, or seduces the golden-eyed bokhar of 20 to run amok.

CHILKA. DUDUGU. Tel. Guatteria concinna; Dnn.: Unona discolor, Vahl.

CHILKA LAKE, a marine lagoon in the Orissa and Ganjam districts on the north-western side of the Bay of Bengal. It bounds the Northern Circars on the north. It seems to be the result of a breach of the sea over a flat sandy shore, whose elevation is something above the level of the country within. Pulicat lake appears to have had the like origin. Each of them communicates with the sea by a very narrow but deep opening, and are shallow within. The Chilka lake, extending from lat. 9° 28' to 19° 56' 15" N., is about 44 miles in length from N.E. to S.W., and in most places 12 or 15 miles wide. It is at the extreme end of the Puri district, just where it touches the Presidency of Madras. It is separated from the Bay of Bengal by a long sandy ridge of a few hundred yards in breadth, against which the force of the south-west monsoon expends itself in vain. Its area varies from 344 to 400 sq. m., during the dry and rainy seasons respectively. It is dotted with half-formed islands, and hardly anywhere exceeds six feet in depth. Here and there there is a forest of reeds and high grasses, and in some places the lake is fringed by picturesque and wooded hills. It is annually frequented by numbers of waterfowl.—Renonu's Memoir, p. 242.

CHILKI. Hind. A rupee of Kashmir, value ten annas.

CHILLA. Hind. Casearia tomentosa.

CHILLA CHETTU or Indupu Chetti. Tel. Strychnos potatorum. I.

CHILLA GADA, also Grasuguda. Tel. Batatas edulis.

CHILLAH, the fortieth day after childbirth, on which a Mahomedan woman performs her
purifications. It is the forty days of Lev. xii. 4. —HERKL.

CHILLA-JAIDAR, a kind of silk of Bokhara. CHILLAMA COOR. A small village, 193 miles from Madras. Earth salt is abundant.

CHILLANKI. Tel. Inga umbellata, Wild. CHILLAR. HIND. The husk, skin, or kind of fruit grain, etc.

CHILLAR. HIND. Small money or change; it corresponds also to the English word ‘upwards,’ as a hundred rupees and upwards.—sao rupai challar.

CHILLHA. HIND. A holy place where a fakir sits, so called from the initiatory Chihla (40 days’ abstinence. It is also known as a fakir’s takia.—Elliot.

CHILLIES. Capsicum, . . . Eng. Lombok; Chabai, MALAY. Cayenne pepper, . . . HIND. Lada mera; Lada china. Mireh, . . . JAV. Mirapa-kaialu, . . . Tel. Chillies. Lombok, . . . Eng. Lombok; Chabai, MALAY.

Chilli is the Mexican name for all various of capsicum, though they are natives of the East and West Indies, and other hot climates. C. annuum is the species commonly noticed, but there are numerous varieties which, by many, are reckoned species. Thus C. frutescens is a shrubby plant, which grows to a large and more bushy size; C. minimum supplies the variety called bird pepper; C. baccatum has a globular fruit, and furnishes cherry or berry capsicum. They are all of the simplest culture; but culture appears to increase the size, and to diminish the pungency of the fruit. Their acidity is owing to an oleaginous substance called capsicin. When the fruit is fresh, it has a penetrating acrid smell; is extremely pungent to the taste, and produces a most painful burning in the mouth. When dried, they form a large article of local and foreign traffic, and form the basis of cayenne pepper, but in vinegar, when green or ripe, they are an acceptable pickle. In Bengal, the natives make an extract from chilies, which is about the consistence and colour of treacle. In all Southern and Eastern Asia both rich and poor daily use them, and they form the principal ingredient in all chatnis and curries; ground into a paste between two stones, with a little mustard, oil, ginger, and salt, they form the only seasoning which the millions of poor in those countries can obtain to eat with their rice. They are worth about 40a. the candy of 600 lbs. Cayenne pepper is used in medicine chiefly in the form of tincture, as a rubefacient and stimulant, especially in cases of ulcerated sore-throat. It acts on the stomach as an aromatic condiment; and when preserved in acetic acid it forms chilli vinegar. Red pepper may be considered one of the most useful vegetables in hygiene. As a stimulant and auxiliary in digestion, it has been considered invaluable, especially in warm countries. Immense quantities of the capsicum are used by the native population of the West Indies, Africa, and Mexico; the consumption there as a condiment being almost universal, and perhaps equal in quantity to salt. The ‘wort’ or cayenne potage may be termed the national dish of the Abyssinians, as that or its basis ‘dillock’ is invariably eaten with their ‘ordinary diet,’ the thin crumpet-like bread of teff or wheat flour. Equal parts of salt and the red cayenne pods are powdered and mixed together with a little pea or bean meal to make a paste. This is called dillock, and is made in quantities at a time, being preserved in a large gourd shell, generally suspended from the roof. The wort is merely a little water added to this paste, which is then boiled over the fire, with the addition of a little fat meat and more meal to make a kind of porridge, to which sometimes is also added several warm seeds, such as the common cress or black mustard, both of which are indigenous in Abyssinia. A kind called the Tobago red pepper is said to possess the most pungent properties of any of the species. It yields a small red pod, less than an inch in length, and longitudinal in shape, which is so exceedingly hot, that a small quantity of it is sufficient to season a large dish of any food. Owing to its oleginous character, it has been found impossible to preserve it by drying; but by pouring strong boiling vinegar on it, a sauce or decoction can be made, which possesses in a concentrated form all the essential qualities of the vegetable. A single drop of this sauce will flavour a whole plate of soup or other food. —Johnson’s Abyssinia; O’S’; Faulkner’s Simmonds, p. 429. See Capsicum.

CHILLOUNEA, a singular tree of Nepal. Its upper coat is entirely composed of innumerable needle-form fibres, partially united by a kind of gelatinous sap. The wood makes good beams and rafters, and is held in such estimation by the natives, that no house is considered secure in which more or less of the timber has not been employed.—Smith’s Nepal.

CHILLUM. HIND. A pipe bowl, a hookah bowl.

CHILON. HIND. Populus ciliata.

CHILRAI, also Khatroo, Picca (Abies) Webbiana, P. vindrow, the silver fir.

CHILITA-RITA. Tel. Phoenix farinifera.

CHILUCHI. HIND. Iris Napalesia.

CHILU NUTIYA. Beng. Amaranthus polygonoides.

CHIMA-PUNJI. Maleal. Cochlospermum gossypium.

CHIMBARI. HIND. Dactylotumum Egyptiacum, Eleusine flagelliformis.

CHIMKANI. HIND. Cathartocarpus fistula.

CHIMNANU, of Lahoul and the Chenab, Amyg- dalus Persica, the peach.

CHI MOEE. CHIN. A bacchanalian game played at Chinese parties.

CHIMONTHANS FRAGRANS. Fortune; the Lah-mei or Hwang-mei-hwa of the Chinese. This shrub is sometimes grafted. The flowers, mounted on brass wire, are the favourite winter ornament of Chinese women of all classes. The Chinese macerate the tree in water, and then polish it a beautifully black brilliant surface. It is a favourite in England, where it blooms in the open air at Christmas. It is quite common in China.—Fortune’s Tea Districts, p. 79.

CHIMPANZEE, one of the Simiades, which approach near to man. The term has been applied to the Simia satyrus of Linneus, the oriental orang, but it is now generally restricted to a West African genus, the Troglodytes niger of Geoffroy, the Homo troglodytes of Linneaus.—Engl. Cyc., p. 1016. See Simiade.

CHIMU, also Chinyaka. HIND. Syringa emodi, Morus serrata, Podophyllum emodi.

CHIMURUDU. Tel. Cadaba Indica, Lam.
CHINA.

CHINA. HND. Panicum miliecum.

CHINA, the empire in the centre and cast of continental Asia, known to Europe by this name, is called by the western Mongols, Cathay; by the Manchu Tatars it is called Nikan Koun; and by the Chinese Tchoung-kou, the last term meaning the Central Kingdom (Duhalde, Hist. of China, p. 1), also Tchoung-kuo, the Empire of the Centre. According to M. Huc (i. pp. 349–350), the Chinese also name it Tchoung-hoa, or Flower of the Centre; also Tien-hia, the Beneath the Heavens, or the world, as the Romans called their dominions Orbis. The name most in use is Tchoung-kou. It is also, however, called Tang-shan, the Hills of Tang (the name of one of their most celebrated dynasties). The present reigning family has given it the name of Tat-sing-kou, the Empire of Great Purity; and in government proclamations, especially in those addressed to Barbarians, it is often called Tien-chao, the Celestial Empire. Other figurative appellations are Tchoung-ang and Tien-chao, Heaven's Empire. The Chinese call themselves Chung-kou-teih-jin, men of the middle kingdom; also Han-jin and Tang-jin, men of Han or of Tang (from the dynasties of those names). China is supposed to be the country mentioned as the land of Sinim in Isaiah xlix. 12. Chinese annals extend back for three or four thousand years. Fo-hi is the first named sovereign of the Chinese, but the date of his reign is not ascertained. Yu the Great is the first monarch of whose reality there is no historic doubt. Their Babm-book contains the record of the ancient imperial dynasties from B.C. 1911 to A.D. 264:

1st. Hia, the first emperor Yu beginning B.C. 1911, reigned 432 years.
2d. Shang, began B.C. 1359, lasted 500 years; 28 reigns in 15 generations.
3d. Tsheu, began B.C. 1030, lasted 479 years. The 12th emperor Yen-yang began to reign B.C. 781. His sixth year was B.C. 776. Confucius lived under this dynasty, and he recorded the observations of the solar eclipses from B.C. 451 upwards to 750.
4th. Tang, began B.C. 255, and lasted to 207, 49 years.
5th. Han, began B.C. 206, and lasted to A.D. 264, a total of 469 years.

But systematic Chinese history hardly goes back so far as the reign of Yu, who was the founder of the dynasty of the kings or princes of Shen-si in S. China, as far as the great river. He diverted the course of the Yellow River to fertilize the lands between the two rivers.

Prior to Chi-hoang of the Tsin dynasty, about 255 years B.C., the country had been subdivided into numerous principalities and commonwealths, but that warrior emperor brought them all under subjection. He built the Great Wall to keep off the Tatars. Seres, which Horace and the ancients used, seems to have been strictly applicable to some nation in the west of China, and many authors have surmised that the term China (Cheena) was given to the country when the Tsin dynasty carried their arms to the west. China (Cheena) was early given by the people of the N.W. of India to the nation which Europe now calls China.

The Tsin dynasty was overthrown by Lin-pang of the Han province, who was the first of the Han dynasty. With the destruction of the Tsin dynasty great injury resulted to the Chinese annals; but most of the Han princes were munificent patrons of literature. During the reign of Ming-li, the 15th of the Han dynasty, considerable intercourse was carried on between the princes of India and China; but it was particularly during the dynasties of Sun, Leam, and Tain, from the fourth to the seventh centuries A.D., that princes from Bengal and Malabar northwards to the Panjáb sent embassies to the Chinese monarachs. Near our own times, the Ming and Tsing dynasties have ruled from A.D. 1368 to the close of the 19th century, viz.:

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Origin and Early History.—All the ancient traditions of the Chinese refer to their migrations from the west. Chevalier Bunsen (Report, Brit. Assoc., 1847) says that, according to Chinese traditions, Tibet is the land of their earliest recollections. But the first settlers of this race in China were probably emigrants from the lands lying to the south of the Caspian. An early relationship existed between Chinese and Mesopotamian culture, among the most striking proofs of which are the facts that 'the primitive Chinese, like the Babylonians, recognised five planets besides the sun and moon, and, with one exception, knew them by the same names;' and 'a comparison between the ancient names of the months given in the Urh ya, the oldest Chinese dictionary, with the Accadian equivalents, shows, in some instances, an exact identity.' A number of ethnological and linguistic facts point to the Chinese having left a home in the south of the Caspian Sea, where they had been brought under the influence of Accadian culture. From this resting-place they moved eastward about the twenty-fifth century B.C., probably in consequence of the invasion of Sussiana by some possibly Turanian tribe, and finally struck to the northern bend of the Yellow River, the course of which they followed until they reached the fertile plains of Shen-si. The Chinese immigrants found the country in possession of a number of Taie tribes, such as the Kwei, Lung, Pung, and Li, all of whom possessed a certain amount of culture. With these tribes they contended for dominion, and by force of a superior civilization gained the mastery over them. The relations thus established produced effects
which have left their mark on the history of the nation through all time. In the language at the present day, as well as in the traditions and customs now existing, are reflected traces of this intermingling of races more than four thousand years ago. The admixture of Taie blood was also of paramount importance to the Chinese; and they owe much of their endurance as a nation, and of their superiority in mental and bodily physique, to the constant introduction of new blood into the national life. They have a tradition of a deluge, B.C. 2297, in the reign of Yaou. The first settlement of the immigrant Chinese was in the northern portion of Chili-le; and Chinese legendary history tells us that Yaou, who reigned 4300 years ago, had his capital at the city of Tsin-chou, situated about 100 miles only to the south of the present capital, Peckin. From this the people spread gradually westward and southward, colonizing the newer regions, and displacing the aboriginal inhabitants.

Extent of China.—The territorial distinctions of China proper and the Chinese Empire have existed from the earliest periods of Chinese history. China proper has meant, at all periods, that portion of the east of the Asiatic continent which has been possessed and permanently occupied by the Chinese people. The Chinese Empire has meant, besides China proper, those large portions of the whole Asiatic continent occupied by Tartar nomades or other non-Chinese peoples, but which have from time to time been under the sway of the Empire of China, and more or less directly ruled by Chinese officers and armies. China proper has at all periods been characterized by Chinese civilization; that is to say, its population generally, besides being physically of the same race, has always been governed in its domestic, its social, and (with the exception of some very short periods) its political life, by the principles and rules laid down in the Chinese old sacred books. The non-Chinese peoples of the Chinese Empire have, on the other hand, at all periods either been destitute of anything that could be called civilization, or have been slightly tinged with Chinese civilization, or have been marked by some different civilization, as for instance at present, in the inhabitants of Turkestan by a Mahomedan civilization, and the inhabitants of Tibet by one strictly Buddhist. At present China proper and the Chinese Empire are supposed to be 3,910,400 square miles in extent, and may be noticed under three territorial divisions:—

China proper, as the empire existed under the Ming dynasty, which ruled in China from A.D. 1368 until the Manchu conquest in A.D. 1644.

Manchu, or, as known in Europe, Manchuria, the country of the reigning dynasty.

Colonies of China, in Mongolia, Soungarra, Eastern Turkestan, Tibet, and the countries of the several tribes bordering on Kan-su and Szechuen.

China proper is the largest as well as the most compact country in any part of the globe, extending in length from about lat. 19° to about 42° N., and in breadth (taking one extremity, where it borders upon the peninsula of Corea) from about 122° to 124° W. (the other, which reigned, being, where the Great Wall extends to the west) to about long. 85° E., being 23° in lat. and 39° in long. The area given by Sir George Staunton is 1,292,000 miles. A recent estimate is 1,584,963 English square miles; and in 1844 its revenue, 191,803,159 taels = £63,834,713.

It is separated on the north by the Great Wall from the desert lands of the Mongol tribes, and from the scarcely less dreary Manchau country; on the east is the Gulf of Pe-che-li, the Eastern Ocean, and the Formosa channel; on the west barbarous tribes; and S.W. are the kingdoms of Tonquin, Cochinh-China, Burma, and Laos.

In the course of ages the Chinese Empire has varied greatly in extent. It has been more than once larger than it is even now. It was so, for example, about 2000 years ago, under the five emperors, and that empire then included the greater portion of inhabited Asia east of the Caspian Sea, and inclusive of Siam, Pegu, Cambodia, and Bengal. In the intervals between these great extensions, it has shrunk up to the size of China proper, and even this latter has been occasionally subdivided for considerable periods under two or more ruling families or dynasties, each acknowledging no superior. But the Chinese people has continued the same, even when under several rulers, and has been steadily increasing its territorial possessions. They have annexed all the parts neighbouring on China proper from Manchau and Mongol races. The dynasty now is Mongol, and the army Manchu, and furnishes Manchu soldiers in Mongolia and Tibet.

Government.—The idea of the family is the grand principle that serves as the basis of society in China. Filial piety, the constant subject of instruction to moralists and philosophers, and continually recommended in the proclamations of emperors and the speeches of mandarins, has become, in the views of the Chinese, the fundamental root of all other virtues. All means are made use of to exalt this sentiment, so as to make of it an absolute passion. It assumes all forms, mingles in all actions, and serves as the moral pivot of public life. Every crime, every attempt against the authority, property, or life of individuals, is treated as filial disobedience; whilst, on the other hand, all acts of virtue, devotion, compassion toward the unfortunate, commercial probity, or even valour in battle, are referred to filial piety. To be a good or a bad citizen, is to be a good or bad son. This grand principle dominates and penetrates more or less deeply all the strata of society. The emperor, as the head of the family system on which Chinese political life is based, is responsible only to the gods. In civil cases the last appeal is to the emperor, and the registers of capital offenders are submitted to him. The names of the officials who merit promotion or disgrace are likewise submitted to him. He is called Hoang-te, August Sovereign, or Hoang-chou, August Election; but his name par excellence is Tien-dza, or Tien-tsze, Son of Heaven.

The empire of China, on the other hand, is the representative of mother earth. She is supposed to be ignorant of politics, and occupies herself in feeding silkworms, winding silk at the cocoan festival, and inspecting the silk stuffs woven by the women of the imperial household.

China has 18 political divisions,—Shang-tung, Pe-che-li, Shan-si, Shen-si, in the north; Kwang-tung and Kwang-si in the south; Chih-lung, Foh-kien, and Kiang-si, in the east; Kan-su, Sze-chuen, and Yun-nan, in the west; and Nang,
CHINA.

hui, Kiang-si, Hoo-nan, Hu-peh, Ho-nan, and Kwei-chu, as midland provinces.

Executive Civil Government.—The entire administration is under the direction of two councils, attached to the person of the emperor, the Nei-ko and Kiu-ke-tekho. The first is charged with the preparation of plans, and the despatch of current business. Its duty is, according to the official book, 'to put in order, and to make manifest the thoughts and designs of the imperial will, and to regulate the forms of administrative decrees.' It may be regarded in some measure as the secretariat of the empire. The second council, named 'Kiu-ke-kekho,' deliberates with the emperor concerning political affairs. In the Nei-ko, or Interior Council Chamber, are four chief councillors, two of them Tartars and two Chinese, who bear the titles of Chung-thang and Ko-lou. The Tartar minister presides.

Loo-Poo is the general appellation for the six civil and criminal tribunals of China. The first of these, properly termed Loo-Poo, has four departments for the administration of the provinces; the second, named Hoo-Poo, takes charge of the imperial revenues; the third board is named Lepoo; Ping-foo-war is the fourth; King-Poo, the criminal department; Kung-Poo, or public works, being the fifth and sixth.

The provinces of the country are each under a governor, or, where two provinces are united, a governor-general. Every province is divided into a certain number of districts, called 'Fu,' 'Ting,' 'Chow,' 'Heen.' A 'Fu' is a large portion or department of a province under the general control of a civil officer, immediately subordinate to the head of the provincial government. A 'Ting,' a smaller division than, and sometimes a portion of, a Fu; when separate, it is governed as a Fu, and called a 'Chub-le.' A 'Chow' is similar to a Ting, as also a Heen, but each is a smaller division. Each Fu, Ting, Chow, or Heen has one or more towns or walled cities under its guidance, one of which takes its name and rank as 'Kwang-Chow-Fu' and 'Shang-Hae-Heen,' which latter, although of that subordinate rank, is the largest maritime city in the empire, and the greatest resort of the native ships or junks. But with all these, there has, besides, always remained a powerful and vivacious spark that the Tartar government has never been able to extirpate; and secret societies have been formed over the empire, the members of which have seen with impatience the Manchu domination, and cherished the idea of overthrowing it, to obtain a national government.

All these are five orders of nobility, the kuo, kuo, paek, tze, and nan, which correspond to the duke, marquis, earl, baron, and baronet of Britain. Each of these has classes. The Kее-Toow-We is a lower grade, and the Wau-Keo-We is a still lower. Other grades of rank are arranged as Chung or Tsung-deputy. Hereditary titles only exist for the imperial family and for the descendants of Confucius, who are still very numerous in the province of Shang-tung. Of the twelve orders of the Imperial nobility of China, tsinw is the first, kiwi-wang the second, belch third, beitsch fourth, chin kwok kung fifth, f-kwok kung sixth. To the hereditary titles which the relations of the emperor enjoy, there are attached certain prerogatives, as well as very modest allowance, the right of wearing a red or yellow girdle, of putting a plume of peacock's feathers in their caps, and of having six, eight, or twelve bearers to their palanquins. They cannot, more than any other citizen, pretend to any public office, without having previously taken their literary degree at Pekin and Moukden, the capital of Manchuria. Many of these nobles are to be seen living in idleness and penury on their small pensions, and having no other proof to show of their illustrious origin than the red or yellow girdle. A private tribunal, however, is charged to govern them and superintend their conduct.

The first civil and military mandarins who have distinguished themselves in the administration or in war, receive the titles of kong, heow, paak or phy, tze, and nan. All the officers, civil and military, of the Chinese Empire are divided into nine orders, kbiou-ling, distinguished one from the other by certain buttons, or rather balls, of the size of a pigeon's egg, which are worn above the official cap. This distinctive ball is of plain red coral for the first order, of carved coral for the second, of a translucent deep blue stone for the third, of pale blue for the fourth, crystal for the fifth, of some opaque white stone for the sixth, and for the seventh, eighth, and ninth, of gilt and wrought copper. Every order is subdivided into two classes, the one active and official, the other supernumerary; but this makes no difference in the balls. All the official personages comprised in these nine orders are designated by the generic term of kong-fon. The term mandarins was invented by the first Europeans who visited the country, and is probably derived from the Portuguese word 'mandar,' to command. The people are all partial to honours, and ornamental arches are raised to men and women who distinguish themselves.

The punishments for crimes are very severe, many are brutal. They transport and flog for petty larceny, use torture to extort confessions; use cages, the caughe, and fetters; chain the criminal to heavy stones and to iron bars; leave the food supply to chance; cut off the ear, or cut the person to pieces at 8, 24, 36, 72, and 120 cuts; decapitate and strangle. The prisons of China may be considered as unequalled upon earth, so far as everything that is most abominable is concerned.

Races.—The great races in the empire are three, the Chinese, the Mongol, and the Manchu. These nations differ very considerably in their physical characters, although much mixture has taken place. The northern or predominant race appears to have a fundamental tendency to an Iranian modification of the Turanian type; and the same tendency is observable amongst the Coreans and the higher classes of the Japanese, as amongst some of the American, Tangusian, and Asiatic peoples. In the south of China, the fundamental tendency is to an extreme flatness of features, the nose being often more insignificant and shapeless than in any other race, although the finer type also occurs. In the eastern maritime province, the northern type is much more common. The dominant or northern Chinese race is much less Mongolian than the S. Chinese, the Malay, and most of the intermediate ultra-Indian races. They are closely allied to the Japanese and Americans, and, indeed, are evi-
dently the same race, however much their language differs. The predominating colour of the skin of the Chinese is yellow; but yellow, brown, and sometimes a maroon tint occur. The face is broad and flat, check-bones projecting, irides black, eyes oblique, beard scanty, stature above that of the Malay and Tibetan, below that of the European. The Chinese head, when viewed from the front, has a strongly-marked physical relation not only to all the races of the Mongolian type, but in a much closer or more special manner to the Tibetan tribes, the American Indians, and in some of the eastern Asiatic tribes, in all which one of the prevailing Chinese types may be traced. Numerous examples of the elongated head, obtusely wedge-shaped cranium, and arched nose of America and New Zealand may be seen in every assemblage of Chinese in Singapore. The occipital truncation remarked in America and Polynesia is common in South-Eastern Asia. It is very strongly marked in the Lau race. The Tibetan tribes have the rise of the skull at the coronal region, but the other characteristics are wanting. The heads of the American men of Dr. Pritchard's Natural History of Man resemble those of the Chinese. The prominent lateral expansion of the zygoma is comparatively rare in the Chinese as in the Americans. The Sumatra Malays have much more frequently the typical Mongolian head, as have also the allied tribes of the Irawadi basin, with whom they are most nearly connected, and whence they have undoubtedly derived their physical stock.

The sea-coast people are skilful and enterprising, with that self-reliance which enables nations to emigrate; and we find them swarming in the Malay ports, in Singapore, Borneo, and the Philippines; numbers are in Australia, the West Indies, Sandwich Islands, and Western America, particularly California. But, except in Buddhist Burma, they are not settlers, only forming temporary connections, sending all their savings, and looking forward to return, to their native land. Next to the Malay, these people have been the most formidable pirates of the eastern seas. Their rapid and wide diffusion is one of the most remarkable of the events of modern history, and is likely to exercise a great influence on the future condition of man. For the Chinese do not migrate to mingle with and be absorbed among other tribes and peoples; they preserve their own language, their one nationality, their own costume and religious usages, their own traditions, habits, and social organization. Though they intermarry with the races among whom they dwell, the Chinese type becomes predominant, and the children are almost invariably educated on the father's model, the influence of the mother seeming almost annihilated. And though the Chinese frequently acquire large fortunes, great influence, and sometimes high rank as a consequence of their prosperity, the ties that bind them to their country seem never to be broken, and the tides of population flow Chinaward with every south-western monsoon, to be replaced by a stronger stream when the monsoon of the north-east sends the junk on their wonted way towards the south. It is estimated that in the kingdom of Siam there are more than a million and a half of Chinese settlers; in the city of Bangkok alone there are supposed to be two hundred thousand. In fact, all the active business appears to be in their hands. Nine out of ten of the floating bazaars which cover for miles the two banks of the Mekam, are occupied by Chinamen; very many of them are married to Siamese women, for a Chinawoman scarcely ever leaves her country. But the children are invariably educated to the Chinese type; the tail is cultivated if it be a boy, and the father alone seems to model the child's nature and education. Yet that strong parental affection which has been remarked as one of the characteristic virtues of the Chinese, is almost invariably exhibited. Fathers are constantly playing with and carrying about their children, encouraging their gambols, and teaching them to observe.

Several estimates of the population of the country have been attempted since the latter part of the 16th century. Captain Gill, a traveller in the 19th century, and who, in 1882, was murdered by an Arab shaikh, is of opinion that they have all been too high. Farnes, with rebellions of the Tse-ping and of the Mahomedans in Kwei-chow and Yunnan, are supposed to have reduced the nation to 250 or 300 millions.

1570 307,467,000 in the reign of Kien lung. 1743, 200,000,000 Grosier. 1813, 360,000,000 Census. 1842, 414,066,994 ,

According to Mr. Knowlton, the census of 1839, as given by M. Sacharoff of the Russian embassy in Pekin, made a population of 415,000,000. A census was found in Governor Yeh's Yaman at Canton; and the Chinese commissioners at Tientsin, in 1859, stated the population at 400,000,000, which is a fourth of the human race, twice the population of British India with its feudatories, and seven times that of Russia. China proper has 280 to the square mile, while that of Britain and Ireland has only 260.

Tribes.—The various types of race on the mountain frontier of China, Burma, and Tibet, possess the highest interest for all ethnographical students. Of the aboriginal inhabitants of China, the Kwei people, remnants are to be found to this day in Northern Cambodia. These Kwei, whom M. Terrien de la Coupérie conjectures to have been an Aryan people, possessed a literature to which the term Kwei shoo or 'Kwei Books' probably refers.

The country at the mouth of the Amur in 1842 was ceded to Russia by the Chinese, but members of the Aino family are settled there, and due north of Pekin is a Mongol tract which nearly separates the true Tungus part of Manchuria.

The Hakka inhabit Loong-Moon, Toong-Koong, Tsen-shing, and other districts. They eat dog's flesh.

The Tan are a race of Chinese boatmen dwelling in their boats in all the Chinese rivers, similar to the Yao and Man tribes. Their physique is vastly superior to that of the house population, who designate them Suee Ki, or waterfowl.

The Ng-Tsouk are a tribe in China who undress and bathe and re-clothe the dead. They are deemed unclean, and are not permitted to worship in the temples; their sons are not allowed to become candidates for literary degrees. They resemble the pollinectors of the ancient Romans.

Miu-tsi is a term applied to the hill tribes of China. They seem to be in small clans; no less than 82 of them residing in the small province of
Kwei-chu. Some of their names are appellatives, -Sang, wild; Huh-rang, black wild; Huh-klo, black foot; Yan-jin; and others are the Nung, the Lo-Lo, and Yau in the mountain ranges of S.W. China. The Miao-tzi, on the south of Szechuan, are said to be wild mountainpeers, but much connected with them is obscure. Frer Odoric noticed the differences between the races on the two sides of a great mountain. Polo also speaks of savage cannibals with blue-painted (tattooed) faces in Foh-kien; and some observations of Sir John Davis corroborate this (Polo, 178; Chinese Supp. p. 260). In the modern Chinese census, one class of the population in a district of the province of Canton appear as blacks (Chin. Mod. p. 167). Indeed, Semedo (about 1632) says there was still an independent kingdom, presumably of the Miao-tzi, in the mountains dividing Foh-kien, Canton, and Kiang-si, viz. those of which Odoric speaks (Rel. Della China, p. 19), certain Fung people who once visited the court of the Chinese emperor, and delighted him by their dancing and singing. These Fung people still exist in South-Western China.

Its Army, of 800,000 men in four divisions, is made up of 68,000 Manchu, 80,000 Mongol, and 625,000 Chinese. The bannermen of the Mongols are the elite of the dominant Manchu. The Chinese soldiers are in two bodies, one of which, about half a million in number, is designated soldiers of the green flag, and receive pay of four silver tael (27a) per month; the other portion are a militia, holding lands for service, and drilled for a month once a year. Since the year 1878, they have obtained from Europe, swift, heavily-armed gunboats. Military Feudatories of the empire are scattered through the regions known to the Chinese geographer as Inner and Outer Mongolia, Uliasaitai, and Tsing Hai or Kokoro; but there are also the troops of Tibet, under the resident minister of that country. The tribes acknowledging the sway of China are divided into Inner and Outer Mongolians. The former occupy the region to which their name refers them; the latter, all the other tracts and districts above mentioned.

Inner Mongolia, lying between the desert of Gobi and the continuous frontier of Manchuria and China, was occupied, in 1812, by 24 tribes, differing in name, irregularly ranged under 49 standards, and divided, in uneven proportions, into 6 chakran or leagues.

The Outer Mongolians were,—1st, four tribes of Kalkas of different names, under Khan, which, with two fragmentary tribes attached to them, formed four standards, and numbered in all 86 standards, and resided in the territory north of the desert of Gobi, geographically named Outer Mongolia. 2d, eleven tribes, not in leagues, under 34 standards, scattered to the west of the Holan mountains, in the S.W. of Inner Mongolia, to the south of the Altai, and to the north of the Teng-kiri ranges. 3d, Two tribes of Mahomedans, under 2 standards, at Hami and Turfan, within the provincial boundaries of Kansu, south of the Celestial Mountains; and 4th, five tribes under 29 standards, round Koko-Nor, called by the Chinese Tsinghai, or Azure Sea. Colonel Gordon, who had taken a prominent part in suppressing the Tae-ping rebellion, recently returned to China to advise the great viceroy, Li-Hung-Chang, regarding the Chinese forces. The occasion was the retention by Russia of the town and district of Kuljia, and war appeared possible. He urged them to avoid pitched battles, to cultivate skirminishing, to throw up earthworks, to harass the enemy by irregular warfare, and to form a fleet of small and cheap ships.

Religions and Philosophies.—The Chinese have acquired, in the course of their long existence, more than one different kind of philosophy; that is to say, there exist in China several radically different ways of viewing the nature of the immanant world and of man. The philosophic systems of Tao-tze, of Kung-tze, of Choo-tet, of Mang-tze, and of Buddha, take the place of Confucianism, but none of these are pure philosophies; those recognized by the state being Taoism, Confucianism, Buddhism with its form Lamaism, and Mahomedanism. They are systems of morality.

There was a long struggle for mastery among the adherents of these three systems,—a struggle which expressed itself in mutual proscriptions and persecutions; but the Confucian (Kong-tze) always succeeded in maintaining for itself the greatest ascendency, except during some comparatively short period, and it became definitively paramount fully ten centuries ago. From that time to this it has continued dominant in the country. It has been the philosophy and morality of all the great historians of China, and has formed the basis of her peculiar national system of legislation and administrative procedure. It may be described as the assemblage of those fundamental beliefs which are entertained by all cultivated Chinese on the great phenomena of animate and inanimate nature. The literature in which it is set forth, and within which it has moulded, whether ontological, psychological, ethical, legislative, or historical, is that exclusively an intimate and extensive acquaintance with which has for many centuries been made indispensable to the passing of the public service examinations, which, are, for the talent and ambition of China, far more than the hussings, the avenues to church preferment, and the bar all combined, are for the talent and ambition of Britain. Hence Confucianism is, and has long been in the fullest sense of the terms, the national, orthodox philosophy and morality of the Chinese people. Taoist and Buddhist temples exist all over China, and in latter centuries Mahomedan mosques have been erected in many of its cities; but the dominant Confucianism merely endures Taoism, Buddhism, and Mahomedanism as erroneous and superstitious systems of belief, prevalent among, because most limited to, people of uncultivated or weak minds, whether rich or poor; but which find most acceptance among the poorer and therefore unlearned and unenlightened classes. They have no influence on the national polity. The people are in nowise prohibited from worshipping in the Buddhist and Taoist temples; in other words, they may regulate their purely religious life by the tenets of these, or indeed of any other sect. But where Taoism or Buddhism would leave the region of religion, and, in the form of philosophy or morality, extend their direct influence into the domain of the social science and art, there Confucianism peremptorily and effectually prohibits their action. Not only are the national legislation and administration formed exclusively on Confucian principles, it is by them also that the more important acts of the private life of the Chinese are regulated, as for
instance marriages. The cause of the prevalence of Mahomedanism in China, in spite of discouragements, lies in the fact that Confucianism says little or nothing of a supernatural world or of a future existence. Hence it leaves almost unsatisfied those ineradicable cravings of human nature, the desire to revere and the longing for immortal life. That it has, notwithstanding its want of these holds on the human heart, maintained itself not simply in existence, but as the ruling system, is a fact that must, as soon as it is perceived, form for every true thinker a decisive proof of the existence of great and vital truths in its theories, as well as through soundness and wholesomeness in the practical rules which it dictates. By Chinese philosophy must be understood Confucian philosophy; and by Chinese morality, the moral principles rooted in that philosophy.

In order to get a distinct general conception of the Chinese philosophical literature, two epochs must be specially kept in mind. The first began with Confucius (Kung-tzse), who was born B.C. 551, and ended with Mencius (Mang-tzse), who died about B.C. 317. The second began with Chow-keen-ke or Choo-tzse, who commenced his labours about A.D. 1034, and ended with Choo-ke or Choo-tzse, who died in A.D. 1200. The first lasted for seven generations. It was separated by an interval of thirteen hundred years from the second, which lasted for five generations. Both were periods of revival of ancient learning and of further development. Both embraced several celebrated philosophers besides those mentioned, but in each case it was the originator and closer of the epoch who became most celebrated. The writers of the second epoch are often mentioned as the philosophers of the Lung dynasty; which latter was established in A.D. 960, about 70 years before Choo-tzse’s labours began, and continued in possession of the sovereignty till A.D. 1271, about 70 years after Choo-tzse’s labours closed. Confucius, though his name in the west became identified with Chinese learning, was by no means its originator. Authentic, though not full records, embodying ethical and political doctrines, extended back to B.C. 2557, or to about eighteen hundred years before Confucius; while the Chinese philosophy originated with Fuh-he, who lived, according to tradition, some twenty-three generations before the exact chronological era, which latter took place B.C. 2637 with the institution of the national cycle of sixty years. Allowing thirty years to a generation, this would place Fuh-he about B.C. 3327. It was he who substituted writing for the knotted strings that had previously formed the only means of record; and it was he who first established marriages and separate families. To him are also ascribed some civilization labours of lesser but still great importance,—the division of the day into twelve Shé-shin, or watches, of two hours each. Fuh-he is therefore the founder of Chinese civilization generally. But he is perhaps best known as the originator of the natural philosophy, and in particular as the author of the Eight Diagrams. He constructed these after a careful and extensive survey of nature and its varied phenomena, as exhibited in the departments which we call astronomy, meteorology, physical geography, and natural history and after reflection on his own nature, physical and mental, and on the nature of men generally, as manifested in the events of the social life around him. The Eight Diagrams consist alternately of whole and broken lines. They have never been read, but they have not the less been made the basis of an ancient system of philosophy and divination. Fuh-he’s diagrams, as re-arranged, together with the short explications of the first monarch of the Chow dynasty and his son, form the basis or text of the first of the Chinese Sacred Books, the Yih-king. After an interval of six centuries, Confucius edited the Yih-king, and appended those annotations which have given the work its subsequent value. What philosophical views may have been attached to the Yih-king of Wan-wang and Chou-kung by the contemporaries of Confucius, we know not. That work, together with the other three works edited or compiled by Confucius, viz. the Shu-king books and the Le-ke, constitute the whole of the ancient literature of China which has come down to posterity, and who have it only, as it was explained, arranged or modified in passing through his hands. It is well known that he expressly repudiated portions of it, as containing doctrines adverse to the views which he held and strove to diffuse. The names only of some celebrated ancient books, one dating from the times of Fuh-he himself, have been preserved. It is these circumstances which constitute the labours of Confucius the commencement of a distinct literary epoch. Apart from the labours of Confucius himself, the permanent literary results of this, the first of the two great epochs to which attention has been directed, are contained in the collection of works called the Four Books, composed by different members of the school which he founded. The last contains a record of the ethical and political teachings of Mencius (Mang-tzse), who died about B.C. 317, and closed the first epoch.

Choo-tzse was the originator of the second epoch of philosophical development. To him is ascribed the merit of having revived that distinct knowledge of the greatest truths, which had been lost to the world for the thirteen centuries that had elapsed after the death of Mencius; and he is regarded as having by the independent efforts of his own mind, unaided by any master. Only two of his works have been preserved, the Tea-heeh-too-shwo and the Tung-shiat. He died in A.D. 1200; and in A.D. 1241 an imperial re-script ordered his tablet, with those of four of his immediate predecessors whose works he had annotated, to be placed in the temple of Confucius, which is to be found in every district city throughout the empire. From that time his views of philosophy, morality, and politics have been supreme in China. His commentaries on the Yih-king and the Four Books are learnt by heart by millions of Chinese, with the text of these works. The public service examinations cannot be passed unless this be done.

The fact is, however, that though the authors of the first and second epochs, Confucius himself included, professed to teach only what was contained in pre-existing sacred books, and though they possibly themselves believed that they did only teach what was virtually contained in such pre-existing books, they nevertheless did, in each case, originate some entirely new views and doctrines.
The Yuen dynasty, which succeeded the Sung in A.D. 1271, were Mongols, immediate descendants of Chengiz Khan, who adopted Chinese civilization only in a very slight degree, and were consequently soon expelled again. Choo-Yuen-Chang, the first emperor of the native dynasty, the Ming, which succeeded them in A.D. 1368, though a promoter of literature, was himself illiterate, having been a servant in a monastery. But the third sovereign of the line, who began to reign A.D. 1403, had a splendid library formed, and several encyclopaedic works compiled. He published an edition of the Sacred Books, which is known by the affix to their title of 'Treasure,' in full parentheses.

Religion.—Mahomedanism was introduced by an Arab, Wos-Kassin, said to have been Mahomed's maternal uncle; but the Mahomedans are neither zealous in the propagation of their doctrines, nor over strict in the observances of their religion. They are perpetually resisting against the Government. In 1863 those living in the north went into open revolt, and spread a ruin and devastation not yet (1882) remedied.

Christianity penetrated into China as early as the 5th and 6th centuries; in the 13th it was very flourishing, and there existed at Pekin an archbishop with four suffragans. The general who conquered Southern China is stated to have been a Nestorian Christian, and to have built a church at Nankin for those of his own faith. Marco Polo, a Christian, was in high favour. We learn from the Mahomedan travellers, who visited China as early as A.D. 850, that when Canton was taken and sacked in A.D. 877 by a rebel army, as many as 120,000 Mahomedans, Jews, Christians, and Parsees perished in the sack (Prinsep's Tibet, Tartary, and Mongolia, p. 10). The Chinese have also books of Christian doctrine, composed by ancient missionaries, and which, even in a purely literary point of view, are much esteemed in the empire. The Chinese designate the Christian religion as the religion of the Lord of heaven (Huc, i. xvi. p. 68). A French missionary, who had been very much in the interior of China, stated the total number of native Christians at 500,000. M. Huc's estimate is 800,000, scattered over all China proper in small communities. They differ from their own countrymen in many of those social and domestic customs and in all those mental peculiarities which constitute the special nationality of the Chinaman. Dr. Knowlton has stated that if the present ratio of conversions goes on as it has for some years back, 'by the year 1900 the native Christians in China will number over two millions!' (Huc, Chinese Empire, i. p. 160.) A popular uprising began in 1848. It originated in 1850 in the teachings of Mr. Roberts, an American missionary, and those of an earnest Chinese disciple. It became blended with the national struggle of the Tae-ping, or the votaries of the divine kingdom of eternal peace. According to the writings of Hung, once a schoolmaster, but afterwards the 'Heavenly Prince' and acknowledged head, the convert, on coming to baptism, pronounced a solemn vow to take the belief in the Father, Son, and Holy Ghost for his rule of life, and to dedicate this life to God, in love to the brethren; while visits to the tombs of ancestors were enjoined, in gratitude for the release of their immortal souls from this trouble-some life, and to renew the vow of life-long devotion to the cause of God and the brethren. The Bible was the word of God, the Ten Commandments the moral law, and opium-smoking a sin equal to adultery (Bunsen, God in Hist. i. p. 272). Chevalier Bunsen was of opinion that the Chinese worship of the dead is the sole connecting link between them and a future state. In their disbelief of immortality and of God, Quinet doubts if they have, in the past 5000 years, lived a single day (Bunsen, God in Hist. i. pp. 265-7). But the nation believe in spirits or disembodied beings, and Chinese officials address letters to their deities, which they despatch in a fire sacrifice. Their philosophies are noticed above.

Throughout China some vague idea is entertained by the people of the existence of one great being, whom they usually designate as Shang-ti, the Supreme Ruler, the Supreme Sovereign, or whom they call Tien, Heaven; and believe that he, by a fixed destiny, controls all affairs; and as such, Tien is taken to be an appellation of the godhead of men. The learned among the Chinese speak of him, as he is represented in their most ancient classics, as having no form, nor sound, nor savour, nor tangibility; and to their minds he appears divested of all distinct personality. The spiritual ministers of heaven they call Shin, expansive spirits, or Shin-ming, illustrious spiritual beings. They divide them into two large classes, of which one is the Tien-shin, or heavenly. But the whole number of these spirits are dependent upon, and ruled by, Tien, or the Supreme Ruler of heaven. They rarely build any temple for the worship of Shang-ti. Still the people universally pay to Heaven, or to Heaven's Lord, a sort of homage daily. Every Chinese house has a lantern suspended outside the street door, and directly over the middle of the doorway, which they call Tien kung-tang, Heaven's Lord's lantern, or simply Tien-tang, Heaven's lantern. These lanterns are all lighted up, and incense is burnt for him during a short time every evening. Also, one day in every year they profess to devote to his honour, the ninth day of their first month, which they call his birthday! Then they have plays acted to please him!

They have an idol. Choo-tai-tsoo, the founder of the Ming dynasty, ordered the manufacture of a metallic figure of a man, 15 inches high, attired as a Taoist priest. This is carried in procession on the installation of every Chinese emperor. Three fingers of the left hand are placed in its mouth; and in the hand is a tablet inscribed, 'Fast for three days, and you will be rewarded.'

The inferior state deities are—
Kwan-te, a distinguished general, the protector of the peace, who is now their god of war.
Lung Wong, or the Dragon King, a rain god.
Yuh Wang-te, or the Pearly Emperor, another rain god.
Mung-Chang, worshipped by schoolboys and collegians; god of learning.
Shing Wong, the protector of walled cities.
Hung Sing Wong, the deity presiding over the Southern Ocean.
Pho-te or Pak Tai, the great deity of the north.
Five genii preside over the five elemental substances, fire, earth, water, metal, and wood.
Tien Hou, queen of heaven.
Koon Yum, the goddess of mercy.
Kuan Fo, the tutelary goddess of women and children; the Venus genetrix of the Chinese.
Shao Tseh, god of the land and of the grain.
Fang Po Shan, the wind and fire gods.
Too Tse, the god of wealth.
Wong Tsz is a deity to whom the Shu-king and She-king ascribe the attributes of omnipotence, omniscience, and immutability.

Poon Koo Wong, with the Chinese, the first parent, a division of the mundane egg. He breathed on gold and on wood, and from the vapour produced a son and daughter, Yong-Yee and Chun-Noce. Poon Koo Wong has many temples, and his image is carved in wood or clay.

Their chief festival occurs on their new year; their festival of Too-tee, of middle heaven, of Thshat-tsie, of the sun, of Wawong, the god of fire, of Ching-yong, the emperor's birthday.

Shu Yee is a Chinese festival of burnt-offerings to the souls of paupers.

San Lin is the new year festival; it is their bacchanalia. The new year commences with the moon nearest to 15° of Aquarius, into which sign the sun passes in the month of January. They also hold as festivals the 1st and 15th day of each month. These bear some resemblance to the Mæninia, or feasts observed by the Hebrews, Egyptians, Persians, Greeks, and Romans, and seem identical with the Hindu fortnightly ceremonies.

Tuen Nin, or Wa Shun, a Chinese festival held on the 28th or 29th of the 12th month, in which thanks are given to the tutelary deity of the house.

Tien Chung Ching Sî is the Chinese feast of the middle heaven.

Thshat-tsie, a Chinese festival held during the 15 days' observance of the Shu Yee, burnt offerings for paupers. It is held on the 7th day of the 7th month, in honour of the seven stars which the Chinese regard as goddesses, one of whom visited earth, and was married to, and lived for a time with a cowherd.

Literature.—The greatest counterpoise of the imperial power consists of the literary aristocracy, or corporation of men of letters, an ancient institution, which has been established on a solid basis, and the origin of which is at least as early as the 11th century before the Christian era. It may be said that the administration receives all its real and direct influence from this sort of literary oligarchy. The emperor can only choose his civil agents from among the lettered class, and in conformity with established arrangements. Every Chinese may present himself for the examination for the third literary degree, and those who obtain this may then become candidates for the second, which opens the way to official employment. To fill the higher offices, the prize must be obtained in the competition for the first degree. The corporation of lettered men, recruited every year by the method of examination, constitutes a privileged class, almost the only nobility recognised in China; and it may be considered as the chief strength and nerve of the empire. The famous imperial academy of Han-Lin is composed of literary graduates. It furnishes orators for the public festivals, and literary examiners for the province, and is supposed to promote the cause of learning and science generally.

Five canonical books were written or compiled by Confucius,—

1st. Yih-king, the Book of Mystical Combinations, mystical form of writing on divination.
2d. Shu-king, or the Book of History, descents from B.C. 2400 to 281. It is in the character of a dialogue, and contains much of a didactic nature.
3d. The Shao-king, or Book of Poetry, a collection of poems, songs, and odes of inappreciable antiquity, to which Confucius attached great value as a means of moulding the national character.

4th. The Le-ke or Record of Rites, a national ceremonial; and the Chinese consider the observance of its ceremonies and usages to be essential to the maintenance of social order and the promotion of virtue.

5th. Chiun-Ts'ew, or Spring and Autumn, a history of his time, and of several reigns immediately preceding it. The first four King were compiled and edited by Confucius; the last is an original work by the sage; but the fourth contains much from later hands.

There are three books, in which the disciples of Confucius have recorded his conversations about poetry, history, and the rules of propriety; above all, about what concerned the growth of social virtue in the individual or the state.

In the year B.C. 213, the emperor Chi-wang-ti burned all the books in his dominions, excepting those on architecture and medicine. The sixth emperor after him, King-ti, commenced the restoration of all books, which Won-ti, who succeeded him B.C. 140, urged on. The materials he collected were put together by See-ma-thsian, whose work was named the Sse-ki, or Historical Memoirs. This is composed of 120 books, and embraces the history of China from the reign of Hoang-ti, B.C. 2097, to that of Hiao-wou, A.D. 122, which has been the model of all succeeding writers. It is divided into five parts, entitled the Imperial Chronicle, Chronological Tables, the Eight Branches of Science, Genealogical Histories, and Biography.

See-ma Ching is the next historian, also called Siao Sse-ma. He lived towards the end of the 6th century. His book is called San-hoang- penki, and is half mythological.

See-ma Koutang flourished in the 11th century. His great chronicle is the Tseu-teh-thoung-kiian, or Mirror for the use of Governors, and consists of 294 books of text, 30 of tables, and 30 dissertations and discussions, and embraces a period of 1362 years. He had several turns of prosperity and adversity whilst alive, and after his death his tomb was thrown down; but in A.D. 1267 his honours were restored, and his name inscribed in the temple of Confucius.

Jin Kim, or Classes of Men, is a Chinese book of great authority. In it the sages occupy the first chapter, and in this Confucius is placed high above all others.

Li is a Chinese word of very extensive meaning, sometimes rendered reason, courtesy, propriety, good breeding. The saying is, Li and Wen (learning) make up the whole sum of human excellences.

Two other classics, known as the Four Books, are mostly Confucian. They are the Ta-heo, or Great Study, the Chung-yung, or Invariable Mean, the Lum-yu, or Miscellaneous Conversations, ethical and philosophical works, which are allied with those of Mang-tze.
The Chinese written language consists of picture words. The alphabet is a hieroglyphic system, each word having its own graphic representative. Chinese is monosyllabic; no word is allowed more than one consonant and one vowel. Hence the possible number of words is extremely small; but each word can be pronounced with various accents and intonations, of which there are said to be 450, and the number of words or ideas in Chinese is said to be 43,496. The vastness of this amount will be appreciable, by mentioning that only about 5000 words occur in the Christian Old and New Testaments. A student of average memory should be able in five years' study to store up enough to carry him through any ordinary business or official documents. M. Remusat, in his Grammaire Chinoise, notices three styles of the Chinese written language, which he calls style antique, style littéraire, and langue des magistrats, or langue mandrínique. Mr. Meadows considers (Des. Notes, p. 13) Remusat not quite correct in this definition. Nevertheless M. Huc also says that the Chinese in their written language have three distinctions of style,—the antique or sublime style, the type of which is to be found in the ancient literary monuments, and which exhibits very rare grammatical forms; the vulgar style; and the academic style, which partakes of the two preceding, being less concise than the antique, and less prolix than the vulgar. The vulgar style is employed for light productions, theatrical pieces, private letters, and proclamations intended to be read aloud. The spoken language is composed of 450 monosyllabic intonations, which, by the very subtle variations of the accents, are multiplied to about sixteen hundred. It results from this, that all Chinese words are necessarily grouped in homophonous series, whence a great number of double meanings may arise either in reading or speaking; but their difficulty is avoided by coupling synonymous or antithetic words. In this manner the ambiguities disappear, and the conversation is no longer embarrassed. The language called Hounan-hoa, that is to say, common universal language, Europeans wrongly designate Mandarin language, as if it were exclusively reserved for the mandarins or functionaries of government. The Hounan-hoa is the language spoken by all instructed persons throughout the eighteen provinces of the empire, but in this a distinction is made between the language of the north and that of the south. The former is that of Pekin; it is marked by a more frequent and sensible use of the guttural or aspirate accent. It is spoken in all the provincial government offices.

The Chinese have six styles or modes of writing their characters, the most elegant being the Kaishoo.

The Chuen-shoo style is the ancient mode of writing, and is derived immediately from hieroglyphics, and is either a caricature or a stiff and imperfectly written character.

The Lo-shoo is used by official attendants, and is written with greater freedom than that employed in books.

The Ping-shoo is the regular running hand used when quick writing is needed.

The Tsau-tzee is a hasty and abbreviate style, used in ordinary transactions and correspondence.

The Sung-ti is the regular form of the character used in printing.

The regular system, by which the Chinese pay to their written character amounts almost to worship. The literati employ men to traverse the streets of towns and villages to collect waste-paper from dwelling-houses and shops, lest fragments bearing Chinese characters should be trodden under foot. Each man is provided with two baskets, and at his call, 'Sow-suee-chu!' Spare the printed paper! The people rush to the door and empty their waste-paper baskets into his. When his baskets are full, he takes them to the temple or guild, provided with a furnace for the purpose of consuming such collections, and in many instances the ashes of this paper are put into earthenware vases, and flung into a tidal stream to be borne out to sea.

The essays of candidates for the various degrees must be in the best calligraphy, and the Kaishoo style is that adopted by them. They must have at least 30 characters in their essays, and not more than 720.

Chinese Currency.—Sycee silver, in Chinese Wan yin, is their only approach to a silver currency. In it the government taxes and duties, and the salaries of officers, are paid; and it is current among merchants in general. The term Sycee is derived from two Chinese words, Se-szé, fine floss silk; which expression is synonymous with the signification of the term Wan. This silver is formed into ingots (by the Chinese called shoes), and by the natives of India, kluri, or hoops, which are stamped with the mark of the office that issues them, and the date of their issue. The ingots are of various weights, but most commonly of ten taels each.

Sycee silver is divided into several classes, according to its fineness and freedom from alloy. The only coined money in China are the brass pieces with a hole in the centre. Silver is sold by the weight, and an ounce is the equivalent of 1700 to 1800 of these brass coins, which are called 'sapek' by Europeans. They have some pieces of brass, called tsian, and in Mongol tchoe,
of which the inhabitants of Siberia make tehek and tehek; they are of less value than a sapec. A kind of notes are in circulation among private persons.

Weights.—The Chinese have communicated their weights to all the adjacent countries. A pikul is equal to 1334 lbs. avoirdupois; and 4 lbs. being equal to 3 catties, 100 catty make a pikul.

10 cash = 1 candarin. 16 tael = 1 catty. 100 catty = 1 pikul.

Calendar.—The Han dynasty of China reformed the calendar. The Chinese, like all the natives of the north-east of Asia, reckon their time by cycles of 60 years, and give a different name to each year of the cycle. The Chinese cycle of sixty years is called Hwa-kea-tsze. The year commences from the conjunction of the sun and moon, or from the nearest new moon, to the fifteenth year of Aquarius. It has twelve lunar months, some of twenty-nine, some of thirty days. To adjust the lunations with the course of the sun, it is necessary, on each year, to add an intercalary month. Day and night are divided into twelve periods, each of two hours. Their division of the day is therefore as simple as the British, and not much unlike it. The Chinese begin the day an hour before midnight, and divide the twenty-four hours into twelve parts of two hours each. Instead of numbering their hours, they give a different name to each period of two hours.

Tze, 11 to 1 morning. Woo, 11 to 1 afternoon.
Chow, 1 to 3
Yin, 3 to 5
Mao, 5 to 7
Shin, 7 to 9
Sec, 9 to 11

The word Keau is added when the hour of each period is intended, and Ching for the last. Thus Keau tze is eleven at night, and Ching tze, twelve at night; Keau chow, one in the morning; Ching chow, too; etc. The word K'hih, 'quarter,' is used after the hour with the numerals yih (one), urh (two), or sau (three), to subdivide the hours into quarters, which is the smallest division commonly employed; example, Ching mao yih k'hih, a quarter past six; Keau woo urh k'hih, half-past eleven.

This division still maintains itself in legal and official language, though the practical value of the European clocks and watches, now largely used in China, is gradually substituting for it the occidental division of twelve hours.

Industry and Art.—The Chinese are laborious, discriminating workers and inventing race skilful in economizing materials, and possessed of no mean share of inventive power. Foreign nations have borrowed from China many of the comforts and ornaments of life. The very names of such aids to existence as silk, satin, and tea are in most European lands a sufficient proof of this fact, being but slight modifications of the Chinese words zee, sze-tun, and tê. Their knowledge of the magnet is supposed to have led them to a knowledge of the compass. Their ordinary ink, composed of lamp-black and glue, is sufficiently pure to be used in the arts. Their ordinary cotton-cleaning machine, for freeing the cotton fibre from the seeds, has not yet been equalled by all the mechanical skill of Europe. In all working in metals,—in ordinary blacksmith work, metal smelting, alloys, particularly their white metal of copper, zinc, iron, silver, and nickel, their sonorous gongs and bells, that of Pekin being 14½ feet to 13 feet, and their ingenious metallic mirrors, some with engravings; their manufactures of porcelain, glass, and glazes; their carving and engraving of gems, agates, and rock crystal, and on ivory and wood, have for centuries been famed, and much of it excites the admiration of Europe, as also does their varnish work. Their lacquerware is beautiful, though perhaps excelled by that of Japan; their excellent metallic colours, red, white, green, and violet, are used in painting their china-ware. Their porcelain long; exceeded that of all other countries. The gold and silver tinsel cloths of Pekin stand deservedly in high estimation; and their gold and silver filagree work equals and is ever produced by ancient Venetian masters; and their chasings in silver and enamelling on silver is unrivalled (see Carving, Lacquer-ware, Colours, Ceramic Manufacture, Enamelling, Filagree Work). In weaving they are superior, in candle-making not inferior, but in painting and sculpture they do not excel. They are bold, self-reliant, skilful gardeners, and excellent farmers, and date their skill in these back four thousand years.

Husbandry and silk-weaving were the earliest of the arts cultivated by this people. The former was introduced by Shin-nong, the immediate successor of Fo-hi, and silk-weaving by an empress; and to both of these inventors the Chinese perform annual sacrifices on their festival days. Husbandry is still highly honoured; and annually, at a grand festival in honour of the spring, the emperor ploughs a field. The Egyptians, Persians, and Greeks held games and festivals, mingled with religious ceremonies, at seed-sowing; and in England, formerly, the festival of Plough Monday was held, during which the plough light was set up before the image of the patron saint of the village. The Chinese, in the reign of Hoang Ti, invented the magnetic needle, the smelting of copper for making money, and vases of high art; and money seems to have been coined in gold and silver and lead so early as Confucius' time, but many payments are still made in kind or by pieces of silver. Most of their calculations are made by a reckoning board. Sir John Davis is of opinion that the art of printing, the composition of gunpowder, and the magnetic compass, which are justly considered in Europe as three of the most important inventions or discoveries of modern times, had their first origin in China. In the beginning of the 10th century printing was invented, and in A.D. 932 that mode of multiplying copies of books received the imperial sanction; a printed imperial edition of all the sacred works having been then published. The greatest of all the arts was not invented in Europe till 500 years after this. Marco Polo speaks much of the stamped paper money of the Chinese; and he must have seen their printed books. Their printing types are made from the pear-tee wood, called by them Ly-mo.

Eighteen centuries ago they had discovered the secret and means of manufacturing paper. Before that invention, they used to inscribe written characters on strips of bamboo or sheets of metal, using a style, or iron pen, for the purpose of marking the characters. Before the art of paper-
making had arrived at perfection, the Chinese had adopted the practice of writing upon white silk, or cotton, with a bamboo pen; this was found a more convenient method than writing either on strips of bamboo or sheets of metal, as the silk or linen could be folded into a small compact. Paper is manufactured from various materials, each province in that district having its own peculiar manufacture. In Foh-kien province, which is formed of dry isinglass, it is manufactured young, soft bamboo; in the province of Chekiang it is made from paddy straw; in the province of Kiang-nan it is made from the refuse silk, and this paper is very fine and delicate, being highly valued for writing complimentary inscriptions upon. To size the paper and render it fit for ink, they make a glue, somewhat similar to isinglass, from fish-bones; these they chop up very small, and soak the mass in water, which is continually renewed. When all oily impurity is extracted, they add a due proportion of alum which has been dissolved. Over the vessel in which this mixture is, a rod is laid; a clift stick is used for holding the sheet of paper during the process of dipping. As soon as the paper has been sufficiently saturated, it is withdrawn by gently rolling it round the stick which has been laid over the vessel; the sheet of paper is afterwards hung to dry either near a furnace or in the sun. Towards the close of the 19th century, they have thought of introducing railways, have worked their coal mines on the system of power, and have formed steam-mills for spinning and weaving cotton and wool, and have established steam navigation companies and steam war-ships.

The trade with India and China ranks next after that with the United Kingdom; in the year 1878 the total value of the foreign trade of China was as follows:—Imports, 70,804,027 Haikwan taels, or, at 5s. 11¾d., £2,019,670; exports, 67,172,179 taels, or £20,011,711; total, 137,976,206 taels, or £41,105,000. The customs revenue in 1878 increased to 12,483,988 taels. The total value of the trade of China with Great Britain and her possessions is set down at 64,943,997 taels or £19,347,899 imports, and 46,022,719 taels or £13,710,935 exports; making together 110,966,716 taels or £33,058,834.

Domestic and Social Relations. — Polygamy exists, and any man may have his second, third, or inferior wives. Women, even as first wives, do not take a favourable position in their household, though as mothers their condition is improved. Chinese differs from Mahomedan polygamy in this, that a Mahomedan woman can legally hold property, is the owner of her own dower, and each wife has a separate establishment and a separate allowance for herself. In China, the extent to which wives are, by law and custom, in the power of their husbands, would produce deplorable effects, but for the almost unlimited power which law and opinion give mothers over their sons of every rank and age. So also the institution of polygamy is largely counterbalanced by the desire of all the men to marry early, in order to secure a progeny of sons as soon as possible. Polygamy is encouraged by the law which compels gentlemen and tradesmen to give their slaves in marriage, and by the physiological views which compel a husband to abstain from cohabiting with his wife during pregnancy, and during all the time the child is at the breast. Wealthy Chinese are generally very careful to follow this custom. The dread of unhappiness caused by polygamy has kept many Chinese girls from marrying, and instances occur of suicide to avoid it. The imperial household is probably unsurpassed in extent, there being married to the emperor, not only the chief wife, who is the empress, but also under-wives of first, second, and third classes, on all of whom he is married. The imperial porcelain factories of K’i-nih-ch’in forwarded to the palace for their use, in the year 1877, 11,888 articles, consisting of fish-bowls, flower-vases, and ornamental jars of the first quality, and inferior products in proportion.

In China, children are married according to seniority, as in Genesis xxix. 26, and Book of Tobit viii. 1. In China, parents choose wives for their sons, as was customary with the early Hebrews, as in Genesis xxi. 21. xxviii. 6. Deut. xxi. 16. and as still prevails with most of the Eastern races. A Chinaman cannot take as a wife a woman who bears the same family or clan name as himself; such a marriage is null. Neither can he marry his cousin on his mother’s side, nor his step-daughter, nor his aunt, the sister of his mother. No lady can marry until she is fourteen years of age. Napp-pie is the presentation of silks in betrothal, as in Genesis xxiv. 22. The bride is seldom seen by the husband, until she leaves the clan chair when she is conveyed, with her belongings, to his house. Mandarin ducks are introduced at marriages as patterns of conjugal felicity. The last part of the ceremonial is for a female attendant to present to the bridegroom a small linen sheet, which he spreads on the nuptial couch, and on the following morning it is presented to his parents. In China, widow re-marriage is not respectable, and a girl whose betrothed dies is regarded as a widow.

Cosmetics are much used by Chinese ladies; they are forbidden to be used by a bride on her marriage day, and are not used in mourning. Playactors, policemen, boatmen, and slaves must marry into their own respective classes. As in Matthew’s Gospel, xxv., lanterns are much used.

In the little feet of the Chinese women, the four smaller toes appear grown into the foot, the great toe being left in its normal position; the fore part of the foot is so tightly bound with strong broad ligatures, that all the growth is forced into height instead of length and breadth, and forms a thick lump at the ankle; the under part measures scarcely four inches long and an inch and a half wide. The foot is constantly bound up in white linen or silk, and strong broad ribbons, and stuck in a very high-heeled shoe. The crippled fair ones trip about with tolerable quickness; to be sure, they waddle like geese, but they manage to get up and down stairs without the help of a stick. The feet of their women are naturally small, but at six or nine years of age they are trained into a deformity. Long bandages of cotton cloth an inch wide are folded round the foot, and brought in a figure of eight form from the heel across the instep and over the toes, then carried under the foot and round the heel, and so on, and drawn as tight as possible. After some years, if the bandage has been well applied, the pain subsides. The tarsus is bent on itself; the back of the os calcis is brought to the ground. A large foot is a sure
indication of humble birth. It is not, however, the
mark of aristocratic or wealthy station, but a Chinese
as opposed to a Tartar practice, though indeed
some Chinese races do not follow it. Infanticide,
of which the husbands are the only perpetra-
tors, is not uncommon; but female children
only are murdered, and those immediately after
their birth. This horrible crime meets with no
punishment from the laws of the country; a father
being the sovereign lord of his children, he may
extinguish life whenever he perceives, or pretends,
that a prolongation of it would only aggravate the
sufferings of his offspring. Professor Douglas is
of opinion that it is only abject poverty which drives
Chinese parents to the rough resource of
infanticide, and that in prosperous districts such
primitive method of providing for children is
unknown. But the stone which stands near a
pool outside the city of Fu-chu, bearing the
inscription, 'Girls may not be drowned here,'
proves that the inestimable blessing of possessing
daugthers is not yet appreciated as it should be
by Chinese parents.

The Chinese are not a moral, though they are a
ceremonial people. Their usual salutation when
meeting is Haou-tsing-tsing? Are you well?
Hail! Hail! Social conversation is replete with
compliments, compelling even the most egotistic
talker always to speak of himself as 'the little
one,' the mean one,' the stupid one,' or 'the
cheap one;' and allowing such a greeting as 'I
congratulate you on having acquired wealth,' to
be addressed to a passing beggar. They, like
most of the natives of the East, waste much time
before commencing the business for which they
meet. The conversation must always begin on
indifferent and mostly insignificant subjects, and
at the end of the visit you explain in three words
what really brings you there. The visitor rises,
and says, 'I have been troublesome to you a very
long time;' and doubtless, of all Chinese com-
pliments, this is the one that most frequently
approaches the truth. They are not truthful. Sir
John Bowring says (p. 105) his experience in
China predisposes him to receive with doubt and
distrust any statement of a nature when any, the
smallest, interest would be possibly promoted by
falseness. They are largely given to the use of
opium. Mr. Knowlton estimates that there are
2,351,115 confirmed opium-smokers, or one in
every 170 of the population.

In ordinary quiet times they appear to main-
tain order as if by common consent, independent of all
surveillance or interference on the part of the
executive. But let them be brought into contact
with bloodshed and rapine, or let them be roused
by oppression or fanaticism, and all that is evil in
the human nature which at onceassert itself, inciting
them to the most fiendish and atrocious acts of
which human nature has been found capable.
Both kindliness and cruelty, gentleness and
ferocity, have each its place in the Chinese
character; and the sway which either emotion has
upon their minds, depends very much upon the
associations by which they are for the moment
surrounded. When in their own quiet homes,
pursuing undisturbed the avocations to which they
have been accustomed, there are no more harm-
less, well-intentioned, and orderly people.

They are good agriculturists, mechanics,
labourers, and sailors; and they possess all the
intelligence, delicacy of touch, and unwearying
patience which are necessary to render them first-
rate machinists and manufacturers. They are,
moreover, docile, sober, thrifty, industrious, self-
denying, enduring, and peace-loving to a degree.

They emigrate to any climate, be it hot or
frigid. All that is needed is teaching and guiding,
combined with capital and enterprise, to con-
vert them into the most efficient workmen to
be found on the face of the earth.

On the pressure of want they readily part
with their children, especially girls, and girls are often
destroyed. On the other hand, asylums exist in
China for aged men and women, for the blind, and
for lepers. The aged men are treated with great
respect, and are allowed to have walking-sticks,
which are not used by Chinese, long-stemmed
pipes being employed. Monumental arches are
raised to their honour.

Food.—The great staff of life in China is rice,
which is either eaten dry, or mixed with water so
as to resemble porridge. Then rice they make
their chief intoxicating liquor, which, when good,
is something like strong whisky, both in its colour-
less appearance and its smoky flavour. Several
vegetables are consumed, such as the sweet potato,
Barbadoes millet, peas, beans, turnips, carrots,
etc. Of their fruits, the orange, lichee, loquat,
and mangoes are much in use. Their favourite
animal food is pork, the taste for which is national.
There is a maxim prevalent among them, that a
scholar does not quit his books nor a poor man his
pigs. The flesh of the bullock, sheep, deer, dog,
cat, wild cat, rat, and horse is eaten, but compared
with that of swine these are rarities. Fish are
eaten in great abundance, either fresh, dried, or
salted; and they rear great quantities of ducks
and various species of fowl for the table. The
comprehensive principle on which Chinese diet is
regulated, is to eat everything which can possibly
give nourishment. Their notions as to dogs
and mice are rather quizzical. The luxuries
consumed by the rich consist of the edible bird's
nest, the beche de mer or sea-shag, shark fins,
fish maws, cow sinews, points of stag antlers,
buffalo hides, which afford the gelatinous food
considered so restorative. Amongst their deli-
cacies also are dishes made of the larvae of the
sphinx moth, and of a grub bred in the sugar-
cane. In China, the various modes of catching
and rearing fish exhibit the contrivance and
skill of the Chinese quite as much as their
agricultural operations. According to the Re-
pository, at least one-tenth of the population derive
their food from the water, and necessity leads
them to invent and try many ingenious ways of
securing the finny tribes. Besides fish, molluscs of
every kind, crustacea of all kinds. A Chinese
is prohibited by law from killing a cow. The
punishment for slaughtering a draught cow or ox,
for the first offence, is one hundred blows; for
a second offence, the same number, and exile
for life from the province.

The amusements of the Chinese comprise
theatrical representations, pyrotechnic displays,
marionettes, peep-shows, conjurors, athletes,
ventrioloquists, regattas, cricket fighting, quail
fighting; and they are very fond of singing-birds.
The horse commonly seen in China is a mere
pony, not much larger than the Shetland pony;
it is bony and strong, but kept with little care,
and presents a worse appearance than it would if its hair were trimmed, its fetlocks shorn, and its tail untied. This custom of knotting the tail is an ancient practice, and the sculptures at Persepolis show that the same fashion prevailed among the Persians. The Chinese language possesses a great variety of terms to designate the horse; the difference of age, sex, colour, and disposition are all denoted by particular characters.

Flora.—The only trees to the cultivation of which the Chinese pay any attention, are the fruit-bearing kinds; and in some places in China there are very fair orchards, containing the mango, loochee, longan, wangipec, orange, citrons, and pumelows. The yang-mai is a scarlet fruit, not unlike an arbutus or strawberry, but having a stone like a plum in the centre. The kum-quat is a small species of citrus, about the size of an oval gooseberry, with a sweet rind and sharp acid pulp. A small quantity is sent to England preserved in sugar. Groves of the kum-quat bush are common on all the hill-sides of Chusan from three to six feet high, and when covered with its orange-coloured fruit is a very pretty object. The huckleberry, plantain, and persimmon are common, and several varieties are enumerated of each; the plantain is eaten raw and formed into loaves; it is an inconsiderable item in the subsistence of the coolie. The pomegranate, carambola or tree gooseberry, mango, custard-apple, pine-apple, rose-apple, bread-fruit, fig, guava, and olive, some of them as good and others inferior to what are found in other countries, increase the list. The whampoe, leechee, longan or dragon's eyes, and loquat, are indigenous fruits at Canton. The first resembles a grape in size, and a gooseberry in taste; the loquat (Eriobotrya) is a kind of medlar. The leechee looks like a strawberry in size and shape; the tough, rough red skin encloses a sweet watery pulp of a whitish colour, surrounding a hard seed. Grapes are plenty, and tolerably good.

In China, the staple summer crops are those which yield textile fibres. The jute of India, a species of Corchorus, is grown to a very large extent, and in China is used in the manufacture of sacks and bags for holding rice and other grain. The gingers, a giganteum hemp (Cannabis) growing from 10 to 15 feet in height, is also a staple summer crop of China, and is used in making ropes and strings of various sizes, such articles being in great demand for tracking the boats up rivers and in the canals of the country. China grass-cloth, a beautiful fabric made in the Canton province, is largely exported to Europe and America. The Urtica nivea plant, which is supposed to produce this, is also abundantly grown in Kiang-si and other provinces. Fabrics of various degrees of fineness are made from this fibre, but none are so fine as that made about Canton; it is also spun into a very strong and durable thread.

There are two very distinct varieties of this plant common in Che-Kiang,—one the cultivated, the other the wild. The cultivated variety has larger leaves than the other; on the upper side they are of lighter green, and on the under they are much more hairy. The stems also are lighter in colour, and the whole plant has a silky feel about it, which the wild one wants. The wild variety grows plentifully on sloping banks, on city walls, and other old and ruinous buildings. It is not prized by the natives, who say its fibre is not so fine, and more broken and confused in its structure than the other kind. The cultivated kind yields three crops a year. A species of juncus is grown, the stems of which are woven into beautiful mats, used by the natives for sleeping upon, for covering the floors of rooms, and for many other useful purposes. This is cultivated in water somewhat like the rice plant, and is therefore always planted in the lowest part of these valleys. In the beginning of July, harvest of this crop commences.

Burials.—When the life has departed, the dead body is arrayed in robes of state, or in most costly apparel; ablations are not performed, nor any unnecessary handling of the body suffered. White is the sign of mourning. The Chinese worship the spirits of the dead; and amongst that nation the desire to have a good coffin is universal. Many purchase for themselves that last tenement, and keep it by them, and it is usually substantial, of metal or wood. In Burma, where many Chinese are settled, the best block of teak is selected, and, the upper portion being sawn off to form a lid, the block is hollowed and ornamented. These may be seen in Moulmein in every carpenter's shop. In China, the coffin-makers' shops have a very gay instead of a lugubrious appearance, as the coffins are small, but the red, or some equally bright colour, and the more expensive ones are decorated profusely with gilt; these coffins are placed on shelves one above the other, and the prices vary from one dollar up to four or five hundred. They are often presented by children to parents. The funeral customs of China vary in the different districts. In Foh-kien, the body is placed in a coffin soon after death; a fan is placed in the hand, a piece of silver in the mouth, and a hole is sometimes made in the roof for the spirit to effect its exit. The tombs are on the hill-sides, where lucky spots are chosen by geomancers. Paper images of clothes, horses, and other luxuries are cast into the grave, and a sacrifice of cooked provisions is offered on the day of the funeral.

Every year, in the month of April, the whole population visit the tombs and worship the manes of ancestors. Sometimes a poor family will keep the coffin for many months in their house till able to purchase a tomb, but the very poor are content to place a token grave within enclosed buildings. The dead are occasionally left exposed on the sides of hills, at the wayside, and on banks of rivers, creeks, and canals. At Nanking they are exposed in great numbers. The rite of respectful burial is, however, so revered, that burial clubs exist in all the large cities. The monumental tombs are small raised truncated cylinders. In mourning for near relations, every part of the ceremonial is exactly regulated,—even the period, manner, and degree of the mourner's grief being duly prescribed. The corpse, being dressed in warm clothes, is deposited in a substantial coffin, and kept for several days above ground, whilst the survivors express their measured grief by gesture, dishevelled hair, sackcloth, and mournful silence. When a good spot has been selected for the grave, the corpse is consigned to the earth. Building a tomb is a form of a horse-shoe, they inscribe thereon the name of the deceased, erect a tablet to his memory in the hall of his ancestors, and repair annually to the grave, in order to prostrate themselves before the manes, and to offer viaticals in sacrifice to the spirits. In the temples,
CHINA.

Chinese. 

CHINA GRASS.

Boehmeria nivea, Gaud. | Urtica tenenschiza, R.oth.
Urtica nivea, Libn.

Rheen, Assam. Tali rami, Beng., Malay.
Inan Bonos, NepaI.
Gambie, East Celedes. Lepesia, Kankura, Rungpore.
Champa, Chinh. Karao, Tenge, Mao, Jap.
Kolo, Kalove, Sumatra.
Rami. Beng., Malay.

This nettle grows in all the moist countries from Bengal, through Rungpore, Assam, into China, and southward all through the Malay Peninsula into Sumatra, Java, and Celebes. In Bengal and Assam its fibre has only been used for string and ropes by the fishermen and by the Dom race of Assam; but in China, where it has long been woven into the China grass cloth, it is carefully cultivated, and great care is also taken in the process of cutting down, scraping, peeling, steeping, and bleaching the fibre. These, indeed, are detailed minutely in the Imperial Treatise of Chinese Agriculture, lib. lxxvii. fol. 3. When grown from seed, a sandy soil is preferred; the ground is repeatedly dug, formed into beds a foot broad and four feet long, raked and smoothed and watered, again raked and again smoothed, and a pint of seed, mixed with four pints of earth, is scattered on the surface of six or seven beds, and left uncovered in. They are sheltered from the sun by a canopy of matting or grass, which is kept damp, and this shelter is retained till the plants be an inch or two high. The young plants are then to be transferred into a stiffer soil, which is afterwards repeatedly hoed, and top-dressings of fresh horse dung, ass, or cow dung can be used. This process is adopted only where the roots of old plants are not obtainable. The plant grows best from shoots or layers. Dr. Boyce (Fib. Pl. p. 344) gives the following as the Chinese method for preparing the rehea fibre, as adopted in Upper Assam by Major Hanway:—

To cut the Rheea.—The rhea is fit for cutting when the stems become of a brown colour for about six inches upwards from the root. Hold the top of the stalk in the left hand, and with the right hand strip off the leaves by passing it quickly down to the root, and cut off with a sharp knife, taking care to be above the hairy network of the roots, as these should be covered up with manure immediately, to ensure another crop quickly; lop off the tender top to the stalk, and make the reeds up into bundles of 200 or 250 if the stripping process is not to be carried on in the field or garden; but it is best to strip off the bark and fibre on the spot, as the burnt ashes of the stem afford a good dressing for the roots, along with dry cow-dung.

To strip off the Bark and Fibre.—The operator holds the stalk in both hands nearly in the middle, and, pressing the forefinger and thumb of both hands firmly, gives it a peculiar twist, by which the inner pith is broken through, and then, passing the fingers of his right and left hand rapidly alternately towards each end, the bark and fibre is completely separated from the stalk in two strands.

Making up into Bundles.—The strands of bark and fibre are now made up into bundles of convenient size, tied at the smaller end with a shred of fibre, and put into clean water for a few hours, which, he thinks, deprives the plant of its tannin or colouring matter, the water becoming quite red in a short time.

Cleaning Process is as follows:—The bundles are put on a hook fastened in a post by means of the tie at the smaller end, at a convenient height for the operator, who takes each strand separately of the larger end in his left hand, passes the thumb of his right hand quickly along the inner side, by which operation the outer bark is completely separated from the fibre, and the riband
of fibre is then thoroughly cleaned by two or three scappings with a small knife. This completes the operation,—with some loss, however, say one-fifth,—and if quickly dried in the sun, it might at once be made up for exportation. But the appearance of the fibre is much improved by exposure (immediately after cleaning) on the grass to a night's heavy dew in September or October, or a shower of rain during the rainy season. After drying, the colour improves, and there is no risk from mildew on the voyage homewards (Royle, Fib. Pl. p. 314). The French have been growing China grass in small quantities ever since 1844, in which year a packet of China grass seed was sent home by M. Leclancher, surgeon to the war corvette La Favorite. The Rouen Chamber of Commerce reported that China grass fibre has an affinity for colouring matters at least equal, if not superior, to that of the very finest kinds of cotton. The plant will flourish north of Paris, and even in Belgium. Mr. Gray's process was said to produce China grass fibres almost as strong as so much silk, quite as free and unentangled as the fibres of the most perfect samples of cotton-wool, and capable of being spun into as delicate a yarn as ever was produced from the very best Sea Island cotton. It possesses a lustre far exceeding that of cotton, greatly in excess of that of the best fibres of the Linum. His process was said to be practicable on any scale, and also to jute, hemp, New Zealand flax, and various other plants. Lord Mayo directed much attention to this fibre, which is said to bring prices of £60 to £120 a ton. But such prices could only be obtained for well-prepared fibre of the finest quality. It is said to be procurable at Ningpo at £20 the ton.—J. R. A. iii. 590; Royle, Fib. Pl.

CHINAKA. Hind. Brassica Grifithii; Malcolmia striigosa.

CHINAKAM. Singh. Alum.

CHINA KARINGUYA. Tel. Gardenia lucida.

CHINAL, a caste of people in the Deraajt who make carpets; in India, a common woman.

CHINANGI. Tel. Lagerstrenna parviflora.

CHINAPATAM, in lat. 12° 39' N., and long. 77° 13' E., is a Mysore town S.W. of Birdi or Bomadi, 1111 feet above the sea; also the name given to Madras city by all natives of the Peninsula.

CHINAR. Hind. Pterocarya, once so extensively exported from China, is now almost confined to the commonest and cheapest descrip-

CHINDWARAHI.

tions of stoneware. The patterns made by the Chinese seldom change, while the European manufacturers both consult and lead the taste and fancy of their customers; and it is owing to this, in some degree, that the demand for the Chinese fine ware has ceased, though the Mongols, Siamese, Hindus, and islanders in the Archipelago are still largely supplied from China. When the productions of the East were first carried round by the Cape of Good Hope, the porcelain of China bore an enormous price; and the profits of manufacturing it having been ascertained, the European nations began to make it, and soon outvalued the Chinese. Chinese ware is sold in China in sets, consisting of a table set of 200 pieces at from 12 to 75 taels, a breakfast set of 20 pieces at 3 taels, a long tea set of 101 pieces at 11 to 13 taels, and a short tea set of 46 pieces at from 5 to 6 taels.

The Ow-mi-ow, or black Chinese ware ornamented with gold, is very much prized in China; to make it they mix three ounces of azure and seven of the oil of stones; this is laid on the ware, and when perfectly dry it is baked, after which the gold is laid on and the vessel is re-baked. The To-wi-kie is a porcelain prepared simply by varnishing the vessels with a whitish ash-coloured varnish, made from calcined transparent white pebbles. This has the property of marbling and veining the ware, and giving it an appearance as if it had been fractured into many pieces, which had been carefullv reunited. This Chinese ware is highly prized under the designation of cracked porcelain.—Compendium by Hon. Mr. Morrison. See Ceramic Manufactures.

CHIN-CHIN. Chin. Corruption of Tsing Tsing, a Chinese greeting, meaning, I pray you! I pray you!

CHINCHEKD or Mai-ji, in the taluk of Pathara in the Bombay Presidency, has an annual fair in the 15th of the month Paosh, about the beginning of January. It originated from the circumstance of a female devotee named Mai-ji burying herself alive. She was the daughter of a man of the Firoli Kunbi caste of the village of Hewli, in the Jamner district. Being distressed by her husband's want of respect to her, she committed suicide and was buried under Gorakh Nath in the Taran Mal mountain. She finally settled at Chincked, where she was annually provided with a house, which she every year burned, and at the close of the twelfth year she buried herself alive, about the middle of the 17th century. People made vows to her while alive, and after her death to her remains.

CHINCHONA, a genus of plants, natives of South America, several species of which are of great value in medicine, yielding 'bark' or Peruvian or cinchona bark, from which quinine is produced. See Cinchona.

CHIN-CHOO. Chin. The true God, of Chinese Mahomedans.

CHINCHOR, a town in the Dekhan, with a temple containing an idol named Kandoba, to whom many Murli girls are devoted. See Murli.

CHIN-CROU. Chin. Grass carina.

CHIN-DEO, in Caua, means Jain images, and is supposed to be a corruption of Jain deo.

CHINDWARAHI, in the Nerbadda division of the Central Provinces, is a district lying between lat. 21° 25' and 22° 50' N., and long. 78° and 79° 30' E., with an area of 3852 square miles. It has
two distinct natural subdivisions,—the hill country above the slopes of the Satpura mountains, called the Balaghat, and a tract of lowland beneath them to the south, and called the Zer Ghat. It is a sana-
torium, and there is a barrack for fifty men.

CHINESE FEET. The binding of the feet is not begun till the child has learned to walk and do various things. The bandages are specially manu-
ufactured, and are about two inches wide and two yards long for the first year, five yards long for subsequent years. The end of the slip is laid on the inside of the foot at the instep, then carried over the toes, under the foot, and round the heel, the toes being thus drawn towards and over the sole, while a bulge is produced on the instep and a deep indentation in the sole. The indentation, it is considered, should measure about an inch and a half from the part of the foot that rests on the ground up to the instep. Successive layers of bandages are used till the strip is all used, and the end is then sewn tightly down. The foot is so squeezed upward, that in walking only the ball of the great toe touches the ground. Large quantities of powdered alum are used to prevent ulceration and lessen the offensive odour. After a month the foot is put in hot water to soak some time; then the bandage is carefully unwound, much dead enticle coming off with it. Ulcers and other sores are often formed on the foot; frequently, too, a large piece of flesh sloughs off the sole, and one or two toes may even drop off, in which case the woman feels afterwards repaid by having smaller and more delicate feet. Each time the bandage is taken off the foot is kneaded, to make the joints more flexible, and then bound up again as quickly as possible with fresh bandage, which is drawn up more tightly. During the first year the pain is so intense that the sufferer can do nothing; and for about two years the foot aches continually, and is the seat of a pain which is like the prickling of sharp needles. With continued rigorous bind-
ing, the foot in two years ceases to ache, and the whole leg, from the knee downward, becomes shrunk, so as to be little more than skin and bone. When once formed, the golden lily, as the Chinese lady calls her delicate little foot, can never recover its original shape.

CHINESE MOSS, Plocaria tenax. See Alge. CHINESE TARTARY, also called Chinese Turkestan, is a great depressed valley, shut in by mountains of great height on three sides, and on the east are barren sands, which merge imperceptibly into the great desert of Gobi. It comprised two great divisions, viz. Zunger or Kughistahan, and Kashgar or Eastern Tur-
kestan, on the N. and S. respectively of the intersecting range of the Tian-Shan mountains. The northern portion was called by the Chinese Tian-Shan Peh-Lu, and the southern, Tian-Shan Nau-Lu. The first of these has lapsed in great part to Russia. The Tian-Shan range separates it from Zungaria, the Bolor range from Transoxiana, and the Kara Koram and Kouch Lun from India and Tibet on the south. The land is clayey near the base of the mountains, but sandy in the central tracts. Rain is rare, and the air is of exceeding dryness, but the climate is temperate and healthy. It is well watered from the mountains, the waters converging towards the Ergol or Tarym. The country has gold, copper, salt, sulphur and the jade-stone. The southern line of the caravan route passes through it from Khamil to Aksu and Kashgar. From Aksu to Khokand is 800 miles. It was subject to China from the beginning of the Christian era, to the time of Chengiz Khan. After the middle of the 18th century, the Chinese power regained possession of it. Alti-Shahr, or the six cities, forms the western district, comprising Yarkand, Kashgar, Khotan, Aksu, Yangbacar, and Oosh-Turfan, with territories subordinate to each.

CHINGLEPUT. Eastern Turkestan is eminently Mahomedan. Yarkand is the entrepot of trade between China and Bokhara. Khotan, from the time of Ktesia, has been celebrated for its mineral products, its jade and emeralds, its shawl wool, and flax. It was at one time the entrepot of a vast trade with Hindustan and now imports largely furs, broad-cloth, leather, and sugar. In the latter part of the 19th century, there was a short-lived Maho-
medan uprising, from which sprang difficulties between China and Russia, the latter having taken possession of the province of Ili, and the town and district of Kuldja.

CHINGANI, a name of the Kara-chi of Central Asia, supposed to be a gipsy race.

CHINGARI. Hind. A thug; a clan of Muttii thugs assuming to be Mahomedans, and travelling as ostensible grain merchants.—Wilson.

CHINGERITT, a Penang wood of a brown colour, sp. gr. 2'165. A small tree, used for furniture.

CHING-HAE or Chin-hae, in lat. 29° 57'-4' N., long. 121° 45'-4', is the maritime town of the river Yung or Ningpo. The city of Ningpo is about 10 miles from the river's harbour. Ching-
hae is a bcten or city of the third class. It was captured by the British on 10th October 1841.— Horse.

CHING - HWANG - MEAOU. Chin. The temple in Chinese towns dedicated to the patron deity of the town. On the morning of the new or full moon, is a lecture, one of sixteen which the emperor Kung ordered to be read, but first put in practice by his son. They are practical homilies on the duties of life.

CHING-KEANG-FO, a town of China, battle of, fought 21st July 1842.

CHINGLEPUT, a town 36 miles S. of Madras. It gives its name to a revenue division which lies between parallels of 12° 15' and 13° 54' N. lat., and wraps round Madras. The several races of Maho-
medans number 23,192, and Hindos 899,686, of the Vala, Vanin, Kamalar, Kukilar sections, and a small number of Irunai and Parials. It is known as the Jaghir, having been, in 1763, granted as a jaghir to the lst Co. by the nawab Muhammad Ali, for services rendered to his father Anwar-ud-
Din Khan and himself; and in 1765 the grant was confirmed by the emperor of Delhi. It was twice overrun by Hdry Ali, in 1768 and in 1780; and in 1784 many parts presented only the bones of the persons who had been massacred, and the ruins of houses made desolate. It has small rivers. The Palar, rising in Mysoor, passes Arcot, Walajahbad, and Chingleput, and falls into the sea at Sadras. The Cheyar falls into the Palar opposite Walajahbad; the Adyar falls into the sea at Madras; and the Corellar flows into the marine lagoon at Emerre. There are four large tanks, of Chambrambukam, Utamalur, Red Hills, and Karangoli. St. Thomas' Mount, a military cantonment eight miles south of Madras.
CHINGO PANMARI.

is the headquarters of the artillery. It has two hills rising from a level plain. One of these is St. Thomas' Mount, 220 feet high, on which in 1547 the Portuguese had built a church, and another church on the Little Mount, a rocky hill two miles nearer Madras. On the 9th February 1759, a battle was fought on this plain between the British under Captain Calliand, and the French. It lasted from 5 A.M. to 5 P.M., and the French, under Lally, withdrew. Between 1746 and 1872, 16 disastrous cyclones swept over it.

CHINGO PANMARI, the Tibetan name of Mount Everest.

CHINGORIER, one of the thing clans.

CHINNA. SANSK. A cognisance, an emblem. Each of the Jaina thirthankara and each of the chief Hindu deities has one. The Chinnas of the 24 Jaina thirthankara, are the snakelike, ape, buffalo, boar, bull, cobra, chank shell, crocodile, curlew, elephant, falcon, goat, horse, lion, lotus, moon, Nandyavarta mark, chinoceros, the Srivatsa mark, the Swastika mark, thunderbolt, tortoise, water jar, and water lily. The apostles of the Christians had emblems similarly.

CHINI, HIND., i.e. China, or relating to China; hence Chini, sugar-candy, first brought from China, but is also white moist sugar. Rewand Chini, HIND., is Verbasum thapsus, Eremostachys vicaryi, and Rheum emodi. Chini-kam is porcelain.

CHINI, in the Western Himalaya, is situated on the northern side of the snowy range. A few marches to the north of Chini, sharp to the left of the road, there is a grand pass from the Sutlej to the Spiti valley, 18,600 feet high, the Manse or Manecrung crest in the month of May resembling a hurricane of snow, beyond everything sublime and cold.

CHINI. PUSHTU. A China silk fabric of Yorkand.

CHIN-INDIA, a name proposed for the countries beyond the Ganges.

CHINOT, a town in the Jhang district of the Punjab. It has the shrine of Shah Burhan, a Mahomedan saint, revered by Hindus and Mahomedans.—Imp. Gaz.

CHINKAH. HIND. A traversing basketbridge.—Wilson.

CHINKARA, HIND., of European and native sportsmen, is the Gazella bennetti, found generally on the plains and low open hills of India. In many parts it especially affects the nullahs and stony eminences which diversify the plain. The horns of the male are annulated, and twist back with a slight but graceful curve. They are ten or twelve inches in length. The doe has horns also, but much smaller in every way than those of the buck. They are not annulated, and are sometimes strangely distorted, without any approach to regularity of appearance. They roam in herds of six or eight, but they are more abundant in the province of Cutch than elsewhere, and the antelope is not seen there, though, across the gulf, on the coast of Kattiyawar, they abound.

CHIN KILICH KHAN, of Turk origin, of respectable family, was son of Ghazi-ul-Din, who long served under the emperors Aurangzeb, Jahandar Shah, Bahadur Shah, and Farokhshir. Chin Kilich Khan also served and raised himself to independence in Hyderabad, where he was known under the titles Nizam-ul-Mulk and Asaf Jah. He was the founder of the Asaf Jahl dynasty still ruling there, A.D. 1880, as Nizams of the Deccan. Chin Qilich, are Turk words meaning a sword-drawer.

CHINRAIPATAN.

CHINNA. AKU, Acalypha betulinum, Retz.

CHINNA AVAGUDA, Trichosanthes rhomboidea.

CHINNA BOTUKU, Cordia angustifolia.

CHINNA DULAGONDI, Tragia cannabina.

CHINNA JAIMII, Aescine cineraria, Wulle.


CHINNA KALINGA, Dillenia pentagyna, R. ii. 625.

CHINNA KALIVA PANDA, Carissa spinarum.

CHINNA MANDULA MARI, Vitis Linnaei, Will.

CHINNA MORALLI, Buxanaha latifolia, R.

CHINNA MUTTAMS, Sida allu, R.

CHINNA MUTTAVAPALAGAM, Pavonia zeyclandica.

CHINNA NAUJI, Lagerstræmia macracarpa, Roeb.; L. parviflora.

CHINNA NARIN, Triphasia trifoliata.

CHINNA NAVULI, Niebubria linifolia, R.

CHINNA NARO, Eugenia salicifolia, R.

CHINNA NIFRA KANTI, Desmanthus triquetrus.

CHINNA PULLI, Larger panther.

CHINNA RANABHARI, Anisomeles Malabarica.

CHINNA RANTU, Raphitopsis globra, Nexe.

CHINNA KIMMEDY, a district in the N.E. part of the Madras Presidency, inhabited by Khand races, who until lately practised human sacrifices, the victims being styled Meriah. The rite is supposed to be now suppressed. In Chonna Kimmedy, ' the Meriah was dragged along the fields, surrounded by a crowd of half-intoxicated Kandhs, who, shouting and screaming, rushed upon him, and with their knives cut the flesh piece by piece from his bones, avoiding the head and bowels, till the victim, dying from loss of blood, was relieved from torture, when the remains were burnt, and the ashes mixed with the new grain to preserve it from insects.' Captain MacViccar, writing in 1851, stated that in Mairy Desa, midway between Bood and Patna, ' on the day of sacrifice, after the appointed ceremonies, the Meriah was surrounded by the Kandhs, who beat him violently on the head.'

CHINNAMA. TAM., Tel. Little mother, an ordinary name for women.

CHINNA MASTAKA, in Hindu mythology, is a form of Paravti as Kali, and possibly is the saci of Siva, in the form of Kajali. She is described as a naked woman with a necklace of skulls. Her head is almost severed from her body, and her blood is spouting into her mouth. In two of her hands she holds a sword and a skull. Mr. Ward states that this goddess was so insatiated of blood, that not being able at one time to obtain enough of that of giants, she cut her own throat to supply herself therewith. Ward derives the name from Chinnia, cut off, and Mastaka, a head.


CHINNHERTHI, called also Gennasareth, Tiberias, Galilee, and Rahel ul Tibariath, a sea or lake formed by the river Jordan. It has many fish. Its surface is upwards of 300 feet below the Mediterranean, and it is enclosed by steep hills 300 to 1000 feet high. It is 12 miles long and 6 broad.

CHINNY. TAM.? A Travancore wood of a rather dark colour, sp. gr. 0.515. From 8 to 16 feet in circumference; used for building canoes.—Col. Frith.

CHINRAIPATAN, a town in Mysore famed for a Jaina statue, estimated 54 to 70 feet high. It has been cut out of the solid rock.
CHIRTETTA.

CHIRICOCCA JAVANICA, the Java snowberry, a parasitical shrub, found on the mountains of Java upon trees.—Eng. Cyc.

CHIONANTHUS, a genus of trees. Ch. albiflora, Thun., the taccada gas, grows up to 3000 feet in Ceylon. Ch. intermedius, Wight (the Lenociera inter., Wight), grows on the Animalay in 5000 feet. Ch. ramiflora, Roxb., is a tree of the Moluccas; and Ch. leprocarpa, Thun., is a small tree growing at 3000 to 4000 feet in the Central Province of Ceylon.—The.

CHIONE, a genus of molluses, of which many species occur in Indian seas.

CHIPPEVADU, Chippiga. Tel. A tailor.

CHIPPI, a beggar's bowl made of the shell of the sea, or double coconuot, Laodicea Seychellarum.

CHIPULU, Chippa. Tel. A tailor.

CHIPULU GADDI. Tel. Aristida setacea, Retz.; Chatteria set., Beane. The words mean broon or sweeping-grass, from the use to which it is applied.

CHIPURA TIGE. Tel. Cocculus villosus.


CHIR. HIND. Phasianus Wallachii.

CHIRA of the Periplus, an ancient kingdom that seems to have been formed out of the Pandyas dominions. The Chira seem to have possessed also Kerala, and to have sent an embassy to the Romans, to whom the Chira prince was known as the Kurobothras. See Chera.

CHIRAGADAM. Tel. Bhatas edulis, Ch. CHIRAGH. PERS. HIND. A lamp. Ba-charagh, an inhabited house or town. Be-charagh, in ruins. Chiragh ka tal, lamp oil. In Southern India, oil of large-seeded Ricinus communis. In N. India, poppy and other oils are used for lamps.

CHIRA KURA. Tel. Amarantus polygonoides.

CHIRA MELLA. HIND. Phyllanthus longifolius.

CHIRAN. HIND. Prunus Armeniaca.

CHIRANJI. Tel. A dyeing root of Rubia cordifolia, in the bazars of the Northern Circars.

CHIRA SAMUDRA. SANSK. In Hinduism, the sea of milk on which the serpent Sesha rested when Vishnu was reposing. See Balaji.

CHIRATALA BODA. Tel. Dalbierca scandens, R. iii. 232.

CHIRAYUT. HIND. Agathodes chiraya.

CHIRCHIRA, also Chirchitta. HIND. Lycium Europæum, also Achyranthes aspera, resembling the Penicillaria spinata; the people believe if a person eat one chitak of its grain, they will not be hungry for 21 days.

CHIRETTA. HIND. Ceyrat root.

CHIRETTA. HIND. Kusum-buz-zericheh, ARAB. create, Kusam-buz-zericheh, ARAB. create, KBalapnath, BENG. Ceyratya, Kiatti, HIND. Kala-megh, Maha tita, SANSK. Toa-kha-kiyi, BURM. Atadi, SINGH. Kirtat, CAN. Sherai-kuchi, TAM. Kreat, DUKH. Nela venn, TAM.

Chirretta, or chirnaya, or kriot, for all these pronunciations are in use, is the name given to several plants, all of them closely allied in medicinal properties to gentian, for which several of
them are perfect substitutes. Like gentian, chiretta promotes digestion, improves the appetite, and gives a tone to the system, without producing much stimulant effect, or causing constipation. It contains a resin and yellow bitter matter, on which the activity of the plant depends. Its use is admissible in all inflammatory states of the intestinal canal, and in febrile diseases. The chiretta of the bazzars is the produce of the several following plants:—

Adenema hyssopophila, the chota or small chiryata, is common in various parts of Southern India, is very bitter, also somewhat laxative, and much used by the natives as a stomachic.

Agathotes chiraya, Don., Ophelia chirayta, Grisbach, Gentiana chiraya, Fleming, north of India, and Morung hills. All parts of the plant are extremely bitter, and are identical in composition with the common gentian. It is highly esteemed as a tonic and febrifuge all over India. It is a common and abundant plant in the bazaar, supplied chiefly by the lower range of the Himalaya.

Andrographis paniculata (Justicia paniculata, Roxb.), Kalamegh, Beng. Kalupnath or Maha tita, Hind., is the genuine or original chiretta.

Chronia centauroides of Roxburgh (Erythrean Rubrughii, Don.), is another and powerfully bitter plant, common in the Ghats.

Cicendia hyssopophila (syn. Exacum hyssopifolia), common in various parts of the East Indies; the whole plant is bitter and somewhat laxative; is used by the natives as a stomachic.

Exacum bicolore grows rare on the Nilgirgherry below Kotagerry, and abundant a mile below Nadawurutum, where it flowers during the autumnal months. This species enameles the swards of the Western Ghats with its beautiful blossoms, has the same bitter stomachic properties for which the Gentiana lutea is so much employed, and, it is believed, may be used with advantage in lieu of gentian for medicinal purposes. The infusion is a mild pure bitter. It is known in Mangalore as country treat, and sold there at 1 anna 6 pie per pound.

Exacum tetragonum is another species of this genus, and is called Ooda chirayta, or purple chirattha.

Ophelia angustifolia, Don. (O. Swertia, Roiye), is called puckarree chirayta, and is substituted for the true chirayta.

Ophelia elegans, Wright, grows plentifully in several parts of the Madras Presidency; is considered febrifuge by the native physicians, who prefer it to the Himalayan chirayta. It grows plentifully in the Jeypore zamindari of Vizagapatam, and is annually exported, as Silaras or Seljijit, to the value of about Rs. 2500. The infusion of O. elegans has a powerful bitterness.

Ophelia alata and Ophelia chirayta seem to be used similarly; they grow in the Himalaya.

Villasia Indica, V. artistata, and V. nympheoides occur in every part of India.

Chiretta may be regarded as a type of the simple bitters, so many of which have been employed in Europe as febrifuges. For such purposes it is employed in India, and it will do whatever a simple bitter can in stomachic intermittent. Chiretta is of much service in convalescence from fever. It is one of the few articles of the Indian Materia Medica which is in every respect an adequate substitute for the corresponding European article. Chiretta is a useful vehicle for other remedies. It is the basis of the celebrated drogue amere, a compound of mastic, frankincense, resin, myrrh, aloes, and great root, steeped in brandy for a month, and the tincture strained and bottled. Chiretta is met with in a dried state, tied up in bundles, with its long slender stems of a brownish colour, having the roots attached, and which have been taken up when the plant was in flower. It is procurable in all native druggists' shops. The extracts of chiretta agree in being valuable bitter tonics. Both these and gentian contain a peculiar principle, termed the gentisic acid. The dose is ten to thirty grains twice or three times daily, usually prescribed with sarsaparilla, henindestans, or iron (Beng. Pharr. p. 290). The wine of chiretta is cordial bitter and tonic in a dose of two fluid drachms. A compound tincture of creat is prepared by creat root six ounces, myrrh and aloes each one ounce, French brandy two pints; macerate for three days, and strain. This preparation is equivalent to the celebrated drogue amere. Its effects are tonic, stimulant, and gently aperient. It is a valuable preparation in the treatment of several forms of dyspepsia and torpidity of the alimentary canal, in a dose of one fluid drachm to half an ounce.

Faulkner, J. L., Pharr., On Chiretta, by Dr. Cleghor.; Dr. J. L. Stewart.

CHIRGAH, a Punukha war-ery. Chirgha wal, a fighting man.

CHIRI. SANSK. Wrightia antidysenterica; Memusops hexandrus.

CHIRI. Tel. A term applied to several plants resembling others:—

Chiri alli, Villarsia cristata, Spregn.
Chiri annem, Birdelia semandens, Willid.
Chiri benda, Sida cordifolia, L.
Chiri bikki, Gardenia gymnifera, L.
Chiri chatarast, Dentella regina, Forst.
Chiri dudduga, Alphonsa lutea, H.
Chiri galigeru, Trianthema, L.
Chiri gillicicheha, Crotalaria laburnifolia, L.
Chiri gimusu, Batatas paniculata, Ch.?
Chiri jegura, Chirya, sp.
Chiri kiki, SANSK., fruit of Buchanania latifolia.
Chiri kiti goru, Pterolobium lacrens, R. Br.
Chiri kura, Amaranthus polygonoides.
Chiri mallika, Jasminum anisatum, L.
Chiri manu, Conacarpus latifolia.
Chiri nanupala, Euphorbia, L.
Chiri palleri, Tribulus lanuginosus, L.
Chiri sanagalu, Evlum, sp.?
Chiri teka, Clerodendron, sp.
Chiri teku, bastard teak, Erythrina Indica, Wormia bracteata.
Chiri tumbiri, Leucas, R. Br.
Chiri vanga, Solanum melongena, L., small var.
Chiri veru, Oldenlandia umbellata, L.
Chiri ulva, Rhynchosia rufescens, D. C.

CHIRIA. HIND. A bird; hence Chiria-Mar, a bird-catcher, a low caste fowler.

CHIRIMI. MALAY. Cica disticha, Linn.

CHIRIT. MALAY. Cicca disticha, Linn.

CHIRITA SINENSIS, the manmeen-chung of the Chinese, a dwarf species of Leycepodium, highly prized by that people. — Fortune's Tea Districts, p. 8.

CHIRI-URAL. MALAY. Caoutchouc.

CHIRIYA-GHAS. BENG. Helopus annulatus.

CHIR-MITI. HIND. Abrus precatorius seeds.

CHIR-MUTTI. HIND. Lepopus cordifolia.

CHIR-NATH. HIND. For cones of Pinus longifolia and P. Gerardiana.
CHITRA KOOTA.

CHITRA KOOTA.

CHITRA KOOTA. Beng. Jeevabhihi caunamata.

CHITRA KOOTA. Beng. Urraha chetkubhba.

CHITRA KOOTA. Hind. Urri deputy.

CHITRA KOOTA. Hind. Kuanis elata.

CHITRA KOOTA. Hind. Acanthus heterophyllum.

CHITRA KOOTA. Hind. Poincianella elata.

CHITRA KOOTA. Hind., also Chiti-phil, Heliotropum brevifolium.

CHITRA KOOTA. Hind. Desmodium argenteum.

CHITRA KOOTA. Hind. Sida acuta, Burm.

CHITRA KOOTA. Hind. Codrela toona; c. serrata.

CHITRA KOOTA. Beng. Bauhinia acuminata.

CHITRA KOOTA. Beng. Polypodium glad-brum.

CHITRA KOOTA. Hind. Marlea begounifolia.

CHITRA KOOTA. Beng. Polygodum glad-brum.

CHITRA KOOTA. Hind. Stephylea emodi; Drosera muscipula. Lal chitra is Plumbago zeylanica.

CHITRA KOOTA. Beng. Polypodium glad-brum.

CHITRA KOOTA. Beng. Sarcodium bongaipatnam; also Hind., Berberis lycium, B. Asiatica or B. aristata.

CHITRA KOOTA. Beng. Cucumis Madraspatanaus; also Hind., Berberis lycium, B. Asiatica or B. aristata.

CHITRA KOOTA. Beng. Chitrak,Beng. Chitpata, and Chittra, the first month of the Tamil solar year, answering to the Hindu Vaishacha, when the sun is in the sign Meha. But this name is also of that last month of the Hindu solar year, used everywhere (excepting in the Tamil country) when the sun is in the sign Min, answering to the Tamil Punjoni. Lastly, Chitra is the name of the first month of the lunar-solar year, which begins on the new moon preceding the sun's entrance in the sign Meha. This variety of significations of terms so nearly resembling each other requires the greatest attention, when adhering to dates, and reading books written in different countries.—Warren.

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CHITTAGONG HILL TRACTS.

land has some legend; every cavern is connected with his name. It is a sacred spot; crowded with temples and shrines of Rama and Lakshmana. Many thousands annually visit the spot, and round the hill is a raised footpath, on which the devotee with naked feet, tread, full of pious awe. It was the seat of Valmiki, the sage and poet, author of the Ramayana. The hill is crowded with monkeys. The river is lined with the landing-places called ghats, and flights of stairs for ceremonial ablutions.

CHITRAI - MULL. IND. Thalictrum foliosum.

CHITRA-MULAM. (Tella, Nalla, and Erra, white, black, and red). A general name for species of plumbago.

CHITRA-RAT'HAN. Chamaesiphon paniculatoides.

CHITRIKA. Tel. Limonia pentagyna, R.

CHITRA-AMADUM. Tel. Castor-oil.

CHITRA-BURKANI, also Chittagadun. Tel. Leggada lepida, Jordan.

CHITTABUTE of Murree, Abelia triflora; also Buddlea crispa.

CHITTA-DUDAGA, Guatteria cerasoides, Duin.

CHITTAGONG, or Islamabad, a town which gives its name to a district of British India along the N.E. coast of the Bay of Bengal. The town is built on the bank of the Karnaphuli river, in lat. 22° 21' 3" N., and long. 91° 52' 44" E. The district is bounded on the N. by Tipperah, S. by Arakan, E. by the Yomadong mountains, and W. by the Bay of Bengal, and has an area of 2322 square miles, and a population of 1,006,422 souls. It is a low strip of coast about 165 miles long, with many large tidal creeks; and the central parts opposite the islands of Yomadil and Kutubdia which resemble the Gangetic Sunderbungs. Since historic times it has been subjected successively to Tipperah, to the Afghan rulers of Bengal, to the raja of Arakan, to the Dehli empire; and it was ceded to the British East India Company in 1760. The Portuguese descendants are known as Feringhi. They were 854 in 1872; the Nat., 949; the Magh, 30,026; and the Rajbansi, 10,852;

Brahmans, 22,657; and Kayasthas, 68,916. The Lascaris of the coasting and foreign-going ships are largely from Chittagong. The Rajbansi are the offspring of Bengali women and Burmese husbands. 70.5 per cent. of the population are Mahomadians, the Hindus 26.7 per cent.—Imp. Gaz.

CHITTAGONG HILL TRACTS are a portion of the great chain of mountains running from Assam southwards to Cape Negrais, and the Blue Mountains, on the frontier of Chittagong, rise 5000 feet above the sea. Several rivers rise in these mountains, amongst others the Karnafili, which flows into the Bay of Bengal. The hill tribes of Chittagong call themselves Kayoug-tha, or sons of the river, and Toung-tha, or sons of the hills. The latter, to which the Lushai belong, are the more savage and independent, and speak different languages. The former have a written language, and even possess several copies of the Raja wong, or History of the Kings of Arakan. They are of Arakanese origin, speak the Ita-khlu dialect, and are Buddhists. All are Mongolian in physique. They have an honest, bright look, with frank and merry smile, and their look is a faithful index of their mental characteristics. They live in bamboo houses raised above the malaria of the ground. They practise Jum, Cheena, or Kumuri cultivation, burning down the jungle to prepare the soil for mixed seed scattered broadcast, and moving off to a new site next season. And they have a mild form of debtor slavery, which Captain Lewin thinks the British too suddenly interfered with, so that the hillmen fall victims to the usurer.

The Kyoung-tha, or Junia Magh, have 15 clans, who dwell in village communities under a Raja, or village head.

The Young-tha tribe, a wilder and less civilised group, are the Tipperah, Muong, Kumpi, Mro, and Khuyeng. Bangi, Pan-kho, Lushai or Kuki, and the Shinde, the last four being independent. Their villages are generally situated on lofty hills. They worship the sacred tree, the pythons, and the leopard.

The Chakma (Tsak or Tsakma, or in Burmese Thock) is the largest of all the tribes. It has 49 clans. Their habits are similar to those of the Kyoung-tha. The tribes all practise the Jum or Kumuri form of agriculture; and rice, cotton, tea, tobacco, and potatoes are their chief crops. The elephant, the rhinoceros, the tiger, and the leopard are numerous, with the Malay black bears, the wild buffalo, the sambur (Rusa Aristotela). The pythons grow to a large size.

Among the independent tribes beyond the British border, prisoners of war are sold like cattle. Raids are caused by the usage of wehr-gold, which they call goung hpo, or the price of a head; for when a villager dies, his friends charge the village which he may have last visited with his death, and demand a price for his life. Raids for women seem to keep up the necessary supply. Chastity is enforced only after marriage. All the unmarried lads sleep in one house in the village, under the eye of the 'bachelor's hall,' or chairman. The matters-of-facts and customs which are connected with this 'bachelor's hall,' as Colonel Dalton calls it, are the same as in the Koi and Gond countries. In the hills marriages are unions of affection, not of convenience or interest. Girls marry at 16, lads at 19. The most favourite offering to a sweetheart is a flower; and the lover will often climb the hills before dawn to procure the white or orange blossom of some rare orchid for the loved one's hair. One of Captain Lewin's police sought a week's leave of absence on this ground: 'A young maiden of such a village has sent me flowers and birnee rice twice as a token, and if I wait any longer they will say I am no man.' Among the Kyoung-tha, a leaf of paw, with betel, and sweet spicemixins, accompanied by a certain flower, signifies "I love you." If much spicemix is put inside the leaf, and one corner turned in a certain way, it signifies 'Come.' The leaf being touched with turmeric means 'I cannot come.' A small piece of charcoal inside the leaf is 'Go, I have done with you.' The love songs are as pure as they are pretty, and no improper ditties are allowed in the hearing of the village maidens. As the lads and lasses work in a crowd at harvest times, they respond in chorus, or, when the leader has finished, the whole party break out into the hoia or hill
call, like the jodel of Switzerland, and the cry is taken up from hill to hill, till it dies away in the distant valleys. In their mode of kissing, instead of pressing lip to lip, they apply the mouth and nose to the cheek and give a strong inhalation. They do not say, ‘Give me a kiss,’ but ‘Smell me.’ The religion of these tribes is a mixture of Buddhism and nature-worship. At the Maha Muni temple in Arakan, the bamboo is adored by some as the impersonation of the spirit of the forest. But wherever, as in the case of the Chakma, the tribes come into contact with the Bengali, they show a tendency to gravitate towards Hindism, the caste of which would soon kill the yassu, and check the freedom of their life. The Khamia and Kuki tribes occupy the hills of Sylhet, Tipperah, and Chittagong; the Kuki at the tops of the hills, and the Khamia on the skirts. The Kuki are the ruder or more pagan race, though also tinted with Hindism. They term their chief deity Khoejen Putiang, to whom they sacrifice a gyal; and to an inferior deity, named Shem Saq, a rude block of wood put up in every quarter of a village, a goat is offered; and they place before it the heads of the slain in battle, or the heads of animals killed in the chase. The Kuki say that they and the Mug are the offspring of the same progenitor.—Captain Lewis.

CHITTAGONG WOOD, Chickrassia tabularis, is used at Madras for furniture. It is light, cheap, and durable.

CHITTA. HIND. An Indian weight, equal to 914 grains = 2 oz. 394 grs. aver.

CHIT'TA LILXY. TAM. A Travancore wood of a red colour, sp. gr. 0.847, 1 to 14 feet in circumference; used for furniture.—Col. Frith.

CHITTAMANAK YENNAI. TAM. Castor-oil. Chittamudapa, Tel. Ricinus communis, the small variety, from the seeds of which only the medicinal castor-oil is expressed.

CHITSTAT. TEL. Gardenia gummi flora. CHIT'TA-RATT. MAL. Alpina galanga.

CHITTA-ROHI, in Northern India, sand with salt efflorescence.

CHITTA TUMIKI. TEL. Diospyros tenuifolia.

CHITTA YELKA. TEL. Leggenda lepida.

CHITTEDEWU. TEL. Vanda Roxburghii.

CHITTENTA KURA. Riedelia corchorifolia.

CHITTHI. HIND. A note, a letter, an order or demand; hence Chit-navis, a note-writer.

CHITTIANKUDU. TEL. Wrightia tinctoria.

CHITTHI PHUL. HIND. Heliotropium brevilobum.

CHITITTACHETTU. TEL. Phœnix farinifera.

CHITTORE or Chetur, a town in Rajputana, in the kingdom of Mewar. Its dynasty are Rajput, and claim to be descended from Lob, the eldest son of Rama, of the Solar dynasty. They say that they were first ruling at Balahhipura, a city in the gulf of Cambay, but their capital was laid waste by a son of Nushirwan of Persia, in A.D. 524. The Rajput queen escaped the general destruction, and gave birth to a son, named Goho, from whom the rajas of Udaipur are descended. Goho established the kingdom of Edur, and eight princes succeeded him on the throne. The race seem to have remained in the desert till the middle of the 8th century, but in A.D. 727 Bappa took Chittore. Shortly afterwards Bappa proceeded to Saurashtra, and married the daughter of Esugpe, prince of the island of Bunderdiva. With his bride he conveyed to Chittore the statue of Vyan-mata, the tutelary goddess of her race, who still divides with Eklinga the devotion of the Gohlot princes. The temple in which he enshrined this islandic goddess yet stands on the summit of Chittore, with many other monuments assigned by tradition to Bappa. Bappa is not a proper name, it signifies merely a child. He is frequently styled Sved, and in inscriptions Syed Adhes, the mountain lord. The Mori prince from whom Bappa took Chittore was of the Tak or Takshak race, of whom Nagnecha, Nagani Mata, was the mother, represented as half woman and half serpent, the sister of the mother of the Sylhet race, according to their legends. Many rites of the rana of Mewar’s house are decidedly Sylhetic. According to Sir H. Elliot, however, when Mahomed bin Kasim, the general of Wald, overran Gujarat about A.D. 718, and advanced to Chittore, Bappa met and entirely defeated him, and after this Bappa was raised to the throne of Chittore. After a long and prosperous reign, Bappa abdicated and departed to Khorasan, Tod says to Sylhet. In the reign of Khumian, his great-grandson Mahmun, governor of Khorasan, invaded Chittore, but was defeated and expelled by Khumia. After a twenty-four engagements, Baber, 1527, sustained a great defeat at Fatehpur Sikri at the hands of the Rajput Rama Singh, chief of Chittore; but in 1527 Baber led his army a second time against the Rajput prince, whom he overthrew, and completely broke his power. While ruled by Oody Singh, Chittore was invested by the emperor Akbar, and captured after a prolonged siege. Oody Singh, at the approach of the imperial army, withdrew to the Aravalli hills, and left Jeymul, the Rajput chief of Bedore, to defend his kingdom; Jeymul, with 8000 of his men and women, perished on the occasion, and 74½ mounds of plunder were taken away by the army of Akbar. The capture of Chittore was regarded at the time by the Rajput race as the greatest of misfortunes, and they have perpetuated the remembrance of it by impressing on all their correspondence the figures 74½. Oody Singh did not re-occupy Chittore, but was succeeded Udaipur, which he made his capital.—Elliot’s Hist. of India; Tod’s Rajasthan, i. p. 594; Elphinstone.

CHITT-PAWAN. MAH. A Konkanish Brahman.

CHITTULDROOG, a hill fort which gives its name to a town and district in the Nagar division of the Mysore kingdom, 120 miles N.W. from Bangalore. It gets its name Chutta thul droog, or the Umbrella Hill, from its shape. The district has an area of 4471 square miles, and a population in 1871 of 551,360. It is a sterile tract, with little rainfall. It was long held by a Polygar chief of the Beder race, and the present non-Aryan races are the Bedar 90,500, the Wakkaliga 69,755, Golla 46,396, and the Kuruba 36,459, with out-castes 58,245, and wandering tribes 44,142. The Mahomedans are 18,065, and the Siva Chaktars or Lingaat, 44,142. The district in the early years of the Christian era was largely of the Jain faith; and there are many

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inscriptions of the Chalukya, Ballala, and Vijaynagar dynasties, and there are now several matas or Hindu monasteries. Here, on the 6th August 1809, East India Company's officers induced the native soldiers to mutiny, but they were attacked and defeated by detachments of the British army.

-Chittur, a town and fort in the N. Arcot district, 98 miles west from Madras, and 1100 feet above the sea. It is in lat. 13° 14' N. The hills are rugged and barren; they are intersected by a vein of iron ore. It is built on the south side of the Pooney river, which runs through the valley, and joins the Palayar.


-Chitulia, a genus of water-snakes of the order Hydroide. C. mornata and C. fasciata inhabit the Indian Ocean.

-Chitz, Mahr. Tamarindus indicus.

-Chiu, Hind. Rhododendron arboreum, also Euphoria royleana.

-Chiun, of the prophet Amos, v. 26, is supposed by Calmet to be Bal-peor, Chivin, or Siva.

-Chiuracy? a Penang wood of a brown colour, sp. gr. 1081; used for beams.

-Chivian amelipodi, Maleal. Ophioxylost sermonsum, Linn.

-Chivati, Maleal. A small coasting vessel of Malabar.

-Chivendi, Tam. A Ceylon timber tree, about 8 inches in diameter and 20 feet in height; used in housework.—Edge, Ceylon.

-Chives, Allium schoenoprasum, a variety of the onion, held in estimation for its leaves and small bulbs, and used in soups and salads. Propagated either by slips, or dividing the roots at any season, but best after the rains; 9 or 10 inches of space must be allowed between each bulb. Requires plenty of water, and protection from the vertical rays of the sun.—Riddell.

-Chiviki velama. Tel. Elemsine coracana.

-Chiwana, Hind. A place for the cremation of the Hindu dead, called also Chihnee and Chilane. These three terms are derived from Ceech, ashes, Marg'hat, Bhoeungdigha, and Smaasan or Samasen (in Benares), are also employed to signify the burning place.

-Chilatı'e or the Kallat, with the Kaniki, Kapchak, and Kharlik, are four Turkish tribes descended from the Oguz Khan.—De Guignes, ii. p. 9; Yule, Cathay, i. p. 165.

-Chloranthus brachystachys, one of a genus of plants belonging to the natural order Chloranthaceae; is a native of the coast of Java. Its properties are like those of C. officinalis.


-Its small flowers, along with those of Aglaia odorata, are mixed with certain kinds of tea, called after the plant, Ciu-lan-cha. This is the scented caper of commerce, a very expensive but expensive tea.—Smith.

-Chloranthus officinalis, a smooth shrub 3 to 4 feet high, a native of Java, in the moist woods 1500 feet above the sea. All the parts are powerfully aromatic. The roots, if quickly dried, retain their properties for a long time; and the mountaineers employ them in infusion as a remedy for spasm; also, united with anise or Ocimum, in small-pox. In fevers it is said to be of great service. It is a powerful and active stimulant.—Eng. Cyc.

-Chloride of zinc. Captain Keppel believes Sir William Barrett's solution of chloride of zinc, properly applied, the only composition yet known that will preserve anything from the white ants.—Keppel's Ind. Arch. ii. p. 159.

-Chlorite is found in connection with tin. Portions of the clay-slate east of Tavoy contain chlorite slate. The Moongnee stone of Orissa is said to be chlorite slate.


-The satin-wood tree grows in Ceylon, chiefly in the eastern districts, where it attains a large size, and is esteemed both for its wood and taste. It grows in Combatore, in the Anamolly hills, where Dr. Wight got planks 15 inches broad. Indeed, some of the finest satin-wood to be anywhere seen is to be met with near the foot of the Anamolly, though even there this valuable wood was rapidly disappearing under the cultivator's axe. It grows at Gokak; but Dr. Gibson had never seen it reach beyond the size of a small tree, which, when straight (seldom the case), would afford a log squaring 3 inches. It is found only in the Padshaoor jangles, and in those of the upper Mool, in the Almadnaggar collectorate. In Ganjam the tree is not so common as in Bodo gold; and it is said to be still more plentiful in Mohery and other taluks to the south. It is a most serviceable hard wood, well suited for naves of wheels, and, were it procurable in any quantity, for all framework requiring strength and durability. The Peradenia bridge, a single arch of 205 feet on the road to the great inland port, was probably executed in this wood. The wood is very close-grained, hard, and durable, of a light orange colour, takes a fine polish, and is suited for all kinds of ornamental purposes, but is somewhat apt to split. For picture frames it is nearly equal to American maple. The timber bears submersion well; in some instances it is beautifully feathered, and flowered or feathered satin-wood, when first polished, is one of the most beautiful woods in the world. Mr. Rohde had seen specimens surpassingly beautiful; but the valuable logs are not distinguishable from ordinary satin-wood till sawn, and twenty or forty may be cut without one of any beauty being found. The feathered satin-wood seems very liable to secrete when dry and old. Articles of satin-wood get darker and lose much of their beauty by age, unless protected by a coat of fine varnish. A cubic foot weighs 55 to 57 lbs. It is used for axletrees, oilpresses, posts, bed-posts, rafters, and the handles of axes; and in the Madras Gun Carriage Factory, for naves of wheels, also for fusess. The wood is excellent for agricultural implements, internal decoration and furniture, brushes and turnery.—Drs. Roxb. ii. 400, Gibson, Wight, Clegborn; Mr. Rohde; Mr. Meudts; Hartweig; Thue.

-Chio, or Chor, are vast and continually encroaching beds of sand left by the torrents that rush down from the low hills of the Siwalik range. The rapid increase of the area thrown out of cultivation by
being covered with barren sand, has been a source of continual trouble and anxiety to the revenue officers of the district; and the incrustation of the sandstone is being continually accelerated by the destruction of forests on the outer hills. These hills are composed chiefly of an exceedingly soft sandstone. When once its surface is laid bare by the destruction of the grass and brushwood that once covered the hills, it is very readily swept away by the heavy rainfall. The vertically falling rain at once penetrates it, down almost to the level of the plain, and excavates a narrow gorge with perpendicular sides extending far into the hills, but with the bed of the stream sloping very gently until it terminates in a vertical wall at the upper end. The rush of the water over this precipice, every time a shower falls, disintegrates a quantity of the rock, and helps to extend the area of loose sand on the plain below. The sandstone in its natural state is not unfertile; it is easily penetrated by the roots of plants, and contains a considerable admixture of lime and clay. Moreover, patches of ancient forest are still occasionally to be found on the hills.

CHO. HIND. Pyrus malus. 

CHOAR KULLI MAIRAM. Tam. Soymila febrifuga? yields clear, transparent gum, slightly tinged with red, and with a slight dash of bitter in the taste.

CHOASPE. The ancient name of the river on which Susa, in Khuzistan, was built. It is the modern Kerah river, near which are the ruins of Susa.—Williams’ Esseys, p. 13.

CHOB. HIND. A stick, a pole, timber, a mace. Chob-dar, a mace-bearer. The chob or mace is made of silver, ivory, or wood. It is probable that the office of gold stick, adopted in the British Court, was borrowed from the East. Most men of rank in India—Hindu, Mahomedan, or British—retain this class of attendants, mostly, however, bearing a silver baton, but having the common name of chob-dar, or staff-bearer. The chob or baton is about five feet long, with a head, and as thick at the upper end as one’s wrist, or as a constable’s staff.

CHOB, a strong fibre of Chutia Nagpur, made into ropes.

CHODA, a dish of polao, mixed with slices of cocconuts, dates, and almonds.

CHOB-I-PAU. 

CHOB. 

CHOI. 

CHOIL. 

CHOHAN. 

roasted, and ground, constitute cocoa; if merely broken up after roasting, cocoa nibs; mixed with starch and very fine ground, soluble cocoa of the shops. Chocolate consists of the same, made up into a paste, and flavoured. In 1870 nearly 15,000,000 of pounds of cocoa were imported into Great Britain, more than 6,000,000 being entered for home consumption.—McCulloch.

CHODA of Hazara, Pryus baccata, crab apple.

CHOD-TEN, in Tibet, is the chalaya of the Sanskrit, a Buddhist monument numerous in Tibet, dedicated to the celestial Buddha.

CHOHARIODD. A genus of Manofedea common to India and tropical America.

CHOGA, a loose cloak worn by the Afghans, not unlike the dressing-gown of European nations. It is made of a fabric woven of camel’s hair or of the fine wool of the rufus sheep, or of that which grows at the roots of the hair of the goats in the northern parts of Afghanistan. That of camel’s hair cloth costs up to £20; it is called Shuti choga. From Barrak, the cloth made from the rufus-wooled sheep, is made the Barraki choga. Kurk cloth, made from the wool of the highland goat, is used for the Kurki choga. Kurk resembles the pashmina or woolen cloth of Kashmir, but is of denser texture. They are made chiefly near Herat and in the Hazara country. Those of Kashmir are famous. A choga of British broad cloth, lined with the fur of the sambar deer, costs £60 to £80; but the fur of the ermine, squirrel, and fox are also used.—MacGregor, p. 50.

CHOGOD. HIND. An owl; a pronounced chuhat.

CHOGU. HIND. Taxus baccata.

CHOHAN or Chahuman, one of the four Agnicula tribes, which formed a dynasty that reigned at Ajmir and Dehli, and afterwards at Kotah and Bundi. Ajipala, one of this dynasty, founded Ajmir in A.D. 145; and it was afterwards lost to the Mahomedans by Dola Rai. Harihara Rai defeated Sabakttun. The race has been conspicuous for bravery during two thousand years. The leading individuals have been—

Anhil or Ajnipala, off-spring of fire, the first Chohan; probably period 550 before Vikrama, when an invasion of the Turka took place; captured and destroyed by Rastinaghzi magri (Garra Manuill); conquered the Konkan, Aser, Golconda.

Suvateha Mallan. In all probability this is the patriarch of the Mallani tribe.

Gulun Soor; Ajipala, Chukwa, or universal potentate; founder of Ajmir, some authorities say in 202 of the Vikrama, others of the Viraat Samvat. The latter is the more probable.

Dola Rai, slain, and lost Ajmir on the first irrigation of the Mahomedana. S. 741, A.D. 685.

Manikta Rai, S. 741, founded Samuhb; hence the title of Sambri-Rao borne by the Chohan princes, his issue.

Hursraj, S. 827, defeated Nazir-oo-din (qu. Subakttun), thence styled Sultanraghara.
CHOHAR.

Beere Beunludo or Dharmaguj, slain defending Ajmir against Mahmud of Ghazni.

Beensudeo (classically Vissaladeva); his period, from various inscriptions, S. 1066 to 1130.

Anah, constructed the Anah Sugar, Ajmir; still bears his name.

After Anah were Jeipal, Ajeydeo or Anundeo, and Someswar. Someswar married Rooka Bae, daughter of Anung Pal Tuar, king of Delhii, and their son Prithi-raj succeeded to the throne of Delhii, and is said to have been slain by Shahab-uddin S. 1249, A.D. 1193. His son Rainsim also fell. Vijaya raj, son of Someswar, whose name is on the Delhii pillar, was a nephew of Prithi-raj, and was adopted as his successor. His son Lakuni had twenty-one sons, seven of whom were legitimate, the others illegitimate, and founders of mixed tribes. From Lakuni there are twenty-six generations to Nonud Singh, a late chieftain of Nembata, the nearest lineal descendant of Ajipal. The genealogical tree of the Chohan tribe exhibits thirty-nine princes, from Anshul, the first created Chohan, to Prithi-raj, the last of the Hindu emperors of India. Mahomedian historians say that Prithi-raj was killed at the battle of the Cugger, or shortly afterwards: but Chand, or rather his continuator, represents him as dying in captivity at Ghazni, and the bard would gladly have concealed so humiliating a fact if he could. Several Chohan sepoy, after the capture of that fortress, sought out and professcd to find the Ch'hatres of their ancestor, where they showed their devotion to his memory, by presenting their humble offerings in honour of the champion of their faith. The desert tribes in the Chohan territory, the Sahraii, Khoa, Koli, Buil, were till lately predatory. The western Chohan are said to be free from infanticide. They do not wear the zornar, nor forest, or circle (shoki) in cooking, and their cooks are usually of the barber caste. The Chohan and Gehlot were neighbours, and on friendly terms, but the Rahtor and Tuar were most at war, though only separated by the Kali naddi. The Chohan territory on the S.E. has Koliwara, on the W. the desert Dhat, on the S. the Rin. It has two divisions, - Vira Bohn on the F., and across the Looni on the W. is Parkar, the Naggur Parkar of the maps. Bundi and Kotah are the most celebrated of the existing Chohan. Twelve branches of the Chohan became Mahomedians.


CHOHAR or Choi, a tribe of mountaineers in the hills of Hamargat, etc. - Wilson.

CHOI, also Jima. Hindi. A hole in the bed of a river, to get water; the outer leaf or spathe of the sugar-cane. - Elliot.

CHOIYAL. Tin. Dharmaraaja, the judge of the dead. Shinje, Tin., is also said to have the same meaning.

CHOIIL. Parsi. Of Cis-Sutlej. Low, swampy, undrained land.

CHOITRO, a Hindu month corresponding to the latter half of the month of March and first half of April. The full moon of Choitro, therefore, corresponds with the full moon of Easter. It was in this month that the devotees formerly engaged in the ceremonies of the Charakhi puja, the swinging sacrifice.


CHOLA-MANDALOOR.

CHOKA. Hindi. Rinncu vesicatoria.

CHOKA. Deuk. Piper nigrum.

CHOKHA, the root of a plant that is brought from Delhii to Ajmir. It is heating, taken internally as a narcotic; is bitter. It is chiefly used, mixed with sulphur and oil, to cure the itch in camels. - Gen. Med. Top. p. 131.

CHOKI. Hindi. Custom-house. A circle drawn round the spot on which Hindus cook their food. The interior area is holy. No stranger must step within or over it; with the Sri Vaishna of the Ramanuja followers, no strange eye must look on it. Such occurring, the food is thrown away, no matter how long the abstinence had been.

CHIKIDAR, in India, a watchman, a policeman. The Chokidar or Ich Agasi of the Pashali of Baghdad is one of the pages of the pasha's presence. - Mijwan's Travels.

CHIKL. Hindi. Bhus successaden.

CHIL. Tur. Desh.

CHILA, an ancient dynasty in the south of the Peninsula of India; the Sorai of Ptolomy. Their several capitals were Areqo, Conjeveram, then Warin, near Trichinopoly, Combaconum, Gongudaram, and lastly Tanjore. At the beginning of the Christian era they seem to have been ruling over all the countries speaking the Tamil language; and Mr. Ellis was of opinion that in the 8th century its princes were occupying large portions of Karnataka and Telangana, and ruling over as much of the country up to the Godavery as lay east of the hills of Nundidurg. They seem to have been first checked in the 12th century, and ultimately driven back within their ancient frontiers. In this state they continued to subsist either as independent princes or feudatories of Vijayanagar until the end of the 17th century, when a brother of Sivaji, the founder of the Mahatta state, who was at that time an officer of the Adil Shahi government of Bijapur, being detached to aid the last Chola raja, supplanted him in his government, and was the first ruler of the Mahatta government of Tanjore. The capital of the Chola for the most part was at Kanchi or Conjeveram. They must have been exercising sovereignty in the time of Ptolemy, who makes mention of 'Arceti sors'; and in the Mahawanso frequent references to transactions with the Chola occur during the earliest periods of the Singhalese annals. The Tamil traditions abound with stories of Arondha Chakravarti, who appears to have been the subdar of the aboriginal or Curumber tribes; yet no trustworthy records of his origin and actions are forthcoming; neither have authentic accounts of the overthrow and extinction of any of the great southern states been yet obtained. The Chola kingdom at one time reached as far as the river Kistna. The Ceded Districts formed part originally of the kingdom of the Chola, with whom they were occasionally disputed by the Kalyan Chalukya; and ultimately they constituted the principal portion of the kingdom of Bijanagar or Agungadi. The capitals of the latter power were successively Bijanagar on the Tumbudra, Penaconda, and Chanderagir, - Elphinestone.

CHOLA-MANDALOOR, supposed to be the source of the term Coromandel, applied to the east coast of the Peninsula of India, the Carnatic below the ghats. It was the country of the rajas of the
CHOLAY.

Chola dynasty Choran, who seem to have been coeval with the Chera and Pandyan dynasties.

CHOLAY of Nepal, Capra hircus, Linn.

CHOLER, also called Cholera morbus, a disease which has been reappearing at intervals in British India, certainly since the latter part of the 17th century. In its attacks only one or two or three recover. It has spread to most countries, and seemingly has Lower Bengal as an abiding place. Cholera reappeared at Negapatam in October 1781. A third time it appeared in 1786, and a fourth time in 1817. It appeared amongst the native troops, who marched from Bengal 5000 strong in February 1781, and they arrived near Madras in August, reduced to little more than 2000. It broke out near Ganjam in March 1781, and lasted about six weeks.—Hough, p. 115.

CHOLL. HIND. A bodice worn by most of the women of British India. It is of various shapes, but generally of coloured materials; in Sind, under the shift, of cloth called kanjuri, the choli or gaj conceals the bosom. When it passes round the side like a bodice, and is fastened behind, its name is pathi. The Marwari and Brahni women have the latter form. In Sind, over the choli or anga bodice is a light muslin shirt, which continues below the waist, called a koornti; and over all a scarf of white or coloured muslin of fine texture, do-patta, passed once round the waist, and thence across the bosom and over the left shoulder and head, like the sari, completes the costume.—Watson: Burton's Scinde, p. 301.

CHOLUM. DUKU. Porunga quadrifida, R.

CHOLLA. Tel. Eleousina coracana, Gaertn.

CHOLUM. TAM. Sorgum vulgare.

CHOMONDRI or Chalamby. TAM. A Ceylon tree; wood of a very dark colour, and durable. It grows to between 12 and 20 inches in diameter, and 20 feet in height. It is used by the native carpenters for general purposes. It produces a fruit which is used as medicine.—Edge, Ceylon.

CHOMOREK LAKE, according to Major Cunningham, is slightly saline. It has evidently had an outlet at its southern extremity, where it is only separated from the valley of the Parang river by a very low range of hills. The outlet of the little salt lake of Thogi has evidently been near its north end; and its waters, previous to the change in the state of the country which interrupted their exit, in all probability flowed into that tributary of the Zanskar river which runs to the eastward of the Lachalang pass. A goddess, Mo, is said to have haunted this lake Chu, and while flitting over it used to call out incessantly, "Ree, Ree!" thence Choo-mo-ree-ree! It is on the lofty platform of Rupelh, which extends from the Parang pass across the main chain of the Himalaya to the adjacent head of the Zanskar valley. The lake is 15,200 feet above the level of the sea.—Mrs. Hervey's Adventures, p. 148; Hooker and Thomson.

CHOMPIRENG. MALAY. A river cargo boat. The prahu boat, called Sekong, is made of one log of wood, very sharp fore and aft, with long out-riggers to prevent it upsetting.—J. I. Arch.

CHONDROPTERYGI, a sub-class of fishes. The skeleton is cartilaginous, and skull without sutures; body with medial and paired fins, the hinder pair abdominal; caudal fin with produced upper lobe. Gills attached to the skin by the outer margin with several intervening gill-openings; rarely one gill opening only. No air-bladder. Embryo with deciduous external gills; males with prehensile organs attached to the ventral fins. In the family Carachidae the eye has a nictitating membrane, and the mouth is crescent-shaped and inferior. The families Ammidae, Rhinodontidae, Notidanae, Scyllidae, and Pristophoridae, have no nictitating membrane. In the saw-fish family Pristidae, the snout is produced into an exceedingly long flat lamina, armed like a saw with a series of strong teeth along each edge. The electric organ of the family Torpedinidae is composed of vertical bars in the wall of the interspace between the pectoral fins and the head. The ray family, the Rajidae, have a broad rhombic disc, generally with asperities or spines, and the pectorals extend to the snout. The pectoral fins of the Trygonidae are similarly prolonged, and they have a long and slender tail. The pectoral fins of the Myliobatidae are greatly developed; they leave the head free, and reappear at the extremity of the snout as a pair of detached (cephalic) fins.—Gunther, CATALOG. OF FISHES.

CHONDROS CEPHALUS. Cargareen moss.

CHONEMOPHORA MACROPHYLLA, one of the Apocynaceae. It takes its name from Chone, a funnel, and Morpha, form. A very handsome climbing shrub, with large white flowers, well adapted for a screen or covering a wall.—Riddell.

CHONEMOPHORA MALABARICA. Don. Echites Malabarica, Lam. P. Polyn.—Malay.

A Malabar plant. Its leaves, rubbed up in rice water, are applied to carbuncles; and its root is used in fever, with dried ginger and coriander seed.—Useful Plants.

CHONG, an infusion or fermented liquor, made by the Lhoba of Bhutan, from wheat, barley, or rice, which is boiled and strained. Afterwards, one ball, size of a nutmeg, to each pound of grain, of the blossom of the Cacalia saracenica (Bakka), is crumbled and stewed over the grain. It is then pressed in baskets lined with leaves. To use it, a portion of the digested mass is put into a vessel, boiling water poured over it, and infused. It is now the Chong, and it is a grateful beverage, slightly acid, and not powerfully alcoholic.

CHONG, a hill tribe on the side of the Mei-kong basin, but towards the sea, between lat. 11° and 12° N. They preserve more of the Australo-Tamulian character than any of the neighbouring tribes. Their hair, instead of being stiff or harsh, as in the Mongolian, Tibetan, and prevalent ultra-Indian and Malaya-Polynesian race, is comparatively soft; the features are much more prominent; and the beard is fuller. The Moi or Ka-moi, who, on the opposite side of the Mei-kong, occupy the broad expansion of the Annam chain towards Kamboja, and appear to extend northwards along these mountains, marching with the Lau on the westward, are said to be black savages, with Negro features. The Kambojans style them Khamen. They are the Kho-men of Leyden, and the Kha-men of Gutzlaff.

CHONG-MON-GO. HIND. Nepeta floccosa.

CHONITI. HIND. Amongst Hindus, a tuft of hair left unshaven on the top of the head. It is also called Choti, also Ghonda and Chota. Mahomedans sometimes use some, as a votive offering to some saint. All Mahomedan women of the Peninsula dress their hair with the choni or tail, hanging behind, and largely added to by
CHOONEA or Choonea, also called Choona, Choona, or Choonea, is a village in the Barjati, a town in the district of Barjati, in the state of Bihar, India. It is located near the town of Barjati, which is a part of the Barjati subdivision of the Barjati district.

Choonea is situated on the banks of the Barjati River, which flows through the village. The village is known for its beautiful scenery and the traditional architecture of its houses, which are made of stone and mud. Choonea is also famous for its traditional festivals, which attract tourists from all over the state.

The village has a population of around 5,000 people and is divided into several neighborhoods. The main occupations of the villagers are agriculture, fishing, and trade. The village has a small market where villagers can buy and sell their goods.

Choonea is accessible by road and is connected to other parts of the district by a network of local roads. The nearest town, Barjati, is around 10 kilometers away and is well-connected to major cities in the state through a network of highways.

The climate of the village is tropical, with hot and humid summers and mild winters. The village receives moderate rainfall throughout the year, with the monsoon season being the main source of precipitation.

Choonea is a peaceful and quiet village, known for its friendly and hospitable locals. The villagers are proud of their traditional customs and are eager to share their culture with visitors.
by the rulers of the country before the Mahomedan sway. This empire of the Khwarizm kings rose upon the ruins of the Saljuk dynasty, and their territories extended from Azerbaijan and the Caspian Sea to the Indus, and from the Persian Gulf to above the Jihun or Jaxartes. A succession of nine princes reigned for 158 years, from 491 to 628 Hijira (1057 to 1230 A.D.); but in 618 it, the line of them, Jalal-ud-din Mankburni, was driven by Chenga Khan beyond the Indus, and he was killed in Mesopotamia ten years afterwards, stripped of all his dominions.

CHORBAT. This district is a dependency of the government of Iskardo, which, like that of Leh, is subject to that of Kashmir. The desert country by which Nurba and Chorbat are separated, has for the present acted as a barrier to the further extension eastward of the Mahomedan religion, which is now universally that of the people of the whole of the Iskardo (or Balti) district, as well as of Dras. On the Indus and in the valleys south of it there is no uninhabited tract between the two, so that the Mahomedan and Buddhist population are in direct contact. The result is that Mahomedanism is in that part generally, though very slowly, extending to the eastward. — *Dr. Thomson’s Travels in Western Himalaya and Tibet*, p. 204; *Tibet*. See Maryul.

CHOR. CHITTI. *Hind*. Deed of relinquishment.

CHOR-DEO. CHORI CHITTI. CHOR-KANTA. CHORTEN, the Persian dynasty of the Arsacides. Choreses I., styled Nushirwan, A.D. 531 to 571, was defeated on the plain of Meltene by Justinian, the general of Tiberius Constantine. Amongst the plunder obtained was his drinking-cup, of gold and paste jewels, which is now in the Bibliothèque Impériale of Paris. He was succeeded by Hormuzd. Choreses II., or Khusru Parvez, A.D. 591, reigned till A.D. 628, when he was put to death by Kobad. He was grandson of Choreses I. He married a daughter of the emperor Maurice, and this lady is generally supposed to be the muse and heroine of the eastern romances Khawarux and Shireen, and Farhad and Shireen. Near Baghdad is an arch, known as the Tak-i-Kasru, or arch of Choreses, which marks the site of the ancient Ctesiphon.—*Mordtmann ; Smith*; *Princess by Thomas*. See Greeks of Asia; Kaar. CHOT, also Ghoonghi. *Hind*. A blanket, cumuli, or sheet, folded or tied at one end to form a cloak.—*Elliot*.

CHOTA. HIND. Pyrus Kumaonensis. CHOTA. HIND. Small, little; Choti, fem.; and Ch’oto or Choto, BENGALI; hence,—CHOTA-bish-tarik, Ipomoea speciosa. CHOTA-chard, Ophiosylon serpentinum. CHOTA-chirraya, Cicendia hyssopoflora. CHOTA-dhoam, Cleome tomentosa. CHOTA-gul-khairu. See Khabaji. CHOTA-jam, Eugenia Caryophyllifolia. CHOTA-karnoda, Carissa spinarum. CHOTA-koksun, Vernonia cinerea. CHOTA-kando, Aloe litoralis. CHOTA-okra, Zipsina nodiflora. CHOTA-pind-aliu, Dioscorea aculeata. CHOTA-sundhi, Nymphaeæ edulis. CHOTA-tul, Rheum emodi. CHOTI, Corchorus olitorius. CHOTI-sim-khi-bhalli, Dolichos lablab, native bean. This is a smaller species of the D. lablab; the legume and seeds are both eaten; it is sown in the plains and sold from time to time a two piece a seer. CHOTI-ilachi, Elettaria cardamomum. CHOTI-mal, galls of Tamari orientalis. CHOTI-phutika, Osbeckia aspera. CHOTA-sukum, Calotropis herbeacea. CHOTA-al-ki-pat, Morinia umbellata leaves.

CHOTA NAGPORE, properly Chutia Nagpur, is the country on the eastern part of the extensive plateau of Central India, on which the Koel, the Subunreka, the Damula, and other rivers have their sources. It extends into Sirgurja, and forms what is called the ‘Upar - ghat’, or highest part of Juspur, and it is connected by a continuous chain of hills with the Vindhyan and Kymor ranges, from which flow alluvial of the Ganges; and with the highlands of Amarkantak, on which are the sources of the Nerbada. The plateau has an area of about 7000 sq. miles. It is on all sides difficult of access. It is a well wooded, undulating country, diversified by ranges of hills, and has a genial climate. The population at the 1872 census was 8,825,571, and is formed of a number of non-Aryan tribes who had fallen back to that refuge from the plains, more than half of them being of the race known to Europeans as Kol. On the south-west frontier of Bengal, besides Chutia Nagpur, are Sirgurja, with Palemow, Ramgur, Hazaribag, Mynap, and Amarkantak. The elevation of Chutia Nagpur is 2000 to 3000 feet, with hills running E. and W., but of little height; Sirgurja is mountainous, rising 600 to 700 feet above the level of Chutia Nagpur. Mynap is a table-land about 30 miles S.E. from Sirgurja town, and about 3000 or 3500 feet high. Palemow district is very mountainous. Hazaribagh town, lat. 24° N., long. 85° 54′ E., is 1750 feet. Slope of the country is south towards Sumbulpoore; N. and E. parts of district very mountainous, but level and even depressed towards the Mahanadi.
CHOTA NAGPORE.

Sumbulpore town, only 400 feet. Orissa table-land then rises on the southern side of Mahanadi, in some places to 1700 feet, backed by the chain of K. Ghats. Amarkantak jungle table-land, lat. 22° 40' N., long. 81° 5' E., 3500 feet. The soil in the plains is generally fertile, producing abundant crops of wheat, barley, rice, pulse, excellent vegetables, cotton, and sugar-cane. The cultivated parts are overrun with a coarse grass. There are 21 mahals, which form the S.W. frontier of the Bengal province, and which have been classified in four groups, the Sumbulpore, Patna, and Sirguja groups, and Singhbhum. The Sumbulpore and Patna groups are in the circle of the Cuttack Tributary Mahals. Singhbhum was never Mahatta; and in 1857 its chief, the raja of Poorahat, joined in the rebellion, many of the Larka Kol following him. A Christian mission went to Chutia Nagpur in 1845, and has made much progress amongst the Dhanger race. In Chutia Nagpur, in which are the districts of Manbhum and Singhbhum, the mortality from the famine of 1866 fell on the population almost the same as in Orissa. More than half of the population are aborigines or semi-Hinduized. The fourteen Kolarian tribes being the Asur, Bhumij, Birhor, Ho, Kharia, Kora, Korwa, Musi, Mundah, and Santal, who speak the Mundah, or a language closely allied; with the Cheru, Kharwar, Kisan, and Saont, who have lost their own primitive speech. The Dravidian tribes are the Bhuiber, Binjia, Gond, Khand, Kaur, Kol, Mora, Rautia, Sabar, and many others. The census of 1872 showed as under:—

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<th>Tribe</th>
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<td>14,226</td>
</tr>
<tr>
<td>Mahomedans</td>
<td>160,992</td>
</tr>
</tbody>
</table>

The Asur or Agaria are wild, uncivilised iron-smelters. The Bhuiher and Boyar are supposed to be the same tribe, to be identical with the Parhaya, and allied to the Gond. They are also called Beorhi, from practising the kumari or jhum form of cultivation. The Bhumij (128,257) are in Dhalbhum, Manbhum, and Orissa, and, under the name of Chmar, were formerly known for their daring exploits. The Birhor, a very small tribe, who claim alliance with the Kharwar. They used to practise cannibalism; a Birhor whose end was approaching, would invite his relatives to come and feast on his body. The Kaur claim descent from the Kanuva race. The Korwa are a very wild tribe of Kol, but agricultural.

The Oraon, and those of the Oraon tribe called Dhanger, are a merry, light-hearted people, very fond of dancing, but given to excess in eating and drinking.

The Santal are most numerous in Manbhum, Singhbhum, and Chutia Nagpur. The Bhumij form the majority of the population in all the estates of the Manbhum district to the south of the Kassai river. As they approach the confines of Chutia Nagpur, they appear to be called indifferently Mundah or Bhumij, and they intermarry. More to the east, the Bhumij have greatly assimilated to the Bengali; many have acquired estates and influence as Sirdar Ghatwals, the hereditary guardians of the passes. They tenaciously cling to their national songs and dances. Bhumij are to be found in Mohunburg and Keonjur, and it is this branch of the Mundah race which has spread farthest in an eastern direction. The Bhumij of the lower part of Singhbhum and Manbhum are tolerably civilized. All the wild tribes of Central India worship relatives immediately after death; and the Bhumij, Bhumij and Kol tribes or clans practise the ceremony whereby a soul of a man in the deceased is attracted or conjured into some tangible thing, which is brought back into the house soon after the funeral, apparently that the soul may thenceforth be worshipped as a household spirit. Traces of this superstition may be found all the world over. It is practised by Hindus; Herodotus and Homer show its antiquity. Captain Burton mentions it in Africa.—Cent. Ind. Prov. Con. Rep. pp. 5-9; Dalton, pp. 147-156; Campbell, p. 33; Aitcheson; B. As. Soc. Jdo. 1866; Bengal Census Report.

CHOTA SUR. HIND. Porculia salvmvns.

CHOTI PIUL of Shahpur, a flat, shield-like ornament worn on the top of the head by Arora women. It is also in the form of a round spherical boss, different in form from the ornament of the same name in the Jach Doab.

CHOTRA. HIND. Berberis aristata.

CHOU. HIND. Four; softened from Char, four, from which are many compound words.

CHOUBE or Choubay, a class of Brahmans who originally received their name from reading the four (chou) Vedas, as Doobe was derived from reading two, and Tribedee from reading three, of the Vedas. Choube are numerous in Muttra, where they claim the exclusive right of worshipping in the temples of Krishna. They are of large physical frame; and the Choubai women have a commanding style of beauty.

CHOUBEKSA, from Choubees, 24, is a term applied to a tract of country containing that number of villages in the occupation of a particular tribe. There are several of them scattered over the provinces, but they may perhaps be more frequent in the neighbourhood of Muttra than elsewhere.

CHOHUARDHI, an overseer, commonly written Chohwadi. In Hindustan the chohwadi is the revenue officer of a district, called desmukh or desai among the Marathas. He is also a head of a division, or sect, or gaun. In many Hindu cities, the different classes of the community of every rank still acknowledge certain of their members as their hereditary headmen or provosts. These are the Sartavaha of the Brahmans, and Sirdar of the Mahomedans. The chowdari is usually a woman overseer. Many of the Hindu temples of the south of India are pyramidal,
but in successive tiers, four-cornered, each tier or platform being upheld by two men at the corner; these are the chourdari, though in reality there are eight for each tier.—Wilson, Hind. Th.

CHOWDWAH, a tract of country in the district of Dehra-i-Ismail Khan.

CHOUGH, the Cornish chough, Fregilus granulosus, inhabits the more elevated regions of the Himalaya, and of all high middle Asia, also stated to have been obtained in the vicinity of Calcutta.—Cal. Rev.

CHOUGHAN, in Rajputana, the Rajput champ-de-Mars. See Dard.


CHOUKA. Hind. Tetraceros quadricornis.

CHOUKANDI, or Luri-ka-kodon, so called from the leap from its top of an Ahir, by the name of Luri. It is in the town of Sarnath, and is a lofty mound of solid brickwork, surmounted with an octagonal building. Hiwen Thangan describes this tower to have been no less than 300 feet in height.—Tr. of Hind; i. p. 295.

CHOUK MARAM. Tam. Casuarina muricata.

CHOULA, also Choura. Hind. Dolichos Sinensis; a pulse commonly cultivated in Hindustan; also called Ruwas and Ramas, and in Persian Lobia.

CHOUlam. At five months of age, a Hindu ceremony called Choulam occurs, and the lobes of the ears are pierced with a small thin gold ring.

CHOU-LEEN-KE, or Chow-teze, commenced his labours about A.D. 1034. He died A.D. 1100? From 1241, his views of philosophy, morality, and politics have been supreme in China.

CHOUHTRY. Chatter, Chatham, H., Tam. | Chawadi, . . . . Tel.

In the Madras Presidency, a resting-place like the Mahomedan sarai; a police-station, a post-house.

CHOMASA. Hind. The Indian seasons are, according to the Sstras, six in number, each comprising two months. The common people are content to adopt the more definite division of three. Chomasa, or Barkha, constitutes the four months of the rainy season. The rest of the year is comprised in Scena, Jara, or Molasa, the cold season; and Dhoobkala, or Klaura, the hot season.—Elliot.

CHOU-MURTI MAHADAYA, a name of the four-sided lingam, one of which is in one of the Ellora caves, others in the Burabur caves, and many in the Glyh district. The meaning is, as an ordinary lingam can be worshipped only looking in one direction, this four-faced one can be looked to from four sides.

CHOURA-DADUR, a plateau in Central India, which has an area of about 1000 sq. miles. It is covered with jungle.

CHOURAGARH, the highest summit of the Mahadeva hills, has an altitude of 4200 feet above the sea; the usual height of the range, which, entering the Nagpur territory from Gawilghur, passes by Dewagurh towards Shiwani, is not above 2000 feet, though in the east of the same chain, where it goes under the name of the Lanji hills, some of the peaks attain an elevation of 2800 and 2400 feet. At Nagpur, the country falls to a level of 1000 feet. On the west, however, it immediately rises by 200 or 300 feet in a succession of eminences.—Carter's Geological Papers, p. 248.

CHOURASSI. Hind., literally, eighty-four, is a revenue term applied to a subdivision of a pargana or district amounting to 84 villages. Tod, in his Annals of Rajputana, where the chourassi are numerous, remarks that they are tanta-

CHOUCHAR, the Cornish chough, Fregilus granulosus, inhabits the more elevated regions of the Himalaya, and of all high middle Asia, also stated to have been obtained in the vicinity of Calcutta.—Cal. Rev.

CHOWK BYTHINA.

Hind. To sit in a circle; a technical phrase among fakirs.
CHRISTIANITY.

CHRISTIANITY, a classical author of China.

CHOWLE, DUKH. Portulaca quadrifolia.

CHOWSUN KHAMDEH, or Chownasat Satoon, as it is commonly called, is a singular structure quite close to the tomb of Nizam-ud-Din Aoleem near Dehli. As the name implies, it is composed of 64 pillars. They are of white marble, supporting a square roof of the same material, which occupies a tolerably wide area. It is a building of great purity, its pale aspect of white throughout being interrupted by no other colour. The lattice-work that surrounds it is of very delicate execution, and well polished. This building seems to be erected to the memory, if not actually over the remains, of a celebrated poet and historian, Amir Khmsri, a native of Samarcand, and a prince. He was a contemporary and friend of Shaikh Nizam-ud-Din Aoleem, not far from whose tomb this building is raised.—French's Tour, p. 13.

CHOWRI, Chamara, or Chaurri. Hind. A whisk, made sometimes of peacocks' feathers, sometimes from the tail of the yak, sometimes of spilt shavings of sandal-wood, of ivory, or of horse hair, or of grass, and used for the purpose of driving away flies, mosquitoes, and other insects. They are usually seen in the hands of the attendants of the gods. The chaurri or chowri from the white bushy tail of the yak or Tibet cow, was in ancient India fixed on a gold or ornamental shaft between the ears of the horse, like the plume of the war-horse of chivalry; the banner or bannier, with the device of the chief, rose at the back of the car; sometimes several little triangular flags were mounted on its sides.

'The waving chowri on the steel's broad brow points backwards, motionless as a picture.'—Coleman, p. 376; Hindoo Theatre, i. p. 199.

CHOWRA, a dynasty that ruled at Anhilpura in Gujarat from a.d. 746 to 942, when they were dispossessed by Mui Raj, a Solunki Rajput. The Chowra dynasty is usually known as the Saura; the natives of the S.W. of India change it to Chaurri.

CHOWRI. Tel. (Chavalli). A caravansary, a choultry, a chatram.—Wilson.

CHOWTHEE. Hind. The bridal ceremony of uniting the kunggar on the fourth day after the marriage.

CHOW-YU. Cinc. Dioscorea batatas.

CHOZAN TARTARS were Israelites professing the Jewish religion, and practising circumcision.

CHRIST, from the Greek word Christos, equivalent to the Hebrew and Arabic Masshia, from Mas'hi, anointed. The Christ is Jesus of Nazareth, called Jesus and Jesus Christ, also the Messiah. The Mahomedans' designation is Isb Massia, Jesus the Anointed; they also entitle him Ruh Allah, the Spirit of God, as Moses is known as the Kalam Allah, the Speaker with God, and Abraham as the Khali Allah, or Friend of God. Christians and Mahomedans believe him to have been born of the Virgin Mary.

CHRISTIANITY.


Christians in Southern and Eastern Asia are in many sects, and are the converts to this creed from many races, and since the earliest days of the Christian era. Africans seems to have early adopted the Christian faith. The Eastern Churches believe that St. Thomas preached in Arabia Felix and Socotra, on his way to India, where he suffered martyrdom about a.d. 50; and it is said that the rudiments of this religion were first implanted amongst the Hunsyrites by St. Bartholomew. It is also recorded that St. Pantenus was sent by Domitius, Bishop of Alexandria, to preach in Arabia Felix, and there to found traces of St. Bartholomew,—amongst others a colony of St. Matthew's Gospel, written in the Hebrew character, which he brought away with him to Alexandria. In the reign of Tibba, son of Husan, from a.d. 297 to 320, Christianity became more generally known in Arabia, and extended to Abyssinia, where the people, though surrounded by Mahomedan and pagan tribes, continue Christian till the present day. Subsequently, in a.d. 326, Frumentius was elected by Athanasius, Bishop of the Indians, and he is said to have contributed much to the propagation of the Christian religion, but whether Arabia or Abyssinia was the scene of his labours is disputed. In a.d. 342, Theophilus Indus, a native of Diu, obtained permission to build churches in Yemen, one of which was erected in Aden (Playfair). The Arab conquerors' first emigration from Arabia is supposed to have taken place about 700 years before the time of Solomon, and the Abyssinians appear to have of Arab descent. Christians in the four century of the Christian era, and in the sixth they re-crossed over to Arabia to avenge the persecution of Christians by a Jewish ruler, conquered Yemen, and marched to the gates of Meeca, where they were overthrown, two years before Mahomed was born. St. Thomas is believed to have become a martyr near Madras, at the Little Mount, half way between St. Thomé or Mylapur and St. Thomas' Mount. The first historical record of Christianity in India shows that its followers were Persians, followers of Mani.

Cosmas Indicopleustes, who travelled in India a.d. 530–550, and afterwards became a monk, mentions the presence of Christians.

Alfred the Great, in a.d. 885, sent Sighelm as an ambassador to the Christians at Mylapur, but there is no authority for his having reached India. Christianity in Arabia at the time of Mahomed was in a grossly corrupt state. The heresies of Ebion, Bani-thahara, Suraian, Collyrians, and Miriamites were current.

At present, in Arabia, there are two sects which have attracted the notice of travellers, because of their names. One of these, the Salebi, from Saleb, a cross, which they reverence; the other are the Sabian sect, who are known to Europeans as the Christians of St. John. But the Salebi seem to be the sects that are homeless and migratory dwellers in tents, and many races have used crosses; and the Sabians are a sect who have adopted portions of the Jewish, the Christian, and the Mahomedan beliefs. The Kadi, however, of Mesopotamia are Christians, and have been styled Nestorian Christians, a term which they do not recognise. Throughout those regions, Christians of the Armenian, Romish, and Protestant forms have scattered representatives.

Christianity, according to tradition, was introduced into Armenia by St. Jude or Thomas, one of the twelve apostles of Jesus, who converted King Algar. The Armenian Church separated from the Greek Church of Constantinople in the sixth century, on a dispute concerning the nature of Christ,—the former holding the Jacobite doctrine of his divine and human nature being monophysite,
or united in one; while the latter, like most other Christian churches, holds his divinity to be distinct from his humanity. Persian Christians are chiefly Nestorians, whose evangelical views have sometimes caused them to be termed the Waldensians of Asia. They trace their origin to the labours of the apostle St. Thomas. About 1870 they sent a deputation of two of their chief ministers, named Deacon Abraham and Deacon Marcus, to Britain to solicit aid from British Christians. In that region, the several sects have long been agitated by questions of belief and of church government. The Chaldean Patriarch of Mosul, after the middle of the 19th century, consecrated a bishop for Malahar. The Oriental Catholic Church of the Armenians has entirely separated itself from the papal chair. The United Chaldeans are said to intend to break off all connection with Rome, and the Copts are ready to do the same, and withdraw, like the Maronites, Syrians, and Greek Melchites, from communion with Rome.

The British Indian Government provides funds for army ecclesiastical services of the Episcopal, Presbyterian, and Roman forms, costing in the three presidencies about three lakhs of rupees. The British Government has not alienated revenue for the support of the religions of the country, but maintains what was alienated by their native predecessors. In some cases the land has been resumed and cash payments substituted; but the grand result is as follows in the Madras Presidency:

Payments in cash to native religious institutions, per annum, Rs. 8,68,000. The assessment of lands alienated, less quit-rent, equals Rs. 2,30,52,000. The total, therefore, is Rs. 3,20,000,000. This is exclusive of enormous grants of land revenue to Brahman and others. In 1871 the total acreage for Hindu religious purposes was 1,347,000 acres, assessed at Rs. 22,23,100. The acreage for Mahomedan religious purposes was 137,000, with an assessment of Rs. 2,65,000. The acreage for Christian religious purposes was 2600 acres, and the assessments Rs. 5000. Consequently the total area and revenue alienated was little less than 1,500,000 acres, assessed at twenty-five lakhs.

On all the sea-coasts of the south and east of Asia, and on the great rivers, the people are largely fishermen. Those along the coasts at Madras became Christians early; indeed, from the southern outskirts of the town at St. Thomé to its northern village of Ennore, nearly all the fishermen are earnest Christians of the Roman Catholic persuasion. The Koli tribe of fishermen in Bombay are nearly all Christians, though they have occasionally wavered. There is something remarkable in the circumstance of the fisher races being amongst the earliest and most eager converts to Christianity in India,—so much so as to render it questionable whether it be only an accidental coincidence, or the result of some permanent and predisposing cause. The Parawa, or fishermen of Cape Comorin, were the earliest proselytes of St. Francis Xavier; and they have still a pride in alluding to the fact that they were the first, as they have since been the most faithful and abiding, of his converts. It was by the fishermen of Mannar that he was invited to Ceylon in 1544; and, notwithstanding the martyrdom inflicted by the raja of Jafna, and the persecution with which they were visited by the Dutch, that district and the adjacent boundary of the Wanny has to the present day been one of the strongholds of the Roman Catholics in Ceylon. Amongst the Parawa, or fischer caste of the Singhaless, the Roman Catholics have at all times been most successful in their efforts to proselytize.

There were many Christians in Ceylon in the 9th century, and in the 16th century St. Francis Xavier is said to have converted the inhabitants of Manaar. The king of Jafnapatam put 600 of the converts to death; to revenge which, Constantine de Braganza in A.D. 1560 invaded Jafnapatam, destroyed many villages, and is said to have carried off and destroyed the celebrated tooth of Buddha. Throughout the entire of the British territories in Southern Asia are small bodies of Nestorian, Armenian, Romish, and Protestant Christians, of Persian, Armenian, Portuguese, Dutch, Danish, English, and French descent. The census of 1871 showed 896,658 of Christians in British India, as under:

- Bengal, 90,763
- Assam, 1,947
- Ajmir, 249
- Oudh, 7,761
- Panjab, 22,154
- Central Provinces, 19,477
- Bar, 906
- Bombay, 9,036

Besides these, there are numbers in the native States of India, and the total may be about 14 million. The Ecclesiastical Council at Rome, however, obtained a statement of the numbers in India of the clergy and professing Catholics. It showed an archbishop of Goa, 19 bishops, who are vicar-apostolic, and 815 priests, besides the clergy resident in the island of Goa; and the laity were stated at 1,076,102. The Protestant missions of India, Burma, and Ceylon are carried on by 35 missionary societies, in addition to local agencies, and in 1873 employed 606 foreign missionaries in 3022 principal and subordinate stations. The Romish clergy of British India are almost fully occupied by the duties relating to their respective charges, but the Protestant missionaries are zealous educationalists and propagandists. In India in 1871-72 there were 25 Protestant mission presses. During the ten years between 1852 and 1862 they issued 1,034,940 copies of the Scriptures, chiefly single books; and 8,604,033 tracts, school-books, and books for general circulation. During the ten years between 1862 and 1872 they issued 3410 new works in 30 languages, and circulated 1,815,508 copies of books of Scripture, 2,375,040 school-books, and 8,750,129 Christian books and tracts. But throughout the S. and S.E. of Asia, and in the Archipelago, there may, in the latter third of the 19th century, be about ten millions of Christians, amongst about six hundred millions of Buddhists, Hindus, Mahomedans, and Shamarists, amongst Aryan, Semitic, Mongolid, and Negro races. In proselytizing, much success has attended the efforts of the Portuguese and Spaniards in India and the Archipelago; and the same may be said of the labours of Dr. Mason and other Baptist missionaries amongst the Kares, and other uncivilised tribes of Burma; also of those of Bishop Caldwell amongst the Shanar and other ruder Tamul races of the extreme south of the Indian Peninsula; and of others amongst the Kolarian and Dravidian races of the Central Provinces, and in the Chutia Nagpur province of Bengal. Mahomedans in S. Asia, of Arab and Persian and Mogul descent, adhere to the religious instruction
of their childhood, and very few Hindus of Aryan descent have accepted the Christian doctrines. They have not, however, been quiescent, but, rejecting their own polytheistic legends, they have been, from time to time, following monotheistic reformers, and in the 19th century have been trying to construct, under a church, council, or society, bearing the designation of Brahmo Samaj, an unrevealed code, in which they recognise a first principle and the teachings of morality. In British India, amongst Hindu races, the educational efforts of the British Indian Government have been on the largest scale; but over-education has unspiritualized the educational efforts of Christian missionaries, and created a desire for more worldly advancement, which has killed in some hopeful cases the inner life.

In Cochin and Travancore there have been Jews from prehistoric times, and Christians from the earliest years of the era. Some of them have adopted the Latin hierarchy, others serve under the rule of the Patriarch of Antioch, others under the Patriarch of Mosul, and others, again, are designated Nestorians. The disputes there led to, and followed, the arrival of the Patriarch of Antioch, and on the 4th March 1876 the Travancore Government issued a proclamation, declaring all matters connected with the churches to be adjudicable by the ordinary courts of the country. The Syrian Christians in Travancore are styled Nasram Mopla, also Pullen Kar; and Mahomedans are Iona Mopla. The Palaya Kar is a convert from the Syrian sect to that of the Roman Church. The seaboard regions of the Peninsula have many Christian sects meriting notice. One part of these, the Travancore state, is in alliance with the British Indian Government. Its population in 1875 was 2,311,379, of whom 468,000 were Christians, 63 per cent. being Syrians, in part Roman Catholics of the Syrian rite, and the rest Nestorians; Roman Catholics of the Latin rite were 24 per cent., and the remainder Protestants. The Syrian Christians on the Malabar coast date from the earliest centuries of the Christian era.

Cochin is another tributary state on the Malabar coast, with a population over half a million, of whom 140,262 are Christians and 1278 Jews. The Christians belong for the most part to the Romano-Syrian Church, under the Archbishops of Malabar and Goa. The Jacobite and Nestorian Churches were established long before any European settlements there, and they acknowledge the Patriarch of Antioch as their head. The Christians are almost all fishermen and boatmen.

Trinvely is a British district in the extreme south-east of the Indian Peninsula. In 1871 it had a population of 1,693,979, 102,576 or six per cent. of whom were Christians, mostly of the Parawa race, and those of the Romish and Protestant persuasions were in nearly equal numbers. It was on the Trinvely coast that St. Francis Xavier landed in 1542, after a short stay at Goa. He found there a small body of Christians; but since his time their numbers have largely increased in Madura and along the coasts of Trinvely and Ceylon. They have not been free from persecution. In 1549 Father Antonio Criminales became a martyr at Punnäkayal. In 1693 John de Brito fell a martyr at Madura; and after the middle of the 18th century (1773) the Portuguese suppressed the Jesuits in their own dominions, and greatly oppressed the Eastern and Italian missions. Robert de Nobili, in 1607, founded the missions at Madura. Early in the 18th century, Father Beschi, a great Tamil scholar, lived for some time at Kayatar. In 1816 was founded the vicariate-apostolic of Madura, including Trinvely. Beschi died in 1746. The Protestant missionary Schwartz was in Trinvely in 1770, Jenieick from 1792 to 1800; after him came Gericke, J. Hough, 1816, with Ithenius, a man of great ability, Schmid, Dr. E. Sargent, and Dr. R. Caldwell, all of them men of great intellectual ability.

Christianity made much progress in India from the time of Xavier and his fellow-labourers. Louis Almeida, a Portuguese Jesuit, was everywhere welcomed among the territorial princes of Kew-sew. Somnathadas, prince of Omura, became a convert. In A.D. 1582, four noble Japanese went to Rome on an embassy to Pope Gregory XIII., from the princes of Bunga, Aroma, and Omura, and were for eight years absent from Japan. But the secular emperor, Tyco-sama, repressed the movement, and his successor, Eyaves, issued an imperial edict, A.D. 1638, expelling and exterminating the Christian religion and foreign races. In 1638, 4000 Japanese Christians were thrown into the sea from the Papenburg rock near Nagasaki.

The first missionaries to China were Italians. In the middle of the 17th century, workmen at Sen-gan-fu, in the N.W. of China, found a Syrian inscription, which had been sculptured by the missionaries of the Nestorian Church in the 7th century, and native scholars regard it as a most valuable specimen of the caligraphy and composition of the Tang dynasty. Christianity seems to have penetrated three times into China, the first time in the 5th or 6th century. We learn from the Mahomedan travellers, who visited China as early as A.D. 850, that it then prevailed; and that, when Canton was taken and sacked in A.D. 877, by a rebel army, as many as 120,000 Mahomedans, Jews, Christians, and Parsees perished in the sack. The general who conquered Southern China is stated to have been a Nestorian Christian, and to have built a church at Nankin for those of his own faith. Marco Polo was himself in high favour, though a Roman Catholic. In the 13th it was very flourishing. At this epoch there existed at Pekin an archbishop with four suffragans. The Chinese have also for a long time had at their command a precious collection of books of Christian doctrine, composed by the ancient missionaries, and which, even in a purely literary point of view, are much esteemed in the empire. These books are diffused in great numbers throughout China, the first printed in the 9th or 10th century.

Christianity was encouraged at the Moghul court during the reign of the emperor Jahangir. But Bernier mentions (p. 198) persecutions there. Pero Ricci went from Macao into the interior of China in A.D. 1585, and established himself in the first instance at Nankin. He removed, after a few years, from Nankin to Pekin, where he was well received, and his doctrines made an impression on some nobles of the court. He lived there for many years, the recognised head of several missionary establishments.
located in different parts of China, making many
converts, and respected by all, until his death,
which occurred at the age of fifty-seven, in the
year 1610.
A popular uprising began in 1818. It origin-
ated in 1800, in the teachings of Mr. Roberts, an
American missionary, and of an earnest Chinese
disciple. It became blended with the national
struggle of the Tae-ping, or the vortaries of 'the
divine kingdom of eternal peace.' According to
the writings of Hung, once a schoolmaster, but
afterwards the 'heavenly prince' and acknowl-
dged head, the Tae-ping convert on coming to
baptism had to pronounce a solemn vow to take
the belief in the Father, Son, and Holy Ghost for
his rule of life, and that he was resolved to dedicate
this life to God, in love to the brethren; and
visits to the tombs of ancestors were enjoined, in
gratitude for the release of their immortal souls
from this troublesome life, and to renew the vow
of life-long devotion to the cause of God and the
brethren. The Bible was their word of God, and
the ten commandments the moral law; opium-
smoking, a sin equal to adultery. The Chinese
designate the Christian religion as the religion of
the Lord of Heaven; and M. Huc observes that
every one must be struck with the new doctrines
with which the proclamation and manifestations
of the pretender and his generals have been filled.
He styled himself Tien-ti, or Celestial Virtue. The
unity of God has been distinctly expressed; and
around this fundamental dogma have been grouped
a number of ideas borrowed from the Old and
New Testament. War was declared at the same
time to idolatry and to the Tartar dynasty. A
French missionary, who had been very much in
the interior of China, states the total number of
native Christians at 500,000. M. Huc's estimate
was 800,000, which, as he correctly observes, is
a mere nothing in the enormous population of the
country. These Catholic Christians are, however,
not collected in one place; they are scattered over
all China proper in small communities, called by
the French Chrétienst. The members of these
Christianities are educated and trained as Chris-
tians from their infancy, being either foundlings
of Christian Chinese parentage. They are Chinese
in the outward and more obvious characteristics
dress and features, but in other respects are
more like Bavarians or Neapolitans than their own
countrymen, from whom they differ in many of
those social and domestic customs, and in all
those mental peculiarities, which constitute the
special nationality of the Chinaman.
The portion of India under British rule is
divided by the Church of Rome into vicariates-
apostolic, each under a vicar-apostolic, who is
also a bishop in partibus infidelium. The Madras
vicariate contains thirty-seven churches, sixty-
seven chapels, and thirty-four priests are en-
gaged at work in it. A very successful college
in Calcutta, for the education of Europeans and
natives combined, is one which belongs to the
Jesuit sect of Christians; and there is a similar
college at Bombay. At Negapatam, the Jesuit
Fathers have a college which is worthy of being
spoken of. This college, dedicated to St. Joseph,
was founded in 1846 by the Jesuits in charge of
the Madura Mission (attached to the province of
Toulouse in France), and at a time when education
was little appreciated by the people of India. It
occupies the site of the Government House and
compound of the Dutch governor, who resided in
Negapatam prior to 1751, when the town was occu-
pied by the British under Munro. The library of
the college contains nearly 3000 volumes, compris-
ing works in English, French, and other
European tongues, Sanskrit, Tamil, and various
vernacular languages, and a fair collection of
ancient and modern writings in Latin. There is a
printing office and a good laboratory. The chapel
of the college, dedicated to the Sacred Heart, is
a fine vaulted edifice, but rather small for its pre-
sent requirements. The Catholic parish church
near to the jetty at Negapatam is one of the most
remarkable structures in the town. These
buildings, together with others belonging to the
mission, have been erected entirely under the
direction of the Jesuits. The vicariate of Pondi-
cherry has 68 European and 26 native priests. It
contains 182,126 Christians. The French Govern-
ment support a college at Pondicherry; and St.
Joseph's College at Cuddalore is year by year
rising into importance as an educational institu-
tion.
Romish, Armenian, Presbyterian, Episcopalian,
Baptist, and other Christian sects have cathedral
and other churches in every district of British
India and the feudatory states, and British, French,
Italian, German, and American missions are spread
through the country.
The following table gives some interesting facts.
We exclude Ceylon, but include Mysore, Pondi-
cherry, Travancore, Hyderabad, and all the Madras
Presidency:

<table>
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<td>Priests</td>
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</tr>
<tr>
<td>Populations</td>
<td>668,689</td>
</tr>
<tr>
<td>Pupils in school</td>
<td>4,938</td>
</tr>
</tbody>
</table>

A French mission has settled in Perak, in the
Malay Peninsula.
The Protestant Christians, early after the Refor-
mation, sent missions to Ceylon and the south of
India. Ziegenbald was the first arrival, followed
by Schwartz, Gericks, Kohlhoff, Fabricius, Plu-
schau, and others. In 1706 Ziegenbald began at
Tranquebar; in 1726 the Christian Knowledge
Society made a settlement at Madras, under
Schultz and Sartorius, Lutheran missionaries;
in 1740 Kiernander arrived at Cuddalore, and in
September 1758, at the request of Clive, he left
Tranquebar to open a mission at Calcutta. Indeed,
the missionaries from Europe of the past four
centuries, who have devoted their lives to the dif-
fusion of the Christian doctrines, are many.—St.
Francis Xavier, Bartholomew Ziegenbald, and also
Henry Plutschau Danes at Tranquebar, 1705; John
Ernest Grundler at Tranquebar, to whom George 1.
of England addressed a complimentary letter of
23rd August 1717; Schwartz at Trichinopoly and
Tanjore; Schultz at Madras; Rottler, Dubois,
Rhenius in the Sa, of India; John Anderson at
Madras; Bishop Caldwell in Tranqueville; Ward,
Carey, Marshall, Duff, Brown, Buchanan, Thomp-
son, Henry Marty, Wilson, with Bower, Ellis,
Hough, Marks, Mason, Miller, Pallegoix, Winslow
of Bengal, Bombay and Madras Christian mis-
ionaries, pioneers of civilization, education, human
progress and improvement, scientists, ethnologists,
and philologists.—Tennent's Ceylon; Meadows'
Chinese, pp. 52-337; Prinsep's Tibet; Bunsen's
God in History; Huc, Chinese Empire; Bishop
of Victoria in Japan; Travancore Administra-
CHRISTIE, Dr. TURNBULL.

**CHRONOLOGY.**

Dr. TURNBULL, of the Madras Medical Service, gave the first account of per- 
celain clay at Mangalore, in Brit. As. Trans. 1841, x. part 2, p. 967. Also wrote on the Min- 
eralogy and Geology of the Southern Maharatta 
Country, Mad. Lit. Trans. iv. pp. 135, 452, 
which was reprinted from Edin. Phil. Jl.; In- 
structions for Meteorologists, Observations on 
41, 70; Observations on the Geology of the 
Hyderabad Country, ibid. 1827. See memoir of, 
Trans. xv. p. 150.—Dr. Buist's Catalogue.

CHRISTOLEA GRASSIFOLIA, the Shangho 
of Ladakh, grows at from 10,000 to 15,000 feet in 
Ladakah; is browsed by goats, but little by the yak. 
CHRISTOPHER, Captain W., of the Indian 
avny, author of Memoir of the Maldivie Islands, 
in Bon. Geo. Trans., reprint, 1. p. 54; Account 
of Adam's Bridge and Ramisaram Temple in Ceylon, 
ibid. vii. p. 130; Account of Haines River and the 
 adjoining Country, ibid. vi. p. 375; On a Voyage 
up the Indus and Sutlej, ibid. viii. p. 144; Jour- 
nal of a Visit to the River Ganges, ibid. 1829. 
He discovered the Haines River in 1812. He 
was mortally wounded by a cannon shot before Multan 
in 1814, and died on the 8th October of that year. 
—Dr. Buist's Catalogue.

CHROME IRON ORE, or chromate of iron, is 
a compound of oxide of chrome with protoxide of 
iron. It is met with massive, and in octahedral 
crystals of a blackish colour, and imperfect 
metallic lustre. It is found in Unst in Shetland, 
France, Baltimore in America, and in the Madras 
Presidency, in Salem and Vizianagram; but, as 
yet, nothing has been done in India to turn this 
mineral to useful account on a large scale, from 
the want of proper appliances. The consumption 
of this substance in Europe is in the manufacture 
of bichromate of potash for dyes, the chromates 
of lead for painting, and chromic acid for colour- 
ing pottery, porcelain, and glass. Chrome ore in 
Salem is abundant, but the raw material will not 
pay the expense of mining. It is of a dark 
greenish or nearly black colour, granular. To 
decompose it by nitrate of potash requires more 
than a red heat; by caustic potash it is more 
readily acted on. Chrome yellow, or chromate of 
lead, is used in dyeing. Chromate of potash is a 
crystallized yellow salt of a bitter, disagreeable 
taste, used by calico printers.

CHRONOLOGY. The greater periods 
employed in the computation of time by the Hindus, 
though founded on astronomical data, are purely 
mythological. A complete revolution of the 
years, and in the form 12 × 5. In the Chaldean 
chronology, a cycle of 60 × 10 years was employed 
(10 Sossi being equivalent to 1 Saros); and 
Josephus styled the epoch of 600 years which 
grew out of it, the great patriarchal year. The earliest 
Chinese chronology rests upon a conventional 
basis peculiar to itself, that of limiting the lunar 
year of a cycle of 600 years, which was common to 
the whole of Northern Asia and the Chaldeans, 
and probably (as it is also met with in India) to 
the Bactrians also. This basis is historical. The 
communication took place before the Chaldees 
invented the cycle of 600 years. The Chinese 
observation is based upon the use of the Baby- 
lonian (Bunsen). The Chinese, from the time of 
the emperor Yao, B.C. 2000, had a lunar year 
and a solar year.

The Sakas, Kaliyuga, and cyclic years of the 
Hindus commence together about March, and 
terminate almost simultaneously.

The beginning and end of the day has varied. 
Among the Greeks and Etruscans the day began 
at noon; among the Romans, as with the British, 
at midnight; among the Persians, at sunrise; 
but among the Jews and Egyptians, as now with 
Hindus, Mahomedans, and Parsees, it began at 
sunset.

The great epochs have been recognised, viz.: 
In the history of Babylonia, the fixed point 
from which time was reckoned, was the era of 
Nabonassar, B.C. 746.

Among the Greeks, the reckoning was by 
Olympiads, the point of departure being the year 
B.C. 776, in which Coroneus was victor in the 
Olympic games.

Roman chronology started from the foundation 
of the city, B.C. 753 (various dates).

Of the writers who framed chronological lists, 
the earliest was Berosus, a priest of Belus, living 
at Babylon in the 3rd century B.C., and who added 
to his historical account of Babylonia, a chrono- 
logical list of its kings.

Manetho, a priest of Lower Egypt, gave an 
account of thirty dynasties of its sovereigns.

Eratosthenes, in the latter half of the 2d 
century B.C., was keeper of the Alexandrian library, 
and wrote an important work on geography, and 
treated on chronography. This was the first 
attempt to establish an exact scheme of general 
chronology.

The great cuneiform inscription at Behistun, 
discovered in 1835 by Sir Henry Rawlinson, and 
subsequently copied and translated by him, threw 
a flood of light on some obscure passages of 
Persian history. And, in the year 1862, Sir Henry 
Rawlinson published the Assyrian Canon.

The authorities quoted below will show that the 
chronology of the south and east of Asia has 
received much attention in the later years of British 
supremacy; but on the plan of this Cyclopedia, 
the dates of battles and wars, of events in British 
India, the advent of reformers and learned men 
with their literature, will be found alphabetically, 
and the notice here is restricted to dynasties and 
eras:——

DYNASTIES, alphabetically.

Adal Shahi of Bijapur, A.D. 1459 to 1579.
Aiudra or Vrisapa of Andhra, B.C. 21 to A.D. 428.
Arsaces (Parthia), B.C. 225 to A.D. 225.
Arsaces (Armehian), B.C. 130 to A.D. 450.
Asaf Dali of Hyderabad, A.D. 1671, still reigning.
CHRONOLOGY.

Bactrian monarchy, from the reign of Antiochus II, third of the Seleucids, B.C. 313.

Bactria. Kings of Kulburga, A.D. 1347 to 1566.

Balabhi dynasty of Saurashtra, A.D. 0 to 523.

Belal rajas of Dwarasamudra, A.D. 984 to 1268.

Bengal rajas, A.D. 1576 to 1803.

Bijali Shah of Beed, A.D. 1598 to 1609.

Bihar Khanday dynasty, B.C. 915.

Bikanir, A.D. 1458, still reigning.

Bundu, a Chohan dynasty, A.D. 1575 to 1819.

Ceylon, A.D. 540 to 1796.


Chera or Kong, ended A.D. 894.

China, Manchut, 1616, still reigning.

Chola, of Ajay, Dehli, Kotha, and Bundu, B.C. 700 to 1192, when Prithi-raj was slain. Raina, successor of Prithi-raj, was slain in the sack of Dehli.

Chola, ended A.D. 1407.

Deltuni, A.D. 92 to 1655.

Faruki of Kadesel, A.D. 1370 to 1596.

Ghor, A.D. 1186 to 1206.

Gujarat kings, A.D. 1396 to 1572.

Ghazni, A.D. 961 to 1156.

Hara, a Chohan dynasty of Harauti, A.D. 1024 to 1575.

Imad Shahi of Borar, A.D. 1184 to 1568.

Irak Atabeks,—

Mosul branch, A.D. 1127 to 1259.

Aleppo branch, A.D. 1127 to 1197.

Jeynmlir, B.C. 94, still reigning.

Jauipur, A.D. 1394 to 1457.

Kandesh, A.D. 1399 to 1596.

Kashmir Musalman kings, A.D. 1326 to 1588.

Khalifs, A.D. 629 to 1242-43.

5 Ahulaksha, Umar, Ali, and Hasan, A.D. 632 to 661.

15 Ommiades, A.D. 661-2 to 744-5.

37 Abbasides, A.D. 749-50 to 1242-3.

Khorasan, at Ajay, Dehli, Kotha, and Bundu, B.C. 747 to 818.

Tahirides, A.D. 819 to 862.

Safarides, A.D. 873 to 900.

Kutub Shahi of Golconda, A.D. 1312 to 1560.

Loi, A.D. 1450 to 1526.

Maharatta Governments, —

Sivaji, 1644 to 1618.

Hereditary Peshwas, 1740 to 1818.

Bhonsla kings of Nagpur, 1732 to 1818.

Solipha, 1724, still reigning.

Holkar, 1724, still reigning.

Gaekwar, 1792, still reigning.

Malwa kings (Pr.), A.D. 1387 to 1568.

(. (Cl.), A.D. 1401 to 1612.

Marwara, of Jipaj, still reigning.

Maurya dynasty, B.C. 315.

Mewar or Udaipur, A.D. 727, still reigning.

Mohgul of Tartary, A.D. 1206 to 1226.

Mohgul Tartar or Il-Khan of Persia, A.D. 1256 to 1346.

Mohghul Shahis of Khurasan, to 1505.

Mohl Emperors of Hindustan, A.D. 1494 to 1857.

Mysore, A.D. 1530, still reigning.

Nayak dynasty of Madura, A.D. 1530 to 1731.

Nepal, B.C. 5800 to 3500.

Kerrat tribe, B.C. 3420 to 1739.

Suryavansis, B.C. 1565 to A.D. 27.

Ahir, A.D. 43 to 175.

Neverit, A.D. 218 to 1749.

Gurkhali, A.D. 1745, still reigning.

Nizam Shahi of Ahmadnagar, A.D. 1390 to 1607.

Oudh Nwabs and kings, A.D. 1756 to 1847.

Pandu dynasty of Magadha, B.C. 1400 to 915.

Pathan Gohri of Sind, A.D. 1193 to 1555.

Pathan Gohri of Dehli, A.D. 1206 to 1573.

Peshbadan dynasty, mythological.

Samanian dynasty of Bokhar, Khorasan, and Persia, A.D. 574 to 999.

Sassanian monarchs of Persia, A.D. 223 to 630.

Seljuk of Iran or Persia, A.D. 1037 to 1175.

Seljuk dynasty of Kerman, A.D. 1041 to 1169.

Seljuk dynasty of Rum or Anatolia, capital Iconium, 1077 to 1253.

Semaumaga dynasty, B.C. 777 to 415.

Sikh Government of Lahore.

Sind, Arab governors, A.D. 711 to 750.

Sumera Rajputs, followed by the Sumera, Sama Rajputs, and the Afghans, till Akbar's time.
CHYSANTHEMUM ALBUM.


CHYSANTHEMUM ALBUM. Peh-kiah-hwa, Chn. The ashes of the flowers are said to destroy insects. The Chrysanthemum genus of plants belongs to the natural order Compositae, and the sub-order Corymbifereae or Astereae. The species are very numerous in the temperate parts of the earth (Eng. Cyc. p. 1058). The name is from two Greek words, Chrysos, gold, and Anthos, flower.

—Smith.

CHYSANTHEMUM INDICUM. D. C. Gul-dawadi, Hind. Grows in several parts of India, and is used medicinally in calculation. —Drury.

CHYSANTHEMUM PERUVIANUM turns continually towards the sun. As a general rule, however, all plants turn towards the sun. Hypothesi:... 

CHRYSANTHEMUM ROXBURGHII. Desf. C. seneckeioides, Don. — Pyrethrum Indicum, Roxb. 

Marratia oleracea, Buch. — Pinardia Roxburghii, Less. 

Glebionis Roxburghii, Cass. — Bagaur, ...Chn. 

Christmas flower, Eng. — Kalzang, Ladhak. 

Gul dawadi, ...Hind. — Chamanti, Tel.

The plants commence flowering generally in November, and continue for several months. The colours are mostly yellow, orange, and a purplish colour mixed with white. They are made into garlands, and offered at the shrines of Vishnu and Siva. They are commonly cultivated in gardens in the plains of India, in Kashmir, Upper Chenab to 9200 feet, and in Ladhak at 11,900 feet. —Ainslie.

CHYSANTHEMUM SINENSE is extensively cultivated in European gardens, and is the Chinese gardener's favourite winter flower, although it is generally past its full beauty at the Chinese new year. There is no other plant which he takes so much pains with or which he cultivates so well. His camellias, azaleas, and roses are well grown and well bloom, but in all these the people of Britain excel him. In the cultivation of the chrysanthemum, however, he stands unrivalled. It is in great request among the people, and is used in the decoration of courtyards, halls, and temples. It is everybody's plant, and blooms alike in the garden of the lowly Chinese cottager as in that of the red-buttoned mandarin. —Eng. Cyc. p. 1052; Fortune's Tea Districts, p. 125.

CHRYS., 'the gold land.' of the Peripius, has been supposed to be Pega, the Suvarna Bhumi of the Golden Land of the old Indian Buddhists. Sonarpanga, a term of like meaning, is still the sacred or classical term for the central territories of Ava. Gold-scatterer, Zar-afshan, is applied by the people of Central Asia to the head-streams of the Oxus and Jaxartes ending in the inland sea of Aral. —Peripius of the Erythraean Sea; Yale, Cathay, i, p. 114.

CHRYSIDI.E, or golden wasps, do not sting, but possess the power of rolling themselves up into a ball, which is almost as hard and polished as if really made of metal. They are all adorned with the most gorgeous colours.

CHYRSOBALANACEAE of Lindley, the cocoa-plum tribe of plants, has the genera Chrysobalanus and Primepsia. Roxburgh mentioned C. racemosa of the Moluccas. C. iaco, the cocoa-palm tree of the West Indies, has been introduced into India.

CHYRSOBERYLLI, or prismatic cornulid, is found among the Tora hills near Raja-mahal, on the Murus, in irregular rolled pieces, small, and generally of a light green colour. These stones are considered by the natives as emeralds, and pass under the name of 'panna,' but the natives are aware that they are softer than the real emerald. —Gen. Med. Top. p. 160.

CHYSOPHYLLUM ROXBURGHII. G. Don. C. acuminatum, Roxb., star apple.

Hali mara, ...Can. —Tarsee phal, ...Mah, Pita-kara, ...Hind. —Lawooloo-gass, ...Singh.

This tree, one of the Sapotaceae, grows to thirty feet or more. In Canara and Sunda, it is very common in the jungles near the ghats above, particularly to the south. There are some trees in the Residency garden at Hyderabad. The wood seems straight and good, but the tree is chiefly noticeable from the gutta-percha-like incrustation common on the fruit. Fruit, about the size of a large crab-apple, ripens in October, and is edible but insipid. Not uncommon in the warmer parts of the island of Ceylon. —Gibson; Thw. iii, 174.

CHYRSOPOGON ACICULARIS. Hott. Andropogon acicularis, R. Bhaphis trivialis, Low. 

Gung-myeet, ...Burn. —Lampa, ...Hind. 

Spear grass, Eng. —Shumini, ...Sanuk. 

Chor-kanta, ...Hind. —Kat-chettu, ...Tel. 

Soorwals,...Kathe-gaddi,...

Abundant in barren land; troublesome to the feet of those who walk among it; eaten by cattle when other grass is not to be had. Its seed stick in the stockings, and produce a disagreeable itching. A longer variety, known solely as 'soorwals,' is a good winter pasture grass for cattle. —Mason; Gent. Med. Top. p. 176.

CHYSOPHASE, from Chrysos, golden or beautiful, and Prasen, leek, is a rare, pale apple-green chalcodyl, which owes its colour to the presence of the metal nickel. It is found in many parts of India, in Upper Silesia, and Vermont.

CHYRSORREIA, or 'Golden Stream' of the ancient geographers, is the Barada river of Damascus, which, so soon as it issues from the cleft in the mountains, is immediately divided into three smaller courses. The largest, which is the middle one, runs directly to the city, and is there distributed to the different public fountains, baths, and cisterns; whilst the other two, branch- ing off right and left, contribute mainly to the luxuriant vegetation which adorns the environs. South-east of the city their scattered waters unite again into one channel, and, after flowing towards the eastern hills for two or three hours, are finally lost in a marsh which, from one side view, appears like a small lake. Well may Damascus be called Sham-i-Shereef, the noble and beautiful. —Robinson's Tr. ii, p. 115.

CHU, or Chu-ma, or Tchon-ma. Chn., Bichoumera nivens; China grass.
CHU.

CHU. TIBETAN. Water. In Seythian, Ku; Assyrian, Hu; Greck, Ku.

CHUA. HIND. Rosa Webbiana. In Kulu, an amaranth cultivated for its grain; Amaranthus crenaceus.

CHUAL. HIND. Staphylea emodi, also Euonymus fimbriata.

CHUAN-YUAN, in the classical education of the Chinese, is the highest in the annual examina-
tion—the senior wrangler and senior classic from amongst 400 millions of people.

CHUHI. MALAY. Chillies.

CHUBREI. HIND. Dactylotenium Egyptianum, also Elouaine flagellifera.

CHUCHO, CHUCHI. Malay.

CHUK. CHUBIRI.

CHUKAN, CHUAL.

CHUAN-yUAN, CHUKAN.

CHUKKADUMPA.

CHUKKAR or Chakra, a Sikh weapon resembling a quoit in size and shape, thrown from the finger with a rotary motion.—Herklotz.

CHUKKEE, a hand-mill. Chukkée nama, a song sung while grinding at the mill; at weddings.

CHUKMA, a race, in number 28,000, occupying the Toonia Joon mahals, a forest tract in the hills of the Chittagong district, along with Mug, Reang, and Tiperah races, all more or less nomadical. Some one of these hill races till lately performed human sacrifices annually, and in the year 1852 several were tried for murder by sacrificing. The place of sacrifice was a cleared district in the jungle, and staked round with bamboos about six feet high. The sacrificial pole was a Phula bams bamboo, scraped and stripped at the edges, the hanging strips giving a rude notion of ornament. During the celebration of these sacrifices at Agartollah, a gun was fired every evening at sunset, when every person hurried to his home.

CHUKOTARA. HIND. Citrus deccanana.

CHUKHI. HIND. Rheum emodi, also R. palmatum; a powder of the dried acid stalks of the rhubarb.

CHUKKARI. HIND. Citrus communis.

CHUKL. HIND. Euphorbia royleana.

CHUKLA. HIND. Euphorbia royleana.

CHUL. CHUHARA. CHUHRA.

CHULAI. HIND. Spinacia tetrandra, also Amaranthus polygonum, Linn.

CHULCHILHERA, a lichen of the Himalaya, the Borrera aashne, Royce; with ammonium it gives a reddish-brown colouring matter, and is used accordingly as a dye-stuff. Dr. O'Shaunnessy examined this and several other Indian lichens, but without success in the production of any valuable colour. It means, in the Panjab, a mixture of lichens employed for dyeing, contains Parmelia Kauntschadalis, Parmelia perlata and its variety sorediata, Usnea florida, Ramalina calicaris, and fragments of Physcia lencemula.—O'Shaunnessy, p. 672.

CHUL, a whirlpool. In the stream of the Cham-
bul near Beroli, the whirlpools and eddies have given a sacred character to it, like the Nerbadda, at the whirlpools of the great god Chuli Maheswar. A multitude of round stones are found in these vortices, where they have been rounded by attrition into a perfectly oblong form, are consecrated, and smeared with red lead, and are then called Bhyrn, the god of war, the eldest son of Siva. The round stones of the Nerbadda whirlpools are called Ban-Lang, or whirlpool lingam, and Rori at the temple of Beroli. See Binlang.—Tod's Travels.

CHULL. HIND. Prunus Armeniaca, also Prunus padus and Villarisa Indica.
CHULI.

CHULI, a Malomadan of Malabar; amongst the Malays, any native of S. India. The Chullia and Kling comprehend the traders and settlers, both Malomedans and Hindus, from the Coromandel coast. These names have been given to them by the Malays from the earliest times of the ancient commercial intercourse subsisting between this part of Asia and India. Kling is from Kalinga, or is a corruption from Teleng or Telenga; Chulhia may be derived from the ancient Chola Kingdom of the Peninsula.—Newbold’s British Settlements, i. p. 8.

CHULIA, also Chur. Hind. Syzyphus taitensis, Latham; the lesser florikin.

CHULU. Hind. Of Himalaya, Armeniacae vulgaris, Lam.: the apricot.

CHUM. Hind. Euphorbia Royleana; also Morus serrata; also Ficus xanthoxylloides.

CHUMANG, a low or out-caste race in the non-Bhot district of Kunwar, with dark skins. The people of the lower hills call them Koli, and the Rampur people, Channil. They till the soil and weave.

CHUMAYAN, a Gujar clan occupying twelve villages in Paniput Bangur.—Elliot.

CHUMBA. Hind. Artemisia saerorum.

CHUMBA-GUDEE, a race in the Chumba hills, in the Himalaya. They say they are Rajputs, and of the Guđee-jat. They are somewhat short, but strong, and cleanly in their habits. They are sharp, and able to impose on their less knowing neighbours. Most of the witch-finders are of the Chumba-gudee race; and the race may always be known by their peculiar conical caps, with huppies to turn down over their ears, like an English travelling cap. When Europeans made their first appearance in the Kangra valley, these men had very slight notions of caste, and would eat or drink anything the Europeans gave them, but since their contact with the natives of the plains they have become as bigoted as any Hindu.

CHUMBARA. Mah. Premna tomentosa.

CHUMBELI. Hind. Jasminum grandiflorum.

CHUMBI SAG. Hind. Amaranthus polygamus.

CHUMBRANUK, a single valve of the mussel shell without the mollusc, used in Ajmir as an aphrodisiac.—Gen. Med. Top. p. 132.

CHUMBUL, a tributary to the Jumna. It rises in Malwa in lat. 22° 26', and long. 75° 45', or 9 or 9 miles S.W. from Mhow, which is 2019 feet above the sea. It rises on the cluster called Janapaya. It runs north 105 miles, N.W. 6 miles, S.E. 10 miles, N.E. 23 miles, S.W. 25 miles, north to junction with Kalce Sind, N.E. 145 miles, S.E. 78 miles to Jumna; length, 570 miles; described in a form nearly semicircular, the diameter being only 30 miles. It receives the Chumbula, 70; Sirdar, 120; Parbatii, 229; Kalce Sind, 225; Bharda, 329; Chota Kalce Sind, 104 miles. About 50,000 square miles drained. The average declivity of its bed, 2 feet 5 inches per mile. Its average volume of water is so considerable, that at its junction it has been known to raise the united stream 7 or 8 feet in twelve hours. The nominal source of the Chumbul is in a part of the Vindhya range, 9 miles S.W. of Mhow; but this part of the river is dry in the hot season, during which it owes its waters to other tributary streams. The current is in most parts gentle, its bed rocky, and its course through Malwa much obstructed by shallows; but, after entering Harrowtee by an opening in the Mokundra range, it becomes a fine and deep stream. The course of the Chumbul, not reckoning the minor sinuosities, is upwards of 500 miles; and along its banks nearly every race now existing in N.W. India may be found.—Sondhi, Chunderawat, Sesodia, Hara, Gore, Jaddun, Sikeredal, Goorj, Jat, Tuar, Chohan, Bhadora, Kutchwaha, Sengar, Boondela, each in associations of various magnitudes, from the substantive state to the little republic communes between the Chumbul and Cohari. The Chumbul runs through the territories of Sindia and Holkar, viz. Gwalior and Indore, and passes near Kotnh.—Tod’s Rajastan, i. p. 16; Rep. Royal Com.

CHUM GADHAL. Hind. One of the Chirioptera, the flying-fox, species of Pteropus.

CHUMIAH, a race to the north and east of Chittagong, dwelling in the lower hills between the Kuki and the plains. The Chumiahs and the Kuki are described as having flat noses, small eyes, and broad round faces, and to differ from the Naga race both in appearance and customs.

CHUMIARI. Pam. Cerasus puddum.

CHUMKI. Hind. Coloured and striped satins, red, white and red, and blue and red, value 1 rupee to 24 rupees the yard.

CHUMLA, a valley near the Bumair or Bumoo country in Afghanistan. The valley and the central plain of the Yusufzai are commanded by hills that descend from the Hindu Kush.

CHUMPA, properly Champi or Champaka, the Michelia champaca, Linn. The flower of the champa is one of the few with which Kama, the Hindu god of love, tips the arrows he uses.

CHUMPADA, Malay. The small jack-fruit.

CHUMPA NUTIA. Beng. Amaranthus polygamus.

CHUMPARUN, a town in the Patna division of Bengal.

CHUMPOUTE, the berry of a small plant, brought to Ajmir via Pali, used in perfumes and also in medicine; one seer is sold for one rupee.—Gen. Med. Top. p. 131.


CHUMWA, a tribe in Assam, exempt from manual labour.—Wilson.

CHUNA. Beng. Also Chuna-batoola and Chunai Butkale, Cicer arietinum, Linn. It is the Bengal gram of Europeans in India. Through the Italian ece and the French chicher comes its English name ‘chick-pea.’ The term ‘arietinum’ is derived from the resemblance of the seed to a ram’s head. The word ‘used by Europeans in India is gram, or Bengal gram, of which the origin has been much disputed, but is supposed to be from grana.—Elliot.

CHUNAM. ANGLO-TAM.

Channa; Chunnam, HIND. | Sunam; Choomnoo, TEL. Chumambu. . . . TAM.

Chuna or Chumna is a term applied to quicklime made from nodular limestone, from limestone rock, from marble, or from calcined shells; also applied to plaster and mortar. The chunam plaster of Madras, long famed for its marble-like polish, is prepared either from shells or limestone. The shells generally used at Madras are both recent and fossil, but the latter, of recent species, are found in extensive beds a few feet below the surface, on the banks of the Pulicat lake and other low marshy places on the seacoast, which are covered by the sea at high water.
The shells are calcined with charcoal, one parah of charcoal being allowed to every two parahs of chunam. The kilns generally used are calculated to hold altogether 60 parahs, that is, 40 of shells and 20 of charcoal. A small arch, 1 foot 3 inches in height, the same in breadth, and raised 5 feet above the surface of the ground, runs longitudinally through the kiln; the top of this arch is a grating of brick on edge, which is partially covered with broken tiles, so that neither the shells nor charcoal can drop through them, but small apertures are left for the escape of the ashes and for the necessary circulation of air. Over this bed of charcoal, the kiln is placed throughout, about 3 inches in thickness, and fire applied. When sufficiently kindled, the mixed shells and charcoal are laid in small heaps of not more than ¼ of a parah each at about 1 foot 6 inches apart, and when the fire has been communicated to them, the intermediate spaces must be filled up with more shells and charcoal to a level; and when the fire has thoroughly extended to them also, another row is to be laid in a heap upon this mass, as was done in the first instance; and in the subsequent operations are to be repeated in the same manner until the kiln is filled. The transverse arches are to promote the requisite current of air, and the windward ones are invariably to be kept open, whilst those on the opposite side must be closed. The kilns used at Madras are built of brick or clay, and require renewal every three years. The shells will be sufficiently calcined in 12 hours, and 24 more are required to cool them, so as to admit of their being moved and the charcoal sifted from them. It is found that chunam thus prepared and slaked to a powder is increased to double its original bulk when in the form of shells.

For plastering with chunam at Madras, if for one coat, the plaster is composed of one part of chunam and one and a half of river sand, thoroughly mixed and well beaten up with water. This operation is usually performed by women, who stand round a small stone trough prepared for the purpose, into which the ingredients are thrown and gradually moistened with water, as the process of mixing proceeds. The women use wooden pestles about like a rice-pounder. The plaster, when mixed, is taken out of the troughs and made into conical heaps, where it remains till required, and may be kept without injury for several months; but when left, for any time, a small cistern or hollow is made at the top of the heap, into which water is occasionally poured. Before applying the plaster, the wall is trimmed with a trowel and swept perfectly clean, and then slightly sprinkled with water. The wall being ready, the plaster is put into small wooden boxes at convenient places among the bricklayers, by whom it is mixed up with jagari water, ¾ lb. of jagari or coarse sugar being allowed to every parah of quicklime, until it is brought to the required consistency; it is then laid on with a trowel above half an inch thick, and levelled with a flat wooden rule, being afterwards smoothed with a wooden roller till it acquires an even surface. During the process of rubbing, the plaster is occasionally sprinkled with a little pure white lime mixed with water, to give it a hard surface. If for two coats of chunam, the first coat is applied as already described, with the exception that the surface is left rough, and no pure lime is applied during the process of rubbing. A day or two after the first coat is applied, and while moist, the second is laid on. The plaster used for the second coat consists of three parts of lime and one of white sand. These are mixed as before, and afterwards ground by women on a flat stone with a small stone roller, till they are reduced to a fine paste. This is laid on a wooden roller, and applied with care over the first coat about ¼ of an inch thick. It is then rubbed down perfectly smooth with a small trowel, and afterwardspolished with a crystal or smooth stone rubbing, and, as soon as it has acquired a fine polish, a little very fine charcoal (Bullaram) powder is sprinkled on it to increase the whiteness and polish, and the polishing continued. The second coat ought to be applied and finished in one day, for it usually hardens too much during the night to be polished the following day, except in damp weather. The practice is to continue polishing the plaster until it is quite dry, and a number of bricklayers are employed, in order that it may be well polished the first day. Moisture continues to exude from the plaster for some days after it is completed; this must be carefully wiped off with a soft cloth, and the wall kept perfectly dry till the moisture entirely ceases. For three coats of chunam, the first coat is as above, but it is left a fortnight or three weeks to dry before the second coat is applied. The plaster for the second coat consists of one part of lime and one of river sand, freed from the coarser particles and clay by sifting. It is well mixed and beaten up in a clean trough, and applied over the first coat about ½ of an inch in thickness, the first being previously moistened with a little water. It is next rubbed down in the same manner as the first coat, but acquires a much smoother surface, the plaster being of a finer quality. A day or two afterwards, when it has had time to dry, the third coat is applied. It consists of four parts of lime and one of fine white sand. These, after being well mixed, are reduced by grinding to a very fine paste, quite free from grittiness. This is put into a large earthen jar, of the size nearly of half a hogheads, and mixed with the white of eggs, sour milk (tyre), and ghi, in the proportion of 12 eggs, ^1_2 measures of tyre, and ^1_2 lb. of ghi to every parah of plaster. These are all thoroughly mixed, and rubbed between the hands till the ingredients are thoroughly incorporated, and the composition reduced to a uniform consistent paste a little thicker than cream, and perfectly free from grittiness. The plaster is now fit for use, and is put on with a wooden rubber about ½ of an inch thick, and gently rubbed till it becomes perfectly smooth. Immediately after this, another coat of still finer plaster is applied, consisting of pure lime ground to a very fine powder, and afterwards mixed with water in a clean tub, till it is of the consistency of cream. This is put on about ½ of an inch thick with a brush, and rubbed gently with a small trowel till it acquires a slight degree of hardness. It is then rubbed with a rock-crystal or stone roller till a beautiful polish is produced, not forgetting to sprinkle the wall with fine white sand (Bullaram) powder during the process of polishing. If the plaster is not entirely dry on the second morning, the operation of polishing ought to be continued until it is quite dry. The moisture, as above directed, must
be carefully wiped off, and the wall kept quite dry till all appearance of moisture cease. The result of the process depends chiefly on the plaster for the upper coat being reduced to a very fine paste perfectly free from grittiness, and on its being, after it is applied to the wall, rubbed constantly with great care till it is quite dry and has acquired a very fine polish. The wall ought then to be frequently wiped with a fine clean cloth to remove the moisture, and it may be occasionally dusted with Ballapum powder. The stone used in polishing it is rock-crystal or a white quartz pebble about 3 inches long and 1½ broad, the face of which has a very fine polish. The wall is rubbed with this for one or two days, the moisture being carefully wiped off every morning, and potstone (Ballapum) powder sprinkled on it several times during the day. When the lime is prepared from sea-shells, these are first cleaned and washed, and then calcined with charcoal, care being taken to exclude everything likely to injure the whiteness of the lime; very white sand only is employed, as common sand destroys the brilliancy of the plaster. When white sand is not procurable, white rock-crystal or quartz pebbles reduced to a fine powder may be substituted. Mortar for building consists of one part of chunam and two of sand. Immediately before being used, the mortar is mixed with jagari water, 1 lb. of jagari being allowed to every yarah of lime. It is used in a much more fluid state than is the practice in Europe. When shell-lime is used in situations requiring a hydraulic cement, it should be mixed with burnt clay in powder; fresh burnt tiles more or less broken are in general conveniently procured. In building the pier at Masulipatam, Captain Buckle employed a cement consisting of one part of lime, one of the tile dust, and two of sharp river sand, and it appeared to answer well. Jagari was used in the usual proportion of one pound to a parah of chunam. Limestone abounds in most districts of Southern Asia, but the qualities of the different varieties are best ascertained by experiment. When found in large blocks of very compact stone, the breaking of it forms a considerable item in the expense. Such stone as yields a very hydraulic lime is not suited to the purposes of ordinary building, unless the precaution is taken of keeping the work constantly wet. The best form of kiln for burning stone with charcoal is given by Captain Smith in his translation of Vicat, plate 1, fig. 11 and 12. When wood is used, the spheroidal form of kiln is recommended. It will be found to facilitate the expulsion of carbon, if the stone is well moistened in water previous to placing it in the kiln. It should be remarked that nothing but clean sand should be added to the hydraulic limes; such sand should be used immediately after being slack. When used in situations requiring hydraulic cement, no more water should be used in slaking it than is sufficient to reduce it to a fine dry powder. Magnesian limes have been found at Salem and in the Tanjore district, where it was used with success by Captain Cotton in forming the anicuts; the cement formed with it was stronger than that formed with other lime. It should not be immersed immediately on being used. Much controversy has occurred in regard to the advisability of using the lime while hot; the generally received opinion is that it should be so used; but in regard to the pure limes, free from clay and iron, that is, without hydraulic properties, this course is questionable. It was not permitted in Rome; and lime mortar kept moist has been found suitable for building after the lapse of several hundred years; lime used hot is seldom thoroughly slackled. A common practice in India is to mix the slaked lime and sand, form it into heaps, on the summit of which is formed a hollow, which is kept constantly filled with water. Shell-lime, so kept and subjected to the usual beating when used, seemed to Mr. Rohde at least as good as when at first burned; hydraulic limes, including of course all which become hard under water, ought no doubt to be used hot. At Terrane, and other coral islands, coral is largely burned into lime for mortar.—Rohde, MSS.

CHUNAR or Chunar, an ancient rock fortress in the Mirzapur district in the valley of the Ganges. It is perched on the crest of a limestone spur that rises to the height of 150 feet abruptly from the edge of the stream, on the right or south bank. It fell to the British in 1764. The treaty of Chunar between the subadar of Oudh and Warren Hastings was signed on the 19th September 1781. In the fortress is a state prison in which Tribunkji Danglia pined away his last days, hopeless of ever being able to give a second slip to his enemies.—It is 17 miles W. of Benares, and 490 miles from Calcutta. —Trac. of Hind. i. p. 132.

CHUNAR. Hind. The Platus orientalis. Char-Chunar lake, the Shalimar garden, was one of the great works of Jahangir.—Baron Angle.

CHUNARI, also Chunari. Hind. Lime-burners, or workers in lime, as plasterers.

CHUN-CHU. Chln. Allanthus ketica and A. glandulosa; but also Cecrela odontanta and species of Dryandra and Fraxinus, Smith.

CHUND, a Hindu poet and religious reformer, but now known only in the former character. He lived in the time of Prithi-raja, the last Hindu king of Dehl. He was a monotheist, and, after having separately invited the three persons of the Hindu triad, says that he believes them distinct, 'hell will be his portion.' His work is a general history of the period in which he wrote. It consists of 69 books, comprising 100,000 stanzas, relating to the exploits of Prithi-raja; and every noble family of Rajasthan finds in it some record of their ancestors. It is accordingly treasured amongst the archives of each race having any pretensions to the name of Rajput. From this he can trace his martial forefathers, who 'drank of the wave of battle' in the passes of Kirman, when 'the cloud of war rolled from Himachal' to the plains of Hindustan. The wars of Prithi-raja, hisances, his numerous and powerful tributaries, their abodes and pedigrees, make the works of Chund invaluable as historic and geographical memoranda, besides being treasures in mythology, manners, and the annals of the mind. They are entirely heroic; each book a relation of one of the exploits of Prithi-raja.—Todd's Rajasthan, i. p. 98, ii. p. 254.

CHUNDA. Maleal. Solanium Jaccquinii.

CHUNDA GUDDA. Tel. Tacea pinatitida, L.

CHUNDAO, Chundul, or Chundal. Hind. Antiaris saccul dorma.

CHUNDA SAHIB, a Mahomedan ruler with whom the French sided in their efforts to establish
themselves in the south of India. In the beginning of the 18th century, Saadut Allah was ruler of the centre of the Karnatic, from 1710 to 1732, and was succeeded by his nephew, Ali Dost. Ali Dost was killed in battle against the Maharrattas, and was succeeded by his son, Safdar Ali. Of his two daughters, one married Chunda Sahib. Chunda Sahib was seized on Trichinopoly in 1736, but the place was besieged and taken by the Maharrattas, and Chunda Sahib was made captive, and lingered eight years in prison at Tanjore, where he was murdered by the raja. Safdar Ali was assassinated by his brother-in-law, Martuzza Ali, leaving a minor son; but this youth also was assassinated while Anwar-ud-Din was his guardian, and Anwar-ud-Din succeeded to the throne as nawab of the Karnatic, but fell at the battle of Ambur, and is buried in the Jamma mosque of Hyderabad.

CHUNDEE-MANDAPA. SANSK. From Chundee, the goddess Chundee, and Mandapa, a house. This is a kind of temple, with a flat roof. It is often erected by rich Hindus adjoining to their houses, and is designed for the image of Durga or Kali. It is built on four sides, with an area in the middle.—*War'd's Hindus*, ii. p. 3.

CHUNDEKIA or Soondekia. TAM. Solanum pubescens.

CHUNDEL, a tribe of Rajputs scattered in various parts of the N.W. Provinces, who came from Mahoba in Bundelkhand. Before the Mahomedan conquest, Mahoba appears to have been the capital of a principality that extended to the Narhadda, and included the province of Chundari, which is called after their name. They are styled Sambans, but they are not considered to be of pure descent, and their sons are carefully excluded from marriages with the higher castes. This tribe expelled the Baland tribe from Ajori, Burhur, and Mirzapur.—*Elliot*.

CHUNDELI, a very fine cotton fabric of India, so costly as to be used only in native courts. It is made from Berar or Amroati cotton. The chief care is bestowed on the preparation of the thread, which, when of very fine quality, sells for its weight in silver. The weavers work in a dark, underground room, the walls of which are kept purposely damp to prevent dust from flying about. Amroati cotton is alone used.—*Elliot*.

CHUNDER KOOP, three hills in Las, of extremely light-coloured earth, which rise abruptly from the plain. The largest is 400 feet high, another about 200 feet, and the third is a broken cone. The last encloses a basin of liquid mud about 250 yards in circumference, in which the mud heaves and bubbles up continuously. They are called the basins of Raja Ram Chunder. The Koops are said to be altogether 18 in number, viz. seven in the neighbourhood of Kattyawara, and eleven between Kej and Gwadd in Meikran.

CHUNDIGAR. GUJ. A bracelet maker; one who makes armlets of glass or ivory for married women.

CHUNDOO. HIND. Fried mince-meat.

CHUNDOO. HIND. A hanging lamp, made of bamboo framework covered with mica.

CHUNDOO LALI, a Khatri, who succeeded Mir Alam as Poshikar-i-Diwani, of the Hyderabad state. He was unsuccessful as a financier.

CHUNDRA, Soma, and Indu are epithets for the moon.

CHUNDRA or Chundraka. BENG. Ophioxyylon serpentinum.

CHUNDRAGHERRI, a town and fortress 11 miles W.S.W. of the Hindu temple of Tripati, which seems to have been founded about A.D. 1490, by Narisingha, a raja of Vijayanagar of the Vaishnava sect. It was occupied as a seat of Government in 1570 by a successor, Timma raja, but in 1644 the ruling sovereign, Sri Ranga Rayel, who in 1640 had granted the site of Madras to the English, was driven from his throne by the Bijapur army, and in 1646 took refuge with a former feudatory at Bedore, and with him the last of the Vijayanagar dynasty disappeared.

CHUNDEE. HIND. A printed fabric of silk or cotton, made in Kutch, Kattyawar, and Gujarat. The design is stamped on the cloth, and is caught up and tied with a continuous thread, and the piece of cloth is then dyed with the wished-for colour.

CHUNDROO. HIND. Copal resin. Fine shavings of it are used to stop hemoptysis, made up into a medicine called "Khairwa." It is much used in varnishes.—*Gen. Med. Top.* p. 132.


CHUNDUN, Chundan, or Chandana, also Ghundasa, DUKH. Sandal-wood. Safed chandan is sandal-wood. Lal-chandan is the red sanders wood, Cesalia pippaan.


CHUNDUN HAR. HIND. A necklace, neck ornament.

CHUNDUS, a scented wood used for the mala or chaplets of Hindus.—*Tod's Rajastan*.

CHUNDWASSA. Close to this place are the Buddhist caves of Dumnar, with a Hindu temple behind. About 40 miles from Nemuch.

CHUNE, MALEAL. Cathartocarpus fistula.

CHUNERIA. HIND. An embroidered net fabric.

CHUNG. HIND. Hordeum hexastichum, also Pyrus malus; in Pangli and Chenab, Bouceria edulis, also Salix alba, white willow.

CHUNG, a border race between Nepal and Sikkim. They are also called Limbu, Chunge or Lhamu, being the name given to them by the Lepcha. They are a Hardy, hard-working tribe. They cultivate grain, and rear cows, pigs, and poultry. Their huts are made of split bamboo, and thatched with the leaves of the wild ginger and cardamom, guyed down with rattans. They drink to excess.—*Latham*.

CHUNGAR, a wandering houseless race in the Panjeb, probably the same as the Chinganeh of Turkey, the Italian Zingaro, the Spanish Gitano, and the English Gipsy. About Dehli the race is called Kunjar,—a word which, in the Panjeb, properly implies a courier or dancing girl.

CHUNGHA, also Chun. HIND. Euphorbia Royleana.

CHUNGI. HIND. Boucercia acheri.

CHUNGI. HIND. A tax gathered daily from grain merchants, being as much grain as a man can grind in a day.

CHUNG-PER-LAH. CHIN. Wax insect.

CHUNGSAKHAGO. a pass in Kunawar leading from Chekkia to Neilung, on the Jankee or
Jannabee branch of the Ganges. It is a lofty pass, probably not under 18,000 feet.

CHUNG-TSEW. CHIN. The Chinese festival of middle autumn.

CHUNI-BADLI. HIND. A scarf of gold muslin.

CHUNNA, Bengal horse grain, Cicer arietinum.

CHUNNI-MARAM. TAM. Acalypha betulina.

CHUNNI-SAFAD. HIND. Abrus precatorius seeds.

CHUNSER. HIND. Cress, garden cress; Lepidium cress.

CHUN-SHAW-CAP. CHIN. Manis Javanica.

CHUN-SHEAUMA, a tribe of Chanderbansi Rajput in Junpar, Azimgurh, and Gorakhpur.—Elloit.

CHUPAO. PERS. A foray; a charge of cavalry.

CHUPATHI or Chaptapi. HIND. An unleavened wheat cake. Chaptapi-ki bhaji, Mar-siles quadrifolia.

CHUEIN. HIND. Potamogeton gramineus.

CHURPA, the chief civil station of Sarun. It is on the left bank of the Ganges, in lat. 25° 45' N., and long. 84° 48' E., 90 miles above Patna, and 370 miles from Calcutta.

CHUPRI ALU. HIND. Dioscorea globosa; properly Safri-alu. — Roxb.

CHUPITA-LAC or Chaptla-lac. HIND. Shell-lac.

CHUR. HIND. Of Khishengung, Quercus illex.

CHUR, in the Punjab, the sweeper caste, many of whom have become followers of Nanak, and are commonly called Rungrethia Sikh or Maahabi Sikhs. See Churn.

CHUR. HIND. BENG. Properly Chor. The shifting alluvial deposits of a great river so called in Bengal.—Yule's Embassy, p. 26.

CHUR, one of the spars of the Himalaya, 12,500 feet in height, composed chiefly of mica schist and clay-slate, with intrusive dykes or seams of granite. Boulders of the same rock are abundant in the valleys. The summit of the mountain is composed entirely of granite.—Adams.

CHUR or Churi. HIND. A crest, a top-knot, a tuft of hair.

CHUR. BALECH. A small defile.

CHUR; Churi. HIND. A knife, a dagger.

CHUR, of the Panjab, are serfs. They are the direct descendants of the Churua or military out-castes of the Mahabharata.—W. W. Hunter.

CHUR, a tributary state in Gujerat, with a population of 13,793 souls.

CHUR, a caste of sweepers; one of the Ghair Mulzim castes in a village.

CHURA. BENG. Xyris indica, Linn.

CHURA. HIND. Commelina Bengalensis; also Angelica glauca.

CHURA and Tirah are fertile and well-peopled valleys, enjoying a cool climate; and it was not unusual for the Peshawar sirdars and others, who had an understanding with the inhabitants, to pass the warm weather in the former of these places, which also frequently became a place of refuge to the distressed. At Chura resided Khan Bahadur Khan, Afridi, who attained immense influence amongst his tribe from the circumstance of his attendance at court during the sway of the Sadozai. Shah Shuja married one of his daughters, too, and on more than one occasion found an asylum with him.

CHURAL. HIND. Lathyrus sativus.

CHURANG or Chor Gang, the founder of the Gangavansa dynasty of Orissa. His name is also written Saranga-deva. He invaded Orissa in A.D. 1131, and his dynasty ended with raja Narasingdeo, who in 1217 built Kanarack, the Black Pagoda. Churang was a benefactor to Jaga-nath, adored it, and peopled its neighbourhood.

CHURAY-KAL. TAM. Cucurbita lageneria.

CHUR-CHE, of early European travellers, are the Yu-iche or Nu-iche of the Chinese, the ancestors of the modern Manchus.

CHURGHI, the female; Churghela or Churghlo, the male bird. Hunting hawks, natives of Cutch, are considered, fastened on the antelope, and also kills the 'tuber,' a kind of florekin.

CHURI. DUKH. A bird; hence Khan-churi, a house-sparrow. Churi-mar, a bird-catcher.

CHURI. HIND. Bracelets of glass, or lac, or metal. Chur, Chura, or Churi, the bracelet put on a newly-married bride, which she wears till widowhood. Churgar, ivory bracelet maker.

CHURIAL. HIND. Aralia Cachemichria.

CHURI KI BHAJ. DUKH. Anuramus campestris, Linn. Churi-sarooh, Artemisia scoparius; also Asparagus Punjabensis and A. elegans.

CHUKKA or Charkha. HIND. A cotton-cleaning jin. It is worked by two people. Two men working day and night can clean about 160 lbs. each.

CHURMA. MALEAL. Phoenix dactylifera.

CHURO. SIND. An unleavened cake of wheat flour made into dough with clarified butter, and mixed with brown sugar; supposed, in Sind, to increase the delicacy of the skin.—Burton's Scinde.

CHURRA, a sanatorium on the N.E. frontier of India. The mean temperature at 4000 feet is about 66° or 16° below that of Calcutta; which, allowing for 24° of northings, gives 1° of temperature to every 290 to 300 feet of ascent. In summer the thermometer often rises to 88° and 90°; and in the winter, owing to the intense radiation, hoarfrost is frequent.—Hooker, Hist. Jour. ii. p. 284.

CHURWA. HIND. Bruised rice.

CHUSAN ARCHIPELAGO, including the Kwseshan group, is a large assemblage of islands near the mainland of China, between lat. 29° 20' and 41° N. The Kwseshan group consists of 11 islands. Chusan island is 42½ miles in circumference, and the walled city of Ting-hae on the S. side of the island is upwards of one mile in circumference. The Chusan northern group consists of numerous islands, mostly barren or rocky. Chusan, the largest island, is the station of a sub-prefect, and, with the smaller neighbouring islands, forms a district called Ting-hae, the name by which it is always spoken of by the mandarins among themselves, and which it bears in all the works published by imperial authority.—Horsb.: Meadows's Deportive Notes, p. 89; Murray's Indian Archipelago, p. 150.

CHUSBAL. HIND. Potamogoton crispus.

CHUSHM-I-MAIDAI. PERS. The cat's eye gem.

CHUSHUL, a place in Ladak where is a hot spring of a temperature of 96°. The waters are without taste or smell, but are said to have medicinal properties.

CHUSSAE. HIND. Arango, GUI. Large rough carnelian beads of various sizes and shapes, made in Cambay, and formerly extensively used in the African slave-trade.—Faulkner.
CHUTIA, the dominant race in Upper Assam when the Ahom race from the south swarmed into the valley. The Chutia kingdom was overthrown by the Ahom chief Chutupha about A.D. 1350, and great numbers of the Chutia were deported and forced to settle in other parts of Assam, as in Chutia of the Durrung district; and still a great many of the Sadya and Upper Assam population are Chutias. The Bihlya are of the same family, and, as a tribe of Lalong in Upper Assam, claim to be of Chutia descent. The Chutias, long before the appearance of the Ahom, had adopted Hindu customs. They are of a light olive complexion, but with a flatness of face and a want of sharpness in the features. The Deori Chutia are an isolated colony on the river Dihing in Luckimpur. Their language contains words used by the Garo and Bodo, but their origin is unknown. They profess Hinduism, but are considered to be a low caste.

- Dalton’s Ethn. of Bengal, p. 78.

CHUTIAL. Hind. Rheum emodi.

CHUTIALLI, a plain in Cutch Gandava.

CHUTIA NAGPUR, or Chota Nagpur, is a province in Bengal and the Central Provinces, lying between lat. 21° 15’ 30’ and 24° 48’ N., and long. 88° 22’ and 87° 15’ E., with an area of 43,301 square miles, and a population in 1872 of 8,825,571 souls, two-thirds of them professing Hinduism, and upwards of a million following aboriginal faiths. The Kolarian and Dravidian aboriginal tribes number 230,034, the semi-Hinduized aborigines 101,849, and Hindus 71,749. Chutia Nagpur is on the eastern part of the extensive plateau of Central India, on which the Koel, the Suburanga, the Damuda, and other rivers have their sources. It extends into Sirgajur, and forms what is called the Upar-ghat or Highland of Jashpur; and it is connected by a continuous chain of hills with the Vindhyas and Kymor ranges, from which flow affluent streams of the Ganges, and with the highlands of Amarkantak, on which are the sources of the Nerbudda. The plateau is, on the average, about 3000 feet above the level of the sea, with an area of about 7000 square miles. It is on all sides difficult of access; it is a well wooded, undulating country, diversified by ranges of hills, and it has a genial climate. The non-Aryan tribes had fallen back to that refuge from the plains, more than half of them, however, being of the race known to Europeans as Kol; the other races in Chutia Nagpur and its adjoining tracts are the Larka Kol, Ho, Bhumi, Mundah, and Santal. The Kol in former times possessed the whole of Chutia Nagpur, which may now be said to be divided between them and the Dhangar or Oraon, who came from Rotaftur. The chief men in most of the villages are still, however, of the old Mundah or Kol tribe, and they do not intermarry with the Dhangar or Oraon. The greater part of Singbhum is inhabited by Kol, and they are numerous in Bamanghonth; and dispersed to the vicinities of Cuttack (Kotak) and Maypura. They are in a confused mass of flat-topped hills called pattas, capped with a horizontal layer of trap. It is arranged, for revenue and administrative purposes, into the districts of Hazaribagh, Lohardaga, Singbhum, Manbhum, and the seven small tributary states designated the Chutia Nagpur mahals are Bonni, Chang Bahar, Gangpur, Jaspur, Korra, Sirgajur, and Udaipur. The chiefs are tributary. The races have a strong belief in witchcraft.


CHUTKA. Beng. Bauhinia acuminata. CHUTNSEE is a warm condiment used in every family of India, either prepared fresh daily from ripe vegetables, or preserved. The following is a recipe for the Dehlí or celestial chutnee:

Take of green mangoes, raisins, mustard-seed, salt, green sugar, and garlic, each one seer; onions (one or) half a seer; dried red chillies, half to one seer; moist or soft sugar, one to two seers; white wine vinegar, four bottles. The ginger, garlic, and onions are to be peeled, and, together with the chillies, are to be cut into thin slices previously to being pounded; the mustard-seed to be washed and dried, then gently bruised and winnowed, the raisins to be washed and freed from the stones; the sugar to be made into a thick syrup; the mangoes to be picked of their rinds, cut into thin slices (some boil them in three bottles of the vinegar, adding the fourth when mixing them up with the other ingredients) and pounded; the remaining articles are to be separately pounded, and then the whole is to be incorporated, put into a stone jar, well closed, and placed in the sun for a month or two. If put into a glass bottle, it should occasionally be put out in the sun. It will keep good for years.

Love-apple Chutnee. Take the love-apple (Solanum aculeasicum, Linn.), a large plateful, the rinds and seed to be rejected, and only the pulp used; dried salt fish cut very fine (as if rasped), a piece about two inches square; six onions cut into thin longitudinal slices; eighteen green chilies chopped fine; dried tamarind, two pice weight (or one ounce), mashed up in about three or four ounces of water (stones and fibres to be rejected); salt, a teaspoonful; ghi or butter, five pice weight (or two ounces and a half). First put the ghi into a tinned copper vessel placed on the fire; when it is melted, add the onions; and as the latter begin to assume a reddish hue, add the chillies, stirring them well for five minutes. Then add the salt fish, and continue stirring the whole; when the ghi has nearly evaporated, add the love-apple, and stir it about for a good while. I wash the tamarind water and salt, and mix the composition well until it acquires a pretty dry consistence (like that of brinjal chutnee or sambhal). This chutnee is only for immediate use, and will not keep above a day or two.

CHUTOOR - ANANA. Sansk. Four-faced; from Chutoor, four, and Anana, a face.

CHUTSALEE. Tibet. Coarse borax from Ruthog. Chiuwa Sirsa, first-class barilla or sajji.

CHUTSAO. Chin. Ganjah.

CHUTTUR. BENG. Laidies cleared for salt-making: a salt field.

CHUYAR, a hill tribe in the range bordering Bengal on the west, in Ramgurh and the neighbouring districts.—Wilson.

CHU-YUL. Chin. Yam.

CHYAVANA; in Hindu mythology, is the son of Bhuma, the son of Brama, by his wife Paloma. A Bakshis, or friend, attempting to carry off Paloma, the child was prematurely born; whence his name, from Chya, to fall from. Upon his birth, his splendour was such as to reduce the insulter of his mother to ashes. Having adopted a life of asectic devotion, he was so immersed in...
abstraction, that he became completely covered with the nests of white ants. Sukanya, daughter of king Sarhati, wandering in the forest, observed what she thought two lights in an anthill, and thrust in two blades of kusa grass, which, when withdrawn, were followed by a flood of blood. Much alarmed, the princess repaired to her father and related what had happened. The king, conjecturing the truth, immediately went to the spot to depurate the wrath of the rishi, and pacified him by giving him the damsel in marriage. After being married some time, the Aswini Kumara, passing by Chyavana’s residence, conferred upon him youth and beauty, in requital of which boon he gave them a share in the soma juice offered at sacrifices to the gods. The gods, with Indra at their head, opposed this grant, and Indra lifted up his hand to strike Chyavana dead with his thunderbolt, when the sage paralyzed his arm. To appeal the gods, he created the demon Asura into intoxication suspended in terror of venom and of the power of the saint, the gods acceded to the participation of the Aswini Kumara in divine honours. Indra was restored to the use of his arm, and Mada was divided and distributed amongst dice, women, and wine.—Bharavyat Purana and the Duma Dharma section of the Mahabharat, p. 263.

CHYCHIM. Egypt. Cassia abius.

CHYEBAASA. the chief station of Singbhum.

CIANDU or Xanadu, a place in China 150 miles beyond the Great Wall, and ten days’ journey from Pekin. It was called Che-min-fu, or by the Tartars Kai-min-fu. It was noticed by Marco Polo, as there stood that magnificent park and palace of the Tartar ruler of China, the great Kublai Khan, the description of which set Coeridge a-dreaming (ordreaming that he dreamt) that wonderful poem which tells how

‘In Xanadu did Kublai Khan
A spacious pleasure dome design’d;’

A later traveller mentions and how this lord passed the summer at a certain place which is called Sandu, situated towards the north, and the coolest habitation in the world.—Yule, Cathay, i. 134.

CICC DISTICHA. Liau.

Phyllanthus longifolius, R. Averrhoa acida, Liau. Harfanari, ... Hend. Chirim, Cherim, Malay. Nelli, ... Maedal. Cherbulia, ... Per. Rata nelli, ... SING. Arumelli, ... TML. Rachus uricr, ... Hend. Chelem. ... Hend. A small tree, leaves pinnate, from one to two feet long, scattered about the ends of the branches. Its flowers small, and of a reddish colour. It is commonly cultivated in the gardens of India, all over the Tenassarim Province, and is planted by the Burmese, who value its fruit highly. It bears some resemblance to a gooseberry both in appearance and taste, and yields a roundish subacid fruit about the size of a large marble. The fruit is largely used as an article of food, raw or cooked, or in pickles or preserves. Leaves are sudorific, and seeds cathartic. Wood inferior.—Roxb. iii. 672; Ainslie, 222; O’Sh. 551; Mason.


Kuratai, ... Hend. Valla ruga, ... TML. Charaita, ... Hend. Nellagidi, Golimidi, Tel. Chota charaita, ...

This plant is common in various parts of Southern India, as at the mouth of the Adyar river in the environs of Madras. The whole plant is bitter, and much used by the natives as a stomachic, being also somewhat laxative. It is used as one of the Chirretta plants.—O’Sh. p. 460; Ceghorn.

CICER ARETINUM. Liau. Chick-pen.

Kur, Humuz, ... Arab. Channa, ... Hend. Chunnai, But-kai, Hend. Cee, ... It. Chunnai, Batoola, ... Nakhud, ... Panj. Ku-lo-pai, ... BERM. Chola, ... Pers. Kadlay, ... TML. Cheunaka, ... Sansk. Harbarab, ... Gok. Garvanos, ... Scl. Homos, ... EGYPT. Sanaga, Sanagagol, Tel. Bengal gran, ... Eng. Cattana, ... Chenna, ... GUL. Hari-mandhakamu, ...

This valuable pulse is much prized in India, and in the more northern provinces of Hindustan, where it is common. The natives use it, parched and ground, mixed with wheat flour. Split with the hand-mill and steeped, it forms there the principal food of horses and all cattle. These, and barley roasted and ground, form a mixture called gattoo, given to horses. Each pod contains a single pea. Col. Sykes counted 176 seeds on one pod. When parched it tastes not unlike the roasted cashew nut, and is often used by the people of Northern India for food. Its composition per cent. is,—moisture, 10-80; starchy matter, 62-20; nitrogenous, 19-32; fatty or oily matter, 4-56; mineral constituents (ash), 3-12. It constitutes, after wheat, the chief food of the lower class in Spain. It is grown extensively by the Burmese, especially in Burma. The fresh plant has an acid reaction; and if clothes are placed in a field of it in the dewy morning, and then wrung out, they give an acid infusion.—Powell; Roxb.; O’Sh.; Ainslie; Mason. See Chuna.

CICHRORIUM INTIBUS. Liau. Chicory.

Shikorah, ... Arab. Khichorion, ... GR. Suchal-band, CHERNAB. Kasl (seeds), ... Hend. Ku-tasai, Ku-ku, ... CHIN. Ku-mai-tai, Pu, ... Hend. Hand-gui, ... KAGHAN, Chicory, ... ENG.

Two varieties of this are grown in many parts of India, from Cape Comorin to the Himalaya. Wild chicory vegetables luxuriantly during the summer in Kashmir, and in the Panjab during the cold season. It grows there up to 5500 feet, and in Lahoul up to 9500 feet; and the young plant is used as a vegetable. The seeds are used in medicine, and are consequently kept in the bazaars. Seeds of both varieties appear to be officinal, being considered carminative and cordial. The root also is used medicinally. The roots contain nitrate and sulphate of potash, mucilage, and some bitter extractive principle. An infusion of chicory mixed with syrup causes a thickening of the liquid. The root, Bch Kasni, Hend., is used as a tonic and demulcent in fever and dyspepsia, and is largely used to adulterate coffee in England. This and C. endivia are raised and eaten by the Chinese as pot herbs.—Honigerger, p. 25; J. L. Stewart, M.D., p. 408; Smith.

CICINDELIDE.A family of the Coleoptera. The genera common in India are Therates, Tricondyla, and Colliurus; the two former are characteristic of a southern range, while the latter is abundant throughout the eastern continent. The most splendid of the race abound in Nepal. Cicindela
heros and C. gloriae also occur, the latter of a rich velvety green colour.

CINCHONIA, a genus of birds of the order Grallatores. Ciconia alba, the white stork, occurs in Europe, Asia, North Africa; is migratory, and is common in India during the cold season in immense flocks in Lower Bengal. Ciconia nigra, or black stork of Europe, Asia, North Africa, is not uncommon in India.

CICUTA VIROSA. Boyle.


CIO of Spain, the Arabic term Sayyad, lord, by which all the descendants of Mahomed are styled. It was bestowed as an honorific distinction on a brave Christian knight, who opposed the Mahommedans in Spain.

CIDER or Cyder, the wine of the apple. It is made in Britain, on the continent of Europe, and in the United States. There was a manufacture of cider by the maharaja of Kashmir upon a large scale.—Paukner; McIolloch.

CIGARS.

Chutta, . . . HIND. Shrattu, . . . TAM. Robak, . . . MAlk. Tuutta, . . . TUR.

Cigars are made all over the south and east of Asia, but the most celebrated are those of Manilla, of Chinurah in Bengal, of the islands or Lumbu of the Godavery, of Trichinopoly, and of Disdiguil, in the peninsula of India.

CIMERI, Cimbr, or Camri, a Getic race, who entered Europe from Asia. Herodotus (Melponene, p. 190) says the Cimmerians, expelled by the Massagetae, migrated to the Crimea. Here were the Thyssagetae or western Getae; and thence both the Getae and Cimbri found their way to the Baltic. Rubruquis, the Jesuit traveller, describing the monuments of the Comani in the Dasht-i-Kipchak, whence these tribes came, says 'their monuments and circles of stones are like the Celtic or Druidical remains of Europe.'—Bell.

CINCHONA, a genus of plants of the order Cim節araceae, natives of South America. Joseph de Jussieu, in his history of Peru, relates that in 1600 a Jesuit, who had a fever at Malacotas, was cured by Peruvian bark. In 1638 the Countess Anna of Chinchon was suffering from tertian fever and ague at Lima, whither she had accompanied the viceroy, her husband. The corregidor of Loja, Don Juan Lopez de Canizarus, sent a parcel of powdered quinina bark to her physician, Jun de Vega, assuring him that it was a sovereign and infallible remedy for tertian. It was administered to the countess, who was 62 years of age, and effected a complete cure. This countess, returning with her husband to Spain in 1640, brought with her a quantity of the healing bark. Hence it was sometimes called 'countess bark,' and 'countess powder;' and Linnaeus, long after, named the whole genus of quinina-bearing trees, in her honour, Chinchona. By modern writers the first h has usually been dropped, and the word is now almost invariably spelled in that way, instead of the more etymological Chinchona. The Jesuits afterwards made great and effective use of it in their missionary expeditions, and it was a ludicrous result of their patronage, that its use should have been for a long time opposed by Protestants and favoured by Catholics. In 1679, Louis XIV. bought the secret of preparing quinquina from Sir Robert Talbot, an English doctor, for 2000 louis-d’or, a large pension, and a title. Under the Grand Monarch it was used at dessert, mingled with Spanish wine.

The British, in British India, Ceylon, and Burma, and the Dutch in Java, have successfully introduced several of the species,—at Neddiwat- tam, Pykara, Kalhatti, and Ootacamund, in many private plantations, also in Wynad, in the Baba- chooloo and hills of Baligum, family of chinchon in Ceylon; also at Darjiling, in the Downs of the N.W. Provinces, and in Sikhim; and the Travancore Government has likewise aided in their diffusion, by selling seed and seedlings; also in Burma it has been planted near Tounghoo, at Than-toung- glee in the Sitang division; likewise on the Khasya hills. The better known species are C. Boliviana, calisaya, condaminea, cordifolia, lancifolia, lucmeaeoflia, magnifolia, micrantha, nitida, oblongifolia, officinalis, ovata, Pahudiana, Peruviana, purpurea, succhurba, and scrobiculata.

The commercially valuable species are,— C. officinalis, var. a. condaminea, var. b. bonplandiana, var. p. crispa, crown bark; of Loxa region.

C. suaveolens, Par. red bark; west slopes of Chimbora.

C. Pitayensis, etc., C. lanceli, C. cordifolia, Columbian bark; Columbian region.

C. nitida, C. micrantha, C. Peruviana, grey barks; of Huancoo region in North Peru.

C. calisaya, yellow bark; in Bolivia and South Peru.

Cinchon a calisaya bark, of the best kinds, of South America, yields, on the average, 3.8 per cent. of quinine. That of the variety C. Josephiana, 3.2 per cent. One variety, grown in Java from seeds transmitted by Mr. Ledger, yields nearly 10 per cent. of quinine; but in Java and Ceylon 15 per cent. of quinine has been obtained, and from Ledgeriana plants grown on theNeillgheries, 11 per cent.; and it is recognised that the yield of the plants is the sole guide in planting.

The treatment of the trees, by barking, mowing, and shaving their bark, adds greatly to their yield; and since 1880, their quantity supplied to Britain and imported into British India was about 10,000 lbs., value about £4,000.

In Madras there have been the following gratifying comparisons between expenditure and revenue:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure</th>
<th>Revenue</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>Rs. 1,18,742</td>
<td>Rs. 1,18,960</td>
<td>218</td>
</tr>
<tr>
<td>1877-78</td>
<td>Rs. 1,34,228</td>
<td>Rs. 3,71,071</td>
<td>3,56,843</td>
</tr>
<tr>
<td>1878-79</td>
<td>Rs. 1,44,179</td>
<td>Rs. 4,30,098</td>
<td>2,86,920</td>
</tr>
<tr>
<td>1879-80</td>
<td>Rs. 1,56,708</td>
<td>Rs. 4,85,731</td>
<td>3,29,023</td>
</tr>
</tbody>
</table>

Cinchon a barks imported into London from June 1879 to June 1880 amounted to 6,002,380 lbs. from Colombia, and 959,080 lbs. from all other parts of South America. India and Ceylon, 1,172,060 lbs.; Java (to Amsterdam), 70,088 lbs.; Jamaica, 21,140 lbs. In September 1882, at a sale of barks from the Madras Government plantations, the following table shows the prices realized as compared with those of the sale on 11th Jan.:—

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural, and Branch</td>
<td>102 to 107</td>
<td>243</td>
<td>245</td>
</tr>
<tr>
<td>Natural red,</td>
<td>104 to 111</td>
<td>345</td>
<td>247</td>
</tr>
<tr>
<td>Natural,</td>
<td>111 to 120</td>
<td>338 360</td>
<td>267 245</td>
</tr>
<tr>
<td>Natural,</td>
<td>average</td>
<td>243</td>
<td>267</td>
</tr>
<tr>
<td>Natural red,</td>
<td>111 to 120</td>
<td>247</td>
<td>247</td>
</tr>
<tr>
<td>Natural,</td>
<td>111 to 120</td>
<td>121 126</td>
<td>100</td>
</tr>
<tr>
<td>Natural,</td>
<td>147 to 151</td>
<td>183 182</td>
<td>170</td>
</tr>
<tr>
<td>Natural,</td>
<td>111 to 120</td>
<td>170</td>
<td>170</td>
</tr>
<tr>
<td>Natural red,</td>
<td>102</td>
<td>73</td>
<td>73</td>
</tr>
<tr>
<td>Natural red,</td>
<td>102</td>
<td>81 50</td>
<td>50</td>
</tr>
</tbody>
</table>

728
In 1881, in Ceylon, almost all estates had trees planted along road-sides, or in the midst of the coffee, or in places where the coffee trees had died out; but in other estates almost the whole acreage had been planted with them, in regular rows between the limits of coffee. They are said to grow in the Yatiyantota district on the west slope, at about 50 feet; and at Kalutara, about 30 miles of Colombo, nearly at the sea-level. The number of cinchona plants growing in Ceylon at the beginning of 1881 was estimated in Ferguson's Handbook at from 50,000,000 to 100,000,000. C. succirubra was the most numerous, being reckoned at more than one half. The remainder consists of C. officinalis and C. calisaya, with such varieties as C. Ledgeriana and C. pubescens. The export from Ceylon of cinchona bark for the eleven years 1869 and 1871 to 1880, shows an increase from 28 oz., value Rs. 50, in 1869, to 1,161,989 lbs. in 1880, value Rs. 12,00,000:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1869</td>
<td>28 oz.</td>
<td>Value</td>
</tr>
<tr>
<td>1871</td>
<td>50 packages</td>
<td>313</td>
</tr>
<tr>
<td>1872</td>
<td>11,547 lbs. and 694 packages</td>
<td>64,102</td>
</tr>
<tr>
<td>1873</td>
<td>4,836</td>
<td>32,667</td>
</tr>
<tr>
<td>1874</td>
<td>40,354</td>
<td>25,277</td>
</tr>
<tr>
<td>1875</td>
<td>43,251</td>
<td>25,537</td>
</tr>
<tr>
<td>1876</td>
<td>27,127</td>
<td>17,720</td>
</tr>
<tr>
<td>1877</td>
<td>14,992, and 1 package</td>
<td>14,720</td>
</tr>
<tr>
<td>1878</td>
<td>72,127, and 1</td>
<td>88,738</td>
</tr>
</tbody>
</table>

Statement showing the Out-turn and Disposal of Cinchona Bark at the Government Plantations in India during each of the official years 1876-77 to 1881-82.

<table>
<thead>
<tr>
<th>Neelgherry Plantations</th>
<th>1876-77</th>
<th>1877-78</th>
<th>1878-79</th>
<th>1879-80</th>
<th>1880-81</th>
<th>1881-82</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total out-turn of bark collected during the year</td>
<td>103,341 lbs.</td>
<td>138,808 lbs.</td>
<td>114,320 lbs.</td>
<td>173,299 lbs.</td>
<td>243,245 lbs.</td>
<td>212,052 lbs.</td>
</tr>
<tr>
<td>Exported for sale in England</td>
<td>88,798</td>
<td>146,652</td>
<td>105,101</td>
<td>178,539</td>
<td>235,527</td>
<td>232,467</td>
</tr>
<tr>
<td>Issued to Madras Medical Department</td>
<td>315,735</td>
<td>4,300</td>
<td>3,511</td>
<td>2,000</td>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Calcutta</td>
<td>550</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Bombay</td>
<td>652</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Private parties</td>
<td>3,556</td>
<td>20</td>
<td>5,096</td>
<td>10,278</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>89,660 lbs.</td>
<td>151,902 lbs.</td>
<td>110,212 lbs.</td>
<td>177,590 lbs.</td>
<td>242,023 lbs.</td>
<td>243,745 lbs.</td>
</tr>
</tbody>
</table>

Statement showing the Expenditure, Produce, and Receipts at the Government Cinchona Plantations in India for each of the official years 1876-77 to 1881-82.

| Total Expenditure | Rs. 59,630 | Rs. 69,771 | Rs. 73,682 | Rs. 70,724 | Rs. 96,105 | Rs. 112,592 |
| Produce in bark | 103,341 lbs. | 138,808 lbs. | 114,320 lbs. | 173,299 lbs. | 243,245 lbs. | 212,052 lbs. |
| Rate per lb. realized by sale | Rs. 1,106 | Rs. 3,105 | Rs. 2,996 | Rs. 2,996 | Rs. 2,996 | Unknown |
| Receipts by sales in England | 1,05,974 | 34,272 | 30,749 | 32,963 | 4,06,000 Unknown | 0 |
| Miscellaneous local receipts | 4,453 | 17,470 | 20,330 | 4,322,000 | 24,844 |
| Total | Rs. 1,10,427 | Rs. 35,875 | Rs. 4,00,353 | Rs. 34,385 | Rs. 4,322,000 | 24,844 |

In the year 1880-81 the cinchona factory at Darjiling disposed of 8600 lbs. of febrifuge; the plantation harvested a crop of 348,500 lbs. of bark. The earnings for the year amount to 80,290 rupees, representing a dividend of 8 per cent. on the capital of the plantation; exclusive of the saving which Government derive from substituting the febrifuge for quinine in public hospitals and dispensaries. This saving Dr. King estimated at 4½ lakhs for the year,—almost the value of half the capital expenditure on the plantation. The Government encouraged competition by their free sale of seed; and in 1879-80 as much as 1711 lbs. of seed were distributed. They had 847 acres under cultivation; and at the end of 1879-80 there were 677,350 plants in permanent plantation. The people of India owe a deep debt of gratitude to Mr. Clements Markham for bringing cinchona to them, and they should exercise it while he still lives. It is one of the largest boons conferred on India and its people. He went and resided in South America. He published (1862) his travels in Peru and India, while superintending the collection of cinchona plants and seeds; and in 1880 his 'Peruvian Bark' gave a popular account of the introduction of cinchona cultivation into British India.

Cinchona calisaya is found to be a very variable species in Sikkim; and its variations are not confined to the form of leaves and flowers, but extend also to the chemical constitution of the bark, some of the varieties grown in Sikkim containing nearly eight per cent. of pure quinine, while the bark of others yields very little of quinine or of any other useful alkaloid. But the differences in external form and of richness in alkaloid are not related to each other in any very definite way; and trees, of which the leaves and flowers are so
CINCHONA.  

much alike as to be undistinguishable from dried specimens, have been found to yield bark of quite different chemical composition. In Java the Dutch have a variety of callisaya, the bark of which is richer in quinine than any bark ever imported from South America; some of the Dutch samples having yielded on analysis the extraordinary amount of 13.7 per cent. of quinine. They had been raised from a parcel of seed purchased in 1866 by the Dutch Government from Mr. Ledger. Mr. Ledger got them from a half-caste, who would not tell where he collected them, and who was murdered soon after; the exact locality in where they were gathered, therefore, remains unknown. Mr. Ledger’s seed produced 6300 trees, which have since been largely propagated from. The 6500 plants all agree in being rather shabby-looking trees, averaging in height 25 feet, and girdling at 6 feet from the ground 27 inches. They have tall stems, and rather small, lax, conical heads, the branches of which are more or less distinctly arranged in tiers. The cinchonas under favourable circumstances become large trees, and have the habit of erect foliage. The leaves are lanceolate, glossy, and vividly green, traversed by rich crimson veins; the flowers hang in clusterting pedicles like lilacs, of deep rose-colour, and fill the vicinity with rich perfume. Nineteen varieties of cinchona were established by Dr. Weddell. The cascarilleros of S. America divide the species into a category of colours, according to the tingé of the bark; there are yellow, red, orange, violet, grey, and white cinchonas. The yellow, among which figure the Cinchona callisaya, lancedola, condaminea, micrantha, pubescens, etc., are placed in the first rank; the red, orange, and grey are less esteemed. This arrangement is in proportion to the abundance of the alkaloid quinine, used in medicine instead of the bark itself. The following prices have been realized in London:—

C. succirubra, red bark, 2s. 6d. to 3s. 6d. per lb. 
C. callisaya, C. frutex, C. vera, yellow bark, 2s. 10d. to 1s. per lb. 
C. officinalis, var. (a) Urutisinga, Loxa bark, var. (b) Condaminea, select crown bark, 2s. 10d. to 7s. 
C. crispa, fine crown bark, 2s. 10d. to 6s. 
C. nitida, genuine Loxa bark, 1s. 8d. to 2s. 9d. 
C. sp., undetermined, fine grey bark, 1s. 8d. to 2s. 10d. 
C. micrantha, grey bark, 1s. 8d. to 2s. 9d. 
C. Peruviana, finest grey bark, 1s. 8d. to 2s. 10d. 
C. pabuudiana.

Plants of the C. Ledgeriana from Java have been sold at 500 rupees a thousand; and price for seed paid for this variety, 822 per ounce. This seed was taken from trees of a superior kind, of a good age, the bark of which had been tested, and the firm advertised the seed in Java. The 1880-81 crop of Madras amounted to 250,271 lbs., against 183,084 lbs. in 1879-80. 284,736 lbs. were supplied to the home market, 5096 lbs. to a firm in Madras, and 2000 lbs. to the Bombay Medical Department, leaving a balance of 8493 lbs. in store. Experiments are still (1882) being made to determine the merits of the grassing and mowing systems. Low-country coolies were employed as labourers with success.

Cinchona callisaya, Raiz, and Pavon, grows on the Andes of Peru, New Granada, and Bolivia, at 5000 to 6000 feet above the sea. It attains a height of 40 feet. It yields the yellow bark, also part of the crown bark. It is one of the richest yielders of quinine, and produces, besides, cinchonine, but yields little of other alkaloids. Its varieties do not all furnish bark of equal value. It grows under conditions more limited than those of C. succirubra, and it is not so easily propagated. The Santa Fé variety ascends the Andes of New Granada up to 10,000 feet, and produces the highly valuable soft Colombia bark.

Cinchona cordifolia, Mutis, grows on the Andes of Peru and New Granada, at between 6000 and 8000 feet elevation, and yields the hard Cartagena bark, or West Pitaya bark, one extremely rich in alkaloids. It is hardy, grows with rapidity and vigour. The thickest bark is obtained in the highest altitudes, where it has the action of misty clouds.

Cinchona hasskariiana, Miq. In Java, some of the best results were obtained from this species, as yet not critically identified.

Cinchona lancifolia, Mutis, considered by Weddell a variety of C. officinalis. It grows in places where the mean annual temperature is that of Rome, with, however, less extremes of heat and cold. It yields part of the Pitaya bark of commerce.

Cinchona micrantha, Raiz, and Pavon, grows on the Cordilleras of Bolivia and Peru to a height of 60 feet, and from it part of the grey and of the Huanuco bark as well Lima bark are obtained. It is comparatively rich in cinchonine and quinidine, and also contains quinine.

Cinchona nitida, Raiz, and Pavon, grows in the Andes of Peru and Ecuador to a height of 80 feet, and yields part of the grey and Huanuco bark, also the Lima bark. It contains predomi-
nantly cinchonine and quinidine.

Cinchona officinalis, Lindl., is partly C. condaminea, Humboldt. It grows on the Andes of New Granada and Peru, at a height of 6000 to 10,000 feet, and yields the crown or brown Peruvian bark, besides part of Loxa bark. It is comparatively rich in quinine and cinchonidine. Super-abundance of moisture is particularly pernicious to this species. The temperature of the middle regions of the Andes where this tree grows is almost the same as that of the Canary Islands. The crispella variety endures a temperature occasional as low as 27° Fahr.

Cinchona pitayensis must also be referred to C. officinalis as a variety. It attains a height of 60 feet, and furnishes also a portion of the Pitaya bark. In Upper India it has yielded in some instances the unprecedented quantity of 11 per cent. alkaloids, nearly 6 per cent. quinine, the rest quinidine and cinchonine. This plant is now annihilated for bark purposes in its native forests.

Cinchona succirubra, Pavon, a tree of the mid-Andes regions of Peru and Ecuador, yielding the red Peruvian bark, rich in quinine and cinchonidine. It attains a height of 40 feet. It is this species which is almost largely cultivated in the mountains of Bengal. This has proved the hardest species in Sikkim; it grows under a wide range of conditions, and seeds freely; all its varieties produce bark of great value, yielding an average of 4 per cent. of alkaloids. Beetles (a male stag-beetle, family Lucanidae) have been found feeding on the renewed bark (after shaving) of succirubra trees in Maskelyia. The female has much shorter mandibles; and it is said to use them in forming a hole in the trunks of trees for the reception of its
eggs. Westwood says (i. p. 187) the perfect insect feeds on the honey-dew upon the leaves of the oak; they also feed upon the sap exuding from the wounds of trees, which they lap up with their finely ciliated maxilla and lower lip. It has been supposed that the larva of this insect, which chiefly hides in the willow and oak, remaining in that state several years, is the animal so much esteemed by the Romans as a delicacy, and named cossus. The injury which it causes is often very considerable, boring not only into the solid wood, but also into the roots of the tree. The stag-beetle found in Maskelija was a male, with immense mandibles, and greatly resembles Iucanus cervus, the common stag-beetle of Europe.—*Observer, Ceylon* ; Von Mueller.

**CINCHONACE.A**, the coffee tribe of plants, of which there are 233 genera and 870 species. Of these, 729 species are known to occur in the south and east of Asia, viz. in Zanzibar, Timor, Persia, Japan, each three; in Arabia four, and in India 693.

**CINNAMBAR.**


This is found in commerce, native and manufactured. It is the red or bisulphuret of mercury. The best native cinnabar is red, heavy, brilliant, of a high colour, and free from earthy or stony matter. It is found in various places, chiefly in quicksilver mines, being one of the ores of that metal. It occurs native in China abundantly in Shen-si; and all the quicksilver (shwin yin, water silver, *i.e.* hydrargyrum) not imported into China is there obtained from this ore, by a rude process of burning brushwood in the wells, and then collecting the metal after condensation. Cinnabar is brought from the mines of China in the form of a coarse shining powder, with a varying depth of red colour. The finest is used as a pigment, and in making red lacquer for varnishing. Cinnabar has been discovered at Bassin, in Borneo, in a mountain range called Bungo, extending between two branches of the Sarawak river. It yields 84 per cent. of quicksilver. For making artificial cinnabar, when two parts of mercury and one of sulphur are triturated together, the mercury gradually disappears, and the whole assumes the form of a black powder. When this is heated red hot, it sublimes, and if a proper vessel be placed to receive it, a cake is obtained of a fine red colour, which, when reduced to a fine powder, is known by the name of vermilion. Artificial cinnabar is largely manufactured in Calcutta, and in small quantities at Surat. It has been employed in medicine by the Hindus from time immemorial, to salivate their patients, causing them to inhale its fumes. Cinnabar is entirely volatile from a slip of talc, while the impurities remain behind. Compound cinnabar ointment is Captain Aitkin's useful ringworm ointment.—*Williams' Middle Kingdom* ; *Mason; Beng. Pharmac.* ; *Thomson's Chemistry*.

**CINNAMMOMUM**, a genus of plants belonging to the natural order Lauraeæ, confined to Eastern and Southern Asia. The species are—


**CINNAMOMUM ALBIFLORUM.** *Nees.* C. camphoratum, Bl. C. tamala, F. Nees.

Dalchini, Tjakalim, HIND. *Tez-bal, Tejpat,* HIND. This tree grows in Tiperah, Nepal, Kurnool, and the Punjab; is not uncommon in the Himalaya east of the Sutlej; grows sparingly at about 5000 feet as far as the Ravi, and probably in Hazara. Part at least of the official bark that leaves are probably derived from this tree. The former is given for gonorrhoea, and the latter are used in rheumatism, being considered stimulant. Its timber does not appear to be valuable.—*Voigt; Stewart; Powell.*


A tree of considerable size, said to grow in the dry sandy districts lying N.W. of the town of Fni-foc, between lat. 15° and 16° N. It is said to produce the cinnamon of China and Cochín-China, as also cassia bark and the aromatic flowers called cassia buds.—*Bogue; Wright; Voigt.*

**CINNAMOMUM CITRIDIORUM.** *Thun.* Pangares. Kuruntu gas. Singh. A tree of Ceylon, growing to a height of 30 or 40 feet in the Sufra-Ceylon district, at an elevation of 1000 to 2000 feet. It is distinguished by the venation of its leaves, and by the truncated cup of the fruit. The bark has much of the odour of citronella oil, intermixed with something of the fragrance of common cinnamon.—*Thw. Zoély. p. 258.*


A native of Ambon, especially in Leitimoo, near the villages of Sava Rutton and Emu. It also grows in Cochín-China. The bark when dry is aromatic like cloves, but less pungent and sweeter. It has some medicinal activity to a combination of volatile oil, resin, and bitter extractive. It is used in dyspeptic complaints, diarrhoea, etc. The natives of Ambon use the oil both in an internal medicine and as a stimulating liniment.—*Roöz. iii. p. 299; Voigt; Engel. Cyc.*

**CINNAMOMUM DULCE.** *Nees.* C. Chinensis, Bl. | Laurus dulcis, *Roöz.*

A small tree of China, leaves and bark of a sweet aromatic taste and odour.—*Roöz. ii. 203.*

**CINNAMOMUM EUCALYPTOIDES.** *Nees.* Grows on the mountains of Malabar. Its leaves have a strong acrid clove-like odour, and taste somewhat tinctured with camphor. It is the *Laurus Malabaristhrum.* *South Planters’ Garden.*

**CINNAMOMUM INERIS.** *Reine.*


CINNAMONUM LITSEFOLIUM.

This tall tree grows along the whole range of the W. Ghats, and in the hilly parts of Malabar and Konkan; also in Moulmein, Atarun, Chapedong, Penang, and Java. It is supposed to yield part of the cassia and cinnamon of commerce. Its leaves, on being bruised, have a strong spicy smell; the wood is fine, even-grained, and supposed very good, but the carpenters are not acquainted with it.

CINNAMONUM LITSEFOLIUM. Thuw. Koodoo-Kurundu gass, Singil. A tree of 50 or 60 feet, growing at Hapootelle, in the central province of Ceylon, at an elevation of 5000 feet. Its bark is quite inodorous.—Thuw.

CINNAMONUM NITIDUM. Nees. C. cassia, Nees, W. Ic. | Laurus nitida, Roxb.

Kadigi-Hindi, Arab. | Putraj (bark), Hind.

Tej-pat, Beng. | Tamalpatra, Sansk.

Sadhus, Hind. |

Described as a tree in Sumatra, but as a small tree or shrub on the continent of India. Its flowers are small and of pale yellowish colour, and the bark is cinnamon-like in taste and odour. It is the plant which furnished the wood, and is the principal part of the Folia Malabathri of the old pharmacologists.—Roxb. i. p. 300; Eng. Cyc.: Voigt.

CINNAMONUM OBTUSIFOLIUM. Nees. Laurus obtusifolia, Roxb. | L. Malabatharica, Roxb.

A tree of the mountainous countries immediately east of Bengal, with small greenish-yellow flowers. Its timber is very useful for various purposes. C. obtusifolium, C. pauciflorum, and C. tamala were found by Dr. Hooker up to 6000 feet in the Khasysya mountains.—Roxb.; Voigt.

CINNAMOMUM ZEYLNICUM. Nees. C. capparis-coronope, Blume, Nees.

Var. β. Multiflorum.

C. multiflorum, W. Ic. | C. dubium, Nees.

C. perpectuoflos, W. Ic. | C. villosum, W. I.

Var. γ. Ovalifolium, Wight.

This exceedingly handsome variety of cinnamon is very abundant on the higher ranges of the Neelgherries, and in all sholas about Ootacamund, flowering in May. All the parts, when fresh, if crushed, have a powerful odour of cinnamon. The tree is very large, and has great girth. The timber is even-grained and good, but is not much in use. There are seven well-marked varieties of cinnamon found in the western (moist) forests of the Peninsula, growing up to the highest elevations. They differ much in size, and in the manner of growth of the tree itself, shape and size of the leaves, pubescence, etc.; but Colonel Beddome, after long observation, and with a very large collection of specimens, is inclined to look upon them all as varieties only of the C. Zeylanicum. They run almost imperceptibly into one another, and it is almost impossible to lay hold of any constant character worthy of a specific distinction; and many of the differences are, he believes, the effect of elevation and climate.—Roxb.; Wight; Beddome.

CINNAMON.

Darsini, Arab. | Yuh or yuh-kwe, Chin.

Theet-ka boh, Bum. | Kanli, Dut.

Cannelle, Fr. | Zimmet; Kanelli, Ger.


Cinnamonum, Lat. | Sama lavanga patta, Tel.

Kaisamania, Malay. | Kali manis, Malay.

Katu karu, Maler.

Darsisita, Sansk.

Kaxayamana, Sisgar.

Kurundu, | Davoul kurundoo, SP.

Rassu kurunday.

Canales, SP.

Karua; Lawanga, Tam.

The bark of Cinnamomum Zeylanicum, Nees., is the true cinnamon of the shops, and the true Kinnamon of Exodus xxx. 23. Two varieties of cinnamon are known in commerce, that of Ceylon and Cayenne, and the Chinese cinnamon, which is of far inferior quality. Cinnamon is exported from China, Siam, Cochin-China, and Java; but that which is of greatest value comes from Ceylon, which has been the chief place of production from the earliest period at which any record exists concerning the use of this spice, and which extends back to the days of the Roman republic. Up to the year 1760, during the latter portion of the Dutch rule in Ceylon, cinnamon grew in a wild state amongst the thick jungles of the low and hilly country, the best always having been cut upon the light soil of the maritime provinces. The tree is found only in the western, southern, and central provinces. The peelers recognise ten varieties of Kurundu or cinnamon, viz. Naga or snake, Kapuru or camphorated, Kahate or canuelle or astrigent, Savell or glutinous, Dawoo or drum, Nika or wild, Mal or flowering, Toupat or trefoil, and We Kurundu or white ant cinnamon. The true cinnamon is often adulterated with the inferior barks of other species; and the volatile oil, on which its virtues depend, is sometimes fraudulently extracted. Besides the oil of cinnamon, a fatty substance called cinnamon butter and cinnamon suet is expressed from the ripe fruits.

CINNAMON BUTTER, or Cinnamon Wax, is obtained from Cinnamomum Zeylanicum. By strong decoction, the fruit yields a concrete oil, used for candles, and which exhales while burning a most delicious odour.

CINNAMON STONE, a precious stone found in Ceylon. It is a variety of lime-garnet of a clear cinnamon-brown tint, commonly occurring in masses, which are full of fissures. Translucent, seldom transparent.

CINNARA, in Hindu mythology, genii; and male dancers in Swarga, the heaven of Indra.

CIRCAETUS GALLICUS. Om. Serpent eagle. C. brachydyctylus, Meyer.

Sap mari, Beng. | Pamala gelsa, Tel.

Mal path, In. | Riwal of In. Warel.

Samp mar, Hind. | Kondatelle of Vendal.

Pambu prando, Tam.

This is found in the south of Europe, North Africa; it is common all over India and Asia; has been killed in Denmark, but never in the British Islands; prefers the open ground, questing like a harrier. It eats any creature, but snakes and lizards are its chief food. Hovering in the air, and pouncing down suddenly like a stone, it seizes the snake by the head with its talons, and the snake often twines its body around the bird, and so eumences it that it is occasionally so caught.—Jerdon.

CIRCAR. In the Mahomedan land revenue system, a circar was a subdivision of a subah. The N.W. Provinces of India, excluding the Sougar and Nerbada territories, comprised no complete subah but only portions of the four subahs of Agra, Allahabad, Deoli, and Oudh. Each subah was divided into a certain number of circars, and each circar into parganas or mahala (which are used as equivalent expressions); and the parganas again were aggregated in dastors or districts; and as the parganas of the same
CIRCASSIA.

CIRCUMAMBULATION.

dastoor are of course always contiguous, the dastoor statement in old registers, if copied with any regard to correctness, frequently forms a very important means of the verification of doubtful names. Subah is an Arabic word, signifying a head of money, or a granary. Circar (Sir-kar) is literally a chief, a supervisor. Dastoor, besides signifying a rule, is also a minister, a moonshee. Pargana means taxing land, as well as a perfume composed of various ingredients. The title of subahdar, or lord of the subah, is long subsequent to Akbar's time. Sphassalar was the only designation of the emperor's viceroy in eastern India.

Circars is a political appellation of a large tract of country between lat. 15° 40' and 20° 17' N., running from the Chikla lake to Motaquli, along 470 miles of sea-coast, with a breadth of from 70 to 100 miles of low country, an area of 17,000 geographical miles, watered by the Kistna, the Godavery, and Gondeccama; and three or four British districts have been formed out of it, viz. part of Ganjam, Vizagapatam, Godavery, Kistna, and Guntur, and part of Nellore district, between the Eastern Ghats and the bay. From the 5th to the 11th centuries, the Kesari, or Lion kings of Orissa, held sway there, followed by the Gajapati dynasty in the north, and Narapati in the south, then by the Bahmani, the Kutub Shahi, and the Asaf Jahi. They were ceded to the French in 1753, and to the British E. I. Company in 1750, after Colonel Forde's successful attack on Masulipatam in April of that year. They contain the important towns of Ganjam, Chincadole, Vizianagram, Vizagapatam, Coringa, Yanoor, Masulipatam, Eullore, and Nizampatanam.—Annals, Ind. Adm. xi. p. 248; Imp. Gaz.

CIRCASSIA is the Circassians of Asia. It is a mountainous country in the S.E. corner of Europe, on the northern face of the Caucasus, lying between lat. 41° 50' and 45° 20' N., and 37° and 47° 20' E., about 550 miles long and 75 miles broad; area, 40,000 square miles. The highest summits for nine months are covered with snow.

—MacGregor. In a small tract not less than seventy-two dialects are spoken. The Circassians and the Che Chou are the two great tribes. They take the common name of Adighe; but the Circassians include amongst them the Khbard Akhas, Ubiche, and other clans, and number from 400,000 to 500,000 souls. The Che Chou number 150,000 souls. Their religion is a mixture of Christianity, Mahomedanism, and paganism. They reverence Merem, a benevolent deity, and Tashibile, the spirit of thunder. There are three social classes,—Uskud or nobles, Tschofok and freemen, and Pchilt or slaves,—and these grades are hereditary, like the castes of India. When their forts or villages have been surrounded, they have destroyed their women and children, set fire to their dwellings, and perished in the flames, rather than surrender.

Their young women are famed for their beauty, and are sought for in the neighbouring kingdoms. They are brought up in simple and domestic habits by their mothers, are taught the use of the needle in decorative works, and to make their own clothes, and those of the men of their family, and are otherwise very carefully reared. They are sold to the bridegroom and to traders.

The Circassians were typical representatives of the West Caucasian races. They were the most powerful and warlike of all the western nations. Since their final reduction, in 1864, by Russia, most of their lands on the left bank of the Kaban have been occupied by their conquerors, the great bulk of the Circassians having withdrawn into Turkish territory, and dispersed over Armenia, Asia Minor, Syria, and the Balkan peninsula. Similarly, 20,000 Akbskians migrated to Turkey at the close of the last Russian war, and both races have become predatory. Circassians are to be found in Asia Minor, along with Lazi, where also are the Yuruk, a nomade Turk race occupying the uplands between Erzerum and the plains of North Syria. In the Kazzelkhs are also there, and are scattered over Anatolia, Persia, and eastwards to Kabul. They call themselves Eski-Turk, or old Turks. The fertile plains of Raz Ova and Ard Ova, near Tokat, and the villages between Angora and Anaisia, and between Kara Hissar and Tokat, are the Kazzelkhs headquarters. They profess Islam, but avoid all inquiry into their doctrines.

The Circassians and Akbskians have never found a suitable home in Asia Minor, and are a serious disturbing element (Asia, p. 37), being indolent and predatory. The Circassians and Akbskians of West Caucasus are Sunni Mahomedans; the Kabad are Christians; and these three races number 138,000. In the time of Selim I., the Manuelks were all slaves of pure Circassian blood.

More recently, only the Borgia Manuelks were of Circassian origin.—Charles Tashchin, Circassians, Porter's Tr. i. p. 141; Lond. As. Trans. i. p. 98; MacGregor; A. H. Keane and Sir Richard Temple's Asia.

CIRCASSIAN BEANS, seeds of the Aden-thanera pavonina, used for ornamental purposes.

CIRCLE. Under the form of a winged circle, the Assyrians worshipped the supreme deity.

The Buddhist wheel of the law, to be seen on the caves of Ellora and Ajunta, was probably borrowed from the Assyrians, as it reminds us of the wheel within wheel of Ezekiel. It is a symbol of the Hindu god Vishnu, under the Hindu term Chakram.—Cat. Rev. 1868. See Chakram.

CIRCUMAMBULATION.

Touaf, . . . . . ABAR, . . . . . Parikarma, . . . . . HIND. Deisel, . . . . . . . CELTIC, . . . . . . . Pradakshana, . . . . . . . SANSK.

The circumambulation of sacred places has ever been part of the ritual of worship of Asiatic nations. The Mahomedans in circumambulation, Touaf, presents his left shoulder; the Hindu and Buddhist in Pradakshana walk round with the right side towards the face or idol, and this would appear to be the original form of the rite. Its conjunctive significance is an imitation of the procession of the heavenly bodies, the motion of the spheres, and the dances of the angels. These are also imitated in the circular whirlings of the Rafai darvesh. El Shahistani informs us that the Arab philosophers believed the sevenfold circumambulation to be symbolical of the motion of the planets round the sun. It was adopted by the Greeks and Romans, whose Ambavallia and Amurballia appear to be eastern superstitions, introduced by Numa, or the priestly line of princes, into their pantheism; and in Britain the processions round the parish preserve the form of the ancient rite. It is the processional of the Romish and other Christian churches, in which the clerical attendants permultamate the aisles, and is practised
in sanctifying a church or a churchyard. At the Holy Sepulchre, the Greek, Armenian, and other
pilgrims circumambulate three times. In Ireland
it is a very common practice to circumambulate the
graveyard three times before proceeding with the
corpse to the grave. See Parikarma. In Britain,
at the time Christianity was established in Ireland
by St. Patrick, and in the coast of England by St.
Columba, it was a practised rule, Hindus encircle
with right hand to the shrine. The Buddhist
Bhot, in passing the Mani, always leave it on the
right.—Northern Barrier; Burton's Mecca, iii. 204.

CIRCUmCISION.

Khatna, . . . ARAB. │ Soomtan, . . . HIND.
Circumcision, . . . FR. │ Circuncisione, . . . IT.
Beschneidung, . . . GER. │ Circumcision, . . . SP.

The Phœnicians had this rite in common with
the Egyptians and the Jews, who acknowledge
having derived it from the former. According
to Bunsen, however (iv. p. 273), it was not followed amongst the Phœnicians. It seems
to have been a Semitic rite, which Abraham
revived, for he was ninety-nine years old when he
circumcised himself, Ishmael his son was thirteen, and Isaac was one year old. This rite
now is practised amongst all the Jewish peoples
and most Mahomedans. With the latter the usual time is in infancy, though the poverty of the
parents and other circumstances sometimes retard its performance. It is performed with
some ceremonial, and in presence of the friends
of the family. It was prohibited by Akbar until the age of twelve, when the person to undergo it
could judge of the propriety of the rite. It is not
even mentioned in the Koran. It is considered
as an act of imitative practice founded on the
example of the disciples, but not on that of
Mahomed himself. In Oman, on the shores of
the Persian Gulf, among the Christians of Abyss-
inia, and in Egypt among the Arabs and Copts,
the custom is prevalent. At Boera and Baghad,
all the women of Arabian blood circumcise their
daughters, as well as their sons. At Cairo the
women who perform this operation are as well
known as midwives. They are openly called into
houses of the people, without any secret being
made of the intention with which they are invited.
This is noticed by several Mahomedan writers,
viz. in the Dur-ul-Mukhtar, the Tahlatvi, and
Fattah-ul-Muain, and, according to the last book,
it is the inner labia that are removed. The
Spaniards, at the time of the conquest of Central
America, found circumcision practised, and it is
still observed by the Tecuma and Manacs tribes.
Amongst the people in the Gulf of Carpentaria,
all the males before the age of twelve or fourteen
years undergo this rite. This custom is not
derived from the Masaccas, the latter affirming
that it existed previous to the commencement of
their intercourse with the coast. Flinders ob-
served a case upon the Wellesley Islands, and the
custom is also prevalent amongst the natives of
certain parts of the south coast of Australia. Mr.
Earl says a peculiar formation prevails among
the aborigines of this part of Australia, and also
of the adjacent coast of New Guinea, which renders
the practice exceedingly conducive to comfort
and health.—Earl in Ethn. Lib. i.; Niebuhr, Travels, ii. pp. 250, 251; Malcolm's Hist. of
Persia, ii. p. 359; Bunsen's Egypt, iv. p. 273; Herodotus, ii. p. 36.

CIRCUS, a genus of birds of prey, known as
the Harriers, found over all the world. They
have a slender form, soft and downy plumage,
and hence a noiseless flight. They are much on
the wing, and hunt near the ground. They are
of the sub-family Buteonine, family Falconidae,
and order Raptorea.

True Harriers.

Circus cyanneus, Linn. Falco albidus, Gmel. | F. pygargus, Linn.
The hen-harrier of Europe in the winter visits
the N.W. Himalaya, the Panjab, Bhutan, Nepal,
and Kanaan.

Circus Swainsonii, A. Smith.
C. albecens, Less. C. pallidus, Sykes.
C. Dalmaticus, Rap. Falco herbofer, Tickle.
Pandouvii, . . . BENG. Pattai, . . . HIND.
Tera, Dirajat, . . . HIND. Pun-pranda, TAM.
Dastmal, . . . HIND. Tella-chappa-gaddd, TEL.
Girgut-mar, . . . Filli-gadda, . . .

The pale harrier is pretty generally distributed
over Asia, Africa, and southern Europe, and is
abundant in India during the cold weather.
The male is pale grey above.

Circus cinereus, Montag.
C. Montagi, Vieill. | C. Nipalensis, Hodgson.
This visits every part of India.
Circus melanoleucus, Gray.
Pahatai, . . . HIND. Abla pehata, . . .

The pied harrier is common in Bengal and in
the rice-growing districts.

Circus aeruginosus, Linn.
Falco rufus, Gm. | C. variegatus, Sykes.
Mat-chil, . . . BENG. Safed Sira, . . . HIND.
Kutar, Kulesar, . . . HIND. Tika, Bauri,

The marsh harrier frequents the banks of
rivers, lakes, marshes, inundated fields, and wet
meadow land, carrying off frogs, fish, water
insects, rats, shrews.—Jerdon.

CIRRHA'TE, or Cirrhade, or Cirrodex, of
classical history, are the ancient Kirata, the
modern Kiratii of Nepal. Once a powerful
dominant race, they have long since succumbed
first to the Mahawani, and then to the Ghorkali.
In the Sanskrit tale of the Hero and the Nymph,
occurs the word Vedhaka. In some copies Re-
chaka is explained to be a Kirata, a forester, and
the Kirata were known to the classical geography
of ancient Europe as the Cirrhade or Cirrodex.
They were the occupants of Sogdiana, near the
river Oxus. The term Kirata, however, seems
to have been general, and applied to the savage
mountain non-Aryan tribes, to whom the Aryan
races were opposed. Some of them were in the
south of the Peninsula, on the Coronadal coast.

CIRRHIPE'DIA. The balanus or barnacle of this
class of molluses occurs in India.

CIRRHOSTALUM, a genus of plants of the
order Orchideceae. In India are C. albideum,
caudatum, cephalotus, cornum, sformiatum, grandiflorum,
Lindleyi, Macrostachys macrophyllum,
Neilgherrensis, Roxburghi, Walkerianum.

CIRSIUM ARGYRACANTHUM, C. horridum
and C. lanceolatum, flowering plants belonging
to the order Matri carineae. The roots of C.
lanceolatum, the Suh-twan or Chuen-twan of
several parts of China, are used in diarrhoea and
in urinary affections.—Smith.

CIS, a Latin word in use amongst geographers
of Europe, to indicate a country on the hither
side of rivers or mountains, as Cis-Himalaya, Cis-

CIS.
Indus, Cis-Sutlej, etc. Trans, another Latin word, is used to indicate the further side, as Trans-Indus, Trans-Gangetic, etc.

CISSA, a genus of birds of the jay magnies, the sub-family Garruline, and order Passeres. Cissus cynanchica, C. paucilla, Rhythm, occur in Hind.-Temple's Ceylon.

CISAMPELOS, a genus of plants of the natural order Menispermacae. C. convolvulacea occurs in Dindigul, Rajmahal, and Nepal; C. obtecta, of the Garhwal mountains, yields an ardent spirit in distillation.


The extract of pareira is a valuable astringent diuretic, in doses of twenty grains dissolved in water thrice daily. The extract and infusion of nemooka, C. hermandifolia, afford good substitutes for this useful article.—Beng. Pharr.

CISSA, mentioned by Herodotus, is the Susiana of Strabo, and the modern Khusistan.


A pretty climber, in the valleys of the N.W. Himalaya, from 2000 to 8000 feet. It is eaten by camels; and in Jammu, the root, ground with black pepper, is applied to boils.—Dr. J. L. Stew.

CISUS DISCOLOR, a vine of Java, with leaves coral-red beneath, and variegated with silvery patches above, owing to the presence of a film of air under the epidermis.

CISUS QUADRANGULARIS. Wall. Vitis quadrangularis, Wallt. Nillur, ka binj; paat, DUK. Perrandei, coddi, TAM. Harjora, . . . . HIND. Nulluru tige, . . . . Tel. Vajra valli, . . . . SANSK.

Stems fourangled, winged, and jointed; it has all the properties of a parasite. The stems are succulent, and, beaten up into paste, are given by the natives for asthma. The young, tender, and succulent stems are very generally eaten in India. When old this plant is deemed acrid, and a useful article for cattle. In Arabia it is used as an external application in rheumatic pains of the back and limbs.—Riddell.

CIS-SUTLEJ, a political term applied in British India to the territory south of the Sutlej, occupied by Sikh chiefs during the last years of the Dehli empire, and now including the British districts of Ambala, Ludhiana, Firozpur, and Hisar, with the native states of Patiala, Faridkot, Maler Kotla, Chithrauli, Baisi, Buriya, Mandot, Jheend, and Nabha, which came under British protection in 1809. By the treaty with Ranjit Singh, of the 26th April 1809, he undertook not to make or allow any encroachment on the states on the left bank of the Sutlej. In 1849 the British abolished the sovereign powers of the various chieftains. Several states have lapsed to the British.

Patiala was formed by a Jat family of Sikh religionists, who emigrated from the Manjhit about the early part of the 18th century. The area is 8412 sq. m., with a population of 1,586,000, and a revenue of Rs. 3,000,000.

Jheend has an area of 1236 sq. m., and a population of 311,000 souls, with a revenue of four lakhs of rupees. The maharaja is a Jat of the Sikh faith. In 1587 its chief was the first person who marched against the mutineers at Delhi.

Nabha territory has an area of 863 sq. m., a population of 276,000 souls, and a revenue of four lakhs. The chief is of the same stock as the maharajas of Patiala and Jheend, but is the elder branch of the family. The family beheld ill in the Sikh war of 1845-46, but did well in the revolt of 1857, and were rewarded by a grant of land out of the Jhujur territory.

Kalsia territory has an area of 155 sq. m., and a population of 62,000 souls, with a revenue of Rs. 130,000. The family came from the village of Kalsia in the Manjhit.

Maler Kotla has 156 sq. m., with a population of 46,200 souls, and a revenue of one lakh. The family came originally from Kābul.

Faridkot consists of Faridkot proper and Kotkapura; is S.W. of Firozpur, borders to the S.E. on Patiala. It has an area of 613 sq. m., and a population of 51,000 souls, with a revenue of Rs. 75,000.

Munudote is a Mahomedan chieftaincy, and was re-established in 1863.

The minor Cis-Sutlej chiefs were deprived of their sovereign powers, and the police management of their estates was assumed by the British Government; all customs duties were abolished, without compensation except in the case of the nawab of Konjipura and the mir of Kotahbar, and the chiefs were reduced to the rank of ordinary jagirdars. These were 80 in number, with revenues varying from Rs. 250 to 71,900.—Imp. Gaz.

CISTACEAE, the rock-rose tribe of plants; one genus is the Helianthemum. Cistus creticus, of the Levant, one of the species which afforded Labdanum, collected formerly for medical use during the prevalence of the plague, by whipping the plants with leathern thongs, the resin adhering to the leathern straps. C. Cyprium, Lam., also yields this product.

CISTI TREES, the Cytinus hypocistus. See Balanophoraceae.

CISTUDO, a genus of reptiles of the family Chelonias. C. Amboinicus occurs in Ambon, C. dentatus in Java, and C. atrata in Ceylon.

CITIERN. ENG. A musical instrument. It obtained its name from the Sih-tara, the three-stringed lute of the East, supposed to be also the source of the word guitar.

CITRATE, or Auratiacea, the Citron, oranges, are dicotyledonous polytetalous plants, and the orange, lemon, lime, shaddock, pomelo, and citron are the chief fruits of the orange. The wampee, a fruit highly esteemed in China and the Indian Archipelago, is produced by Cookia punctata. The fruit of Glycosmis citrifolia is delicious, and that of Triphasis very agreeable. The Ægle marmelos is used in medicine, and a perfume is made from its rind. The Indian guava are — atalantia, citrata, lymonia, glycoecia, sclerosytis, bergeria, Murunya, Cookia, clausena, micromelum, para-mignya, suvunga, polycyna, feronia, agle, citrus, citric ACID, lime-juice, Acidum citricum.


This occurs in commerce either in the form of the pure juice of lemons and limes, or crystallized by a chemical process.

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CITRUS, Citrus medica, Linn.

It bears many names and varieties. In Egypt, it is known as the "Orange Tree". The fruit is often used in cooking and in traditional medicines.

CITRULLUS, Citrullus vulgaris, Linn.

This plant is a climbing vine that bears edible fruits. It is widely cultivated for its fruits and seeds, which are used in cooking and medicine.
CITRUS BERGAMIA.

producing two crops a year. The blossoms of February and March yield their ripe fruit in November and December; and from the flowers of July mature fruits are obtained in March and April. To prevent exhaustion, only alternate fruiting is allowed. The leaves are rather bitter, and contain essential oil. A still more fragrant oil, called oil of neroli by the perfumers, is afforded by the flowers. The berries, while unripe, are gathered, dried, and turned in the lathe to the size of peas, and are used in issues on account of their fragrant colour. The rind or peel of the orange is bitter and aromatic, and affords a very useful stomachic tincture and syrup. The juice of the ripe fruit contains sugar, malic and citric acids, citrate of lime, muscalig, albumen, and gum. Like the lemon juice, it makes an excellent cooling drink, and is an invaluable specific in the treatment of scroborbic diseases. The seeds of the orange yield oil by expression, but not available in any quantity.

Citrus aurantiun, var. Seabra, Hwa-kui-hung of the Chinese, a variety of sweet orange largely cultivated in China.—Smith; O'Sh.; Eng. Cyc.; Voigt; Elliot; Ainslie; Riddell.

CITRUS BERGAMIA. Rich and Acid lime.

Citrus limetta, D.C. | Citrus acida, Roeb.
Nihu, | Beng. | Fun mitche nar- | Maleal.
Dan-tha-yaa, Shouk, Bum. | cam. | Maleal.
Chin-p‘o-lo, | | Dehli.
Limbo, | Duk. | Elimicham, | Tam.
Bergamot olive, | Eng. | Gaja-nimma, | Tel.
Common sour lime, | | Nima-chhettu, |.
Limmu, Nimbu, | Hind. | Janbira-nimma, |.

This is grown in Peninsular India, Bengal, Assam, the Sanda and Molucca islands. There are many varieties,—round, small, spongy, smooth, thick-skinned, and yellow-juiced. The Arab variety from Muscat is large. Bergamout oil is obtained from the rind, and also oil from the flowers. The Mellarosa variety furnishes a superior oil and exquisite compounds. Large varieties of the acid lime are diffused all over the Tenasserim Provinces; and Europeans usually call them citrons. The forinae known in Hindostan are,—

Pati neboo, common round lime.
Gora neboo, thick-skinned, small, oval lime.
Kaghazi neboo, long, small lime.
Cheena-gora neboo, China lime, yellow-juiced lime.
Kanurali neboo, large, oval, smooth-skinned lime.
Rungpo neboo, round, smooth-skinned lime.
Taba neboo, a large globose spongy-skinned lime.
—Drs. Roxb., Mason, O'Sh.; Voigt; von Mueller.

CITRUS BIGARADIA. Dukamel.
Mae fadyin, | Arab. | Bitter Seville orange, Eng.
Kau-kiihi, | Chin. | C. vulgaris.

The leaves differ from those of the sweet orange by the petirole only. The flowers are alike in both species. The rind of the fruit is bitter, acrid, and hot to the taste, the pulp acid and bitter, the seeds excessively bitter. The bark of the tree participates in these qualities. The rind of the fruit is used in making the celebrated Curaeon liqueur. Its flowers yield the costly neroli oil. An acre will annually yield flowers to the value of £50. The rind is used for candied orange peel.—O'Sh.; von Mueller.

CITRUS DECUMANA. Linna. Panuwalu.
Bator nihu, Babavi, Beng. | Maha-nanam, | Singh.
Shouk tug, | Bum. | Jamboloo, |.
Hu, Yu, | Chin. | Punnapalina, | Tam.
Chakotra, | Hind. | Bomharmanas, | Tel.
Poompleemoos, | Malay. | Pampa panasa, |.
Bambali-naring, Maleal. | Pulla pampa panasa |.
Paravata, | Sansk. | (acid var.).

The shaddock, the largest of the orange tribe, is cultivated in Southern Asia in gardens. The varieties are red and white, the former being preferred by persons. The tree grows to a large size in a rich soil, and requires much pruning; the best time for doing this is when the crop of fruit is off. Fine fruit has been produced from the seed. The tree, when planted, should have a space of twelve feet all round it. The blossom is used for flavouring sweetmeats. It is a fine fruit, cooling and aperient, and in taste somewhat resembles a fine orange. It has been cultivated in China from the time of the great Yu, who mentioned it in his tribute roll. It flourishes near Amoy, and much pain are taken in grafting the tree upon other species of Citrus, so that the character of the fruit has been greatly improved. Its peel is very bitter, but aromatic.—Ainslie; Riddett; Mason; Roeb.

CITRUS DULCIS. Volkmer. The sweet orange. Of this are many varieties. One tree, in a sheltered place of the St. Michaels, in the Azores, has been known to bear 20,000 fruits in the year. Neroli oil is obtained from the flowers of this and other varieties. The oil of orange peel may be used for distilling with it costly odorous substances.—von Mueller.

CITRUS FUSCA, Smith, the Chih-koh or Chishib of the Chinese, an orange tree of several parts of China.—Smith.

Lu-kia, | | The fruit—Cum-quat, Ch.

The Cum-quat is extensively grown by the Chinese in pots, and at one season of the year the plant is covered with its small, oval, orange-coloured fruit. This, as well as various other species of the orange, is mixed with the forced flowers, and together produce an excellent effect. It is grown in Chusan in groves on the sides of the lower hills. The plants are all arranged in rows about four feet apart, average three or four feet high, and do not exceed six feet. It is much more hardy than any other of its tribe. It produces its flowers and fruit in great abundance. In China, all the plants of the orange tribe which bear fruit in a small state are grated.—Fortune, p. 122.

CITRUS LIMONUM. R. and P.
C. medica, Roxb. | Korina neboo, Hind.

The true lemon. Fruit yields the lemon juice, peculiarly rich in citric acid. Its aromatic peel is a volatile oil. A large variety is the Rosarine lemon.—von Mueller.

CITRUS LUMIA. Rasso. The sweet lemon. It includes the pear lemon, with large pear-shaped fruit. Pulp not acid; rind thick, and peels.—von Mueller.


The citron was described by Theophrastus as occurring in Northern Persia (Media), and culti-
vated by the Jewish nation in Syria while under Roman dominion. Cultivated, and grows to a large size. The outer rind very rough, and covered with excrecences, and when ripe of a deep yellow colour and fragrant. Used to form a preserve, and the juice is made into lemonade. It is propagated by cuttings, layers, or seed. Essential oil and citric acid are obtained from the acid tubercular fruit. The candied thick rind of a variety is the Citronate or Succade. Cedra oil comes from a particular variety. The variety C. digitata is cultivated in China.—Voigt; Riddell.

CITRUS MICROCARPA is the Tsing-kihn-pi or Tsing-pi of the Chinese.

CITRUS MONOPHYLLA grows wild along the Western Ghats of the Peninsula of India.—Riddell.

CITRUS PLANCHONI, F. von Mueller. C. australis, Planchon. A noble tree, 40 to 60 feet high, in the coast forests of E. Australia. Its globular fruits, the size of a walnut, are called native oranges. Its wood is beautiful, takes a high polish, and is used for furniture. Might be introduced into India.—von Mueller.

CITRUS TOROSA. Mason. Grows at Tavoy, with a leaf that looks like two leaves joined together, the wings on the petiole being as broad, or even broader, than the leaf itself. The fruit is small, and there are two varieties,—one with a smooth and another with a rough skin. Dr. Pickering met with a similar tree on the Samoan Islands, a member of the Philippine floras.—Mason.

CITRUS TRIFOLIA, a native of China; fruit about the size of a marble.

CITRUS WOOD of the Romans was extravagantly prized for tables, and is supposed to have been the Callitriss quadrivalvis, Vent., or jointed arbor-vita, the conifer which yields the gum sanderach. The wood was distinguished as striped 'tigrine,' spotted 'pantherine,' or speckled 'apiate.' Cicero gave £9000 for a citrus wood table.

CITRUTTA CYANOTUS is the forest king-fisher of Celebes. Along with it occur the Monoglossus Forsteni; Carphophaga Forsteni, a fruit pigeon of North Celebes; Buceros cassidix, the great hornbill of Celebes; Trichoglossus ornatus, a beautiful brush-tonged parrakeet; Corvus advena, a rare black and white crow.

CITY.

Pur, ur, basti, . . . HIND. | Buri, . . . Siam. Shahr, . . . PERS. Ur, . . . TAM. Tel.

With all nations the eastern end of a house is the more honourable part; the west end, of a city. The towns of the south and east of Asia are small compared with those of Europe.

CITY OF THE Willows, name of a secret political society amongst the Chinese.

CIVET, Castoreum.


The civet perfume of commerce are obtained from two sources. One of the civets is a concrete substance obtained from two small bags in the preputial follicles of the beaver, Castor fiber, of both sexes. This is the commercial civet castor of N. America, and it is imported into India for medicinal purposes. The civet cats (Viverra), a genus of carnivorous animals, approach nearest in their form and habits to the fox and the cat. But the distinctive character of the civets consists in an opening near the tail, leading into a double cavity of considerable size, furnished with glands for the secretion of this odorous substance. When the secretion is in excess, the animal frees itself from it by a contractile movement, which causes the civet to ooze from the bag. This is carefully collected, and sold (not without adulteration with butter or oil to increase its weight) at a very high price. In Malay and Javanese this perfume is known by the names of rase and dedes, but the Sanskrit kasturi and the Arabic zabad, corrupted jabad, are also used as synonyms; and doubtless the Dakhani javad, Malay jabad, English civet, French civette, and German zibeth are all from the Arabic zabad. In the Eastern Archipelago, two species—Viverra rase and V. zibetha—are kept in a half domesticated state for the purpose of yielding it. The first is a native of Java, and the last of the other large eastern islands, where the natives of rank are partial to the use of this perfume,—a not generally acceptable one to Europeans. A variety of this is an inferior sort of musk-bag procured from V. zibetha, found in many parts of Lower Hindustan, and called in Tamil Pulughoo poonai, and in Telugu Poong-hoo pilli. The article is chiefly used by the people as a perfume, and in the preparation of certain liniments. These animals are carefully kept and tended in North Africa for the sake of the perfume. They are also common in South America and in the forests of Japan. Civet contains free ammonia, resin, fat, and extractiform matter, and a volatile oil, to which its odoriferous properties are due. It is imported into Britain from the Brazils and from Guinea. When genuine, it is worth from 30 to 40 shillings an ounce.—Crawford, Dict. p. 100; Als; O'Sh.; Eng. Cyc. Sec. IV, Viverra.

CIVIL SERVICE, the usual designation of the civil department of British India, including the members of it in the performance of political, magisterial, revenue, and judicial functions. There are two distinct branches, the higher being Covenanted officers, and almost all of this class are natives of Great Britain, and several of them, as Lord Clive, Warren Hastings, Sir George Barlow, Mountstuart Elphinstone, Sir Charles Metcalfe, have risen to be Governors-General of India, and Governors of Presidencies. The next grade are termed Unconvenanted, and comprise many Europeans, East Indians, and Natives, and, generally speaking, are in offices with lower powers than those of the Covenanted, as munsifs, magistrates, tahsildar, mahlaladar, deputy collector, assistant commissioner, sereishtadar. Many military officers have distinguished themselves as civil administrators.

CLAdOBATES, found in the Malay countries, is an insectivorous genus of mammals. Several species very closely resemble squirrels.

CLADONIA RANGIFERINA. Hoff. Reindeer moss. See Lichen.
CLAM. Eng. A mollusc of the genus Tri-
dacna, common in many parts of the world. There
are six recent and one fossil species known, and
the great clam shell of the Archipelago is used in
Europe for church fonts.

CLANSHIP, somewhat resembling the form it
assumed in Scotland, prevails amongst several of
the Afghan and Baluch races, where the adjoining
tribes have not as yet amalgamated into nationali-
ties. Moral worth, national pride, love of country,
and the better feelings of clanship, are the chief
grounds upon which a great people can be raised.
These feelings are closely allied to self-denial, or
a willingness on the part of each man to give
up much for the good of the whole. By this,
chiefly, public monuments are built, and citizens
stand by one another in battle; but all these are
wanting from most of the races occupying British
India at present. Many of the Rajput races are
in clans, and Mahomedanism has given a bond,
but even it is not strong; and China has three
distinct races, the Chinese, the Manchu, and the
Mongolian, which separate in civilisation and in
aspirations.—Short's Egypt, i. p. 274.

CLARET, a term generally used to designate
the red wines, the produce of the Bordeaux.
The most esteemed are Lafitte, Latour, Chateau-Mar-
gaux, and Haut-Brion. Clarret is a general name
for all rose-coloured wines, and in France what
the English call clarret is styled Bordelus.

CLARIFIED BUTTER is the ghi of Hindustan
and the yennai of the Tamil.

CLAUDIUS CæSAR. The first authentic
account of Ceylon, or Taprobane, extant, is given
by Onesiculus, the Macedonian admiral, who lived
B.C. 320 or 330. Diodorus Siculus, B.C. 44, gives
an account of it. Strabo also mentions it; and
Dionysius, who flourished A.D. 36, confirms former
accounts, and alludes to its elephants. Sinbad
also speaks of it in a volume, perhaps a compila-
tion and in part a romance, as does Abdoor Razak.
Ribiero also gives a notice of it. In the reign of
Claudius Caesar a Roman publican, who formed
the custom duties of the Red Sea, was driven
from Arabia by storms on to Ceylon, where he
found a flourishing kingdom and an enlightened
sovereign, whom he persuaded to send an embassy
of four envoys to Rome, by way of the Red Sea,
for the purpose of negotiating a commercial
treaty.

CLAUDIUS PTOLEMY, author of the Alman-
gest, lived A.D. 140-160.

CLAUSENA, a genus of shrubs or small
trees belonging to the natural order Citraceae.
C. heptaphylla (Karan-phal, Hind.) grows in
Bengal, has small flowers, greenish-yellow and
anise-scented, and its bruised leaves have the
fragrance of fresh anise seeds. C. nana grows in
the Mohuccas, C. punctata and C. suffruticoso,
grow in Chittagong; and the fresh leaves of C.
Sumatra, when bruised, have the fragrance of a
lemon leaf. C. Volkmannii, W. and A., grows
near Chingleput, and C. pubescens. W. and J.,
in the Peninsula.—Robx.; Voigt.

CLAVIJO. Don Ruy Gonzales de Clavijo was
appointed, a.D. 1403, by Henry III. of Castile
on an embassy to Timur. He quitted Constanti-
nople 14th November, and passed through Arme-
nia, Azerbaijan, Teheran, Damghan in Khorasan,
and reached Samarcand 8th September 1404; but
Timur was too ill to receive them, and they
returned 21st November by Trebizond and Genoa
(31 January 1406); Clavijo reached Neville in
March.

CLAY. Fire-clay.

Claymar, . . . Hind. | Sangti-dalam. HIND.
Gi'. | Chikii miti. HIND. | Tamhle, white clay, MAIY.

Clay is a compound, or perhaps only a mixture,
of the two earths, alumina and silica, with water.
Pipe-clay, Namam, TAMIL. Kharra, DUKK.

Clay is of a greyish-white colour, with an earthy
fracture, and a smooth, greasy feel; it adheres
to the tongue, and is very plastic, tenacious, and
infusible. When burnt, it is of a cream colour,
and is used for tobacco-pipes and white pottery.
This is found in abundance in several parts of
India; and Hindus employ it for making the
distinguishing marks on their foreheads, and
(noised with water) it is often applied round
the eye in certain cases of ophthalmia, as well as
to parts of the body that are bruised.

Potter's clay is of various colours, chiefly reddish
or grey, and becomes red when heated. Mixed
with sand, it is formed into bricks and tiles. It is
abundant in many parts of South-Eastern Asia.

Stourbridge clay resembles potter's clay to a
certain extent, but is far more refractory in the
fire. It is of a dark colour, owing probably to the
presence of carbonaceous matter. It is exten-
sively used in making crucibles, glass pots, etc.

Brick-clay or loam, abundant in S.E. Asia,
varies greatly in appearance, texture, and com-
position; its colour depending on the proportion
of oxide of iron contained in it.

Porcelain clay, the kaolin of China, is very
abundant in S.E. India, produced by the decom-
position of felspar, and of binary granite.

Fireclays are procurable at Streupermatoor,
Trippoor, Chingleput, Metapolliam, and Cudda-
pat; indeed, are very common in many parts of
India, and bricks can be made that resist the
action of great heat. A clay found at Beyapore,
20 to 30 feet below the surface, is used for fire-
bricks and for lining furnaces.

Luscious clay is excavated from a pit near
Kolah in large quantities, and exported as an
article of commerce, giving a royalty of Rs. 1500
yearly. It is used chiefly to free the skin and
hair from impurities; and the Cutch ladies are
said to eat it to improve their complexion.

The clay used for making pottery in Sind is obtained
from situations washed over by the Indus river,
10 feet under ground. It is reduced to a fine
powder, and soaked in water for 24 hours; after
which it is kneaded with the hands and feet, and
when it becomes dough-like, it is divided into
lumps of the required shape.—Gomlinson: Brs.

CLEAN and Unclean, terms often occurring in
Scripture, as in Levitians xi.-xv., have refer-
ence to unclean creatures, unclean persons, and
personal and ceremonial uncleanness. As in
Lev. xii. 2, after childbirth a Brahman mother is
unclean for eleven days, a princess sixteen, mer-
chant's wife seventy-one, and a Vellala Sadora
thirty-one days. As with the Hebrew women,
the Hindu mother in her days of uncleanness
cannot touch any hallowed thing nor any domestic
article. When the days of her purification are
over, she takes or sends an offering to the temple.
In the matter of clean and unclean things and
persons, Mahomedans follow the Mosaic law.
CLEARING NUT.

The ripe seeds of Strychnos potatorum are dried and sold in every market in India to clear muddy water. Natives of India never drink clear well water if they can get pond or river water, which is always more or less muddy. One of the seeds is rubbed very hard for a minute or two round the inside of the vessel containing the water, which is generally an unglazed earthen one, and the water left to settle; in a very short time the impurities fall to the bottom, leaving the water clear and perfectly wholesome.—Roxburgh.

CLEVELAND, AUGUSTUS, a Bengal civil servant, who in a brief space won over the wild races near Rajmahal. He died while still young; and the Government of India decreed a monument to his memory at Bhagulpur, with the following inscription:—To the memory of Augustus Cleveland, Esq., late collector of the districts of Bhagulpur and Rajmahal, who, without bloodshed or the terror of authority, employing only the means of conciliation, confidence, and benevolence, attempted and accomplished the entire subjection of the lawless and savage inhabitants of the jungle-terry of Rajmahal, who had long infested the neighbouring lands by their predatory incursions; inspired them with a taste for the arts of civilised life, and attached them to the British Government by a conquest over their minds, the most permanent, as the most rational mode of dominion; the Governor-General and Council of Bengal, in honour of his character and for example to others, have ordered this monument to be erected. He departed this life on the 13th day of January 1784, aged 29.—Tr. of Hind. i. p. 101.

CLEGHORN, HUGH, M.D., a medical officer of the Madras army; a learned botanist, contributor to scientific journals of articles on botanical subjects; Conservator of Forests at Madras and Northern India, founder of the Indian Forest Department. He wrote on the Hedge Plants of India, and the circumstances which adapt them for special purposes in particular localities, Rep. Brit. Ass. 1850; on the Grass Cloth of India, ibid. 112; on the Physical Effects of the Destruction of Tropical Forests, ibid. 1851, London Athenæum 1851, p. 781; also on the Forests and Gardens of Southern India; in 1864, upon the Forests of the Punjab and the Western Himalayas; and the article Forests in the Encyclopaedia Britannica.

CLEIDION JAVANICUM. BL.

Lasiostyles salisifolia, Prot. | Rottleriara undara, Dalz.

This middling-sized glabrous tree is common in the moist forests on the Annamalais, elevation 2000 to 3000 feet, Travancore below Ghats, in the western forests of the Peninsula, Ceylon, Bengal, Burma, Java, etc.; timber hard, and good for building purposes.—Beddome, Fl. Sylv. p. 272.

CLEMATIS VITALBA? Smith, the Tung-tsau or Muh-t'ung of the Chinese, is a climbing plant of Shan-si, Shen-si, China, has a yellow bitter wood, and vascular tissue arranged in plates passing from the centre to the circumference, and open enough to allow air to be blown through. The wood, root, and fruit are used medicinally.—Smith.

CLEODORA, a luminous mollusc, with a vitreous shell.

CLEOME, a genus of plants belonging to the Capparidaceae or caper tribe. Species formerly placed under this genus have been transferred to the genera Polanisia and Gynandropsis. C. monophylla, Linn., the C. cordata, D. C., grows in Ceylon and the Peninsula, and has small, pale, rose-coloured flowers.—Roxb.; Linn.; D. C.

CLEOPATRA'S NEEDLE, a monolith, so called by the British; by the native eicoroni it was called Massallat-ul-Firaun, Pharaoh's packing needle. It was granted to the British nation, and in 1875 was brought to London, and erected on the left bank of the Thames.—Burton's Mecca.

CLEOPATRIS, an ancient town near the modern Suez.

CLEFTSYDRA, the Ghatka-patra of the Mahratta race. A hollow vessel for measuring time. It has an aperture in it, and when placed in water the vessel gradually fills and sinks, and the final submergence indicates the measure of time.

CLEARODENDRON, a genus of plants belonging to the Verbenaceae. One species in the Tenera forms a large shrub beneath every tree, generally intermixed with ferns, as polypodium, pteris, and goniopteris, and its sweet odour is borne far through the air. Clerodendron leaves, bruised, are used to kill vermin, fly-blows, etc., in cattle, and the twigs form toothpickts. Its flowers are presented to Siva (Mahadeo), milk, honey, flowers, fruit (ambrosia), etc. being offered to the pacific gods, as Vishnu, Krishna, etc.; while Mudar (Calotropis asclepias), Bhang, Cannabis sativa, Datura, flesh, blood, and spirituous liquids are offered to Siva, Durga, Kali, and other destroying deities. The Burmese cultivate a fragrant double cleroendron. One species, supposed by Dr. Stewart to be C. Infortunata, or, called Kali basuti on the Ben, occurs in the Siwalik tract, and occasionally in the plains, and is probably the one at the close of the rains, and give out a very strong perfume. It is a hardy plant, and grows in any soil. C. grata, Biliri, HIND., is a plant of Kaghan and Nepal, and has small yellowish fragrant flowers; C. florida is of Japan. In France the Clematis vitalba is used by mendicants to cause artificial sores for the furtherance of their impositions. In Cochsin-China, according to Loureiro, the C. Sinensis is used as a diuretic and diaphoretic. At the Mauritius, the C. Mauritiana is employed to blister the cheek for the relief of toothache.—C. Wightiana, W. and A., is scendent, perennial, with very soft villous leaves, coarsely serrated. It also is called Moriel, and grows common at Mahabaleshwar and the adjacent ghats, flowering in the month of August. C. Wallich's C. grata, Asiat. Pl. t. 98, much resembles it, and is perhaps identical. Hedges and thickets where these plants grow have the appearance of being covered with hoar-frost, from the white feathery tails of the seeds. They are very ornamental, and worthy of a place in gardens for trellis work.—Roxb.; Gr. Cat.; Riddell; Mason, p. 671.

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CIJMATE

Ami, Tam.

Tel. Hind.

followed,

Malkal.

Tel.

Panjab.

ROSSY-WHITE JARU TALUDALA, CHIRU C.
From a clerodendron.—Beitq. Siphonanthus Indica. Zri'nn.

Tonic Bhant leaves are Volkameria infortunata, and Sang-kupi, Hooker, C. Peragu, Bu

CLERODENDRON GROWS THE MACROPHYLLUM, THE INfortunate, which is Burmese a

The Karen mountain glens of Tavoy and Mergui are embellished with the elegant flowering nodding clerodendron. The flowers are tinged with rose, but nearly white, growing in long panicles at the extremities of the branches, from which they make a graceful curve, and hang down perpendicularly from ten to fifteen inches, like an inverted cone, so that the soft green foliage seems canopied with rose-white veils. It grows in Syieth, blooms in the dry season, and rarely exceeds ten feet in height.—Mason; Voigt.

CIJMATE PLUMOIDES. Linn.
Volkmannia multiflora, Burn.

Taludala, . . . Tam. Tekkali, Tilaka . . . Tel.

Grows in the Dekhan, Coromandel, Bengal, and Lower Kamaon.

CIJMATE SERRATUM. Blume.
C. macrophyllum, Sims. [Volkmannia serrata, Linn.
Jaru taka . . . MALEAL Brahmani mari . . . Tel.
Chiru dekku . . . Tam.

Grows in Salsette above the Bombay ghats, in Nepal, Morung mountains. The flowers and leaves are said to be eaten as greens; but in the northern Circars the root is known as Ganta-baringa, and is largely exported for medicinal purposes, being used for febrile and catarrhal affections. The leaves and seeds are also used medicinally.—Clerodendron siphonanthus. Br. Siphonanthus Indica, Linn.; Arni., HIND. OF BEAN.

Arnab, . . . HIND.; Dawal-mubarak, Pers.

Grows in both Peninsulas of India, in Bengal and Syieth. Its root and leaves are officinal; the Persian name means the blessed medicine. It is slightly bitter and astringent; yields resin. Employed in syphilitic rheumatism.—Stewart; Voigt.

CIJMATE SQUAMATUM.
Volkmanna Kamberiana, Jacq.

Scarlet clerodendron. Bu-gye-nee, . . . BURN.

The Burmese gardens are ornamented with this species, which bears a large cone of superb scarletflowers. Although said to be originally from China, it appears to be naturalized in Burma.—Mason.

CIJMATE VISCOSUM. Vent.
C. infortunatum, Linn. Volkmanna infortunata, Razz.
Bhant, . . . BENG. Bokada, . . . Tel.
Bu-gye-phyo. . . . Tel.
Peragu . . . MALEAL Gnarman Gatta-sun, . . . Manotaka-bramhi.
Sarawati aku, . . . Tel.

Grows in both the Indian Peninsulas, also in Bengal and Oudh.

CLEVERA GYMNAANTHERA. W. and R. A large tree on the Neelgerry hills, timber of a reddish colour, strong and durable.—French.

CLIMATE OF INDIA.

The Hindu races familiar with the tropical countries in which they dwell, use ‘water’ as the term for describing the effects of a climate on health. In this sense it is the salubrity of a locality that is alluded to. Mahomedans of Asia treat of seven climates, the Haft aklim. This applies to the northern hemisphere, which they partition with zones of various breadth from east to west. When alluding to the salubrity of a locality, the Mahomedans of India and Persia use the words Ab-o-Howa, water and air. In Hindustan the people usually arrange the year into three periods, the Choumass or Bark’ha, which is the rainy season, of four months’ duration; after which is the Seela, or Jarn, or Mohasa, the cold season; followed by the Dhopp-kala or Khurra, or hot season. This division indicates generally the course of the seasons in India, though in one locality the rains or the hot season may be somewhat more prolonged. The primary divisions of the abode of the Mahomedans are thus four:—Hindustan, including in which term the whole Peninsula of India, and the Gangetic plain to the base of the Himalaya. 2. The Himalaya, a mountain chain which rises abruptly from the Gangetic plain, and is connected with a still loftier mountain mass (of Tibet) to the north, and beyond India. 3. Eastern India ultra Gangem, including native and British Burma and the Malay Peninsula. 4. Afghanistan. These divisions are marked out by great mountain barriers and by the ocean. The Himalaya mountains on the north are nowhere under 15,000 feet, usually exceed 17,000 and 18,000 feet, and rise in isolated peaks or groups of peaks to 21,000 and to 28,000 feet.

From the western extremity of the Himalaya, the Afghan mountains descend parallel with the Indus, with a gradually decreasing elevation from about 15,000 feet to the level of the ocean at the Arabian Sea. Throughout Afghanistan the climate is excessive. The cold of the winter is intense, the spring is damp and raw, and the summer, during which hot winds prevail, is intensely hot at all elevations. The general aspect of the whole of Afghanistan is that of mountains with broad flat valleys. The crops are chiefly wheat and barley, even up to 10,000 feet elevation. Rice is cultivated in great quantity at Jalalabad 2000 feet, at Kabul 6400 feet, and to a considerable extent at Ghajni, 7730 feet. Poplars, willows, and date-palm trees are extensively planted, as well as mulberry, walnut, apricot, apple, pear, and peach trees, and also the Elaeagnus orientalis, which bears an edible fruit. The vine abounds as in all warm and dry temperate climates. The majority of the Afghan and Tibetan plants are also on the one hand natives respectively of the Caspian steppes and N. Persia, and of Siberia on the other.

The date is cultivated in Baluchistan up to 4500 feet; and a dwarf palm, Chamerops Ritchiana of Griffith, perhaps identical with the Chamerops humilis of Europe, occurs abundantly in many places, but with a somewhat local distribution.

The Burmese and Malay mountains, being given off from the snowclad mountains of East Tibet,
The climate of India is remarkably varied. The rainy season extends from June to September, and the dry season from December to February. The monsoon winds are the principal cause of the rainfall, and are most marked in southern India. The prevailing winds are from the south-west during the months of June and July, and from the north-east during the months of October and November. The temperature varies considerably in different parts of the country, being hot in the south and tropical in the north. The humidity is greatest in the south-western part of the country, and least in the north-eastern part. The rainfall is heaviest in the southern part of the country, and least in the north-eastern part. The vegetation is also very varied, ranging from the dense forests of the south to the dry grasslands of the north.
feet, and the elevation at which this change takes place corresponds roughly with that at which the winter is marked by an annual fall of snow. This phenomenon varies extremely with the latitude, humidity, and many local circumstances. In Ceylon and the Western Peninsula, whose mountains attain 9000 feet, and where considerable tracts are elevated above 6000 to 8000 feet, snow has never been known to fall. On the Khassa mountains, which attain 7000 feet, and where a great extent of surface is above 5000, snow seems to be unknown.

Sikkim occupies an intermediate position between Nepal and Bhutan, and unites the flora of Nepal, Bhutan, East Tibet, and the Khassa mountains, being, hence, in a geographical-botanical point of view, one of the most important provinces in India, if not in all Asia. In Sikkim snow annually falls at about 6000 feet elevation, in Nepal at 5000 feet, in Kumaon and Garhwal at 4000, and in the extreme W. Himalaya, lower still.

East Tibet is an enormously elevated mountain mass, and many of the large rivers of Asia flow from it in several directions.

The Eastern Archipelago, from consisting of large islands separated by belts of sea, possesses a humid and equable climate; but the great continent of Australia, being a vast expanse of low land, becomes very heated when the sun is in the southern hemisphere, and presents extremes of climate. The common characters of Sind are great summer heat but little tempered by rain, great winter cold, a dry soil. Its flora resembles those of Egypt, Arabia, and the countries bordering on the Persian Gulf.—Dr. Stocks: Journ. of the Ind. Archipelago, ii., February 1818.

CLIMBING PLANTS are exceedingly numerous in the damp forests of India. At Tonglo, in Sikkim, at an elevation of several thousand feet, Dr. Hooker found great scented trees twisting around the trunks of others, and strangling them; the latter gradually decay, leaving the sheath of climbers as one of the most remarkable vegetable phenomena of these mountains. These climbers belong to several orders, and may be roughly classified in two groups,—(1) Those whose stems are merely twine, and by contrivance attain the heights of their support, induce death. (2) Those which form a punk round the trunk by the coalescence of their lateral branches and aerial roots, etc.; these wholly envelope and often conceal the tree they enclose, whose branches appear rising far above those of its destroyer. To the first of these groups belong many natural orders, of which the most prominent are leguminosa, ivies, hydrangeas, vines, pothos, etc. The insouciant ones are almost all fags and Wightia; the latter is the most remarkable for its grasping roots.—Hooker, Himal. Journ. i. p. 163.

CLISOBORA, now called also Muzumgar and Calisapura.

CLITORIA TERNATEA. Linn.
Nipurajita, B. Niluparajita, Shwet Upurajita, Oungmai-bhuyo, BURM. Aparajita; Aapjota, Kali zar? DUKH. Khagin, Aparajita, Kowatheti, HIND. Shlonga-kuspi, MARR. Tamsa dintena; Nalla, Formika pauk, MALEL. dintana, . . .

The most common variety of this cultivated flowering plant are the blue and white. They blossom all year round, and, being shrubby twining plants, are well suited for covering trellis work. They are of easy growth. Dr. O'Shaughnessy does not recommend its use in medicine. Its flower is favored to Durga. A variety of C. carunculosa is reported—Hooker, Himal. Journ. ii. p. 291: Musson; O'Sk.; Powell.

CLIVE, ROBERT, LORD, a Madras civil servant, who became a great military commander, was Governor of Madras and of Bengal, and Commander-in-Chief of India. Amongst the many eminent men who have served and ruled in British India, he alone has been styled 'Great;' and whether his deeds as a military commander be considered, or his successes in the civil administration of India, posterity has conceded that title to him alone. He entered the service of the E. I. Co. in 1744 as a writer, but shortly afterwards obtained an ensign's commission. In September 1748 he distinguished himself as an ensign before Pondicherry, and again in August 1749 at Devicottah. In May 1751 he was present in the fight at Voloonda, and in July defeated the French at Condore. In 1751 he laid siege to Arcot, with only 129 Europeans and 200 natives; in August, took it. Arcot fort was invested by Chanda Sahib, with 4000 troops, but Clive withstood and repelled all assaults, and his opponents ultimately withdrew. This defence made a powerful impression on all the native races. In November he defeated Basin Rao at Arni; in December took the pagoda of Conjevarum; in 1752 he defeated the French and Chanda Sahib at Canverypan, destroyed the town of Duplex Pattchadal, defeated the French army, took Covelong, and commanded the land forces against Gheriah. In 1756, after the loss of Calcutta and the imprisonment by Suraj-ud-Dowlah in the guard-room, since known as the Black Hole, he left Madras with 900 Europeans, recaptured Calcutta, and made peace. But war again broke out, and Clive with 3000 British and native soldiers defeated Suraj-ud-Dowlah on the 23d June 1757 at Plassey, 40 miles south of Murshidabad. Mir Jafar was then declared subahdar of Bengal, Behar, and Orissa. Clive revisited Britain in 1760, with the rank of colonel. Mir Jafar was restored in 1763. Clive subsequently returned to India, corrected abuses in the government, obtained the dewani of Bengal, Behar, and Orissa, and assumed the civil and military government of the country, as Governor and Commander-in-Chief. His retributions caused a mutiny amongst the officers and men, which he quelled with severe measures. He returned to Britain in 1767, and at first was well received, but was subsequently impeached before Parliament, and only escaped trial by voluntary death in November 1774. In the ungrateful and final treatment by his country, his fate resembled those of La Bourdonnais, Duplex, and Warren Hastings. Lord Clive was the territorial founder of British India. The whole system of British India is organized on a branch of the public service, created courts of justice, and reformed the revenue collections. Lord Clive's life has had several historians, amongst whom are Caraccioli and Malcolm.

Clive, Lord, Governor of Madras in 1801, was a relative. The descendant of Lord Clive's family is now styled Earl Powis in the peerage of Great Britain.—Mallson: Orme.
CLOAK.

Many races in the south and east of Asia wear cloaks. That of Egypt is called burnous. The cloaks of Afghanistan are the postin, postaki, postinchi, choga, and kholsi; and the aba is worn in Arabia.

CLOCK.

Uuren; Uhrwerken, Dut. | Orologgi; Orinoli, . . . It.
Horologien; Horologiés, Fr. | Tschasii, . . . . Rus.

The clocks to be seen in the south and east of Asia are wholly of European manufacture. Prior to their introduction, the clepsydra or water-clock was in general use. These were of copper, with a small aperture at the bottom, through which, when placed in water, the clepsydra filled and sank, the sinking marking an hour. The water-clock of the Malay sailors is half of a coconut shell, with a small hole, through which, when placed in a bucket, it fills and sinks in an hour. Pendulum clocks were invented about a.d. 1260.

—Mr. Cullock.

CLOTHING.

The materials used for clothing, and the forms of dress of the peoples of the south and east of Asia, differ according to the climate, the pursuits, and the customs of the races. Through a thousand years, seemingly, the south-eastern races continue to wear clothing similar to what their forefathers put on; but Andamanese live wholly without apparel, and Chinese dress in a very elaborate manner. Hindu men and women, until the middle of the 19th century, wore only cloths without seams; and even yet their women's bodice (choli) and the men's jacket (angriká) alone are sewed, the lower garment of both sexes being cloths which are wrapped round the limbs, and often as neatly as so as to form this form of dress in the most perfect manner. Hindu clothing is not called clothes, but cloths. Most Hindus wear trousers when on horseback; but the prevailing Hindu custom illustrates Mark x. 50, where mention is made of the blind man throwing off his upper garment, which was doubtless a piece of cloth. It is not considered at all indecent among the Hindu people for a man to appear naked from the head to the waist, and servants thus attired serve at the tables of poor Europeans. In Arabia, a coarse cloak of camel or goat's hair is generally worn, often as the sole attire. It is called an aba, and its material is camel's hair. Amongst men of the very humbler classes of Southern India, at work, the simple loin-cloth is the sole body clothing; but almost all have a sheet, or a cumbi, or coarse blanket of wool or hair, as a covering for warmth. The Nair women move about with the body uncovered down to the waist, as an indication of the correctness of their conduct. The women of the Ptnab or Jumna, in the Denkénial district of Orissa, also called Patra-Sauri or Leaf-Sauri, till 1871 wore a covering of a bunch of leaves, hanging from the waist, both in front and behind. Forest races in Travancore also wear leaves as covering. Hindu children, both boys and girls, up to three or four years of age, have no clothing; the Abor young women have a string of shell-shaped embossed bell-metal plates, and Míri women wear a small loin kilt made of cane. Throughout British India, however, almost every Hindu and Mahomedan woman, or her juniors in circumstances, is wholly covered, from the neck to the ankles, with choli and gown or trousers, or cloths of kinds. This seems to have been the practice from remote antiquity. In Vedic times the women seem to have dressed much like the present Rajputni. They had a gogra or petticoat, a kaučhali or corset, and a do-patta or scarf. In the Rig Veda there is an allusion to Indrani's headdress as being of all forms, and several passages are indicative of considerable attention having been paid to personal decoration (Calculta Review, No. 109, p. 30). Weaving is frequently alluded to in the Vedas. The Yajur Veda mentions gold cloth or brocade as in use for a counterpane. In the Ramayana are mentioned the wedding presents to Sita as consisting of woollen stuffs, fine silken vestments of different colours, princely ornaments, and sumptuous carriages. The Mahabhárata mentions furs from the Hindu Kush, woollen shawls of the Abhira of Gujarat, cloths of the wool of sheep and goats, etc.; and weaving and dyeing are repeatedly mentioned in the Institutes of Menu.

The best representations of ancient costumes in India are the celebrated fresco paintings in the caves of Ajanta, some of which are still very perfect, and in the Buddhist caves of Ellora some paintings in a similar style had been executed. It is difficult to decide the date of these paintings, which represent scenes in Buddhist history; and the series may extend from the 1st or 2d century before Christ, to the 4th and 6th century of this era. In either case they are upwards of a thousand years old, and as such are of much interest.

One very large picture, covered with figures, represents the coronation of Sinhala, a Buddhist king. He is seated on a stool or chair, crowned with a tiara of the usual conventional form, and in a dress which, as an emblem of plenty and fertility, is being poured over his shoulder by girls. He is naked from the throat to the waist. All the women are naked to the waist; some of them have the end of the cloth or sari thrown across the bosom, and passing over the left shoulder. Spearmen on foot and on horseback have short waist-cloths only.

In another large picture, full of figures, representing the introduction of Buddhism to Ceylon, and its establishment there, all the figures, male and female, are naked to the waist. Some have waist-cloths or kilts only, others have scarfs, or probably the ends of the dhoti, thrown across their shoulders. Female figures, in different attitudes around, are all naked, but have necklaces, ear-rings, and bracelet, and one a girdle of jewels round her loins.

Some writers have maintained that the ancient Hindus were ignorant of the art of preparing needle-made dresses. It has even been said that there is no word for tailor in the language of the Hindus; but there are two—one, tumaavaya, which applies to darning, and the sauchika, which applies to tailoring in general. The Rig Veda mentions needles and sewing, and the Ramayana and Mahabharata allude to dresses which could not have been made otherwise than with the aid of needles. In the ancient sculptures at Sanchi, Amarnoti, and Orissa, several figures are dressed in tunics which required needles. Amongst these garments are discoverable what may be called the ancestors of the modern chapkan and jamah. The dress differs so entirely from the chiton, the chlamys, the himation, and such other vestments as the soldiers of Alexander brought to India,
that they cannot be accepted as Indian modifications of the Grecian dress. In many ancient sculptures of Buddhist times, queens, princes, and ladies of the highest rank are represented without any garments; and it has been suggested that there prevailed either a conventional rule of art, such as has made the sculptors of Europe prefer the nude to the draped figure, or a prevailing desire to display the female contour in all its attractiveness, or the unskilfulness of early art, or the difficulty of chiselling drapery on such coarse materials as were ordinarily accessible in this country, or that a combination of some or all of those causes exercised a more potent influence on the action of the Indian artist than ethnic or social peculiarities in developing the human form in stone.

Allusion is made to "saffron-tinted robes" and to "red-dyed garments" in occasional passages of the early writings, but even these are comparatively rare, as we see, and in one and the same text there is little more in respect to women. In the drama of Vikram and Urvashi, written probably in the reign of Vikramaditya, B.C. 56, Puravas, one of the characters, says of Urvashi, a nymph who has fainted,—

"Soft as the flower, the timid heart not soon
Foregoes its fears. The scarf that veils her bosom
Hides not its flutterings, and the panting breast
Seems as it felt the wreath of heavenly blossoms
Weigh too oppressively."—Act i. Sc. 1.

Again,—

"In truth she pleases me: thus chastely robed
In modest white, her chattering tresses docked
With sacred flowers alone, her haughty mien
Exchanged for meek devotion. Thus arrayed,
She moves with heightened charms."—Act iii. Sc. 2.

In the drama Mrichchakatii, attributed to king Sudraka of Ujjain, who reigned, according to the traditional chronology, in the first century before the Christian era, and is certainly not later than the 2d century after Christ, Act iv. Sc. 2 says,—

"Maitrena. Pray who is that gentleman, dressed in
silk raiment, glittering with rich ornaments, and rolling about as if his limbs were out of joint?

Attendant. That is my lady's brother.

Maitrena. And pray who is that lady dressed in
flowered muslin?—a goodly person, truly," etc.

The following passage, taken from the Uttara Rama Charitram, by the same author, affords an idea of the costume of a warrior race. Jannaka, the father of Sita, the heroine, in describing the hero Rama, says,—

"You have rightly judged
His birth; for see, on either shoulder hangs
The martial quiver, and the feathery shafts
Blond with his curling locks. Below his breast,
Slight tinted with the sacrificial ashes,
The deer-skin wraps his body, with the zone
Of Murva bound; the madder-tinted garb
Descending veda's his limbs; the sacred roasy
Degrifts his wrists; and in one hand he bears
The pimple staff, the other grasps the bow.

Arunaditi, whence comes he?"

The clothing of the Mahomedan races, who came from the north-west, has been of wool and of cotton, to suit the changing seasons, and the articles of dress were cut out and sewed in forms to fit the body. The Rajput and other martial races have always dressed similarly.

Most of the Hindu women of the present day appear in public, and at their numerous religious festivals opportunities for seeing their holiday clothing are numerous. On such occasions the wealth of the mercantile classes admits of much display. In Bombay, a brilliant and picturesque array of women drifts along the streets and ways. The large and almost bovine Banyan and Bhattia women roll heavily along, each plump foot and ankle loaded with several pounds' weight of silver. The slender, gold-tinted Puthal women, with their hair tightly twisted, and a coronal of mogra flowers, have a shrinking grace and delicacy that is very attractive; and, barring the red Kashmir chadar, their costume is precisely that in which an artist would dress Sakuntala and her playfellows. The Marwari females, with skirts full of plaits, tinkling with hawk-bells, their eyes set in deep black paint, and the sari drooped over the brow so as to hang in front, are very curious figures, seldom pretty. Sirmati girls, with their drapery so tightly kitted as to show great sweeps of the round, brown limbs, smooth and shapely, that characterise those Venuses of the stable and brothel, which are so familiarly seen, frequently with a child on their rounded hips. There is a quaint expression of good-humour on their features, which have a comely ugliness unlike that of any other race. Then the trim little Malvén girls, who are already growing fairer and lighter in colour from their confinement in the cotton factories, slinging quickly along with a saucy swing of their oscillating hips; and the longer-robed Ghati, scarcely to be distinguished from women of the Marathi caste, go more demurely. The Brahman woman is best seen at Poona, Wye, and at Nasik. In Bombay she is scarcely distinguishable from Sonar, Santar, and others. Those odd, gipsy-like wenches, the Wagri beggar women, each provided with a plump baby, carried in a tiny hammock slung on a stick, and handed to the spectator as if it were something to buy or to taste, are to be seen in numbers, sometimes twanging on a one-stringed sitar, but more often playing the tom-tom on their plump forms, with that frank simplicity of pantomime which is the supreme effort of Hindu eloquence, and the art of suitting the action to the word. Gossains, with their little stalls of shells, brass spoons, bells, and images. Everybody very happy, and all differently clad.

In the present day, before a Hindu puts on a new garment, he plucks a few threads out of it and offers them to different deities, and smears a corner with turmeric to avert the evil eye. The Cloth of a married Hindu woman has always a border of blue or red, or other colour. The dress of a Hindu widow is white.

Arab (men's) dress has remained almost the same during the centuries. Over the shirt, in winter or in cool weather, most persons wear a shalwar, a short vest of cloth without sleeves; kation or kufan of striped silk, of cotton or silk, descending to the ankles, with long sleeves extending a few inches beyond the finger-ends, but divided from a point a little above the wrist or about the middle of the forearm. The ordinary outer robe is a long cloth coat of any colour, called by the Egyptians gibbeh, but by the Turks juube, the sleeves of which reach not quite to the wrist. Some persons also wear a benceh or banish robe of cloth, with long sleeves, like those of the kufan, but more ample. It is properly a robe of ceremony, and should be worn over the other cloth coat, but many persons wear it instead of
the gibbon. The Fanageychs robe nearly resembles the benceh; it has very long sleeves, but these are not slit, and it is chiefly worn by men of the learned professions. In cold weather, a kind of black woollen cloak, called abaye, is commonly worn. Sometimes this is drawn over the head. The abaye is often of the brown and white striped kind.

In British India the ordinary articles of clothing of Hindu and Mahomedan women comprise the bodice, called choli, angka, kachuri, koortee, and kupissa; the petticoat, called lahunga, lahunga, ghagra, and pesghir; and the sari, or wrapping loin-cloth.

Men's clothing consists of—
- Loin-cloth, dhoti or loongi;
- Trousers, called paijama, izar, turwur, gurgi, and shalwar;
- Jacket, coat, and vost, called anga, angarka, chapkan, dagia, jora, koortta, kula, kufcha, mina, mirzali, jama, labada;
- Skull-cap, topi, taj;
- Head-dress, pagri, turban (sir-band), shumla or shawl turban, rumal, or kerchief, dastar;
- Kamurband or waist-belt, sash.

The women of Burma wear a neat cloth bodice, and, as an under garment, a cloth wrapped tightly round from the waist downwards; but so narrow that it opens at every step, and all the inner left thigh is seen.

Fabrics used for the clothing of the masses of the people of India are plain and striped dooria, mutinol, aghatani, and other figured fabrics have established themselves; the finest qualities of muslin must necessarily be confined to very rich persons.

Long cloths or pajamias of various qualities were formerly manufactured to a great extent in the Northern Circars, as well as in other parts; the great proportion consisted of 14 pajam or cloths containing fourteen times 12 threads in the breadth, which varied according to local custom from 38 to 44 inches. 14 lbs. was considered the proper weight of such cloths, the length 36 cubits, half-lengths being exported under the denomination of salamwors. The manufacture of the finer cloths, which went up to and even exceeded 50 pajam, has long been discontinued.

Other articles of dress of women of Bombay are the bungur - kulde, chikhee, choli or khun, chomee or head-cloth, doorangu-pytanee, guj (covering for breast), guaze or long robe, izarband, kempdhinder (widows), kurch-chunderkulee, pesghir, paijama, saris of kinds, silaree.

In Cutch, the khombre, saldo, for women; for men, pairahan, paijama, izarband.

Other articles of dress of the men of Bombay.—angarka, chaga, dhoti, izarband, koortaa, labada (in Baluchistan), pairahan, paijama, turban, ujuruk or coloured sheet (in Sind).

Men's Cloths are manufactured all over British India, and those of the Madura district have lace borders; they are sold as high as 70 rupees for a suit of two pieces. Conjeveram is noted for its silk-bound cloths, which are sold for not more than 15 rupees a pair.

Women's Cloths of cotton form an article of manufacture in every district. Madras manufactures a nicely coloured women's cloth called colloor sailay, sold for 7 rupees and upwards. Arnee is noted for its manufacture of a superior quality of white cotton cloths of various patterns. Those of Sydapat, in the outskirts of Madras, are of ordinary quality, and of different colours. Ganjam also manufactures a common sort, with a few of more value worked with lace borders, but not sold for more than 50 rupees.

Women's Silk Cloths.—The principal places for the manufacture of native female silk cloths are the towns of Benares, Berhampore, and Tanjore. Those of Benares are generally of superior quality, with rich lace borders, and they are sold at from 50 to 350 rupees or upwards. Berhampore cloths are wholly silk, but nicely finished. Tanjore cloths are also neatly finished, with nicely-worked borders, both of lace and silk, of various colours; they are sold at from 15 to 150 rupees.

Silk Cloths, called pethambaran, are chiefly bought from Benares and Nagpur; they are also made at the town of Combaconum. The Benares cloths are highly prized for their superior quality; they measure 12 by 2½ cubits a-piece; two pieces make one suit of an upper and under garment. Hindus wear these cloths during their devotions and holiday time. They are sold from 50 to 350 rupees, or even more. The silk fabrics of Combaconum are good, although not equal to those of Benares.

White Cloths were manufactured all over Southern India, but those of Manamadu, in the district of Trichinopoly, were very superior in quality, and used by the more respectable of the inhabitants as clothing, under the name of Manamadu sullah. That at Arnee, in the district of Chingleput, known as Arnee sullah, is of different quality.

Women's coloured cotton Cloths.—These coloured cotton cloths are largely made in the Madura district. They are of various sizes, with or without lace-worked borders. Those with lace vary in price from 15 to 200 rupees each; they are generally purchased by the wealthier natives, by whom they are highly prized. These fabrics are known in the market as vankey, thombo, jonnada, and amboorasa, all of them lace-bordered.

Women's silk Cloths are made chiefly in Benares and Nagpur; but they are manufactured also at Berhampore, Tanjore, Combaconum, and Conjeveram, in the Madras Presidency. Those of Benares and of the Maharta countries are celebrated for their superior quality, and are highly prized for their lace borders; their size is 16 by 2½ cubits, and they are sold at 50 to 500 rupees and upwards; those made at Berhampore, Tanjore, and Combaconum are not equal to the Benares cloths, but are well made, and sold at from 15 to 70 rupees each. The women's cloths of Tanjore and Madura manufacture, and men's head-cloths, also from Madura, will compete with the production of any other loom in the world.

Printed Cloths are worn occasionally, as in Benar and Bundelkhand, for sarrees; and the ends and borders have peculiar local patterns. There is also a class of prints on coarse cloth, used for the skirts or petticoats of women of some of the humbler classes in Upper India; but the greatest demand for printed cloths is for palemiores, or single quilts.

In the costlier Garment Cloths woven in India, the borders and ends are entirely of gold thread and silk, the former predominating. Many of the
CLOTHING.

sarees or women's cloths, those made at Baranaras, Pytum, and Burhanpur, in Gujerat, at Narrainpatt, and Dhanwarun, in the territory of His Highness the Nizam, at Yeokia in Kandesh, and in other localities, have gold thread in broad and narrow stripes alternating with silk or muslin. Gold flowers, checks, or zigzag patterns are used, the colours of the grounds being green, black, violet, crimson, purple, and grey; and in silk, black shot with crimson or yellow, crimson with green, blue, or white, yellow with deep crimson and blue, all producing rich, harmonious, and even gorgeous effects, but without the least appearance of, or approach to, glaring colour, or offence to the most critical taste. They are colours and effects which suit the dark or fair complexion of the people of the country; for an Indian lady who can afford to be choice in the selection of her wardrobe, is as particular as to what will suit her especial colour—dark or comparatively fair—as any lady of Britain or France. Another exquisitely beautiful article of Indian costume for men and women, is the do-patta scarf, worn more frequently by Mahomedan women than Hindus, and by the latter only when they have adopted the Mahomedan hnga or petticoat; but invariably by men in dress costume. By women this is generally passed once round the waist over the petticoat or trousers, thence across the bosom and over the left shoulder and head; by men, across the breast.

Do-pattas, especially those of Benares, are perhaps the most exquisitely beautiful and prized of all the ornamental fabrics of India; and it is quite impossible to describe the effects of gold and silver thread, of the most delicate and ductile description imaginable, woven in broad, rich borders, and profusion of gold and silver flowers, or the elegance and intricacy of most of the arabesque patterns, of the ribbon borders, or broad stripes. How such articles are woven with their exquisite finish and strength, fine as their quality is, in the rude handlooms of the country, it is hard to understand. All these fabrics are of the most delicate and delightful colours—the creamy white, and shades of pink, yellow, green, marvce, violet, and blue, are clear yet subdued, and always accord with the thread used, and the style of ornamentation, whether in gold or silver, or both combined. Many are of more decided colours—black, scarlet, and occasionally violet, dark green, and madder; but whatever the colour may be, the ornamentation is chaste and suitable. For the most part, the fabrics of Benares are not intended for ordinary washing; but the dyers and soucers of India have a process by which the former colour can be discharged from the fabric, and it can then be re-dyed. The gold or silver work is also carefully pressed and ironed, and the piece is restored, if not to its original beauty, at least to a very wearable condition. The do-pattas of Pytum, and indeed most others except Benares, are of a stronger fabric. Many of them are woven in fast colours, and the gold thread—silver is rarely used in them—is more substantial than that of Benares. On this account they are preferred in Central India and the Dekhan, not only because they are ordinarily more durable, but because they bear washing or cleaning better. In point of delicate beauty, however, if not of richness, they are not comparable with the fabrics of Benares.

Scarf{s} are in use by every one,—plain muslins, or muslins with figured fields and borders without colour, plain fields of muslin with narrow edging of coloured silk or cotton (avoiding gold thread), and narrow ends. Such articles, called sehla in India, are in everyday use among millions of Hindus and Mahomedans, men and women. They are always open-textured muslins, and the quality ranges from very ordinary yarn to that of the finest Dacca fibres. The texture of the dhootes, sarees, and loonkees manufactured in Britain and sent to India, is not that required by the people, but, too close,—for which reason the fabric, which of course makes the garment hang too heavy in women and difficult to wash. Again, the surface becomes rough, and, as it is generally called, fuzzy in use, while the native fabric remains free.

Few native women of any class or degree wear white; if they do wear it, the dress has broad borders and ends. But all classes wear coloured cloths,—black, red, blue, occasionally orange and green, violet and grey. All through Western, Central, and Southern India, sarees are striped and checked in an infinite variety of patterns. Narrainpatt, Dhanwar, and Mukul, in the Nizam's territories; Gidduk and Battigerry in Dharwar; Kolhapur, Nasik, Yeokia, and many other manufacturing towns in the Dekhan; Amnee in the south, and elsewhere, send out articles of excellent texture, with beautifully-arranged colours and patterns, both in stripes and checks. For the costly and superb fabrics of cloths of gold and silver (kimkhab), and the classes of washing satins (mushroom and hemroo), even if European skill could imitate them by the handloom, it would be impossible to obtain the gold and silver thread unless it were imported from India. The native mode of making this thread is known, but the result achieved by the Indian workman is simply the effect of skilful delicate manipulation. The gold and silver cloths (kimkhab) are used for state dresses and trousers, the latter by men and women; and ladies of rank usually possess petticoats or skirts of these gorgeous fabrics. Mushroom and hemroo are not used for tunics, but for men's and women's trousers, and women's skirts; as also for covering bedding and pillows. They are very strong and durable fabrics, wash well, and preserve their colour, however long worn or roughly used; but they can hardly be compared with English satins, which, however, if more delicate in colour and texture, are unfit for the purposes to which the Indian fabrics are applied. For example, a labada or dressing gown made of scarlet mushroom in 1842, had been washed over and over again, and subjected to all kinds of rough usage, yet the satin remained still unfrayed, and the colour and gloss as bright as ever. Many of the borders of loonkees, dhotees, and sarees are like plain silk ribbons, in some instances corded or ribbed, in others flat. The saree, boonee, bafta, jore, ekatta, gomacha, etc. of Dacca, have latterly been made of imported British yarn. Fabrics of a mixed texture of cotton and silk, are in Dacca designated by various names, as nowbuttee, kutan, roomee, appooles, and lucka; and when embroidered with the needle, as many of them frequently are, they are called kushnees.

The silk used in their manufacture is the indigenous muga silk of Assam and Sylhet, but the
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Cotton thread employed was lately almost entirely British yarn, of qualities varying from Nos. 30 to 80. These cloths are made exclusively for the Jolda and Bussora markets, and a considerable stock is yearly imported in the Arab vessels that trade between Calcutta and these ports. Pilgrims, too, from the vicinity of Dacca, not unfrequently take an investment of them, which they dispose of at the great annual fair held at Meena, near Mecca. They are used by the Arabs chiefly for turbans and gowns. The golden colour of the mugra silk gives to some of these cloths a rich lustrous appearance; pieces made of native-spun cotton, threads and of the best kind of mugra silk, are admired.

The export trade of the Madras Presidency in madapollam and long cloths has been annihilated by the goods laid down by the British manufacturer in all the bazaars of India.

The dress of Hindu men is of white muslin or cotton cloth, and their upper coat is now generally sewed. The under garment for the lower part of the body, the do-woti or dhoti, is a loose unsquared wrapper or Cloth. Hindu women of all classes mostly wear unsquared Coths of green, red, or yellow-coloured cotton, edged with silk or gold embroidery, and a bodice of cotton or silk.

The dress of the Bhattia men consists of a jama or tunic of white cloth or chintz, reaching to the knee; the karboud or cincture, tied so high as to prevent the appearance of waist; trousers very loose, and in many folds, drawn tight at the ankle; and a turban, generally of a scarlet colour, rising conically full a foot from the head. A dagger, shield, and sword complete the dress. The Bhattiani wears a fine woollen brilliant red gopra or petticoot, and scarf thirty feet in width. They also wear the chauri, rings of ivory or deerhorn, which cover their arms from the shoulder to the wrist, of value from sixteen to thirty-five rupees a set; and silver kurri (massive rings or anklets) are worn by all classes, who deny themselves the necessaries of life until they attain this ornament.

John xix. 23 says, 'Without seam, woven from the top throughout;' and the clothes of a Hindu, when not employed in the service of Europeans or Muhammadans, are always without a seam; have neither buttons nor strings, being merely cloths wrapped round the upper and lower parts of the body. A Brahman, strict in his religious observances, would not on any account put on clothes which had been in the hands of a Muhammadan tailor.

The angarkha or undress coat, and the jama or dress coat, are worn only by men. The anga is a sleeveless vest.

Buchannee, in Dharwar, is commonly worn as a waist-cloth by children of respectable people; also worn by adults of the same class while sleeping. Price one rupee two annas.

Chadar is a sheet. A chadar made to the order of Kunde Rao, the Gaekwar of Baroda, for a covering of the tomb of Mahomed at Meilla, cost a krur of rupees. It was composed entirely of inwrought pearls and precious stones, disposed in an arabesque pattern. The effect was highly harmonious.

Chandusee, a cotton scarf, coloured border and ends, used in Khyrrpur.

The Choli or bodice of women is of silk or cotton, and is usually fastened in front. Many women of Gujerat also wear a gown. The choli is an under-jacket worn by women. The thans or choli pieces of Dharwar, of a description used by women working in the fields, cost three annas for each choli, or twelve annas the piece.

Camblit are blankets of goats' hair or wool. Every labouring family in the Peninsula has them. They cost from one to three rupees.

Kamrbandz are sashes worn by men. They are of cotton and of silk.

The Dhotis, a flowing cloth for the body, from waist to the feet, is worn by men, and is generally bordered with red, blue, or green, like the toga praetexta (limbo purpuroe circumdata). Dhoties are usually worn so as to fall over and cover the greater portion of the lower limbs. One of a coarse cotton, commonly worn by cultivators and labourers in the field, may cost about two rupees.

Earband is of silk or cotton, and is a tie for trousers.

Khes, a chintz scarf in use in Hyderabad (Sind).

Labadee, a dressing-gown.

Loonjee, or scarf of cotton, of silk, and of silk and cotton, is worn by men. Where of silk, it is usually enriched with a border of gold and silver.

Manlunas, a cloth worn by the poorer classes in Dharwar; costs 1½ rupees.

The Patajama, or trousers, is worn both by men and women.

Panhakrungi of Dharwar has a warp of silk and weft of cotton, worn ordinarily by dancing women, not considered proper for respectable women; 1 than, 1 rupee 12 annas.

Panpee of Dharwar is a cloth used by well-to-do people to dry themselves after bathing, but also worn as a waist-cloth by poor people.

Pato of Burmah is a cloth worn by men of all classes. In Akyab it is worn by the Mow race.

Pitambara means clothed in yellow garments. Hindu hermits, and many of the Hindu and Buddhist ascetics, are required to wear clothes dyed of an ochrey yellow.

The Rumal or kerchief, the kamrband or waistbelt, and the do-patta or sash, are men's garments.

Sandalony, a silk scarf of Singapore.

Satimote, a silk scarf of Singapore.

Sarree, the Hindu woman's lower cloth, costs from two rupees and upwards. Each woman generally has a new one once a year. It is often used also as an upper garment, in the form of a scarf for enveloping the person, one end being usually brought over the head as a covering. The sarree, as used by women to cover the whole body, is the kalumma of Homer.

Selja, in the south of India, is a sheet or body covering in use amongst the poorer classes, cultivators, and labourers, wrapped round their shoulders and body when employed in the fields. Their usual cost is about 1¼ to 1½ rupees. In Dharwar one is always presented to the bridegroom by the relations of the bride, together with a turban.

Turbars of all kinds are worn by Hindus and Muhammadans, and known as dastar, pagri,—turban being from the Persian words, Sir-hand, head-binder. The Arabs and Turks call it Imamah. The other head-dresses are the rumal, the taj, and the topi. — Ward, Hindus, iii. 186; Drs. Taylor and Watson, Ex. of 1862; Calcutta Review; Pioneer Newspaper.
CLOTHS manufactured in India:—

Cotton fabrics of Bombay comprise the bafta, bochun, carpet, chadar, chadni, choli, du-patta, dhota, dhoti, dunigaree, dustorkhana, horni, khes, khojii, khurwa a coarse red cloth, kurchar, looneeg, musooti, pagga, peshig, phatka, phicoreo, quilt or razzii, rumal, saroo, sousee, soot, soojneen, tablecloths, table napkins, towels, turbans.

Silk fabrics of Bombay are,—bochun, bulbul, cholepun, doornjeege—pyttanee, gul-badan, gown pieces, hemroo, karrah, katchia, khun, khudraa, kootnee, kud, kunawaz, meenaa-sirin, mukhmal, petanbar-zamani, petanbar-mardana, pajamma, rowa, rumal, senna, shalwar, tasta, uddruusa, yeolah.

Silk and cotton made fabrics of Bombay are the dairiai-sirii, ghaut, kunhirae, lake, luke-meenia, loongi, lupa, with silk and gold and silver embroidery, mukhtiar-khunee, meenaghaat, mushroo.

Bhangarik, a very coarse and strong sackcloth, made from the inner bark of trees, and much used in Nepal as gruia sacks.

Buck Puga of Nepal, a fabric, half woolen, half cotton.

Chhanga, a coarse cotton cloth manufactured by the natives of Newar.

Chintz (Chinti, Hind., a drop) or pintado, printed calicoes.

Dalimian, or net.

Dariyai, plain silk.

Dequn, a coarse cloth of silk, with gilt tissue.

Elaiach, a mixture of mixed cotton and silk.

Susie and Khesi, striped calico, woven with coloured thread. The silken khesi is also edged with gold or silver.

Kakashas-tussur, embroidered muslins made at Dacca, and largely sold in India, Persia, Arabia, Egypt, and Turkey.

Kasa, a Newar imitation of the Indian malmal, used for turbans.

Khadi, a coarse cotton cloth.

Kurchar, felt for pillows.

Kimkab, or gold and silver brocaded silk; a silk brocade. The kimkab brocades are distinguished as smeri or golden; ruperi or silvery; chand-tara, moon and starry; dup-chun, sunshine and shade; maz-char, ripples of silver; palimtar-akshi, pigeons' eyes; bulbul-chasm, nightingale eyes; mahir-gala, peacock's neck; par-i-taas, peacocks' feathers.

Malida, red woolen cloth, woven like shawl cloth.

Musrhoor, a fabric of cotton mixed with silk, with a cotton warp or back, and wool of soft silk in a striped pattern, having the lustre of satin or atlas.

Muslins, the finest or malmal-i-khas of Dacca were known as ab-rawan, running water; batthowa, woven air; shabnam, evening dew.

Malmal-i-khas means special (king's) muslin. Doria or striped muslin.

Charkham or checked muslin.

Jamdani or figured muslin.

Chikan or embroidered muslin.

Mandul, a cloth of cotton and gold, obtainable in Kutch; costa Rs. 8-11.

Nimbu, a woolen pile fabric.

Palampore (palang-poo), or bed-covers.

Pancheen, white woollen cloth.

Pankhi, woolen twill.

Pepnun, a silk material used as a hair ornament in Lahore.

Pushlama, or woollen fabrics.

Pumika of Nepal, an imitation of the Dinapur tablecloth.

Puri-khadi, a coarse cotton cloth manufactured by the Khassa hill tribes (Purbedi, eastern).

Patasi, a blue and white check worn by Newar women.

Sianak, a woollen stuff of Nepal.

Sufi is the striped (gulbadan) silks, called also Shuja khan of Bahawulpur. They differ from musrhoor in having no satiny lustre, and look like a glazed calico. They can scarcely be distinguished from sufii, and are glazed with a mucilaginous emulsion of quince seed. Mushroo and sufii are made plain, striped, and figured.

Taffa, a fabric of twisted thread.

Tappa, coarse cotton cloth of Nepal.

Tasar, Tussar, Tussak, eria and munga, are made of wild silks.

Tsang, a coarse woollen fabric.

CLOVE, Mother clove.

Polang, . . . MALAY. Dharanghe, . . . MALAY.

Mother clove means seed-clove, clove fruits that have been allowed to grow to full maturity.

CLOVE BARK of eastern commerce is the bark of several species of cinnamon clove.

CLOVE OIL.

Huile de girofle, . . . Fr. Warala-tel, . . . SINGH.

Lavang ka tel, . . . HIND. Lavango taiman, . . . TAM.

Oleo de garafano, . . . It. Kirambati taiman, . . . "

Minak-changhe, Malay. . . . Malanga taiman, . . . Tel.

This is obtained from cloves by distillation.

When new it is of a pale reddish-brown colour, which becomes darker by age. It is extremely hot and fiery, and sinks in water. The smell is agreeable, and not unlike that of koolfa, or Malarbar cassyia oil. The kind met with in Bombay is chiefly made at Surat.—Faulkner.

CLOVE PEPPER. Allspice, clove-pepper, or pimento, are Pimenta vulgaris berries, gathered while still green, and dried in the sun; this well-known spice is also called sometimes Jamaica pepper, from its cultivation being chiefly confined to that island. The ripe berries, when dry, are almost devoid of flavour.

CLOVER, or trefoil, a name given to several species of the genus Trifolium grown in Europe. In India, a species of Hedysarum supplies the place of the species of Trifolium and Medicago in Europe.

CLOVER SEED.

Klaevzaa, . . . DET. Trifolium, . . . LAT.

Semence de treille, . . . Fr. Trilistik, . . . Res.

Kleesaat, Kleee, . . . GER. Trebel, . . . Sp.

Trifolium, . . . It.

Red and white clover seed, Trifolium pratense, L., and T. repens, L. Upwards of 155,000 cwts. were imported in 1870. Frequently adulterated with old and dead or kiln-dried seed, and with the cheaper hop clover, T. procumbens, L., etc.

CLOVES. CLAVUS, LAT.

Karnful, . . . ARAB. Clous de girofle, . . . Fr.

Buwah-luwung, . . . BALI. Giroles, . . . "

Lang-yen-bwen, . . . BURM. Nagleem, . . . GER.

Theng-kio, Theng-kii, CHIN. Gewurzelken, . . . "

Ting-tze, Kii-chhii, . . . LUWUN, . . . GER.

Ting-hiang, . . . JAB. Long, . . . HIND.

Kruul-nagelen, . . . DUT. Garofani, . . . "

Naglen-boomen, . . . " CHIOVI di Garofoli, . . . "
CLUSIACEÆ.

CLOVES.

In a law passed by Aurelian the First, in A.D. 175 and 180, cloves are mentioned. The cloves of commerce are the unopened flower-buds of the clove tree, Caryophyllus aromaticus, which was originally a native of the Malaccas and of China, but is now cultivated in Penang, Sumatra, S. India, Bourbon, Zanzibar, Guiana, E. Africa, and the West Indian Islands. The clove tree may be seen in a few gardens on the Teuasserim coast, and in Travancore, Tinevelly, Canara, Cochin, and near Oodagerry, 1800 feet above the sea. They have the form of a nail, and when examined are seen to consist of the tubular calyx with a roundish projection, formed by the unopened petals. The flowers, produced in branched peduncles at the extremity of the bough, are of a delicate peach colour. The elongated calyx, forming the seed-vessel, first changes to yellow, and when ripe to red, which is from October to December, and in this state it is fit to gather. If left for a few weeks longer on the trees, they expand, and become what are termed 'mother cloves,' fit only for seed or for candying. In the gathering, the ground under the tree is first swept clean, or else a mat or cloth is spread. The nearest clusters are taken off with the hand, and the more distant by the aid of crooked sticks. Great care is taken not to injure the tree. The cloves are then prepared for shipment by smoking them on hurdles near a slow wood fire, to give them a brown colour, after which they are further dried in the sun. They may then be cut off from the flower branches with the nails, and will be found to be purple-coloured within, and fit to be baled for the European market. In some places they are scalded in hot water before being smoked, but this is not common. The tree begins to bear from the seventh to the fifteenth year, and is fruitful till it is 75 or 150 years old. The annual yield of one good tree is about 4½ lbs., and the annual crop from Ambonya, Haruku, Sopampa, and Nassault, was 350,000 lbs. of Amsterdam (Birkmore, p. 154). The companions of Magellan loaded two ships with cloves at the single island of Tidor, after a stay, from their arrival to their departure, of no more than forty-four days. The Portuguese made their first appearance in the parent country of cloves in the year 1512, and, until expelled by the Dutch in 1605, they had the principal share of the clove trade for 93 years, a period of rapine, violence, and bigotry. The main object of the Dutch was the exclusive monopoly of spices, by the expulsion of all rivals. They extinguished the clove trees in their native islands, and endeavoured to limit their growth to the five Ambonya islands, in which the clove is an exotic. Periodical expeditions for the extermination of young plants, that might spontaneously have sprung up, or been propagated by birds, formed part of that system. The periodical exterminating expeditions became merely nominal after the year 1820, and have been discontinued.


CLUB-WOOD of Tahiti, Casuarina mucirata. 

CLUPEIDEÆ, a family of fishes of the order Physostomi, placed by Cuvier between the Salmoide and the Gadideæ, and they form the fifth and last division of his section 'Malacoptyergynæ Abdominaux.' The family contains the following eighteen genera, the number of species of which are indicated:—

Cetengraulis, 2 Pristigaster, 7
Engraulis, 37 Chirocentodon, 5
Colia, — 10 Sprattleodes, 3
Chatoeaus, 61 Dussumiers, 1
Clupea, 3 Albula, 1
Clupeoides, — 1 Pelleonula, 2
Clupeichthys, — 1 Megalops, 2
Pellona, 14 Chanos, 2

There are about 100 recognised and doubtful species of clupea. They inhabit every part of the globe, and several are found in the seas of south and east of Asia. One species in Ceylon is called the poisonous sprat. C. pilchardus, the pilchard, frequents the coast of Japan in the latter part of the month of June and commencement of July. They are taken by the seine nets. When fresh, they are sweet and nutritious; but they are chiefly valued for their oil, to obtain which they are piled up in heaps for twenty-four hours, are then boiled for some time in sufficient water to prevent their burning, then laid into strong canvas presses, and the lever action of a lid presses out the oil. The oil after cleaning is used for 'lamps, and the refuse for manure.

CLUPEONIA PERFORATA, Caustor, inhabits the seas of Penang, Malayan Peninsula, Singapore, and Sumatra. Total length, 5½ inches. They are of delicate flavour, and pass in the Straits Settlements as sardines, in imitation of which they are sometimes preserved in oil. The general form, the yellow dorsal fin with a small black spot, give this species a certain resemblance to Meletta venenosae (C. et V. xx. 377). In 1822, at Sumatra, great numbers of what was supposed to be this species, presented the unusual appearance of having red eyes. Many natives, having eaten these fishes, were suddenly attacked with violent vomiting, which, in cases where remedies were not immediately applied, was known within an hour to terminate fatally. At the same time, the fishes with the ordinary silvery eyes were, as formerly, eaten with impunity. This phenomenon recurred at Bencoolen during the seasons of 1823 and 1825, but not of 1824. It was surmised that the poisonous fishes had fed on a gelatinous substance which at that season exudes from the beautifully-coloured coral reefs on that part of the coast of Sumatra. It is, however, more probable that the poisonous fishes were shoals of Meletta venenosae, an inhabitant of the Seychelles and the neighbouring seas, which happened in those seasons to visit Sumatra. M. Valenciennes describes this fish as being poisonous, and producing effects as noted above. In the Straits of Malacca, Clupeonia perforata has never been known to produce bad effects. —Caustor.

CLUSIACEÆ, one of the orders of plants according to the natural system of Lindley. The genera, Garcinia, Mammea, Mesua, Calophyllum, and Kayea are now usually arranged under Gareciniaæ. The genus Clusia was named after Charles de l'Ecluse, or Clusius, one of the most celebrated botanists of the 16th century. C.
flava, the yellow-flowered balsam tree, the mountain mango or wild mango of Jamaica, might well be introduced into India.

**CLUYTIA COLLINA.** R. Amanta collina, *Baill.*


Wodishah, Kaidishen, *Tel.* Kurseca, . .

A small tree of the Euphorbiaceae, of Ceylon and the Peninsula of India, frequent in the Wallajur jungles of Coimbatore; flowers in the hot season; seeds ripen in December and January. Bark or outer crust of the capsule said to be exceedingly poisonous. Wood red-coloured, exceedingly hard and durable, but of small size. Notwithstanding its hardness, being very even-grained, it is easily worked, and is, from its fine close grain, a pretty wood.—Roxb.; Mr. Rohde's MSS. *Wight; O'Sh.; Thw.*

**CLUYTIA OBLONGIFOLIA.** *Roxb.* A tree of Assam and Sylhet; wood hard and durable.—Roxb.; *Voigt.*

**CLUYTIA PATULA.** *Roxb.*


A tree of Southern India; grows to a large size, and logs measuring four to five feet in girth are purchasable in the market. The wood is pale red, the colour of dried rose-leaves, hard and durable, very brittle, sp. gr. 75-8, and when broken the fracture seldom shows a fibre. It is used for rulers, knobs, handles for tools, such as chisels, etc., in turnery. It flowers during the hot season.—Roxb.; Mr. Rohde's MSS.; *Voigt.*

**CLYDE, LORD,** longer known as Sir Colin Campbell, whom Sir William Napier styled the war-bred Sir Colin. He was a military officer of the British army, and commenced his career as a volunteer with the 9th Regiment of infantry in the British army, which he accompanied to Portugal. He afterwards served in Holland at the disastrous expedition to Walcheren, and again in the Peninsula under Sir John Moore, and he was present at Vimiera, Corunna, Barossa, Vitoria, and San Sebastian, at the siege of which he led the storming party, where he was again severely wounded, having been previously wounded at the passage of the Bidassoa. He was in the expedition of 1814 and 1815 to America. In 1842 he served in the war of China. In 1848 and 1849 in the Panjub campaign, at the passage of the Chenab, at Chillianwalla and Gujerat, and he was engaged against the hill tribes up to 1852. In the war in the Crimea he commanded the Highland Brigade, and to him was due the success of Alma; and he preserved Balachava against an attack of the Russian forces. The triumphal termination of his long career of war, however, was in India, to which he was sent in 1857, when the Bengal native army revolted, and much of Northern India was in rebellion. He gathered troops about him until he could advance, and he did so without a single check. He died at Woolwich at the close of the mutiny. A statue has been erected to his honour in Waterloo Place, London. See Battles of India; British India.

**CLYPEA GLABRA.** *W. and A.* This is the *Cissampelos glabra, Roxb., and Cocculus Roxburghianus, D. C.* It is a native of Sylhet; root large, acrid, and used medicinally.

**CLYPEA HERNANDIFOLIA.** *W. and A.*

This is the *Cissampelos Hernandifolia, Wild.,* and *C. hexandra, Roxb.,* the Ninakta and Niuni muka, HINDI. It is a valuable diuretic.

**COACH.** Conveyances of kinds have been used from very early times in Tartary, Southern and Western Asia, in Hindustan, Asia Minor, Northern Africa, and Europe. See Carriage.

**COAL.**


*Steinkohle,* . . . *Eur.*

Carbon de terre, . . . *Fr.* Carbonos de tierra, . . .

Steinkohle, . . . *Tele.*

Valaist kuela, . . . *Gez.* Stenkol, . . .

Carboni fossilis, . . . *It.* Simai Karri, . . .


Coal differs considerably in its physical properties, and its varieties obtain various names in the markets. The mineralogist generally classifies its coal without bitumen, and coal with bitumen. The first variety is known by the general name of anthracite. It is sometimes very hard, has a high lustre, and is often iridescent. It is used for fuel, but it is often made into small inkstands, boxes, and other articles of use. This is more especially the case with the anthracite of America. Anthracite is the most common form of coal in the Welsh beds. The kinds are known in commerce as splint, caking, cherry, cannel, and brown or wood coals, also lignite and jet.

Coal was worked in Bengal in 1774 by Messrs. Healy and Summer of the Bengal civil service, who obtained a monopoly. Their operations were in the Raniganj coal-field, but they found it unprofitable, and the mines remained unworked till 1815, when Mr. Jones commenced operations. He too was unsuccessful; and in 1820 Messrs. Alexander & Co. undertook them. From that date coaleries increased in number; and in 1859 so many as fifty were at work, employing 27 steam-engines, producing then 304,094 tons of round coal. During 1878 and 1879, in the Raniganj fields, 388,931 men and 196,627 women, with 27,277 children, were supported by mining operations, the out-turn of coal being 528,001 tons (Tr. of Hind. i. p. 170). The quantity of coal brought down in 1840 was about 15 lakhs of maraths. In 1850 it was nearly its double, and in 1860 it had become its quadruple. The supply and the consumption of coal in India during ten years was as under, in maraths of 80 lbs.—:

<table>
<thead>
<tr>
<th>Year</th>
<th>Coal raised in</th>
<th>Coal raised in</th>
<th>Coal imported in</th>
<th>Total consumption in</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>Bengal</td>
<td>in India</td>
<td>in Bengal</td>
<td>in India</td>
</tr>
<tr>
<td>1859</td>
<td>99,61,928</td>
<td>99,61,928</td>
<td>12,29,149</td>
<td>1,11,91,088</td>
</tr>
<tr>
<td>1860</td>
<td>1,06,88,113</td>
<td>1,00,88,113</td>
<td>4,96,585</td>
<td>1,05,84,698</td>
</tr>
<tr>
<td>1861</td>
<td>78,02,272</td>
<td>77,85,085</td>
<td>12,85,203</td>
<td>90,70,288</td>
</tr>
<tr>
<td>1862</td>
<td>86,43,843</td>
<td>86,30,843</td>
<td>6,75,675</td>
<td>93,07,530</td>
</tr>
<tr>
<td>1863</td>
<td>95,12,174</td>
<td>84,94,975</td>
<td>10,36,407</td>
<td>1,05,41,382</td>
</tr>
<tr>
<td>1864</td>
<td>95,85,408</td>
<td>90,32,403</td>
<td>10,98,320</td>
<td>1,06,35,303</td>
</tr>
<tr>
<td>1865</td>
<td>78,43,975</td>
<td>88,10,425</td>
<td>16,10,143</td>
<td>1,04,26,568</td>
</tr>
<tr>
<td>1866</td>
<td>1,06,34,551</td>
<td>1,07,90,035</td>
<td>9,14,427</td>
<td>1,17,04,462</td>
</tr>
<tr>
<td>1867</td>
<td>1,18,61,031</td>
<td>1,18,45,178</td>
<td>11,46,754</td>
<td>1,29,39,902</td>
</tr>
<tr>
<td>1868</td>
<td>1,35,62,274</td>
<td>1,34,65,829</td>
<td>19,28,591</td>
<td>1,54,94,490</td>
</tr>
</tbody>
</table>

Of the coal raised in 1868, almost the whole was from the Raniganj field. One-half of the supply was consumed by the East Indian Railway, and was used for locomotives as far as Ambala.

Coal of British India occurs in the lower Gondwana system, paleozoic rocks, in which three series have been recognised, viz.—

(a) Damuda, Raniganj, or Kamthi.

(b) Ironstones, shales, and Barakar.

(c) Karharbari and Taleghi.
The Karharbari group yield coal, but, except in some of the eastern fields of the Damuda valley series, the Barakar group includes all the valuable coal of Peninsular India. In the Jharia coal-field its thickness is estimated at 3800 feet, and at Raniganj 2000 feet.

The Raniganj group consist of sandstones, carbonaceous shales, and coal. The coal is of good quality, and comparatively uniform in composition and in the closeness of its seams.

In the rocks of the Khamti group coal rarely occurs.

The areas of the 37 separate Indian coal-measures and associated younger rocks, which may conceal coal-measures, have been drawn up by Mr. Hughes as under, total 35,000 sq. m.:

Gondwana and G. affluents, 11,000 sq. m.
Sone, 8,000 sq. m.
Sirugula and Orissa, 4,500 sq. m.
Assam, 3,000 sq. m.

The rocks which in Peninsular India probably correspond, as regards the time of their formation, to the true carboniferous rocks of Europe, are not coal-bearing; and the oldest coal-measures in British India belong to a period which is well included within the limits of the upper paleozoic or permian and the lower jurassic formations.

The separate coal-fields are:

(a) North of Damuda river, in Bengal, viz. Birbhum, Deoghar, Karharbari, and Rajmahal hills.
(c) West of Damuda valley, viz. Arungra, Chopé, Daltonganj, Hutar, and Ikuri.
(d) Sone and Mahanadi valleys, viz. Bisrampur, Jhilmilli, Lakhnapur, Raigarh, and Hingir; Rampur, S. Rewa and Sohabpur; Udaipur and Korba, Tattapani; and in Orissa, Talchir.
(e) Central Provinces, viz. (1) Satpura region, Mopani, Pench, Tawa; (2) Gondwana valley, Bandar, Kanmaram, Singareni, Wardha or Coa.
(f) Sikkim.
(g) Assam, in valley of Brahmaputra, viz. Disai, Jalpur, Jangi, Makam, Nazira.

There are other places in the N.W. Provinces, Assam, and Burma, where tertiary coal occurs, but it is not in sufficient quantity to constitute workable coal-fields. Of the above 37 separate coal-fields, five only (Raniganj, Karharbari, and Daltonganj in Bengal, and Mopani and Wardha in the Central Provinces) are at present (1881) worked with regularity.

Rajmahal hills form a series of low plateaus, which are situated at the point where the Ganges turns southwards to form the head of its delta. The coal-measures are exposed over 70 sq. miles at Hura, Chuparbita, Pachwara, Mhowagarki, and Brahmani, but doubtless extend over a vastly greater area underneath the younger formations.

—Bull, p. 68.

Birbhum and Deoghar have small detached basins in which coal occurs, but it is of little economic importance.

Karharbari has a field of coal of 11 square miles. It occurs in three principal seams, which have an average total thickness of 16 feet, spread over an area of 83 square miles. The amount of coal is estimated at 1,300,000,000 tons, and the available portion of it at 80,000,000 tons. It is worked by three companies.

Raniganj coal-field, of 11,200 sq. miles, is on the rocky frontier of W. Bengal, 120 to 150 miles from Calcutta. The coal is in five groups, viz.:

Upper Panchet or, sq. m.
Mahalava, 5,000 Ironstone shale, 1,600
Panchet, 1,500 Barakar, 2,000
Raniganj, 5,000 Talchir, 8,000

It is the largest and most important of the areas in which coal is worked in India. It is worked by several European companies.

Jharia coal-field is in the valley of the Damuda river. It is 16 miles west of the Raniganj field, and has an area of 200 sq. miles. The estimated available coal here is 465,000,000 tons.

Bokara coal-field is in the valley of the Damuda. Its area is about 220 sq. miles, and the estimated available coal is 1,500,000,000 tons. One seam is 88 feet. Its position renders it difficult to be worked.

Ramgarh coal-field, in Damuda valley, has an area of 40 sq. miles. The coal is mostly of poor quality, and the field is unfavourably situated.

Karanpura coal-fields, S. and N., are at the head of the Damuda valley, and have areas of 72 sq. miles and 472 sq. miles respectively. The estimated amount of coal in N. Karanpura is 8,750,000,000, and in S. Karanpura 75,000,000 tons.

Chopé, on the Hazaribagh plateau, 2000 feet above the sea, has a small coal-field of less than one square mile.

Itkuri coal-field, 25 miles N.W. of Hazaribagh has a few seams of inferior coal.

Aurung coal-field, in Lohardagga district, W. of the sources of the Damuda, in the valley of the Koel, a tributary of the Sone, has numerous seams of coal, some of large size, estimated to contain 20,000,000 tons.

Hutul coal-field, in the Koel valley, has an area of 78-6 square miles.

Daltonganj coal-field, in the valley of the Koel, in the Lohardagga district, has an area of 200 sq. miles; has a few coal-seams, estimated to contain 11,600,000 tons.

At Tattapani there is some coal, also a remarkable series of hot springs.

In S. Rewa and Sohabpur, a tract in the Sone valley, covering 8000 sq. miles, coal occurs; also at Jhilmilli (36 sq. miles), at Bisrampur, a landlocked site in the central basin of Sirugula, its area being 400 sq. miles, and 1500 feet above the sea. Lakhnapur is S. of Bisrampur, and Rampur adjoinning it.

Raigarh and Hingir, Udaipur, and Korba are in a wide extent of coal-measures, which cover an area of 1000 sq. miles, in a country difficult of access, with seams up to 188 feet thick.

Talchir coal-field is in the valley of the Brahmani river, a tributary of the Mahanadi. It has an area of 700 sq. miles in extent, but the coal is of inferior quality, chiefly carbonaceous shale.

In the Satpura region, some good coal has been found at Mopani, and has been worked for the railway; and coal also occurs at Tawa and Pench.

In the Godavery valley, there are coal-fields at Bandar, in the Chanda district at Wardha; and Mr. Hughes gives the following estimate:

<table>
<thead>
<tr>
<th>Basins</th>
<th>Actual Quantity</th>
<th>Available Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warora</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Ghuugus</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Wun</td>
<td>2100</td>
<td>1500</td>
</tr>
<tr>
<td>Between Wun and Papur</td>
<td>500</td>
<td>750</td>
</tr>
<tr>
<td>Between Junara and Chachole</td>
<td>750</td>
<td>300</td>
</tr>
<tr>
<td>Sasti and Paoni basins</td>
<td>60</td>
<td>30</td>
</tr>
</tbody>
</table>

752
Coal.

And there are small areas at Dumagnudna and Mudavaram.

At Kamaram, 40 miles N.E. of Warangal, is a small field; also at Singareni, 30 miles S.E. of Kamaram.

In the Darjiling district in Sikkim is a crushed coal, not of promising character; one seam is 11 feet thick.

In Assam, coal-fields have been explored at Makun, Jaipur, Janji, Nagira, and Desai. The coal is of good quality; and it has been discovered in the Khasya hills.

The coal of Durdehi, in the Jummm territory, has proved to be like the rest of Eocene origin among nummulitic limestones. A large lump of it was in E. T. Dale, Geol. Surv. India, and might pass for ‘Walsend,’ so good is its appearance.

Coal at Bumni, from the Waziri hills, has been mentioned with some hope.

Coal of good quality is obtained from the Koh-i-Meeriah, a hill a day’s journey north of the Oxs.—Wood.

The coal-fields of China occupy 400,000 sq. miles, and of Australia 240,000 sq. miles. Messrs. Medlicott and Blandford describe as follows the coal-fields of British India, according to the epochs at which they were deposited:—

Jubbulpur has jet coal.

Rajmahal hills, Hura, Chuparbhitia, and Brahman coal-fields have occasional beds of inferior coal, poor and shaly, though of considerable thickness.

Tanug, carbonaceous shales of no economic value.

Kandit Karaya field, thin 14-inch seams of coal.

Jainti or Karam field, thin coal-seams.

Karharbari, coal seams of variable thickness; coal equal to the best Raniganj coal; is the main supply for the Calcutta market.

Raniganj coal-field, rich in coal-seams, some 20 feet thick. Jhariah coal-field, 13 to 16 miles from Raniganj, large quantity of very fair coal. Bokara, 2 miles W. of Jhariah. Raniganj coal is composed of layers alternately bright and dull, as in the Barakars. The Bokara coal-field is near Hazaribagh. Ramgarh coal-field, 31 miles S. of Bokara. The S. Karanpura fields, W. of Bokara and Ramgarh. Karanpura field is second only to the Raniganj field.

Ohn, a small coal-field on the top of the Hazara plateau.

Ikturi coal-field, 25 miles N.W. of Hazaribagh; inferior coal.

Daltongar or Palenow coal-field; coal formerly worked and sent down the Son. Latinsah, 26 miles S.E. of Daltongar; a little coal.

S. Rewa coal-field.

Jhilmilli field, a very thin seam of good carbonaceous coal; several seams.

Bisarampur field, coal seams in several places, not very promising, 5 or 6 feet thick.

Lakhapar field has several seams of coal, the best 5 or 6 feet thick, of excellent quality.

Chutta Nagpur, at E. Sirigu, Palenow, Jalsaup, Udaipur, Khurea.

Korba (Bilaspur), an immense seam of coal, and in many places on the Mand and near Udaipur.

Barah, an ancient field, formerly called the Gangpur field, shaly beds, with coal-seams.

Talchir coal-field, on the Brahmani river, some beds of inferior coal.

Lametaghat.

Sungari, thin seam; useful coal in the upper Tawa, the Kanhan and Pench valleys, in thin seams, and at Mopani on the Sita.

Bandar coal-field, 30 miles N.W. of Wardha, in the Chanda district, has three seams of coal, with 35 feet of maximum thickness.

Wardha or Chanda coal-field, in the basin of the Wardha, Pranhita, and Godavery; has a seam of coal and shale between 30 and 50 feet thick, but rising up to 90 feet, with thinner seams, from which efforts have been made to supply the E. I. P. Railway.

Godavery valley has the Madaveram coal-field below Badnur, and the Belavandhol field, 35 miles N.E. of Bhadrachalam, and N. of Eluru; some poor coal has been discovered by boring.

Kamaram coal-field, 40 miles E. from Warangal, has beds of coal, with coal of fair quality, in seams 6 to 9 feet thick.

Singareni coal-field, 25 miles N. of Khammet, in the Godavery valley, has seams of coal, one of them 21 feet thick.

Kanikot group, in the Laki range, in Sind, has a bed of coal, 2 feet thick, but the seams liable to spontaneous combustion, in cretaceous rocks.

The Salt Range, amongst jurassic rocks, has thin strings and seams of tertiary lignite at Bhangalwa, Bai, and Samundri.

Subman range, thin layers of coal of no economic value.

Sabathu, in the Lower Himalaya, carbonaceous shale, has 28 per cent. of fixed carbon, and 11 per cent. of volatile matter partly hydro-carbon.

Khassya hills area, Cherrapunjee plateau, amongst cretaceous rocks is a thick seam of bright coal, found in little basins near Cherra.

Garo area, cretaceous series, has coal of serviceable quality and thickness, immediately W. of Jalu Kata, in Umi, Loharkhal, Ghatch, and in the coal basins of Rongreng and Darang, on the Upper Sumsameri, of valueless coal; also at Salkura, Champurgi, and Mirampura, S.E. of Singnari.

Assam coal-fields are in the form of basins in the low Tiyam hills, alternating shales, sandstones, and coals, known by the coal-fields of Jakpur, Makrum, and Nazira.

There is a seam 100 feet thick, containing at least 75 feet of solid coal, a true coal of superior quality.

Tenasserim, on the Len-Ya river, is a bed of coal of a laminar structure, containing amber-like mineral resin. The coal is in thin laminae in isolated basins at Thay-kyoung and Hein-lap, on the Great Tenasserim river, at places 7 feet thick of workable seam, and of fair quality, and at one place 21 feet thick. It is also found 3 feet thick on the Little Tenasserim river.

British Burma, 5 miles S. of Thayat-myo, a bed of coal of so irregular thickness as to be of no value.

Independent Burma, 50 miles above Ava, near Thin-ganda, are coal-seams 3 to 5 feet thick.

The Raniganj or Bardwan coal-field lies in the valley of the Damuda river, and is about 500 sq. miles. Some of the coal-seams are 20 feet thick, and one of the seams of the Barakar group is 33 to 35 feet; and in a section seen in the Kudia and Pasai streams, 175 feet of coal is exposed in a total thickness of 883 feet of rock, though much of it is of inferior quality. The Jeriah (Jhariah) coal-field has seams up to 60 feet in thickness.

The coal found in the Talchar group, in the Jhilmilli field in Surguja, is a very thin seam of inferior quality; and, as a rule, the Talchar formation is marked by an absence of coal-seams, and even of carbonaceous shale. Part of the Karharbari beds rests in apparent conformity on the Talchar group. Karharbari coal is dull-coloured, and tolerably homogeneous in structure, and the coal of some of the seams in the Barakar and Raniganj subdivisions of the Damuda series is more distinctly laminated, but is equal in quality to that extracted at Karharbari.

Carbonaceous shales, and one or two thin bands of jet coal, are met with in the Jubbulpur group, but it is very different from the coal of the Damuda valley.

The principal coal tracts of the rocks in the Rajmahal hills are the coal-fields of Hura, Chuparbhitia, and Brahman. Their seams are thick, but the coals are poor and shaly.

In the Godlunwa series, Tungsi and the
Kanlith Kamuya field, and the Sahajori field, have small seams of coal of no economic value.

The general characters of the S. Rewa, the Jharia coal, seams of the Bokara coal-field, and the Kanapura field, are the same as those of Raniganj. The quality of the coal is very variable; some seams yield good coal, others little better than shale.

The Ramgarh coal-field lies due S. of Bokara; the coal seams are numerous, and there are some good beds, but the quality as a rule is inferior.

The Chopé, Itkuri, and Daltonganj coal-fields are in the Hazaribagh district, and the coal of Daltonganj was formerly mined, and sent down the Sone river.

Good coal has been found in a few places in the Birsampur field, and at Lalhanpur, but that of many of their seams is poor, and the seams only 3 or 6 feet thick.

Coal occurs in Chatua Nagpur in many places on the Maid and near Uddepur, of fair thickness and average quality; and a seam 90 feet thick is exposed in the bed of the Hasslo, much of it very shaly, and yielding much ash.

The Talchir coal-field is near the Brahmanri river, and within the Mahanadi watershed.

In the Peninsula, the coal of the Wardha field is of rather inferior quality, giving 14 to 20 per cent. of ash. The Warora coal is of high mineral value. There may also be mentioned the Madavaram coal-field on the Godavery, and those of Kamaran and Singareni.

The coal beds of Tenasserim are not traceable continuously over any extensive area. The most important are at Thathay-Kyoung and Hein-lap, on the Great Tenasserim river, the workable seam at the corner place being 7 feet, and at the latter 174 and 18½ feet thick, the quality fair; and at Kan-ma-tying, nearly a mile N. of Hein-lap, is a seam 8 feet thick. A seam 3 feet thick occurs on the Little Tenasserim.

Deposits of coal have been found along the Siamese coast from Penang to the vicinity of Junk-Ceylon. In 1836, specimens of coal were brought from Trang, one of the lower provinces of Siam; and subsequently a deposit was discovered at Tama, not Gurbie. Coal was found at Sungei-Kamunning, about 16 miles above Trang, and at a place also nearly east of Pulo Mutiar, or Pearl Island, about 12 miles to the southwest of Sungei-Kamunning. It was also found at the Pulo Tiga island, lying off Pirlis, on the coast of Kedah. Another coal was found in the bay north of Tanjong Bamban, on the coast of Trang; betwixt the last place and Kamunning.

The coal in Ligor and Kedah, on the west coast of the Malay Peninsula, is identical in composition, in the proportion of volatile matter to charcoal, with some kinds of kindal coal,—sp. gr. 1.245; volatile matter, 46.746; charcoal, 52.071; ash, 1.188 = 100. That found on the southern coast of the island of Junk-Ceylon (well known for its tin), and which occurs near the bank of a river, and about two or three hundred feet from its mouth, was reported by Professor Anasted as adapted for every purpose to which coal is economically applied.

A position indicated as a deposit of coal, is in lat. 7° 44' N., and long: 99° 15' E., the southern point of Pulo Lantar bearing S.W. by E., Telebon S.S.E., and Tanjong Cotton N.E. by N. Some of it takes on the polish of fine jet. The Ligor specimens of this jet are the best.

In the coal of Ligur and Kedah, on the west coast of the Malay Peninsula, one portion of jet had a beautiful lustre and high polish. The fracture shows a fine velvet black or brownish-black.

On the Malay Peninsula, along the west coast at Katani, Ayer Ramni, and Bencoolen, at the entrance of the river Reteh, and along the banks in the Batang Gansal and the Inigrangi, with, it is supposed, the Kampar, coal occurs.

Coal has been found in Sumatra, Java, and Luzon, and in Borneo, of good quality, suited to economical uses. Coal found at Rette, on the south-east coast of Sumatra, bears a strong resemblance to that from Junk-Ceylon,—sp. gr. 1.23; volatile matter, 51.43; charcoal, 48.57 ash not determined. Coal of serviceable quality exists also in Banka and Madura (New Rotterdam Courant, Sept. 29, 1851), in Borneo proper (Lord Sarawak), on Pulo Keug Arang, near the north end of Labuan, at various places on the west, south-west, and south-east coasts of Borneo at the Bunut, on Pontianak, the country of Barjarsam, where immense deposits are found, Pagattan, and on the Koti river, mines are worked.

A small field has been found near Macassar in Celebes, but the coal is of a worthless description (Singapore Free Press, July 19, 1850, which describes the coal treasures of the Archipelago). It is said that fine specimens have been obtained from the Philippine province of Alley (Mallat, 122), but the existing notice of them are slight.

In Borneo, coal was first discovered in one of the islands in the river of Brunai, afterwards near the banks of the river, and subsequently in the island of Labuan. In these places it is mined with European skill and capital, and has been found on ample trial, superior to any Asiatic coal hitherto tried. The coal on the left bank of the Borneo river has been traced for several miles into the interior, and on the southern coast of the island in the territory of Banjarmasim, and mined by the Dutch. These may be continuations of the same field, which would make the Borneo coal fields the largest in the world, after those of North America. Steam navigation has given a value to the coals of Borneo, which, without it, is a country inhabited by rude people and covered with forest, might have lain for ages as useless as the lime and sandstones in which it is imbedded.

In Borneo, coal is associated at Pulo Chirmin which is about 200 feet high, with a ferruginous soil and overlaid by a mass of red clay and sand. At Pulo Kang Arang, again, the coal is overlaid by white sandstone. Borneo, as a mineral country, is perhaps the richest in the East, producing gold, coal, antimony, and iron while courchevel and gutta-percha are amongst its vegetable products. The coal and iron fields of the Balawi or Rajang are more extensive than any yet discovered on the island. From the river Baram, coal is traced to the upper parts of the Bintulu, and thence southward to the Rajang river, on the left bank of which, at Tujo-Nang there is a seam exposed upwards of 13 feet in thickness. At different other parts of the river and also in several of its branches, coal is found in abundance.

In China, coal is largely used for fuel. The
COBALT.

Boats on the north river, below Nau-hing, lie near the mouth of a horizontal drift worked into the mine, above which the cliffs are scraped down as the shaft advances. The mountains of Shant-si and Chih-li supply large quantities of this valuable mineral; and many boats find constant employment in bringing a coarse anthracite from Kai-chen in Lia-tung to Tsien-tsui. One locality of the mine in Liao-tung is about 25° 10' N., and 121° 25' E. Anthracite and bituminous coal have been seen in marts at the north; and coal-dust and refuse is mixed with a little moistened clay at Pe'kin, and made into cakes for the fires of the poor. That which is brought to Canton is hard, and leaves a large proportion of ashes after combustion; during ignition, it throws off a suffocating sulphurous smoke, which prevents the natives using it for cooking. It is employed in the manufacture of copperas from hepatic iron pyrites, according to Du Halde, but is less frequently employed in the arts than it would be if the people knew better how to use it.


COBALT.

Ta-ting, . . . CHIN. Pien-t'aing, . . . CHIN. Yang-t'aing, . . .

In China it is prepared by roasting the native arseniate of cobalt, said to come from Cambodia. It contains silica and potash, and is used in colouring glass, painting on porcelain, and glazing copper vessels, and in distemper. Cobalt ore occurs near Jeypore in Rajputana, and is used for colouring enamels. Cobaltic and nickel ore occur in Ceylon, at Saffragam.—Smith.

COBRA, the ordinary Urdu name of the Naja genus of venomous colubrine snakes of the family Elapidae. There is only one species, the Naja naja, which has a moderate body, with rather short tail. It has a small or moderate eye, with a round pupil, a poison fang in front of the maxillary, which is but little movable or erectile, and only one tooth behind. The anterior ribs are elongate and erectile, and the skin of the neck is dilatable. When the cobra rises in play, or for amusement, it spreads out the skin of the neck, from which it gets the Spanish name of cobra di capello, in English the hooded snake. Its bite, if the poison be fairly in, is almost certain death. It is said that the poison can be combated by injecting potash into the veins, but, owing to the rapidity of the poison's action, this, even if true, is valueless. Several instances have occurred of persons living some time after the bite of the cobra, chain, etc., or Russell's viper (Daboia elegans), simply by applying ligatures about the wound, and burning the punctures with a live coal; but the after-swelling was very painful, and lasted for some months. The cobra and chain viper are the commonest and deadliest. Notwithstanding this, the natives of Ceylon do not kill the cobra when caught, but enclose it in a mat bag with some boiled rice for food, and place it thus in a flowing stream. In Gujarat the Hindus do not kill this or any other snake. There are two varieties.

Var. a. The spectacle or binocular cobra has its neck, on the steel-brown skin, marked with a white, black-edged or < enclosing at either extremity a black ocellus. This is only seen when the hood is expanded. It is found in Southern India and in Burma(?). It grows to 5½ feet.

Var. b. The monocellular, or one-marked cobra, has a plain white ocellus, with black centre and margin, and grows to 4 feet in length. It is the cobra of Central India and Burma.

The fangs of the cobra are not perforated like those of vipers, but they have a groove or slit right down the anterior part of the fang, and although the sides of the groove may often meet in close contact about the anterior centre of the tooth, and form a sort of a channel, yet they never join or amalgamate together. The fangs of cobras are fixed to the maxillary bones, while those of vipers are erectile. 6

Permanganate of potash has been recommended in cobra bites. But, when permanganate was mixed with cobra poison and hypodermically injected, no fatal result followed, although a fatal dose of cobra poison was used, and the mixture injected into the vein. It is supposed that the mongoose is not affected by the cobra poison.

In the mythologies of India, the cobra figures as a protecting agent, spreading its hood over the lingam and over royalty. The cobra is worshipped by all Hindus; and its form, as an idol, with three to nine heads, in stone or brass, may be everywhere seen in India, often bending over the idol of the lingam. The cobra is often personified in Indian story. In many parts of Western India, after killing a cobra, the non-Aryan races give it all the honours of a cremation, assuring it, with many protestations, that they are guiltless of its blood; that they slew it by order of their master; or that they had no other way to prevent its biting the chickens.—Nicholson.

COBRA-TEL, a term applied in Ceylon to a deception of the heads of cobras and salivas of the iguana or Kabragoya, and supposed by the Singhalese to be deadly poisonous.

COCA (or Ecoca) of the Andes and Peru is Erythroxylon coca, Linn., extensively cultivated by the Indians. —the annual produce there having been estimated at 30,000,000 pounds. The leaves are either infused as tea, or, as is usual, chewed with a little unshaken lime. The immediate effect is a gentle excitement, with sensations of high enjoyment. Its use lessens the desire for food, and enables the chewer to undergo an enormous amount of fatigue, from an increased nervous energy.

COCANADA, a seaport town in the Gostavery district, in lat. 16° 57' N., long. 82° 13' E.; population, 17,839.—Imp. Gaz.

COCCIDEDE of Leach, the Gallinsecta of Latreille, a family of insects placed by Latreille and others at the end of the Homoptera. See Coccus.

COCCINEA INDICA. H. and A.

Coccinea grandis, H. | Momordica monadelph,R.
Bryonia grandis, L. | Mononochela monadelph,R.
COCCUS.

Menispernum crispum, L. | M. verrucosum, Flen.
A twining plant of Sumatra, Java, and the Moluccas, with a tubercled or warded stem; it is employed by the Malays for the cure of intermittent fevers.—O'Sh.

COCCUS FIBRAURFA, of Cochin-China and China, used by the Malays in agues and liver diseases.—O'Sh.

COCCUS INDICUS.

Hong, | BURM. Tuba-bidji, | M.aleal.
Coque de Levant, | Fr. Granu orientis of Rueillus.
Fischkormer, | Ger. Kakamari, | Sasso.
Jermak, | Guz. Kaka coll i verei, | Tam.
Kakamiri-kini, | Hind. Kaki-chempu vitulu, | Tel.
Galiga de Levante, | Tel.

This is the fruit of the Amarnita cocculus, W. and A., a powerful climbing plant, common in the mountainous parts of the Malabar coast; in commerce its fruit is obtained through Bombay, Madras, and Ceylon. The berry is highly poisonous, and is not used externally as a medicine. Even externally, as an ointment, though useful in Porridge capitis, its use requires great care. It is used to poison fish, and a weak decoction to destroy ticks in sheep. In 1850, 2859 bags were imported into Britain, value 19s. to 24s. the cwt.—O'Sh.; Rozy; | Eng. Cyc.; | M'Cull. Dict.; | W. and A.

COCCUS PALMATUS. D. C.

M. pol drum, Lam. | M. columba, Rozy.

This plant produces the culmbo root of commerce, a valuable tonic medicine. It grows in the Mozambique forests, and is cultivated in the Mauritius.—Rozy. iii. 807.

COCCUS VILLOSUS. D. C.

C. sepium, Coleb. | M. hirsutum, Linn.
Menisper. villosum, Lam. | M. myosotoides, Linn.
Hayer, | Beng. Chipura tige, | Tel.
Dier, Farid-but, | Hind. Dusara-tiga, Kati tige, 

A decoction of the fresh roots is given in native medicine in rheumatism, and is considered heating, laxative, and sudorific. A curl of the leaves is used for the same object. The juice of the ripe berries makes a good, durable, blue-purple ink.
The waths are woven into small baskets, and are used for cords by the cultivators.—Voigt, 331.

COCCUS, a genus of insects belonging to the family Cocidae, of the order Hemiptera. The insects belonging to this family live upon trees or plants of various kinds; they are of small size, and in the larva state have the appearance of oval or round scales. They are closely attached to the plant or bark of the tree they inhabit, and exhibit no distinct external organs. At certain seasons, when about to undergo their transformation, they become fixed to the plant, and assume the pupa state within the skin of the larva. The pupa of the male has the two anterior legs directed forwards, and the remaining four backwards; whereas in the female the whole six are directed backwards. When the males have assumed the winged or imago state, they are said to issue from the posterior extremity of their cocoon. In the spring-time the body of the female becomes greatly enlarged, and approaches more or less to a spherical form. In some the skin is smooth, and in others transverse incisions or vestiges of segments are visible. It is in this state that the
female receives the embraces of the male, after which she deposits her eggs, which are extremely numerous. In some, the eggs are deposited by the insect beneath her own body, after which she dies, and the body hardens and forms a scale-like covering, which serves to protect the eggs until the following season, when they hatch. The females of other species cover their eggs with a white cotton-like substance, which answers the same end. Of the species of this genus known in S. Asia, are the C. caeti, the cochineal insect, the C. laeae, which yields the stick-lace of commerce, and the C. manipurus of Arabia, that punctures the Tamarix gallica, and causes the exudation of the Assyrian lac. There are two varieties of Coccus caeti, the true Grama fina, and the Grana sylvestris; and, after prolonged efforts on the part of Drs. James Anderson and Barry of Madras in 1795, the C. sylvestris, or wild species of the cochineal insect, was introduced into Bengal by Captain Neilson of H.M. 74th Regiment. It throve rapidly on the Cactus Indica, the indigenous opuntia, the country Napal, and between 1800 and 1807, 74,633 l. of the cochineal, amounting to 142,916 rupees in value, were shipped to England, but at a loss, as the wild species was found greatly inferior to the true. The cochineal insect was introduced into Java about the year 1825 as a Government experiment, and apparently with more success in its production than in British India, for so long ago as 1844 it was exported from Batavia to the estimated value of 83,319 guilders. The species introduced into India swarms at certain seasons, and settles on one of the Species of cactus, which they immediately destroy. The whole neighbourhood of Homanabad was surrounded with prickly pear, but disappeared in 1865, under one of these swarms.

The fine cochineal insect differs from the wild not only in size, but also in being mealy and covered with a white powder; while the wild one is enveloped in a thick cottony down, which causes its value to diminish greatly, it being impossible to separate it from the insect in the preparation of the dye; the females only yield dye. It is the cottony covering which enables the wild kind to stand the vicissitudes of climate, while the fine or domesticated kind require to be kept under cover during the rainy season, and sheltered from high winds, as they early in their growth throw off the cottony covering.

The fine cochineal insect lives on several cultivated kinds of cactus without thorns, of which the Cactus cochiniller has been introduced into India. It will not grow on the wild prickly pear.

There are three periods of life of the cochineal insect. It is viviparous, and at its birth is a mere speck, and at that time no difference can be detected by a microscope between the sexes; they are all equally active, seeming to profit eagerly of the short period during which motion is allowed them. After a few days they attach themselves to the cactus plant, and from that moment the female never quits her hold. A cottony coat grows over her, which falls off in 13 to 15 days. This is the first period.

The male also adheres to the plant, and in about 12 days becomes enveloped in a cottony cylindrical purse, open at the bottom; the insects huddle together, one upon another to appearance, so that at a little distance nothing is seen but a white patch of cotton of uneven surface; they continually increase in bulk. After remaining in this state for a month or thereabouts, the sexes become distinctly recognisable. The male becomes a scarlet fly, with two transparent wings about three times the length of his body, which exactly cover each other, when at rest appearing only as one; he is also provided with two poisons or tails and two hairy antennae; he has six legs and six immovable eyes. He is now again become active (particularly an hour after sunrise), but rarely takes to the wing, being easily carried away by the wind; he jumps and flutters about, and, having impregnated the female, dies in a few days.

The females go on increasing in roundness. They appear generally so enormously overgrown, that their eyes and mouth are quite sunk in their ruge or wrinkles; their antennae and legs are almost covered by them, and are so impeded in their motions from the swellings about the insertions of their legs, that they can scarce move them, much less move themselves, and the insect to the casual observer looks more like a berry than an animal. When they are about three months old they begin to yield their young. In this state the insect is in a torpid state, and may be detached from the plant. She had previously formed on her extremity an amber-coloured liquid globule, varying in size according to the abundance of juice in the cactus, and this is supposed to indicate the maturity of her pregnancy.

It is remarkable that from the moment of her fixing upon the plant, she loses her eyes and the form of a male. Instead of a mouth, she has an extremely fine proboscis, which it is supposed she introduces into the imperceptible pores of the leaf she feeds on; and such is her excessive torpor, that once removed she will not attach herself again. After shedding the whole of her young, the mother dies, and becomes a mere shell, turning black. It is therefore at the time that the female commences to shed her young that measures are taken to remove the young to other cacti leaves. A nest is formed in the shape of a sausage or purse, of cotton gauze or other tissue pierced with small holes, in which 8 or 10 of the females are put, and the purse is fastened at the bottom of a leaf of cactus by a thorn. The young escape and spread themselves over the surface of the leaf. The mid-day is found to be the best time for this operation, to enable the newly-born insects to get rid of the glutinous matter which they bring from the parent. On this account nesting is not recommended in damp or cloudy days.

When the female insects are not required for breeding purposes, they are brushed off the cacti leaves at the commencement of their shedding their young, or immediately before that time, into baskets, and killed either by exposure to the sun or by immersion in boiling water, then dried and put into bags for dye.

As the cochineal insect is destroyed by heavy rains and high wind, they are reared outside only in the dry and cold season; during the rainy season a sufficient number of the females are either artificially kept in baskets shut out from light and heat, and so remain torpid till the proper weather returns, or an entire generation is raised on cactus plants under cover in the house or a shed, and the fresh young ones put out on the
COCCUS LACCA.

leaves outside when all danger from the heavy rains and wind are over.

The common belief is that the cochineal insect lays eggs; this is not the case. The young insects, whilst contained within the mother, appear to be all connected one after the other by an umbilical cord, and on hatching, in this order they are in due time brought forth as living animals, after breaking the membrane in which they were at first probably contained as eggs. Being thus brought forth, they remain in a cluster under the mother's belly for two or three days, until disengaged from the umbilical cord. Every cochineal mother produces above a hundred young ones; but the mortality is great, and three or four mothers are required to cover one side of a cactus leaf with sufficient young for cultivation.

25,000 insects dead and dry make up one pound of cochineal, the ordinary value of which is 1 rupee 12 annas.—Colonel Boddaert: Royle, Prod. Res. p. 57; Cransford, Dict. p. 112.

COCCUS LACCA, Kerry. Produces the substance called lac. It inhabits India; is found on various trees in great abundance on the Ficus religiosa, F. Indica, Croton lacciferum, Butea frondosa, and Rhamnus jujuba. When the females of this coccus have fixed themselves to a part of the branch of the trees on which they feed, a pulvular and glutinous substance begins to exude from the margins of the body, and in the end this substance covers the whole insect with a cell which, when hardened by exposure to the air, becomes lac. So numerous are these insects, and so closely crowded together, that they often entirely cover a branch, and occasionally the tree is killed; and the groups take different shapes, as squares, hexagons, etc., according to the space left round the insect which first began to form its cell. Under these cells the females deposit their eggs, which, after a certain period, are hatched, and the young ones eat their way out. It is found on various twigs and branches. The broken twigs covered with these incrustations are called 'stick-lac' in commerce. After the colour has been extracted and further purified, shell-lac results.—Kirby and Spence, iv. p. 142; Eng. Cyc.

COCCUS POLONICUS is used in dyeing a red colour. It is now chiefly employed by the Turks for dyeing wool, silk, and hair, and for staining the nails of women's fingers.—Kirby and Spence, i. p. 320; Eng. Cyc. p. 44.

COCHIN, a small feudatory state on the western side of the Peninsula of India, with a seaport of the same name, lying between lat. 9° 48' and 10° 50' N., and long. 76° 5' and 76° 58' E.; the area, 1,361 square miles, and population in 1851, 600,278 souls. It has many marine lagoons, extending for 120 miles, and communicating with the sea; and its gbat forests have much valuable p waits, etc. It is a Rajah's state, and the capital is called Cherumar. Colebrooke, in the 9th century, it became tributary to the British. By a treaty in 1791, the British guaranteed the integrity of the kingdom; but in 1809, after the overthrow of the Mysore government, a faction made common cause with the Travancore people, and carry on an unsuccessful war against the British, and in 1819 the British assumed all military control. The principal races are,—Malalei, 555,191;—Konkani, 15,113;—Tamular, 33,628;—Teling, 9605. Of the population, 140,262 are Christians, 426,922 are Hindus, 12,499 Mahomedans, and 1278 Jews; the chief Hindu castes being Brahman, Kshatriya, Ambalavasi temple servants, Nair cultivators, Pillai government servants, Ottar contractors, Kanaka-boatmen, Mopola polygars, Vallammar freshwater, and Marakan saltwater fishermen and artisans, Ezhuwan labourers, Cherumara proclial slaves, and Kada and Maleali hillmen and Jews.

The Jacobite and Nestorian Christians are under the Archbishop of Antioch, the Roman-Syrians, under the Archbishop of Malabar, and the Romish Christians under the Archbishop of Goa. The common belief is vastly exaggerated; fish is very abundant; its ornamental work in metals, and its wood and ivory carving, are famed. The raja's family claim Kshatriya descent; but follow the rule of inari maktatym, or descentus ab uto, the children of sisters succeeding. If the raja's younger brother be senior to all his nephews, he becomes elliah raja, or heir-apparent; but if the raja's eldest sister has a son older than the raja's brother, the nephew ranks in the line of succession before the uncle.

The higher castes only are permitted to approach the royal dwelling, and handsome well-fioed Brahman, etc., thus form the entire population of that locality; and these are so clean and neat in appearance, and of so fair a colour, that one seems to have been transported among an entirely new and superior nation. The princesses and their ladies wear an abundance of silver, the muslin around the hips, but no upper garment. The neck is decorated with valuable ornaments, and the ears support very large and beautifully chased pendants. The hair is either worn in a large double knot on the crown, or on the right side of the head, and a band of gold strains it off from the face. The raja and all the princes are indistinguishable, in private, from the people around, for their dress consists simply of the muslin round the middle. The cocoanut palm grows abundantly, and, while yielding large returns, allows leisure for other avocations.—Imp. Gaz.

COCHIN-CHINA, the name given in Europe to a country occupied by the Annam people. The derivation of the European name is obscure, but Chinhao is the name given by the Annam people to the capital of Tonquin; and Cochinn-China is known to the Malay navigators as Kutehi. It has been supposed by D'Anville that the Sin-hoa of Ptolemy, the geographer, is Cochinn-China, and that the Aureo Chersonesus of Ptolemy is the Malay Peninsula. Leaving out of view the vast unexplored region of Laos, the peninsula commonly denominated Cochinn-China is now composed of Cambodia in the north, French Cochinn-China in the south and west, and Annam on the eastern coast, this latter kingdom extending northwards to the Chinese provinces of Yunnan and Quang-si, its own province of Tong-king adjoining them.
French Cochín-China, conquered or annexed from Annam, comprises an area of about 30,000 square miles, and a population estimated at some 1,750,000 persons, nearly all of them of Annamese nationality. The colony is divided into four provinces,—Saigon, MyTho, Vinh-long, and Bassac. Each of these is under inspectors and administrators, who are educated for the purpose in a college at Saigon, where they are taught the native language, characters, history, and law, and are instructed generally in the principles of executive government. They are commissioned by the President of the French Republic. The revenue for the year 1878 was estimated at 14,300,000 francs. The kingdom of Annam has a population estimated at 20,000,000 persons. There is a French resident at the Court of Hue, and also one at Hanoi, the ancient capital in Tong-king, and three ports in Tong-king have been opened under treaty. Europeans are only allowed to trade in the actual open ports, but they are allowed to pass through the country by means of the great river Sang-kol (but not to land on its banks) for purposes of trade with Yunnan. The kingdom of Cambodia is an absolute monarchy, and has a population estimated at only 1,000,000, which gives but six to the square mile. It is under the protection of France, and has received from France a national flag, at Nakhon, the capital, with the title of Représentant du Protectorat Français. The revenue is estimated at 3,000,000 francs. There is but one port, Kampot, situated on the Gulf of Siam, its principal traffic being with Siam and Singapore by native vessels. In appearance, language, and most other characteristics, the Cambodians differ entirely from the Chinese, Annamites, and even Siamese. If there be any resemblance, it is to the latter.

Saigon, the capital of French Cochín-China, on the Saigon river, in lat. 10° 50' N., and long. 104° 22' E., was conquered by the Franco-Spanish fleet, 17th February 1859, by the force under Admiral Rigault de Genouilly at the close of the last Chinese war, but Lower Cochín-China was not occupied until the treaty of 1862.

About the reign of Louis xvi., the reigning emperor, Gyalong, lost his throne, and a Roman Catholic missionary, Bishop Adolphe, succeeded him in the exercise of his rights, and bestowed sovereignty on the French. On his death, the French king gave to the French a protectorate over Cochín-China.

The request was granted, on condition that France should have a right of protectorate over native Christians, and the further right to occupy certain points of Annamese territory, from whence this protectorate might be better exercised. A treaty was concluded at Versailles on the 28th of November 1878, embodying these conditions, and the prince and bishop returned to the East with French officers and appliances of war, by whose aid Gyalong was restored to power, and gave him a grant of territory, and the church flourished;

The treaty was concluded at Versailles on the 28th of November 1878, embodying these conditions, and the prince and bishop returned to the East with French officers and appliances of war, by whose aid Gyalong was restored to power, and gave him a grant of territory, and the church flourished; but his successors, jealous of its organization and influence, commenced a persecution.

On the 5th of June 1862 was signed the treaty which laid the foundation of French rule in Cochín-China. Annam is thereby ceded the three provinces of Binhien, Giaodinh, and Dinh Tuing, which constituted the original territory of Saigon. Twelve years later, the Duc Decazes, then minister for foreign affairs, was able to announce to the French Chamber the signature (on the 15th of March 1874) of a treaty by which the whole country was placed under the protectorate of France. It has been mentioned that in 1867, five years after the first treaty, Admiral du la Gralière, the then governor, had the honour of occupying the three additional provinces of Vinhlong, Chaiuoi, and Hanoi, in order to protect the colony from the incursions of 'agitators' from the neighbouring territory. The kingdom of Cambod, embossed between Siam and the new colony, fell early under its influence, and by a treaty signed in 1868, accepted the protectorate of France.

In 1866–7, under the control of M. Dondart de Lagré, an expedition explored the course and sources of the river Mei-kong, which, taking its rise amid the mountains of Tibet, impinges on the western provinces of China, flows through the whole length of the Indo-Chinese promontory, and discharges itself, in French territory, into the southern waters of the China Sea. It was hoped that in this river might be found a channel of intercourse with the west of China, and that Saigon might by its means be made to rival or eclipse the claim of Rangoon as an outlet for the commerce of those parts. The boundaries were, on the north the kingdoms of Annam and Cambodia, on the east and south the China Sea, and on the west the Gulf of Siam and the kingdom of Cambodia, 80 leagues long and 50 broad, with a population of 1¼ millions. The Mei-kong passes through French Cochín-China by two rivers, to disemnogue into the China Sea. In 1880 the revenue was 18,800,000 francs.

COCHINEAL.

Ya-Jan-mi, . . . Ch'in. Cochenilla, . . . Port.
Cochenille, . . . Fr. Cochinilla Grans, . . . Sr.
Cochenille, . . . G. G. Coccus Cochinile. M.
Coccinella, . . . It.

This valuable dye and colour material consists of the dried bodies of the female of the Coccus cacti, a native of Mexico. About 1200 tons are imported into Britain, price 3s. 6d. the pound. It forms a very fine and permanent dye of red, crimson, scarlet. It answers on wool and silk, but not on cotton. Efforts were made by the E. I. Company to introduce the insect into India, and at the close of the 19th century it was supposed that Mrs. Anderson and Barry of Madras had succeeded in doing so, but it is said that an inferior variety, C. cacti sylvestre, was the one brought, not the variety designated C. cacti grana fina. Whether from the stock introduced in 1799, or from an indigenous variety, the Coccus cacti is at seasons plentiful in many parts of India. They swarm to localities where the prickly pear grows, and in a brief time the plant wholly disappears. The fine variety was introduced into Mysore from Tenerife; and at the Madras Exhibition of 1857, the cochineal exhibited from Chittaldroog and Ossoor was said to be the silver grain, and to be procurable in several districts in Southern India; but it only destroys the plants with red flowers and few prickles, and will not propagate on the yellow-flowering prickly
pier. It has been exhibited from Java at the exhibitions in Europe. The people have also been successful in introducing it into the Canary Islands, but it has of late been much cultivated; and in 1856, 1,611,617 lbs. were exported. About 15,000 tons are imported into Britain, valued at £100 the ton. The insects are about 70,000 to the pound. They are detached from the plants on which they feed by a blunt knife; are dipped in boiling water to kill them, and then dried in the sun. The female is placed on the leaf, and kept in its position by a white rag tied round the lobe. From the travels of Lieutenant Burnes and Dr. Gerard, we learn (Journ. As. Soc. of Bengal, ii. p. 652) that an insect, supposed to be of the cocoons' genus, is found on the root of a plant which flourishes in a marsh (near Herat), but the natives being unable to dry it, import it from Bokhara and Yarkand, paying about 32 sicea rupees per Indian seer. Cocoons polonicus, the scarlet grain of Poland, is also found on the roots of a plant, the Scleranthus perennis.—Royle; Mad. Ez. 1857; Powell, Panj. p. 194; Crawford's Dict. p. 112; M'C. Dict.; Moral and Material Progress; Colonel Beddome.

COCHLEARIA ARMORACIA. Linn.
Radish, horse radish, Eng. Muli, HIND.
Cran de Bretagne, Fr.

COCHLOSPERMUM GOSSYPIUM. D. C.
Bombax gossypium, L. Silk-cotton tree, Eng.
Shima-punjhi, MAMEL. Tanaku maram, TAM.
Ela-imbul, SINGH. Konda gogu chettu, Tel.

This silk-cotton tree grows in Travancore, on the Coromandel coast, is common on the Arakan mountains, and occurs also in Bündelkhand, on the hills round and near Adigur and Kalingur, as well as on those near Hardwar and the Khera pass. The leaves are used for the curious rude leaf-bellows with which the natives of the hills near the Assan valley smelt iron. It has curious thick branches, which spread out somewhat awkwardly, each tipped with a cluster of golden-yellow flowers, as large as the palm of the hand, and very beautiful. The bark abounds in transparent gum, of which the white ants seem fond, for they kill many trees. This is the gum katirn of the N.W. Provinces of India, and is substituted for tragacanth. Wood soft, and only used as firewood. The cotton of its pods is used for stuffing pillows, etc.—Roxb.; O'Sh. p. 225; Stewart; Hooker, Him. Journ. i. p. 53; Voigt, p. 91.

COCK, the male of the domestic fowl of the genus Gallus. One species of Gallus is found in the wild state in the Malay Peninsula, two in Sumatra, two in Java, and one in the Philippines. The bird of the genus in the wild state is found in Borneo, Celebes, or any island of the Molucca Seas. The two of Java are distinct species: they will pair, and the progeny is a beautiful bird, kept by the wealthy Javanese as an ornament of their poultry-yards, under the name of jakiser. The wild fowl of the Philippines are sometimes tamed, are very brave, and always come off victors with the large cocks of China; and they will contend with the famous gallant breed of the Logno. Most of the advanced nations of the Asiatic islands are gamblers, and the favourite shape which gaming takes with them is cock-fighting. This includes the people of Bali, Lombok, Celebes, and all the Philippine Islands, the only material exception being the Javanese. The passion for cock-fighting is impressed in the very language of the Malays. Thus there is a specific name for cock-fighting, one for the natural spur of the cock, and another for the artificial; two names for the comb, three for the crown of the cock, two for a cockspur, and one for a professional cock-fighter. The passion is nowhere carried further than in the Spanish dominions in the Philippines. There it is licensed by the Government, which derives from it a yearly revenue of about 40,000 dols., or about £10,000. Nations of Central Asia seem, from time immemorial, to have used the cock in sacrifice, being especially sacred to the sun in the worship which it still continues. It is offered in sacrifices on the new-year's day by the old Parsee fire-worshippers. The Aryan Hindo and the non-Aryan races all sacrifice the cock at the shrines of the earth goddesses.—Crawford, Dict. p. 113. See Birds.

COCKATOO, birds of the Moluccas and Australia, of the tribe Sonoosors and sub-family Cacatuiinae. See Birds.

COCKLE, one of the mollusca. The cockle of Job xxxi. 40 is a species of Solanum. See Chamaede.

COCKS CLAW FRUIT.
Chi-chau taze, CHIN. Kim ponnass, JAP. Ki-k'o-taze, . This is the fruit of the Hovenia dulcis.—Smith.

COCK-UP, the Begg fish of the Ganges.

COCOA.

KO-ko, Kwo-kwau, CHIN. Kakao, GER. Cacao, FR. Cocoa, IT. Cocco, SR. Cocoa, also written Cacao, is the nut or seed of the Theobroma cacao, a plant of the W. Indies and the continent of America. Lindley mentions also T. bicolor, and T. Guineensis. T. cacao has been introduced into India, Ceylon, the Philippines, Celebes, Amboyna, and China. The cocoa tree flourishes best in the alluvial soil of mountain valleys, though it will grow well at some elevation on mountain-sides. The varieties are numerous, some producing very superior fruit to others. The plants begin to bear at from 5 to 7 years of age; during this period the inter-spaces between the rows of trees can be rendered productive by planting yams and vegetables in them. A free ventilation of air should be ensured to each tree, and this cannot well be attained with a smaller space than 30 feet. Large forest trees of favourable sorts require to be scattered amongst them, to protect them; the tree used for this purpose in the W. Indies and S. America is one of the Bombacceae. There are two crops a year. The average return, when the trees are planted close together, is from 1 to 3 lbs., but as much as from 9 to 12 lbs. can be procured by proper planting and cultivation. Great care is required in rearing the cocoa, after it is separated from the pod; and on the method of fermenting and drying depends very much the production of a good or bad article. According to its preparation, it realizes from 60s. to 120s. per cwt. in bond. 17,000,000 lbs. of cocoa were imported into Britain in 1871, upwards of 7,300,000 lbs. being entered for home consumption. Cacao seeds were made use of by the Mexicans, previous to the arrival of the Spaniards, boiled with maize, and roughly bruised between two stones, and eaten seasoned with capsicum or honey. The seeds are contained in a husk 4 or 5 inches in length; and dried, roasted, 760
COCOACEE.

and ground, they constitute cocoa; mixed with starch and finely ground, soluble cocoa. Chocolate is the same flavoured and made up into a paste. As seen in the market, cocoa is in the form of flakes, granulated, soluble, rock, dietetic, homoeopathic cocoa, broma, etc., largely adulterated with 5 to 50 per cent of sugar and starch. Flake cocoa generally contains the worthless husk, which forms about 2 per cent of the seeds; but genuine flaked cocoa of good quality cannot be purchased under tenpence or one shilling per pound, yet it is no uncommon circumstance to see, in London shop windows, samples ticketed fivepence and sixpence per pound; such samples at this price must either be damaged or adulterated. Cocoa contains the alkali theobromine, in which there is a larger amount of nitrogen than is in theine, so that tea, coffee, and cocoa may all be regarded as containing the same nutritious principle.—M. E. J. R.; Hassall; Simmonds; Crawford; New Museum; Royle.

COCOACEE, the palm tribe of plants, the Palmaeae of Lindley, are inhabitants of the tropics of both worlds, and hardly range beyond lat. 35° S. and 49° N. They are local plants; only Cocos nucifera, Arecoa scolerocarpa, and Borassus flabelliformis being found in many lands. There are supposed to be about 1000 species, but scarcely a fifth part are well-described. The Oponoa, or edible cabbage-tree of the W. Indies, has been introduced into the East. The Areca catechu is well known for its betel-nut, the Arenga saccharifera for its sago, palm-wine, sugar, and black horse-hair like fibres. Caryota urensis valuable for the immense quantity of its sap, which is fermented into toddy or palm-wine, or distilled into arrack. Canes and rattans are from the various species of Calamus. The Sagus lavia and S. farinifera yield much of the sago of commerce. The Borassus or palmyra is of great value for its palm-wine, its fruit, and its leaves, as also is the fan-palm Corypha umbraclurifera, the talipat palm of Ceylon and the Moluccas; while C. taliera is of great value for its leaves, which are formed into the palm books, on which the people write with an iron style. The date fruit, on which so many of the Arabs subsist, is from the Phoenix dactylifera; the P. sylvestris of India furnishes sap which is made into palm-wine, sugar, or arrack; and the widely-spread coconut tree, Cocos nucifera, with its multitude of uses, all belong to this order. Recently, the following have also been noticed:—Plectocorni elongata, Mart., of Java; Ceratolobus glaucescens, Bl.; Demonomorpha melanocheles, Bl.; Lodoica Seychellana, Labill., Seychelles; Hyphaene coriacea, Gaertn., of Egypt.

The better known of this order are as under:—

A. ARECACEE or Arecales.

Chammadesa graciilis, Wolf., introduced.
Hypophore Indica, Gaert., Bourbon, introduced.
Oroeloa oliveri, Buck., Harinas caryotoles, R. Br.
W. Indies, introduced.
O. regia, Humb., introduced.
Areca catechu, Spr.
A. crinata, Bory.
B. Lepidocarya.
Calamus humilis, Roxb.
Cramus erectus, Roxb.
C. draco, Wiltie.
C. extensus, Roxb.
C. quinquenervius, Roxb.
C. rotang, Roxb.
C. fasciculatus, Roxb.
C. polygamus, Roxb.
C. tenus, Roxb.
C. gracilis, Roxb.

C. borassae or Borassineae.
Borassus flabelliformis, L.
Latania botonica, Lam., Banyan.

D. Corypha or Corophyceae.
Corypha utan, Lam.
C. umbraclurifera, Lam.
C. taliera, Roxb.
C. clatria, Roxb.
C. rotundifolia, Lam., Molucca.
Livistonia Mauritianna, Wall.
L. pumila, Bl., Java.
L. spinosa, Warmb.
L. rotundifolia, Bl., Java.

E. COCCE or Cocceae.
Elaeis Guineensis, Jacq.
Cocos nucifera, Lam.

COCAEUT.

Hu.

A. CHINESE. Noce de Cacao.
B. L vowel. Kalapa.
C. Cocos.
D. Cocos-baum.
E. Cocos-nucifer.
F. Cocos-nucifera.
G. Cocos-nucifera.
H. Cocos-nucifera.
I. Cocos-nucifera.
J. Cocos-nucifera.

Cocoonut, the fruit of the Cocos nucifera, is a word supposed to come from the Portuguese term Macaco or Maccoco. Its fruit-bearing power may be considerably improved by extracting toddy from the blossom shoots for the manufacture of jagari during the first two years of its productive- ness, after which it may be discontinued. The subsequent annual produce may be safely reckoned at fifty nuts per annum. From ten to twelve large nuts may be seen on each bunch. In good situations, the fruit is gathered four or five times in the course of the year. The albuminous substance within the 'copra' or kernel is used as an article of food, and when dried is largely exported to other places; and the clear, sweet liquid which the nut encloses when young, is a very agreeable drink; it is the backbone in a liquid state. House licking, constitute an adhesive quality to this, and mix it with their white and other washes, in which lime forms a chief ingredient. The full ripe nut contains a small quantity of oily milk, and is then used for making oil. Cocoonut milk is extracted by pressure, and is used in making curries, etc. It is from the husk of the cocoonut that the well-known 'coir,' khor, or roya fibre of commerce is prepared, and used for the manufacture of coir rope, matting, brushes, etc. Cocoonut husk, from which the fibres have not been separated, is used in lieu of a scrubbing-brush for the floor, and for polishing wood; brooms, mats, and bags are likewise manufactured from it. Cocoonuts, both in the raw and dried state, form a prominent feature amongst the exports at Gall and Colombo, in value to about £14,000 yearly. Cocoonuts valued at £50 a ton are imported into Great Britain. The shell is very brittle, and its structure is somewhat fibrous; but it admits of being turned for the bodies of cups and vases, the feet and covers being made of wood or ivory. Common buttons are also made of the cocoonut shell, and are considered better than those of
COCONUT CRAB.

The coconut crab, of the Seychelles or Malhe islands, is the fruit of the Lodoicea Sechellarum. When preserved whole, and perforated in one or two places, the nut serves to carry water, and some of them hold six or eight pints; and by slicing them in different directions they are formed into plates, dishes, drinking cups, etc., known in the French islands as Vaiselle de l'Ile Praslin. The half of a coconut crab is a favourite scallop of the Mahomedan fakir in India. The crown of the trunk is eaten, like the American cabbage-palm; the down attached to the young leaves serves for filling mattresses and pillows; the ribs of the leaves and the petals are fabricated into baskets and brooms; and the young leaves are boiled in the pot of不变.

The Lodoicea attains a height of 80 or 90 feet. It might be largely introduced into India with advantage. Germinating nuts were sold in London in 1854 at £10 a-piece.—Seeman.

COCONUT FIBRE, or Cor, is obtained from the outer rind of the nut. This is bruised and steeped in water for two or three days, after which it is taken up, and the fibres separated by the fingers, scraped gently with a blunt knife, and then dried in the sun. If steeped in water too long, they get coloured.

COCONUT MILK. To make this, the kernel is grated, a little warm water is poured over it, and the liquid is then poured through an open cloth. This milk is excellent with coffee, and is indispensable for curry.

COCONUT OIL.

The kernel, having been removed from the shell and dried, is subjected to pressure in a mill, and the oil is expressed; but when prepared in small quantities, the kernel is boiled in water for a short period; it is then pounded in a mortar, taken out and pressed. The milk, as it is called, which exudes, is then boiled over a slow fire, when the oil floats to the top, and, being skimmed off, is afterwards boiled by itself. Two quarts of oil may be procured from fourteen or fifteen coconuts. When fresh, the oil has an excellent flavour. It is used as an unguent on the bodies of the natives after bathing; and as an oil for the hair; it is employed as a lamp oil, and is manufactured into soap, and it is said to have all the virtues of col-liver oil. The purest oil is obtained by grating the kernel, and depositing it in some hollow vessel, to expose it to the heat of the sun during the day, and the oil drains away through hollow spaces left for the purpose. The Malay method of making the oil is by dividing the kernels into two equal parts, which are ranged on shelves made of laths of the betel-nut palm or split bamboo, spaces of half an inch wide being left between each lath. Under these a charcoal fire is lit, and kept up for two or three days, in order to dry them, after which they are exposed to the sun on mats, and when thoroughly dried are subjected to pressure in an oil-press. The remains of the coconut, from which the oil has been extracted (Posknakull, Hind.; Tenga poonak, Tam.; Tenga pindee, Tel.; Poornak, Singh.), affords an excellent material for feeding pigs, poultry, etc. The best oil exported is from Cochin, and the neighbouring ports on the Malabar coast. It usually
COCOANUT PEARS.

fetches 20s. per ton more than the Ceylon or Coromandel coast article. In Europe it is used for the candle and soap manufacture, for lubricating machinery, etc. In India, for making soap, for cookery, lamps, and as medicine. This oil forms the foundation of Price's patent candles. It becomes solid at about 70° Fahr. It is one of the fixed or fatty oils, and consists of solid and fluid constituents, the latter, or oil, being separated from the solid parts by heating the stearine or cocoanut, used in the manufacture of the stearic candles. It is also much used by pharmaceutical manufacturers. In Borneo, the only oil used by the women in the dressing of their hair is that freshly expressed from the cocoanut; and this is perfumed by allowing the flowers of various plants to remain in it. The native oil-mill is similar in shape to the mortar and pestle of the druggist, the latter being worked by a shaft, to the end of which a pair of bullock's is attached. The cattle travel in a circle of about 18 feet diameter, and make three complete revolutions in a minute. Half a hundredweight of the dried kernel is a charge for a full-sized checkee (mortar), and a pair of stout, well-fed bullocks will get through four such charges in a day; so that twenty mills are required to get through two tons in the twenty-four hours. The man who drives has usually a boy to assist him in taking the oil, which is got out of the mortar by breaking a piece of the shell and squeezing it into an earthen vessel. The cost of the native oil-mill, with serviceable bullocks, is rather under than over Rs. 200.—M. E. Jur. Rep.; Col. Rec., Sept. 1861; Law's Sarawak, p. 145.

COCOANUT PEARS, suit to be concretions existing free in the interior of the cocoanut in the East Indies, particularly at Singapore, where the rajas esteem them as precious stones. Mr. J. Bacon published a notice of them in the Proceedings of the Boston Society of Natural History, U.S. It is said that they occur sometimes as large as a cherry; but Mr. Bacon's are about 2-5ths of an inch in diameter. These vegetable pearls are smooth and white, like animal ones, but are harder, and not quite so brilliant. Like ordinary pearls, also, they are composed of carbonate of lime, but have only a very small proportion of organic matter. The former contain considerable quantities of an albuminous animal substance. Examined microscopically, the cocoanut pearls are found to be composed of numerous regular concentric layers, which adhere to each other very energetically. Their origin is at present uncertain. In the analysis of the cocoanut milk, a little phosphate and malate of lime is found, but no carbonate, which hitherto has not been found in any part of the nut.

COCOANUT TODDY.

Cocoanut trees of vigorous growth send forth nine, ten, and even twelve clusters of buds every year. But those on which little care has been bestowed, and which are consequently feeble, produce only four or five of these spathes, called in Tamil 'palli.' The 'Sanar,' or toddy-drawer, when accoutered, has first in importance among his appointments, the arivalpatty (lit. knife-box), made from the sheath of the spathe, and bounded round tight with two binders of rattan. A strongly plaited rope is permanently fastened to one side of the arivalpatty. The short arm of it has a much smaller loop; when fastened round the waist, the longer arm is passed inside the small loop of the short arm. Through the loop of the long arm, the toddy-drawer passes the end of his waist-cloth, and ties it into a knot. Next in importance is the croppet, into which the toddy-drawer empties the toddy collected in the pot or chatty up the tree. It is made of palm-fibre closely plaited, and, when moistened, is water-tight. Two wooden collar bands are inserted to inches broad, encircle the mouth of the croppett, or draw the pot under one end outside; between them the plaited wicker-work is run up and made fast. To keep the croppett in its bulged, bottle-like form, a piece of a new half-way down is woven in, and encircles the vessel like the hoop of a barrel. The croppett hangs suspended over the hoop of a barrel. It takes nearly a year's practice to make a man master of the curious mode of climbing, after which the lowest trees are ascended in a minute with surprising ease. After a hard morning's work, the left arm always aches more than the other limb, showing that there is more strain on it than anywhere else. When an accident befalls a toddy-drawer, it is usually occasioned by his left hand missing its hold on the tree and slipping aside, which brings him to the ground instantly, often with fracture or injury of that limb.

When the spathe is a month or a month and a half of the flower is drawn, the drawer begins his labours by binding the sheath to prevent its expansion, after which he cuts about an inch off the end, then gently hammers the flowers which are thereby exposed. Finally, he binds up the end with a broad strip of fibre, and descends. This process he continues morning and evening for fifteen days, a thin slice being cut away on each occasion. During this time, also, by shaving away a little of the under part of the sheath, he trains it to bend over. It is probable that the exact term of days during which the spathe undergoes this initiatory preparation varies in different places, and depends upon surrounding circumstances. Mr. Berthold Seeman, in his Popular History of Palms, mentions five or six days as sufficient. Near Madras, a toddy-drawer gave fifteen days as the usual time; but the time when a spathe is ready to yield toddy will be easily known by the chattering of birds, the crowding of insects, the dropping of the juice, and other unmistakable signs. When ready, the end of the spathe is fixed into a kudave or small pot, and a small slip of leaf is pricked into the flowers to catch the cozing liquor, and to convey the drops, without wasting, clear into the vessel. When the spathe begins to yield toddy, he ceases to hammer it. It will give toddy for about a month, during which time, every morning and evening, he mounts the tree, empties the toddy into his croppett, binds the spathe an inch lower down, smears the end of it with his palm mattai, and shaves a little away, then pricks in the slip of leaf, and ties the kudave on again. The man who ascends the tree is generally a paid servant, receiving about Rs. 7 a month. He will attend to thirty or forty trees. Forty trees yield about twelve measures (Madras) of juice, seven in the morning and five in the evening. During the heat of the day the spathe does not yield so freely as in the night. Twelve measures for forty trees is at the rate of a little more than one-fourth of a measure to each tree.
COCONUT TREE BEETLE.

A first-rate tree in a good soil, and carefully tended, will produce one measure during the night, and three-fourths or one-half of that quantity during the day; but, taking one tree with another, a quarter of a measure is a fair average. Some trees, under favourable circumstances, continue yielding at this rate throughout the year, others only for six months. It is not prudent, however, to draw all you can from them, as they will be exhausted, and become barren. Every morning and evening, when the Sanar goes to draw the toddy, a servant or some one connected with the owner or contractor for the trees, usually accompanies him with a chatty, into which is emptied the toddy from the croppets. When all the trees have been visited, and the toddy measured into the chatty or culhu-pani, it is carried away to the bazar rented by the contractor from Government at a fixed price. In Madras there are about 58 first-class toddy shops, to each of which 330 coconut trees are allotted, the contractor paying daily Rs. 2-12-10 to Government for each such shop; also 63 second-class toddy shops, to each of which 247 coconut trees are allotted, each shop yielding daily Rs. 2-2-10 to Government; and also 205 third-class shops. There is nothing very peculiar about the habit, custom, or dress of the Sanars to separate them from other Hindu castes, apart from their occupation. Around Madras the Sanars are divided into two classes, the higher and the lower; the latter are called Pully Sanar, and permit their widows to marry.—Dr. Clegborn, in No. 28, Edinburgh New Philosophical Journal, 1861.

COCONUT TREE BEETLE, Butocera rubus. COCO-MEAL is prepared in the West Indies from the starchy tubers of Colocasia esculenta, Schott. The labouring population of the West Indies largely depend for a supply of food on this root. Long droughts may disquiet the hope of the yam crop, storms and blast may destroy the plantain walks, but neither dry nor wet weather materially injures the coco. Previous to their emigration, whole families of Negroes lived upon the produce of one provision ground, and the coco formed the main article of their support. Where the soil is congenial to the white and black Bourbon coco, the labour of one industrious person once a fortnight will raise a supply sufficient for the consumption of a family of six or seven persons. The coco begins to bear after the first year, and with common care and cultivation the same plant ought to give annually two or three returns for several years.—Simmonds.

COCOON. Indung sutra, Malay. The covering spun by the silkworm, and in which it wraps itself.

COCOS. There are three groups of islands known by this name. The Cocos Islands, in lat. 14° 10' N., and long. 93° 10' E., 45 miles distant from the north-east point of the great Andaman, are two little isles. The larger of them is six miles long and two broad, the smaller two miles and a half long and nearly a mile broad. They are sheltered by the Andamans from the heavy south-west swell of the Bay of Bengal. They are unhealthy. The Cocos, near Hog Island, in lat. 3° 6' N., and long. 95° 30' E., on the west coast of Sumatra, are two small islands covered with trees. The Cocos or Keeling Islands, south of Java, lie in two distinct divisions north and south of each other. The channel between the two is 15 miles broad; the northern division consists of one island only, in lat. 11° 49' S., and long. 95° 51' E., but the islets in the southern one are numerous.—Rec. of Cocos of India, xxv. p. 64; Harsh.


The coconut palm does not seem to have been known to the ancients, though it is said to be indigenous in the East, from which they received ambassadors; and is said by the Hindus to have been brought by Viswamitra from Ceylon to India. The first allusion to it in Ceylon is of A.D. 1153, in the time of king Prakrama. It now grows in great abundance in the Maldives and Laccadive islands, on the Malabar coast, in Ceylon, on the eastern side of the Bay of Bengal, though scarce in Arakan, whence it ascends both the Brahmaputra and Ganges rivers to a considerable distance. It grows in the Nicobars, in China to lat. 20° N., in most parts of the Eastern Archipelago, from the Sunda to the Molucca Islands, and in those of the Pacific Ocean, and is now cultivated in various tropical parts of the New World. It grows to a height of 1000 feet above the sea, though flourishing in greatest luxuriance in the vicinity of the ocean. It rises sixty to a hundred feet high; its cylindrical trunk, three feet in diameter, is crowned with numerous waving, feathery leaves, forming an elegant object of intertropical scenery. It is self-propagating. Its seed-shelled nut, protected from the salt water by its tough and thick though light covering, sails on the ocean to barren spots, where it germinates, and causes even the smallest islets to become covered with clumps of the coconut palm. They are surmounted by numerous wavy leaves, called fronds by botanists, and their footstalks are often called branches by travellers. The leaves are gigantic in size, being about 20 feet in length, with a strong tough stalk, which forms the midrib, and has a number of narrow and long leaflets ranged along the two sides.

It is a tree of great value to the people, who utilize it in upwards of a hundred ways. The
COCOS NUCIFERA.

wood is applied to various purposes, such as rafters, fences, shears, laths, slings, chairs, and ladies' work-boxes, etc.; but during the period of its most abundant bearing (considered to be between ten and thirty-five years' growth), the heart-wood is of so soft and spongy a nature, that it is then merely used for fences, water-pipes, etc. Its wood is also used for reevers, for which purpose it is, however, inferior to the palmyra, though, in Ceylon and on the western coast, hard and durable rafters are procurable. The Cochin planks are prettily striped, and of remarkable size. The wood is strong and durable; a cubie foot weighs 70 lbs., and it is esteemed to last for 20 to 50 years. It is used for ridge-poles, for temporary roofs, aqueducts, etc.; for small boats; for the beams, posts, and rafters of houses; for spear handles, paling, and walking-sticks; for fancy boxes and furniture; for boats' frames, bridges, rampsarts, water butts, conduits, gutters, and drums. It forms one of the porcine woods of commerce, and is used for fancy articles. A fraganceous substance is contained in the stem, which is readily removed. Each tree produces annually from 50 to 60 coconuts, but up to 500 nuts have been obtained from a single tree, but some trees never fruit at all. From the appearance of the flower until the fruit drop, a period of fourteen months elapses. Those are enclosed in a thick fibrous husk, from which the coir of commerce is obtained by maceration and beating. The husk is employed as a scrubbing brush and polishing brush; it is converted into cordage of various kinds, employed for the rigging of ships, fishing-nets, matting, and brushes; and in India, in its loose state, it is the usual material with which mattresses, pillows, and sofas are stuffed. Within the fibrous husk is the shell, which is very brittle, though its structure is somewhat fibrous. Cut in various ways, it is formed into cups and drinking vessels, into pitchers, funnels, and lamps. It is susceptible of a high polish, and admits of being turned in an agreeable manner. These shells which are tolerably circular are used for the bodies of casks and vases, the feet and covers being made of wood and ivory. Common buttons are also made of the coconut shell, and are considered better than those of horn, as they do not, like that material, absorb the moisture, which causes horn buttons to swell and burst. The shell forms a valuable charcoal.

In its young and green state, the coconut contains a clear albuminous fluid, with a sweetish taste and a slight degree of astringency, which makes it a very agreeable, refreshing beverage; and it is also used by house plasterers as an ingredient in their whitewashes made of pure lime. But as the nut advances to its full maturity, the fluid disappears, and the hollow is filled by the almond-like dried albumen, which is the germinating organ. This pulp or kernel, when young and fibrous, is used for the manufacture of sugar. When cut in pieces and dried in the sun, it is called copra, which forms an extensive article of commerce throughout the south and east of Asia. It is used grated in curries, or its milk is expressed from it; and from copra a valuable oil is expressed, which is employed in anointing the body, is used in lamps, is largely converted into the stearine candles of England, and forms an invaluable substitute for cod-liver oil. The refuse oilcake, "pooamme," forms an excellent manure. The white and solid albumen is often cut into ornaments of flowers and fruits, meant to represent the garlands given to visitors of distinction. They are worn by Tanjore ladies at particular festivals.

The very young or heart-leaves of this palm are called the cabbage, and form an excellent vegetable, either cooked or dressed in stews, hashes, or ragouts. In the Laccadive islands, the heart-leaves of the tree, just before they unfold, are cut out and plaited into mats of fine quality, which are there used as sails for the smaller boats, and are much esteemed when exported. In India, the leaves, dried, and called by Europeans cadjans, are plaited and used as thatch, and for the outer and inner linings of walls of houses. The leaves are also made into mats, baskets, both fancy and plain; into fans, combs, brooms, screens, buckets, and lanterns; into articles of dress; and into leaf-books, torches, and fuel. The footstalls of the farmers are used for fences, yokes, shoulder-poles, and fishing-rods. The midrib of the leaf becomes a material for fisherman's nets, but brittle, and are used as brooms. The roots of the tree are chewed as a substitute for betel-nut.

One of the beverages known to Europeans as palm-wine or toddy, is obtained from the flower spathes. Before the flowers have expanded, the spathes—and these are themselves astringent and used medicinally—are tied with the young leaves, and then cut transversely from the top downwards, and beaten daily with the handle of the knife or a piece of hard wood, and the sap, after a few days, exudes into a calabash or earthen pot. In the early morning this is a pleasant, refreshing drink; but it ferments towards night, and becomes an intoxicating fluid, which is largely drunk, and is used as a ferment. It is to a great extent artificially brought to the vinous and acetic fermentations, and, in the former state, an alcoholic spirit is distilled from it, which forms one of the arracks of commerce. One hundred to two hundred gallons of toddy produce, it is said, by distillation, twenty-five gallons of arrack; eight gallons of sweet toddy, boiled over a slow fire, yield two gallons of a luminous syrup, from which, by further boiling, a coarse brown sugar is produced, known in commerce as jagari. The net-like substance Peynadi, Tam., Jalla mitta, Hind., at the base of the petiole, when very young, is delicate, beautifully white, and transparent; but when it attains maturity, becomes coarse and tough, and changes to a brown colour. Portions of these are everywhere used as strangers and sieves, for straining fluids, sifting arrowroot, etc.; and the Tahitian fishermen convert it into a garment when fishing.

The flowers contain a powerfully astringent property, which is used medicinally; and it is from the flower and spathes, before the flower has expanded, that the toddy or palm-wine of this tree is obtained. The Tahitians extract a gummy substance, called Pia-pia, from the trunk of the tree.

George Herbert, writing of the cocoanut, has said,—

'The Indian's nut alone
Is clothing, meat and treacher, drink and can,
Boat, cable, sail and needle, all in one.'

In Malabar and Ceylon, every available spot
within the influence of the sea-breeze is being devoted to the growth of the coconuts. Along the western coast of the Madras provinces, the sandy downs near the sea borders, which have hitherto produced only a stunted and worthless crop of grass, are being everywhere levelled, broken up, and manured, so as to form the beds of future plantations. Coconuts trees have great enemies in the shape of two beetles. One of these is a large Cureulo (Rhynchophorus Sach) called the red beetle, nearly as big as the stag-beetle of Britain; the other is the Oryctes rhinoceros, so called from its projecting horn. The red beetle is so called from the red mark on the upper part of its breast. Its attacks are said to be on the nut, but those of the rhinoceros beetle are on the terminal bud of the palm stem. When so injured, the bud dies, and the crown of the leaves falling off, leave the coconuts tree a mere bare stem. The same result occurs to other palms, the palmyra, the betel, in which the top bud, or cabbage, as it is called, is destroyed.—Collingwood; Simmonds; Royle's Fl. Pl.; Madras Exh. Jury Reports; Seward on Palms; Aistle; Madras Lit. Soc. Journ.; J. Ind. Arch.; Eng. Cyc.; Elliot's Flora Indica; Cat. Rec.ve; Malcolm's Tr. ii. p. 176.

**COCOTIER DE MALDIVES.** Fr. Sea cooconut; Loddicea Seychellana.

COCOYA. MALAY. Sleeping mats made from the leaf of the Pandanus odoratissimus.

**COCUM OIL or Butter** is obtained from the seeds of Garcinia parviflora, and used in various parts of India to adulterate ghee or butter. It is said to be exported to England for the purpose of mixing with bear's grease in the manufacture of pomatum. It is a white or pale greenish-yellow solid oil, brittle, or rather friable, having a faint but not unpleasant smell, melting at about 95 degrees, and when cooled, after fusion, remaining liquid to 75 degrees.—Simmonds.

COD.

Kabla; Bakela; Dan. Baecla; Baeclare, It. Skrei torsk; Kabelja; Baukaels; Baecla; Baeclare, Lat. Babola; Babola, Port. Morue; Cabila; Babola; Babola; Babola; Babola, Sp. Babola; Babola; Babola, Sw. Babola; Bakela; Babola, Ger.

In China the consumption of salted provisions is very general. Fish, cured with salt and dried in the sun, is one of their most generally used articles of food; and on salted cod being introduced for two or three years in English ships, the somewhat decayed condition in which it reached China was anything but a drawback. But this cargo, besides its disagreeable nature and the injurious effect on some delicate articles of shipment during the voyage, bred a peculiar insect, which, from the readiness with which it bored into the planks and timbers of a ship, was considered as dangerous, and accordingly the import was greatly discontinued. Cod sounds, brought into Britain in great quantities from Newfoundland, are the salted air-bladders of these fishes. They are also largely imported into England from the east coast of Scotland. Cod-liver oil is largely in use throughout the world in cases of threatened phthisis.—McCallum's Conc. Dict. p. 502; Morrison, Compendious Summary.

CODILLA or Tow, the short fibres of hemp or flax, separated or picked out in cleaning.

COLO. HIND. Paspalum frumentaceum, Ken.

This is sown early during the rainy season. Its small grain frequently has inebriating properties, when made into bread. Such codo is known by the name of mutonna, from Mutt, drunk, intoxicated. In appearance it resembles ordinary codo; it is sown as ordinary codo, and comes up as mutonna, but only in those fields on which codo has been previously grown; and even in such case, only, perhaps, in one instance out of ten. These curious properties of codo have invested it with a degree of mystery in the eyes of the natives of India, and the Kakun Rajput of Ghazipur are said to worship it as a divinity. They never cultivate the wild codo, "Nefas violare et frangere morso;" and the reason assigned is that, while under the influence of mutonna, they were set upon by some of the neighbouring tribes, and thus lost the greater part of their once extensive possessions. Kissors (Lathyrus sativus) is another grain which is found to have injurious properties.—Elliot.

**COCCELIUS.** A family of curious reptiles of the order Batrachia apoda. The family contains two genera, Coecilia oxyura, D. et B., which is found in Malabar, and the genus Epicerium, of which E. glutinosum, Linnae., is found in Ceylon, and E. monochromus, Bleeker, in Pegu. Linnaeus gave to the Ceylon species the name Coecilia glutinosus. This is an inch in diameter, and nearly two feet in length. Its eyes are so small and imbedded as to be undistinguishable to ordinary observers, who believe the reptile to be blind. Like snakes, eels, and some salamanders, it secretes a viscous fluid from minute pores in its skin. The skin is furrowed into 350 circular folds, in which are imbedded minute scales. The head is tolerably distinct, with a double row of fine curved teeth for seizing the insects and worms on which it is supposed to live.—Sir J. E. Tennant, p. 318.

COEL. HIND. A bird of the family Cuculidae. It is the Eudynamys orientalis, and inhabits Ceylon, India, Malay countries, and China, and is called Coel, Hined, Kokil, Beng., Chule, Malay, and Cowndecoha, Singhul, all of the names being obtained from its ordinary call, which closely resembles the word Koil. Like the cuckoo of Europe, this is, in India, the harbinger of spring; and its call, though shrill and disagreeable, is associated with all the joys and labours of husbandry of that season, and is quoted in the rhymes and proverbs of the people. Thus Coel bolee, Sebundee dalee, the cry of the coel is the grief of the sebundy soldier; meaning that the disbanding of the armed men gathered together for collection of revenue depends on the coel's note,—Sebundee being a corruption of Sapah Hindee, in distinction to Moghul or foreign troops, who were always kept up. The coel, indeed, occupies much the same place in India that the cuckoo does in Europe. The European names, even, are all derived from the Sanskrit name Cuculus. Pliny says that the vine-dressers deferred cutting their vines till the cuckoo began to sing. There is the cuckoo-ale of England, which the labourers leave their work for a partake of, when the first cuckoo's note is heard. There is the old, foolish superstition in England, that it is unlucky to have no money in your pocket when the first cuckoo of the season is heard; and the amorous Hobnelia tells us that in love omens its note is equally efficacious.—Elliot.
COEL. COFFEE.

COEI, the ancient name of Alighur, where M. Perron built a fortress.

COELGOGYR, a race in Cochin who make bows, arrows, shields, and other weapons. The Cumiargogyr race teach fencing and the use of weapons. The Coelacy are trumpeters.

COELOGNE, a genus of plants belonging to the natural order Orchideae. The most gaudy of all plants, Born, and perhaps are the various species of C. sotox, called collectively by the natives the bu-uca ka-sihan, or the flowers of mercy; their white and orange-coloured flowers are exceedingly delicate and beautiful, and they are all highly fragrant. About 20 species occur at the foot of the Himalayas, Nepal, the Khassya Hills, and China, namely, angustifolia, barbata, cristata, decora, elata, fimbrata, flavida, Gardneriana, interrupta, longicaulis, maculata, media, nitida, ocellata, ovalis, praeox, procera, prolifera, rigida, undulata, Wallichiana. Borneo has C. Lowii, Paxton, pandurata, Lindley, the last with large green and black flowers.

COELOPS, a genus of the mammalia, of the sub-family Rhinolophinae, of the sub-order Chiroptera or bats.

COEPANG, a Dutch settlement in the S.W. part of the island of Timor.

COFFEA, a genus of plants belonging to the natural order Cinchonaceae. There are several species of C. arabica of Arabia, from which it has been introduced into many countries; C. Bengalensis, the Bun-kahwa or wild coffee, which grows in Assam, Nepal, and the Khassya Hills; C. elliptica, Thewedes, a small tree of Ceylon, growing to 10 or 12 feet high in the Himaldoor; C. Guianensis, Aubl., of Guiana and Trinidad; C. Manirhitiana. Lam., of Bourbon; C. Mexicana, D.C., and C. obovata of Mexico; C. Liberica, Bull., of Liberia; also C. tetandra of the Khassya mountains; and Wight describes C. alpestris, Grumeloides, and Wightiana. The Coffea Arabian trees are now grown in Abyssinia, and in tropical Africa generally; in Arabia, on the slopes of the Neelygher Hills, in the Peninsula of India, at Lohadugga in Bengal; in Ceylon, Siam, Burma, Sumatra, Java, Manilla; in Queensland, in the Mauritius; in the West India Islands, Central America, Brazil, and Peru. The seeds known as the bean, from the Arabic boon, are the economic product of this tree, and Great Britain obtains its supply of them from many of the above-mentioned countries,—from Ceylon, British India, Brazil, and Central America. In 1880 its imports reached 1,555,939 cwt., valued £7,062,016; and 290,802 cwt. were retained for home consumption. In British India, Mysore, and Cochin, there were in 1880, 47,978 coffee plantations, with 162,373 acres under mature plants. The approximate yield is 33,100,778 lbs.; and the yield per acre of mature plants ranged up to 447 lbs., being smallest in Mysore and highest in the Neelyghiers. Seven cwt. per acre have been claimed for the yield occasionally on some of the Coorg estates, but reliable information was furnished in the fifth issue of the Statistical Tables for British India. In 1879 there were 17,351 estates in British districts, with 63,799 acres under mature plants, and the average yield per acre of mature plants was 325 lbs., the greatest crop being on the Neelyghiers, where 462 lbs. or 4 cwt. 14 lbs. was the average. The crops per acre in Mysore were only 14, 22, and 30 lbs. respectively in the Kolhar, Hassau, and Shimogah districts. The plantations in these three districts numbered 10,365, and 44,116 acres were under mature plants. The Kolhar district of Mysore had 13,802 plantations, but the other data are not given. Coorg had 4,248 plantations, with 59,159 acres of mature plantations, and its yield averaged 198 lbs. In the Peninsular States of Cochin and Travancore there were 140 plantations, with 16,310 acres of mature plants, yielding 246 lbs. per acre.


COFFEE BERRY. Boon. Ail., BOMBAY. C. bun-kahwa. Kapi. Vern. A. kish. Kapi. V. Chin. A. kash. Koli. C. A. EGYPT. The coffee tree is supposed to be indigenous to the mountain regions of Enarea and Cuffa, to the south of Abyssinia, whence about the 16th century it was introduced into Arabia, in the 17th century into Ceylon and Mysore, into Mauritius and Bourbon in 1718, and Batavia in 1723, and subsequently into the West Indies. Abel al Kador Mahomed ul Azari ul Jeziri ul Abbas Ali, who wrote in Egypt about A.D. 1587, relates that in the middle of the 15th century Jamal ud Din Abul Abdulla Mahomed bin Saeed ul Dubani was Kadi of Aden, and, having occasion to visit Abyssinia, he found his countrymen there drinking coffee, and on his return to Aden introduced it, whence it passed into Arabia generally. Shaiik Allah Shaduli ibn Omar settled near the sea about A.D. 1630, on the plain now occupied by the town of Mocha, and his reputation drew people around him, till a village was formed. He greatly recommended the use of coffee, and he has ever been regarded as the patron saint of Mocha, the people having, on his demise, erected over him an elegant tomb. Tavernier, in the "Collection of Several Relations," etc., published in London in 1680, has stated (page 64) that "coffee grows neither in Persia nor in India, where it is in no request; but the Hollanders drive a great trade in it, transporting it from Oemus to Persia, as far as Great Tartary, from Balsara into Chaldea, Arabia, Mesopotamia, and the other provinces of Turkey. It was first found out by a hermit, whose name was Sherk Siudeli, about twenty years ago, before which time it was never heard of in any author either ancient or modern." Coffee has been grown in part of Mysore almost from the same time that the Arabs have known it. It was brought there from Arabia by a Mahomedan pilgrim, named Baba Boonden, who formed a college on a spur of the hills now called after him, and from there the coffee plants spread. He is said to have brought with him only seven coffee beans, which he planted, and it is now one of the most valuable of the plants which have been distributed by man. Its large, pure white, sweet-scented flowers appear in March, April, and May, and its fruits in November, December, and January. Its fruit contains an active principle called epine; which has been found to be identical with theine; and a decoction of the roasted berries, or an infusion of the berries, is a well-known article of diet, and with tea, cocoa, 767
COFFEE PLANTING.

COFFEE PLANTING.

matoo, Paraguay tea, guarana, and kola nuts, constitute the beverages of the European, American, Asiatic, and African peoples. Each of these plants contains the alkaloid theine. Different in botanical characters, varied, yet not very unlike in flavour, they all contain this valuable active principle. The theine in dried kola nuts is about 2 per cent, coffee has 0.5 to 2.0 per cent, and tea from 0.5 to 3.5 parts in 100. The coffee berry consists almost wholly of albumen, which surrounds the small embryo of the seed, and in infusion or decoction is a stimulant. In Arabia, the decoction and infusion is often prepared from the husk and the bean, and often from the husk alone. Lane says Kahwa is an old Arabic term for wine. Dr. Shortt, in his Handbook to Coffee Planting, described the process of wine and spirit making with the fresh coffee pulp, but also from the dried husks of the fruit.

Coffea Liberica, Bull., the Liberian coffee plant, is of almost arboreal growth. It has a larger leaf, and its berries also are larger, and of superior flavour to those of C. Arabica, and it is more productive. It was at one time hoped that this plant would be less affected by the Hemileia mould, known as the leaf disease, as it is said to have an immunity from the cestomata fly.

The import of coffee into Great Britain from Ceylon and other British possessions, from Brazil, Central America, and other countries, was as under:

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<thead>
<tr>
<th>Years</th>
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<tbody>
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Liberian coffee grows at elevations unsuitable to the Arabian species. At the end of 1877 there were in Ceylon about 500 acres planted with Liberian coffee. Estimates of the area under cultivation at the end of 1880 varied from 4000 to even 10,000 acres. Though not enjoying complete immunity from the attacks of leaf disease, the growth and productiveness of the trees have not so far been affected by it. London dealers are said not to appreciate its bean very highly, but it has been favourably received in America. — M'Culloch; Waring; Boyle; Birdwood; Voigt; Journ. Ind. Arch.; Statistical Tables; F. von Mueller.

COFFEE PLANTING, as a branch of agricultural industry, although only introduced into India in comparatively recent times, has attracted many persons. The outlay has been great, but both in Ceylon and Southern India the losses have been considerable, often ruinous. In Netherlands India, coffee planting has been a Government monopoly, and there has been a large exportation of coffee from Java; but the most recent information is to the effect that the monopoly is not, or was but little, remunerative. In British India coffee is grown along the summits and slopes of the Western Ghats, from the northern limits of Mysore south to Cape Comorin; in Coorg, Travancore, in the Wynad, on the slopes of the Neelgerry Hills, and also on the Shevaroy Hills and Pulney Hills. Major Bevan introduced coffee into the Wynad about the year 1822, as a curiosity. Mr. Cannon, somewhat later, formed a plantation in Mysore; Mr. Glasson, in 1840, formed a plantation at Manuortody; and in 1842 it was growing well at Belgaum. The extension has since been great; and in 1880, in the

Cochin, Travancore, Mysore, and Madras districts, and at Lohardugga in Bengal, 412,947 acres had been taken up for coffee, of which 162,847 acres had mature plants. The yield per acre on exceptional estates, in exceptional seasons, is said to be greater. The cultivation in British India has increased in extent year by year, and the exports, chiefly to Europe, have been as under:

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Ceylon.—The coffee tree was introduced into Ceylon by the Arabs before the arrival of the Portuguese, who bartered for it its tender leaves for their curries, and its delicate jasmine-like flowers for ornamenting their temples and shrines. The Dutch carried the coffee tree to Batavia in 1690, and about the same time they began its cultivation in Ceylon, but again ceased in 1739. Its culture, however, continued to be prosecuted by the people; and, after the British occupation, the Mahommedans collected it in the villages, and brought it to Galle and Colombo, to be bartered for cutlery, cotton, and trinkets. It was extensively diffused over the country by the agency of birds and jackals. From 1821 the quantity of coffee shipped to Britain yearly increased,—native grown, badly prepared berry, and ranking below almost every other kind of coffee. In 1830 the first attempt at careful coffee culture was made on a considerable scale by the governor of the island, Sir Edward Barnes, and the success induced others to apply for waste forest land. During 1836 and 1837 upwards of 7000 acres of Crown lands were purchased, and partly cleared and planted; and in 1836 the crop was 60,330 cwt. It had become widely extended through the Kandyian provinces. On the Himalasgar mountains, in 1840, a small plantation was formed. In 1846 there were fifty estates there, averaging each 200 acres of planted land, and yielding an average crop of 80,000 cwt. of coffee. On the 31st December 1847, there were 50,070 acres cultivated. The gross outlay of this is said to have amounted to £5,000,000 sterling. In the seventeen years 1855 to 1872, the extent of coffee land cultivated in Ceylon increased 175 per cent., the number of plantations rising from 404 to 1087, the crop from 374,000 to 700,000 cwt.s. The cut-turn of produce increased 100 per cent., but the average yield per acre decreased from 5.5 cwt. to 4.88 cwt. (Standard, Nov. 17, 1875). In 1875 coffee was under cultivation in 37 districts of Ceylon, containing in all 1351 properties, of a total 481,639 acres, of which 249,604 acres were cultivated. From 1856 to 1875 the crops per acre have ranged from 2-75 cwt. in 1874, to 5-07 cwt. in 1868, the general average being rather under 4-25 per acre.
Coffee interests in Ceylon were injured by the over-eagerness of the early planters to obtain coffee property, leading them to pay unremunerative prices. The coffee crop of 1870-71 was generally a bumper. The season of 1871-72 was one of short crops, caused by irregular blossoming showers, and by the leaf disease, which then made its first appearance. From 1871 to 1878, on the average, 707,590 cwt. of coffee were exported from Ceylon, and the average production per acre was 3-79 cwt. In 1879 the export was 774,774 cwt., and the out-turn per acre cultivated was 3-60. In the three years 1878 to 1880, the average export was 658,575 cwt., and the average yield per acre was 3-01 cwt. Since these unremunerative results followed, the planters have been directing their attention to cacao, cinchona, and tea.

In Arabia Felix the culture is principally carried on in the kingdom of Yemen, towards the cantons of Aden and Mocha. Although these countries are very hot in the plains, they possess mountains where the air is mild, and the coffee is generally grown half-way up on their slopes. When cultivated on the lower grounds, it is always surrounded by large trees, which shelter it from the torrid sun, and prevent its fruit from withering before its maturity. The harvest is gathered at three periods; the most considerable occurs in May, when the reapers begin by spreading cloths under the trees, then shaking the branches strongly, so as to make the fruit drop, which they collect and expose upon mats to dry. They then pass over the dried berries a heavy roller, to break the envelopes, which are afterwards winnowed away with a fan. The interior bean is again dried before being laid up in store. The principal coffee districts are Henjerisa, Tarza, Ouidein, Ancizah, Bazil, and Weesaf. The nearest coffee plantations are three and a half days' journey (about 80 miles) from Aden. Coffee is brought into the Sana market in December and January from the surrounding districts. The varieties are Sherzoe best, Ouoeaim, Muttanca, Sharrazee, Hubbal from Aniss, Sherissee from Aniss. The nearest place to Sana where the coffee tree grows is at Arfis, half a day distant. The coffee plant in Arabia is mostly grown near the sides of mountains, valleys, and other sheltered situations, the soil on which has been washed down from the surrounding heights, and carefully protected by means of stone walls, so as to prevent the traveller the appearance of terraces. The plant requires a moist soil, though much rain does not appear necessary. Coffee is also found in greater luxuriance in places where there is no spring; yet an abundant supply of water to the root of the plant seems necessary for the full growth and perfection of its bean. Mr. Palgrave says the best coffee is that of Yemen, exported from Mocha, but Arabia, Syria, and Yemen consume two-thirds of it, and the other third finds its way to Europe, to the west of Constantinople, and is used by Turks and Armenians. The rounded, half-transparent, greenish-brown berries are deemed the best. It is also exported by the Red Sea into the Hejaz and Kasim in Shinner. It was stated by Niebuhr to have been brought by the Arabs from Abyssinia to Yemen, from a country similar to their own plains and mountains; that people had for ages cultivated it in the hilly range (Jabal) in a healthy temperate climate, watered by frequent rains, and abounding in wells and water tanks.

In Ceylon, the coffee plant will grow and reproduce itself on a level with the sea; and at 2000 feet above it, the trees, whilst young, will have the most luxuriant appearance, come soonest into bearing, and yield the greatest measurement quantity per acre, but the bean is light, and of an inferior quality. The best Ceylon properties are situated on the mountains at from 3000 to 4500 feet above the sea, where rain is frequent, about 100 inches annually, and the temperature moderate; the maximum 80° and minimum 15°. The average properties (and consequently final flavour) of the coffee plant are best developed in Ceylon between 3000 and 5000 feet above the ocean. The higher it is cultivated, with care, below frost, the better has been the quality of the produce, although the yield is less. The appearance of high mountain beans is long, blue, the longitudinal seam curved, with its sides close and compact; its specific gravity is greater, and its aromatic principle more abundant and finer, than that produced on low lands, which is attributed to its being grown slowly in a cold climate. The best plantations are situated in the Kandy-in province, where the thermometer ranges at noon about 76°, and in the morning not higher than 60°. The coffee berry in those elevated districts has therefore to be conveyed to Colombo, where a constant high temperature enables the merchant to complete the drying process, which the planter had but commenced. Coffee plantings failed over a considerable portion of the soil of the island. The temperature was found to be too equitable, not descending sufficiently low at any time to invigorate the plant, which, though growing luxuriantly at first, soon became weak and delicate. The chief crop ripens in October and November, and a small second gathering is looked for in May. The following have been the average quantities and values of quinquennial exports from Ceylon:

<table>
<thead>
<tr>
<th>Years</th>
<th>Cwt.</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1857-58</td>
<td>5,872</td>
<td>£1,515,320</td>
</tr>
<tr>
<td>1858-59</td>
<td>5,684</td>
<td>1,506,406</td>
</tr>
<tr>
<td>1859-60</td>
<td>6,386</td>
<td>1,500,342</td>
</tr>
<tr>
<td>1860-61</td>
<td>7,188</td>
<td>1,492,348</td>
</tr>
<tr>
<td>1861-62</td>
<td>7,570</td>
<td>1,484,348</td>
</tr>
<tr>
<td>1862-63</td>
<td>8,062</td>
<td>1,476,348</td>
</tr>
<tr>
<td>1863-64</td>
<td>8,554</td>
<td>1,468,348</td>
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<tr>
<td>1864-65</td>
<td>9,046</td>
<td>1,460,348</td>
</tr>
<tr>
<td>1865-66</td>
<td>9,538</td>
<td>1,452,348</td>
</tr>
<tr>
<td>1866-67</td>
<td>10,030</td>
<td>1,444,348</td>
</tr>
</tbody>
</table>

In Ceylon, suitable coffee land has been costing £8 to £20 the acre; and £25 to £30 the acre was the estimate for bringing the purchased land into bearing, and providing proper buildings, suitable roads, paths, and drains. In Ceylon it is considered better to choose an easily or northerly aspect; for though the morning sun falling on the dew is said to injure the plant, and the setting sun to improve its fruit, the advantage of shelter outweighs these considerations. The south-west monsoon is apt to exercise a blighting influence, curling up and withering the few leaves it does not beat off the trees.

In Ceylon, the best soil is of a deep chocolate colour, friable, and abounding with blocks and small pieces of stone. Such patches of land are generally found at the bottom of the escarpments of the hills, or in elevated valleys, and rarely on the slopes. Quartzose land must be carefully avoided, and clay is equally bad. A good surface soil should have at least two feet of depth, as the coffee tree has a long tap root. A nursery must be proportioned to the extent of land to be culi-
vated, and situated with regard to proximity to the extended fields. The seed-grains are sown six inches asunder; if the land become parched, it will be well to shade it with green branches, and irrigate it night and morning; should a long continuance of rain follow the sowing, the seed sometimes decays in the ground. It requires from six weeks to three months, according to moisture and warmth, before it germinates, and in four months more the seedlings are ready to be transplanted.

The labourers on the Ceylon coffee estates, about 220,000, are principally from the districts of Madura, Tinnevelly, Tanjore, Trichinopoly, and Mysore. They arrive between May and October, and return in January and April via Manar. Kandyans and the lowland Singhalese were found unsuitable for the work, besides being too few; and the arrivals at and departures from the ports of Ceylon of Tamil coolies, from 1841 to 1873, were—

<table>
<thead>
<tr>
<th>Arrived</th>
<th>Departed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men.</td>
<td>Women</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>1841</td>
<td>4,529</td>
</tr>
<tr>
<td>1842</td>
<td>9,025</td>
</tr>
<tr>
<td>1843</td>
<td>6,285</td>
</tr>
<tr>
<td>1844</td>
<td>74,540</td>
</tr>
<tr>
<td>1845</td>
<td>72,526</td>
</tr>
<tr>
<td>1846</td>
<td>41,862</td>
</tr>
<tr>
<td>1847</td>
<td>44,685</td>
</tr>
<tr>
<td>1848</td>
<td>12,308</td>
</tr>
<tr>
<td>1849</td>
<td>55,121</td>
</tr>
<tr>
<td>1850</td>
<td>57,671</td>
</tr>
<tr>
<td>1851</td>
<td>65,224</td>
</tr>
<tr>
<td>1852</td>
<td>58,229</td>
</tr>
<tr>
<td>1853</td>
<td>58,822</td>
</tr>
<tr>
<td>1854</td>
<td>57,650</td>
</tr>
<tr>
<td>1855</td>
<td>59,000</td>
</tr>
</tbody>
</table>

During the years 1841-46 the Tamil labourers must have saved or remitted to their country from £385,000 to £400,000. But against this pecuniary advantage a great loss of life had to be placed. During the eight years above enumerated no less than 70,000 Malabar coolies died.

In Southern India, Cannon's Mysore was grown on a range of hills from 3500 to 4000 feet above the sea, having the benefit of the south-west monsoon, which very seldom falls at all, never entirely, and it has also the tail-end of the north-east monsoon. Its peculiar qualities were closeness of texture and richness of flavour. From the year 1832, Europeans entered into the agriculture, and Cannon's Mysore coffee soon attracted the attention of dealers, for it rose from 1816-47 to an average of 96 shillings the cwt., and had fetched so high as 115 shillings; and the selling price of native-grown coffee in Mysore rose from one rupee per maund of 28 lbs. to six and eight rupees per maund. The first plantations by Mr. Cannon were at Chikmoogloor, near the Baba Booden hills; the next were at the Munjerabad Ghats; and for many years the Mysore coffee districts were confined to the region of the Western Ghats and the Baba Booden hills. Attempts were made to cultivate coffee in the open country, but without success; it seemed to require forest land, and considerable elevation and moisture.

In the year 1862 the demand for coffee lands in Southern India was at its highest. Coffee plantations two years old were then selling at £12 to £14 the acre; of three years' growth, £15 to £17; of four years, £18 to £20; and in full bearing, £20 to £25,—when coffee was worth 75 to 96 shillings the cwt. From that year commenced doubts in the minds of planters, but ultimately, in some districts, the result was disastrous. From these yielding three cwt. per acre, and they were the great bulk, there were no returns. In Coorg, the enemies of the coffee tree—the bug, the rot, the borer, insufficient capital, and the want of the owner's eye—were numerous. In Coorg there were cheap labour, cheap food, and good roads, yet in the autumn of 1866 the estates were unsaleable.

In the south of India land was sold from Rs. 10 upwards to Rs. 50 per acre from Government. In 1876, some natives of Wynad asked Rs. 30,000 for 150 acres of forest land, equal to Rs. 200 per acre. In Travancore, in 1875-76, 7817 acres were sold for Rs. 2,147,761, or Rs. 28 per acre; the highest price in a single lot realized was Rs. 82 an acre. It was estimated that an acre of jungle on the Neeltgherries could be brought into bearing for Rs. 200, including all expenses. A good dwelling-house, the pulping house, machinery, and godowns, Rs. 4000 more. The entire cost of bringing 100 acres into bearing was generally reckoned at Rs. 30,000.

Soil.—In British South India the soil recommended is a good rich garden land, the situation high, and not liable to inundation, and well sheltered from prevailing storms. A hill affording shade to the shrub has been found beneficial in all tropical climates; if grown fully exposed to the sun, the berries ripen prematurely. A beautiful species of Strobilanthes, which grows in Coorg, is called the coffee plant, because thought to indicate soil suited for coffee trees. Coffee delights in a moderately warm and moist atmosphere; but Coorg is deluged with rains during six months of the year, and scorched by the sun for the other half. In hilly country, planters protect the shrub from being washed away, by terracing and cutting level drains across the hill face. Cannon is peculiarly adapted to the growth of coffee, being a mountainous island, with three sides open to a vast expanse of ocean. Droughts do occur, but even in the driest seasons the hills attract clouds, which frequently pour down refreshing showers. The heavy mists and dense clouds, which sometimes shut out the sun for days together, or roll sluggishly along the mountain-sides, are amongst the planters' best auxiliaries. The shrub luxuriates in a rarefied, temperate, and moist climate, and delights in frequent but not heavy rains on the slopes, where there is a good natural drainage, for any lodgment of water about its roots soon proves fatal.

Sowing.—The seed reserved for sowing must be put into the ground quite fresh, as it soon loses its power of germination. The quality of the seeds from young stems is not so good as that from stems four or five years old. Clean, well-formed berries, free from injury by insects or the decay of the pulp, should be selected. These berries must be sown in a nursery, either in small, well-manured beds (or in pots in a sheltered spot), not too close, as it is well to leave them where sown until they acquire a good growth; indeed, it is better if they are removed at once from the bed where they are sown, to the plantation. The seedlings appear in about a month after the seed is sown. Coffee seedlings from the nursery may be planted out in seven
COFFEE PLANTING.

months. A bushel will rear 10,000 plants, covering ten acres. Coffee trees should be planted in rows six or eight feet apart, in holes 20 inches deep by 18. They should be regularly lopped and pruned, so as to admit the sun to ripen the fruit on every branch. The trees are generally in bearing in the third or fourth year.

The coffee tree, if allowed, attains 15 feet in height, but to facilitate plucking it is kept down to 3 or 3½ feet above the ground. This makes the shrub shoot out laterally, and produce at least 25 per cent. more than it would do if permitted to attain its natural height and to occupy more land. In tapping, care must be taken to cut off the uppermost pair of branches, as their weight when in fruit would split the head of the stem. Nature is constantly throwing out young shoots, which try to grow upwards, but they must be carefully broken off, as they are a great and useless drain on the juice of the plant. Never cut a snapper or branch off a tree, but always break it. It is necessary to protect the trees from being burned up by the sun, by planting them sufficiently close to form a good cover, and protect the soil from exhaustion by systematic weeding and substantial manuring.

The age to which the coffee tree will survive has not been ascertained. Native plantings are to be found in many parts of Ceylon, Wynad, Mysore, etc., containing trees of an age far beyond the power of the oldest inhabitant to define, and which have very probably been flourishing for generations.

Fruit.—From flowering to harvest is from eight to nine months. A field in full bloom is a beautiful sight. The clusters of white blossom contrast prettily with the deep green leaves, and the whole at a distance the tree itself had been snowed on. The flower only lasts one day. If the atmosphere be dry, the bloom is sometimes lost, as it will not set without moisture: mists and light drizzling rains are the most favourable weather at this time. The fruit grows on a footstalk of half an inch, in clusters round the joints of the lateral branches, and when of full size, but still green, resembles small olives. A month before ripening it turns yellow, and through different shades to ruby red when it is ripe, and from its likeness to a European fruit is technically called 'cherry.' During the latter part of its growth, particularly, it requires a great deal of moisture, otherwise the bean will be shrivelled, not perfectly formed, light, and of inferior quality. When the fruit becomes blood red it is perfectly ripe, and should be gathered. Once ripe, the sooner it is plucked the better. Within the pulp is the parchment surrounding the two beans, then the semi-transparent silver skin, and at the latter have biconically only one single berry, generally small and deformed, called pea-berry, which realizes in Britain 10s. to 12s. per cwt. more than the best quality of the usual sort. The parchment and silver skin comprise about 1 per cent. of the fruit. The pulp has a sweet, sickly saccharine flavour. In 1875 it was proposed to ferment the pulp into a spirit.

Ceylon coffee is known in the market as washed coffee. Mocha coffee is designated husked coffee, and is perhaps a better coffee bean.

Mocha coffee is cultivated in very small fields of a few acres in extent, and on level ground; the fruit is allowed to remain on the tree until it drops or is shaken down, and is gathered from the ground. In that hot, dry climate the pulp shrinks and becomes rather hard, and then by pounding by the hand, the berries, of a bright grey colour, are separated from the silver skin, the parchment, and the dried pulp, at one operation.

In Ceylon, after the berries are plucked and brought in baskets to the warehouse, the pulp or fleshy part is removed. The berries are placed in heaps in a loft, above the pulper. They are then sent down a shoot, into which a stream of water is conducted, and are thus washed into the pulper. The pulper is a roller covered with a sheet of copper, made rough like a nutmeg grater. The berries follow it as it goes round, but there is only room for the shoot to pass, so that the pulp is squeezed off and carried away by a stream thrown by the water wheel, while the naked coffee drops on the other side. The seeds are still covered with glistening matter, to remove which they are washed in a cistern, the inferior ones floating, while the good ones sink. The coffee seeds are then laid out on the barbeces (which are square platforms of brick, plastered with chunam, with sides a foot high), where they dry in the sun for about three days, and are afterwards stored in godowns. In the moister parts of Ceylon, the curing process is not completed on the estate. After removing the pulp, the beans, enclosed in parchment, are dried for about three days, and are then forwarded to Colombo, where, by means of special machinery, the parchment and the silver skin are removed from the berries, which are of a bluish colour when they are ready for shipment.

The commercial value depends on the size, form, and colour of the beans, and their flavour. Apart from tanning, which should be done when practicable, one of the best and most simple tests by which the merits of coffee may be approximately arrived at, is the amount of aroma which arises when the berries are freshly ground. In the better qualities the bean will grind with a dark appearance. In some kinds, especially those of the Mysore and Peninsular growths, the berries when roasted are perfect, owing, in a great measure, to their hardness and thickness when in a raw state, which would account for their resisting the application of heat better than the less bulky berry of Plantation Ceylon. Mocha, on the contrary, not only presents a most ragged appearance after it has undergone the process of roasting, but often exhibits many different shades of colour.

Coffee is one of those articles of which, though the inferior qualities may be unsaleable in Europe, a superior sample will always meet with purchasers from on account, as it is consumed by a class who will have it, and who consequently must pay for it as a luxury. In 1847 and 1848, although 'Ceylon plantation' was sold from 55s. to 50s. per cwt. as a general price, a few samples from the highest estates brought 80s. and 92s.

The Abyssinian coffee berry, also excellent, is inferior in qualities to that of Yemen; it is larger. The Indian berry ranks next. In Arabia the picked berries are roasted in a ladle until they crackle, redden, and smoke a little, and are carefully withdrawn from the heat long before they are black or charred, and are then put to cool on a glass platter. They are then bruised (not powdered) in mortars, poured into hot water, and 771
boiled gently and not long, all the time stirring with a stick; add when boiling a few aromatic seeds;—

'Heyl,' and a little saffron and cloves. The liquor is then strained.

In Ceylon and Southern India, mechanical con-

trivances have been largely applied in the process of preparing the coffee bean for the market. Amongst others, Mr. Clerihew's fanners and Grieg's pea-berry machine may be mentioned.

**Manure.**—The returns obtained from manured plantations have been richly repaid by a high standard of bearing. Cattle manuring is the most generally available. A good manure is found in the decayed leaves that fall from the trees them-


elves, to which may be added the weeds produced in the plantation, dried and burnt. These, dug in, are always useful as a manure, and should be utilized. Cow-dung is the best manure for the seed-bolls. The pulps of the coffee can be added to the fertilizing mass; indeed, rotting wood, weeds, burned dolomite, and anything which will produce ammonia, should be taken care of. But it has been supposed that many of the coffee plant enemies, fungi and insects, are germinated in the decaying manure. The manuring of a whole estate at one time is seldom required, but every part of the plantation should be brought under its operation every second or third year. One Ceylon estate, which was wholly manured without limit as to expense, is said to have returned about 20 cwt. to the acre; lime, cattle manure, and mould from the neigh-

bouring forest were used in a compost, and the soil turned up everywhere round the plant to apply it to (Cooffee Planting in Ceylon, p. 62). The richest mould can make a yield crop after crop for years, unless a proportionate return be made to it. The plant and its fruits are differently composed, and it is more necessary to provide for the fruit than the stem which supports it. A large proportion of the bean is nitrogen, which science teaches may be produced by certain phosphates, etc., under particular circumstances. A chemist can in a few days and at trifling cost produce what the uninstructed might spend a lifetime and a fortune over without attaining.

About 1849, Mr. Herepath gave the following analysis of 150 grains of fine West India coffee berries, for the purpose of determining the best manure for the West India coffee estates. Deducting the carbonic acid, 100 grains of ash gave,—

phosphate of lime, 45.551; phosphoric acid, 12.801; potash, 16.512; soda, 6.757; magnesia, 5.942; lime, 2.329; sulphate of lime, 1.751; with small quantities of sulphuric acid, chloride of sodium, and silicate acid.

In searching for a manure, where bone-dust, cow-dung, and wood ashes can be cheaply procured and applied, nothing can be better; a little powdered guese might be an improvement. Failing bone-dust and cow-dung, recourse must be had to ammoniacal manures, such as guano, and to lime. The dolomite of the interior of Ceylon contains, according to Dr. Gyngax, the proper proportion of phosphoric acid, in the shape of apatite or phosphate of lime. Dolomite is plentiful in Southern India.

In a subsequent communication from Mr. Here-


path, of date 13th June 1858, addressed to Mr. Walters, regarding a chemical analysis of Ceylon coffee, he reported that 1000 pounds of raw coffee

berries of Ceylon plantation's growth, contained the following mineral ingredients:—Potash, 37 lbs.; lime, 22 lbs.; magnesia, 57 lbs.; peroxide of iron, 4 lbs.; sulphuric acid, 24 lbs.; chlorfine, 3 lbs.; carbonic acid, 11.5 lbs.; phosphoric acid, 7 lbs. And he mentioned phosphoric acid, sulphate of lime, and carbonate of magnesia as the principal ingredients required for manure. About 100 pounds of Peruvian guano, with 7 or 8 pounds of ground gypsum, 10 pounds of magnesian limestone, and 1 pound of salt, mixed up with Ceylon vegetable mould or the ashes of the wood clearances and some pounded granite or quartz, would make a good manure for 1000 pounds of raw berries. (Bom. Stand. Jan. 1859.)

**Profits—Losses.**—In Southern India and in


Ceylon there has been money made in coffee planting by Europeans, but chiefly in their land speculations. But there have been great and general losses, sweeping away the little savings of servants of Government and speculative persons, and in 1880-81 and 1882 there was a general loss. The yield of coffee varies greatly with the seasons; but the trees have insect and vegetable enemies which have caused ruin,—the white, brown, and black bug, the black and white grub, the leaf disease, the coffee rat, the mole cricket. The first regularly worked Ceylon estate was opened in 1825, but the bug does not seem to have appeared in large quantities till 1845; then, how-


ever, it spread with such rapidity, that in 1847 a very general alarm was taken by the planters, about the same time that the potato, vine, and olive diseases began to create alarm in Europe. The coffee bugs seem, however, to be natives of Ceylon, for the white bug has been found on orange, guava, and other trees, as also on beetroot and other vegetables; and the brown bug attacks the guava, ibiscus, ixora, justicia, and orange trees,—indeed, every plant and tree, and even the weeds, on a coffee estate, particularly such as are in gardens.

When a coffee tree is attacked by the bug, it is deprived of its sap and its nourishment, while the fungus, which never fails to attend on the bug, prevents restoration, by closing the stomates through which the tree breathes and respires. Bug, Mr. Nielter tells us, exists on all the estates; none are believed by Mr. Nielter to be quite free from it, and he reasonably asks, 'Am I wrong in saying that if there was no bug in Ceylon, it would, at a rough guess, produce 50,000 cwt. of coffee more than it actually does,' and that quantity represents a value of £293,000. The brown and white bugs, and the black and white grub, he adds, are the only important enemies of the coffee tree, and the destruction caused by airlines, lianodes, zeuzera, phylates, strachia, and the coffee rat appear to be of a more local and occasional nature. The three chief pests are the white bug, the brown bug, and the black bug.

The appearance and disappearance of the coffee bug is most capricious. It comes and goes, now rapidly spreading over a whole estate, now confining itself to a single tree amongst thousands; here, leaving an estate in the course of a twelve-month, there remaining permanently; sometimes spreading over a whole estate, sometimes attacking a single field, then leaving it for another and another. But the white bug prefers dry, and the brown damp localities, the latter being found.
COFFEE PLANTING.

more plentiful in close ravines and amongst heavy
rotting timbers than on open hillsides, and it is
probably to this predestination that the shifting of
the insect is attributable. The bug seeks out the
softest and most sheltered parts of the tree, the
young shoots, the under-sides of the leaves, and
the clusters of berries.

The injury done by the white bug seems more
severe than that from the brown, but, not being so
plentiful as the latter, it is of less general im-
portance. The white bug is especially fond of
congregating amongst the clusters of berries, which
drop off from the injury they receive, and trees
often lose their entire crop in this manner. The
injury produced by the brown bug is the weaken-
ing of the tree, and is thus more general, but the
crop does not drop off altogether nor so suddenly.
With white bug on an estate, the crop can hardly
be estimated; with brown bug it can.

The White or Meaty Bug is the Pseudococcus
adonidum. The male insect is of a dirty brownish
colour, and slightly hairy. It is very minute (very
much smaller than the female, only about half
a line long), and resembles certain small Ephemer-
idae or May-flies. The female is oval, brownish-
purple, covered with a white mealy powder, which
forms a stiff fringe at the margin, and at the
extremity of the abdomen two sete. The larve
and pupae are active, and move about. The insects,
in all stages of development, are found in Ceylon
all the year round, chiefly in dry and hot localities,
on the branches of trees, and on the roots to one
foot under ground. Mr. Nietner says it is identical
with the species naturalized in the conservatories
of Europe. It is preyed upon by the Sceymnsus
rotundatus, a minute beetle of the ladybird tribe,
of the size of a pin's head, black and pubescent;
also the yellow-coloured and common Eneyrtus
Nietneri and the black-coloured scarce Charto-
coccus musciformis, two minute Hymenoptera
(wasps), only 1/2" long, and the minute whitish
mite, Aecurus translacon. Of the members of this
family of insects, the Coccide, some, as the
echneal and lac insects, are of great economical
importance, but others, as the sugar-cane blight of
the Mauritius, the Aspidiotus, and the coffee
bug, are excessively baneful to the gardener and
agriculturist.

The Common Coffee Bug, Lecanum coffee, Walker, establishes itself on the young shoots and
buds, which it covers with a noisome incrustation
of scales, enclosing its larve, from the pernicious
influence of which the fruit shrivels and drops off.
It is a Coccus, and a number of brownish wart-like
bodies may be seen studding the young roots, and
occasionally the margins on the outside of the
leaves. Each of these warts is a transformed
female, containing a large number of eggs (700),
which are hatched within it. When the young
ones come out of their nest, they may be observed
running about on the plant, looking like wood-
lice; but shortly after being hatched, the males
seek the under-sides of the leaves, while the females
prefer the young shoots as their place of abode.
The larve of the males undergo transformation
into pupae beneath their own skins, and their
wings are horizontal, and their possession of
wings may possibly explain the comparatively
rare presence of the male on the bushes. The
female retains her powers of locomotion until
nearly of full size, and it is about this time that
her impregnation takes place. The pest does not
produce great injury until it has been two or three
years on an estate; but at length the scales on
the plants become numerous, the clusters of berries
assume a black, sooty look, and a great number of
them fall off before they are mature. The
young shoots have a disgusting look from the number of yellow posterior bodies forming on them, the leaves
get shrivelled, and on many of the young shoots
the berry forms. The coffee bug first appeared
in 1843 on the Lupalli Galla estates, and it, or a
closely-allied species, has been observed on the
Citrus aicida, Psidium pomeriforme, Myrtus Zey-
lanica, Rosa Indica, Careya arborea, Vetex negundo,
and other plants, and most abundantly on the
coffee bushes in moist places. It reappears though
eradicated, and is easily conveyed on cloths from
one place to another. Dr. Gardner, whom Sir J.
E. Tennent quotes (ii. p. 246), was of opinion that
all remedies had failed, and that it must
wear itself out, as other blights do. The male
of the brown or scaly bug, Lecanum coffee, is
of a clear light pinkish-brown colour, slightly
hairv, and very pretty. It is more delicate
than the male Pseudococcus. The females when
young are yellowish, marked with grey or light
brown; and old individuals are light brown, with
a dark margin. It affects cold, damp, and close
localities, on the lower part of the tree, and the props around, as in the white bug, is continuous. The brown
bug is much infected with parasites, amongst
which the most common are eight minute Hymeno-
ptera (wasp5), with brilliant colours; but a mite,
the Acarus translacon, and the larva of the
Chilocorus circundatus, a kind of ladybird, also
feeds on the bug. In the larva state, the male
and female brown bug are not distinguishable.
The number of eggs produced by a female brown
bug is about 700. Those of the white bug are
not so numerous, but their propagation in Ceylon
is continuous throughout the year, and this
explains their great abundance compared with
cold countries, where the produce is one genera-
tion of young annually. The brown bug, par-
cularly the full-grown female, is dreadfully infested
with parasites, which thus greatly help the planter.
Indeed, it is a question whether coffee planting
could be carried on without their aid in the
destruction of the bug.

The Black Bug is Lecanum nigrum, but
the female only is known. In colour it is from yellow-

ish-grey to deep brown, and almost black in age,
and of a shield-like shape. It occurs alone, but
also intermixed with the brown bug; but it is
much less abundant, and therefore not demanding
the planter's attention. Its occupation of a coffee
or any other tree gives rise to the appearance of
a glutinous saccharine substance, which has received
the name of honey-dew. This is either a secretion
of the bug, or the extravasated sap which flows
from the wounded tree, or probably a combination
of both. A fungus, or two fungi, the Synchadum
Nietneri and Triposporium Gardneri, seem to
depend on this for vegetation, as the honey-dew
and the fungus disappear with the bug.

Another bug, the Stenochus geometrici, of a
yellowish colour, but marked with grey and
brown posterior bodies forming on it, was found at Badulla. It feeds upon the juice of the young berries, three
per cent. or more of which were said to have
suffered from it. It is allied to the green or foxtid
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bug; but though it may occasionally cause destruction, there is no fear of it ever becoming a serious nuisance.

One of the Aphidie, *Aphis coffee*, the Coffee Louse, is found in small communities on the young shoots and on the under-side of the leaves of the cocoa nut tree, but the injuries it occasions are insignificant.

Several caterpillars, the *Acoa lactinea*, the *Orgyia Ceylanica*, *Eneprocetus virguncula*, the *Trichia exiguus*, *Nasus conspersa*, the *Limacodes graciosa*, and a species of *Drupana*, are found on the coffee trees, but they do not cause much injury. Another caterpillar, however, though fortunately not abundant, the *Zeuzera coffee*, destroyed many trees, both young and old, by eating out the heart. It resembles the caterpillar of the goat moth, of England, and is as thick as a goose quill. It generally enters the tree 6" or 12" from the ground, ascending upwards. The sickly drooping of the tree marks its presence.

Black Grub.—The larva of the moth called *Agrostis segetum* is the very destructive black grub. This pest is about an inch long, and is most abundant from August to October. The caterpillar lives in the ground, but comes out at night to feed, and is very common and injurious. It attacks not only coffee trees, but all sorts of vegetables and flowers, and is very destructive to gardens and in the field, as it eats everything that is artificially raised, despising grass and weeds. It generally appears only on certain fields, and will not go over an estate. The insect is not confined to Ceylon; its ravages are well known in India, at the Cape of Good Hope, and in Europe, where it injures the grain and beetroot crops. In Ceylon it only attacks young coffee trees, gnawing off the bark round the stem just above the ground. Where the trees are very small, they are bitten right off, and the tops sometimes partially dragged under the ground, where the grubs may easily be discovered and dislodged. The damage which they inflict on plantations may be estimated, when it is mentioned that Mr. Nieter lost through them in one season, in certain fields, as many as twenty-five per cent. of the young trees he had planted.

The larva of a little moth, the *Gallerionompha lichenoides*, and three caterpillars of the *Boarmia leucostigmia*, *B. Ceylanica*, and *Empithacia coffearia*, are found on coffee trees and other plants from September to December.

The larva of the *Gracillaria coffeifolii* mines the coffee leaves; it is very common, but of no importance to the planter.

The ravages of the large, well-known, beautiful locust, the *Phymata punctata*, with its scarlet abdomen and yellow and bronze above, are not continuous in the coffee trees, but occasionally very annoying. A swarm sets on, impaling one-year-old coffee, and gnawing the succor off the stem, causing them to throw out many shoots and permanently disfigured five per cent. of the trees. They do not touch the illuk grass, *Saccharum Konigii*, *Retz.*; but seem only to attack cultivated plants and trees. At Tanglela they destroyed tobacco plantations, and at Matillee in Kandy the native grain crops were injured by those locusts. The larva and pupa are as destructive as the perfect insects; but this seems, fortunately, the only species of locust that does any real injury in Ceylon, and this injury is in importance not to be compared with that done by other species in other countries.

White Grub.—Under this name are included the larvae of various Melolonthidae, the cockchafers of Ceylon, which do much harm to coffee plantations, young and old, by eating the roots of the trees. Mr. J. L. Gordon of Rambodda considered the white grub to be by far the greatest enemy of the coffee trees which the planter had to contend with, as he never knew a single tree recover after their attack; and he adds that they had destroyed, at Rambodde, in two years, between eight and ten thousand trees of fine old coffee. Mr. Gordon used to dig up the soil at the foot of the trees, and take out such grubs as he could find.

Weevils.—The family of the weevils is one of the most extensive amongst the beetles; and in Ceylon, as in Europe, many of its members do much injury to agricultural produce. Mr. Nieter had seen nearly the whole crop of sweet potato (Batatas edulis) of the Negombo district destroyed by one of them, the *Cylas stenopennis*. The common rice weevil, *Sitophilus oryzae*, is another instance; and one of the coconuts, *Mandevilla stenopennis*. The coffee weevil, *Sitophilus coffeae*, is another instance; and one of the coffee weevils, *Sitophilus coffeae*.

The Acurus *coffee*, or *coffee mite*, is so small as to be hardly perceptible to the naked eye. It is closely allied to the Red Spider of the hothouses of Europe. Nearly all the year round, but chiefly from November to April, it feeds on the upper side of the coffee leaves, giving them a brownish, sunburnt appearance. Individual trees suffer from it. in the evening, but the aggregate damage from it is not great.

The *Coffee Rat* of Ceylon, the *Golunda Elliotti*, occasionally commits much damage, seemingly to get the bark, for they do not seem to eat the berries. With their long sharp incisors they bite off with great smoothness the smaller and younger branches, generally an inch from the stem; and should the plants be quite young, just taken from the nursery, they bite them right off a few inches from the ground, and carry them to their nests in hollow trees. They appear irregularly, at intervals, from the jungles, and there is hardly an estate in Ceylon that does not now and then receive a visit from them. The natives of Ceylon say that their food in the jungles is a species of Strobilanthus, called *Nils* in Singhalese, and that the rats only are from their forest residence and attack the coffee estates when their forest food fails.

The injuries from other animals is not serious. A *squirrel*, the *Sciurus Lasiati*, which eats the coffee berries, is common on Ceylon estates; the pulp alone is digestible, and the coffee beans are dropped on logs of wood and on the ground. Jackals and monkeys occasionally do the same;
this is called parchment coffee. A deer will now and then come from the forest and nibble the tops of the young trees.

Mantis tricolor, Nietner, the Mantis of the coffee tree, is green, lower wings reddish, with large blackish spot at the posterior margin. The female is 1 inch long, with ½ inch of an expanse of wings. The male is considerably smaller. The eggs are deposited upon coffee leaves, in cocoon-like masses of ½ of an inch in length, but drawn out further at each end.

And what are the remedies to all these coffee plagues?

Mr. Nietner tells us that several means of checking the extension of the bug have been proposed and tried. Amongst these, the introduction of the red ant; but their bites are so fierce and painful, that the cooies refused to go amongst the trees while the ants were there. Rubbing off the bug by hand has been tried, but it can only be attempted upon young trees without crop; and Mr. Nietner, although allowing that an immense quantity of bug is thus destroyed, is nevertheless of opinion that the effect is but trifling. He thinks that the application of tar to the roots is a good suggestion, although he is obliged to admit that hitherto no important results have been achieved by it. He adds that high cultivation seems to have the effect of throwing it off. But as the bug seems to depend on locality, Mr. Nietner does not look for any beneficial result so long as the physical aspect is unchanged. He thinks that if the open, warm, airy patterns were cultivated, which the experiments on a large scale, tried at Passelawa, show that they can be, the brown bug, which is the great destroyer, would not find the conditions favourable to its existence; or perhaps, if estates as a rule were made smaller than they generally are, if the reduction in acreage were counterbalanced by a higher system of cultivation, universally carried out, the bug would not be so numerous as it now is in the "Indian coffee."

In the southern parts of the Peninsula of India, the Borer is a name given to the larva of a coleopterous beetle, the Xylotrechus quadripes of Chevrolat, which injures coffee trees. The insects are generally about the diameter of a small quill, are always confined to the wood, and never enter the bark until the larva has done its work, passed through the pupa stage, and is about to escape in the form of a beetle. The eggs are deposited by the female near the root of the tree, and the pupa borers tunnel up the heart of the plant. It does not stop short at the destruction of crop, but actually kills the trees. This enemy has been confined to the Madras Presidency and Mysore, leaving Ceylon unscathed. The borer carries on the work of destruction entirely in the interior of the stem, the wood of which it rapidly reduces to a saw-dust-like powder, leaving the bark intact. At first the outer signs of the presence of the bug are a few small round holes in the bark, but gradually these holes increase in number as the grubs get more numerous, the leaves get sickly and fall off, and finally the tree withers and dies. If this devastation were confined to a hundred or even a thousand or two of trees, the planter could afford to grin and bear his loss; but instances are numerous in which an entire estate has been completely denuded of trees by this tiny but formidable insect. For a time the borer seemed destined to

defy all attempts to arrest its ravages; but it was observed that the beetle, which is the eggs from which the grubs are hatched, avoided shaded, and affected light and sunshine. Thus much known of the habits of the foe, the protection of the coffee plants by the shade of larger trees naturally suggested itself, and has been found a most effectual remedy.

The Leaf Disease, or Coffee Leaf Disease, of the coffee plant seems first to have appeared in Ceylon in 1869, and prominently in S. India in 1870. It is the Hemileia vastatrix, a fungus which fixes on the under-sides of the leaves, causing spots or blotches, at first yellow, but subsequently turning black. These blotches are covered with a pale orange-coloured dust, which is easily rubbed off. The blotches gradually increase in size, until at last they have spread over the entire leaf, which then drops off, leaving the trees in a short time perfectly bare. The trees seem to recover in the spring of the year, but the fresh growth is never as good as the old, and the crop falls off. The yearly crop in Ceylon is said to have diminished 300,000 cwt.s. since its appearance, causing a loss of about 1½ millions sterling. The leaf disease is a true endophyte, developing in the tissues of the leaf, and expanding onwards, as is the case with red rust of corn and grapes. Sir Joseph Hooker, writing to the Colonial Office, 6th August 1874, says the Hemileia belongs to a class of most minute parasitic plants, which includes the oidiom of the vine and peronospor of the potato. Recent observations appear to establish the fact that similar plants are also present in the tissues of sheep affected with small-poxx, and may probably be found to be sources of some familiar diseases in man and the lower animals. Hitherto no means have been discovered of exterminating these plants, whose seeds, of inconceivable minuteness, float in inconceivable numbers in the air, and whose growing parts are of such tenacity, that they can penetrate the most delicate living tissue, and drive the insect by feeding on their substance. The spread of some of the kinds has, however, been effectually checked by the use of flower of sulphur, which it would not be difficult to apply to the coffee plant in Ceylon.

The Hemileia vastatrix has been termed the coffee leaf disease, as it confines its depredations to the leaves of the shrub. When suffering from this, the leaves are on their upper surface speckled with brownish spots, while the under surfaces are covered with orange-coloured dust, which consists of the spores of the fungus, or bodies by which it is propagated. The fungus itself consists of fine myceloid filaments, which permeate and live amongst the tissues of the leaf. When the spores are ripe, the shaking of the leaves by the wind is sufficient to disperse them, and each spore thus liberated is capable of germinating, and may become a fresh focus of the disease. Dr. Twanight watched this process of propagation. For some time the presence of the leaf disease caused little or no anxiety in India; but as its disastrous effects on crops became apparent, the planters began to realize the serious character of the distemper. Nearly all are now in accord in the view that manuring is the best remedy. Confident hopes were at one time entertained that the Liberian plant, which has been recently introduced, would defy the enemy, but unfortu-
nately this expectation has not been realized. It is very destructive in localities. It comes most subtly and unaccountably in an estate, and disappears apparently without any reason. The effects of it are obvious: the leaf of the tree alone is attacked, after a little drops off, leaving the bough bare and unsheltered. The disease does not seem to attack the health and vitality of the tree; but when the shade afforded by the leaf to the berry is removed, the bud, blossom, or fruit is unduly exposed to the searching sun, or to the wind, and the crop is lost. The disease often affects whole plantations simultaneously. Up to 1872 the Ceylon estates had suffered but little from this fungus. In Wynad, however, scarcely an estate escaped this leaf disease, whilst in the fifty-two estates of Travancore only one suffered, and that in a most insignificant degree.

Mr. G. Anderson, writing from Munzerabad in 1880, gave the opinion that potash, magnesia, and ammonia, in the form of sulphates, check and destroy Hemileia in coffee. He said he had used it in his experiments with excellent results, ½ to ¾ potash, ¼ to ½ magnesia, and ½ to ¾ ammonia—and thinks that the cessation of growth which precedes an attack of leaf disease, is caused by a want of ammonia and other valuable food-constituents in an available form; that lime exerts a marvellous effect in setting free all the alkalies, and in converting nitrogen into ammonia; that potash, magnesia, and lime are required for the production of coffee, and are therefore removed from the soil, and that certain forms of potash and magnesia (especially those combined with sulphur) are injurious to the growth of fungi. He concludes that sulphates of potash, magnesia, and ammonia should be used immediately before the occurrence of disease; and lime should be employed early in the season to sweeten the soil, and set free its resources. He also recommends that phosphonitrogenous manures, combined with other forms of potash, be applied to sustain and invigorate the trees.

Several learned botanists have suggested remedies for these plagues.

Baron F. von Mueller says that in 1878 the parasitic fungus growth on coffee plants in Ceylon caused a loss of £2,000,000.

In America the coffee plantations suffered not only from cryptophyta fungi, but also from the cimicostoma fly.

In the Kolen hills, experimental cultivation of tea and coffee was introduced north-east of Tonghoo. Mr. J. Petley says in his report: 'Towards the end of the rains of 1880 large numbers of the Mole Cricket made their appearance, and much destruction was done amongst young tea and coffee plants, killing them by nipping off the tops, principally amongst the coffee, and boys were employed to catch and kill these destructive insects.'

Dr. Thwaites, in his report for 1874, says: 'Judicious cultivation enables the coffee tree to produce a succession of profitable crops, notwithstanding it may suffer from periodical attacks of leaf disease.' Nowhere has the disease committed such havoc as in native plantations, where cultivation is almost entirely neglected. Previously to 1870, planters were divided into two opposite camps—the party that advocated manuring and the party that opposed it. The inroads of leaf disease have led to the matter being speedily and practically settled in favour of high cultivation.

In Ceylon, leaf disease first showed itself in 1869, in Madulasima, in the extreme eastern division of the coffee districts. Next year it spread to the Kandy side, and in 1871 it became general. During the seven years previous to 1870, the out-turn ranged from 4½ cwt. per acre in 1864, to 5½ in 1869. In 1870 the export was nearly 900,000 cwt., and the average per acre 5½ cwt. In 1871, 1873, 1875, and 1877, the export rose above 800,000 cwt.; but (1881) the average per acre has never again reached 5 cwt., while in four years it has fallen below 3 cwt. The leaf disease has undoubtedly caused a falling off of production.

Judicious, the Conservator of Forests, is of opinion that the remedies proposed by Mr. Anderson in his Essay on Fungoid Diseases might be tried on small given areas, but considers the expense attending the trial prohibitive as regards large estates.

Leaf Rot, the Kole Roga of the Tamil race, is from another fungus, to which the name 'Pellicularia koleroga' has been given. It appeared on the coffee trees of Mysore. It is an epiphyte, growing and developing upon the leaf, and only superficially attached to it. This enemy has been long in existence, although it is only quite recently that it has attracted attention. This disease is most common during the rains; and the leaves of the plants affected by it turn black and fall off, on which many of the berries also fall down, and those which remain are imperfectly ripened. After examining one of these leaves, the under surface will be seen covered with irregular greyish-white blotches, which, on being put under the microscope, are found to be filmy fungus patches, with the filaments of the fungus inter-woven into a sort of web. This fungus has received from Mr. Cooke the name of Pellicularia koleroga, but it seems very doubtful whether it is not rather a result than the cause of the black rot. There can be little doubt that rot is partly caused by imperfect drainage, and overcrowding of the branches; and such being the case, the remedies will obviously be improved drainage and free pruning.

Stump.—Mr. Hull mentions that between 1860 and 1870, in Coorg, a blight appeared on the coffee plants, to which the name of stump was given, because of it being due to the stump of a particular forest tree peculiar to that district, felled in the process of clearing. Sooner or later all the coffee trees in the immediate neighbourhood of these stumps began mysteriously to die out, and the only remedy for the mischief was to remove the offending stumps as quickly as possible (Hull, p. 274). It has not been examined by any entomologist; but a great habitat of the coleopterous insects is below the bark of decaying wood, and such homes should not be left to them.

Dr. Shortt, a scientific planter, recommends carbolic acid as a protective agent against the leaf disease and other enemies of the coffee plants.

The Gardener's Chronicle also mentions having received from Dr. Thwaites of Ceylon a specimen of a minute fungus. A few trees were first noticed to be infected in May, but at the time of Dr. Thwaites' communication (24th July) two or
three acres were showing the fungus upon the leaves. These latter fall off before their proper time. Amongst more than a thousand species of fungi received from Ceylon, this does not occur; and it is not only quite new, but with difficulty referable to any recognised section of fungi. Indeed, it seems just intermediate between true mould and Ureidio, allied on the one hand to Triehobas, and on the other to Rhinotrichium. Though the fungus was developed from the pore-chym of the leaf, there is not any covering to the little heaps, such as is so obvious in Ureido and its immediate allies, while the mode of attachment reminds one of Rhinotrichium. A new genus for its reception was therefore proposed. As the fungus is confined to the under surface of the leaves, and the mycelium is not superficial, it may be difficult to apply a remedy; but sulphur applied by means of one of the instruments which are used in the hop grounds in Kent, or syringing with one of the sulphureous solutions which have been recommended for the extirpation of the hop mildew, has been suggested.—Rev. M. J. Berkeley; Colombo Observer.

The Sydney Morning Herald describes an experiment on the aphis or coffee-moth, which shows that a very simple application coffee plants may be freed from these destructive insects. A number of the insects were placed on a leaf under a powerful microscope. A drop of a simple solution of soda in water was let fall among them. They instantly left their hold on the leaf and fell dead. Such a solution could be applied without injury to coffee plants. Sulphur has hitherto been the favourite treatment.

The following is a list by Mr. Nielsen of some of the enemies of the coffee plant in Ceylon:—

1. Pseudococcus adonidum, White or Meal Bug. *Parasites.*
   Scymnus rotundatus, Motch. *E. Ent. 1859.
   Encyritus Ninieteri, Motch.
   Charcocerus musimorphius, Motch.
   Acarus tranules, N.

   Scutellista oxana, Motch.
   Cephalita purpurocentaria, Motch.
   C. bruneoventris, Motch.
   C. fuscoventris, Motch. *in lit.*
   Encyritus parvulus, Motch. *in lit.*
   E. Nieteri, Motch.
   Chalcoploius costiverus, Motch. *in lit.*
   Marieta leopoldina, *M. in lit.*
   Chillocerus circundatus, Schonk.
   Acarus transfusus, N.

   (Syndicus Nielsen, *Robb, Prod. Hedwieg, 1858;*
   *Lond. 1849;* a fungus.

   Syrhus Nielsen, Schiner in *lits.*
   N. splendens, Doleck.
   Micromalia Australis, *Hag; Verz. Wien., Z., 1858."
   Strachia geometrica, Motch. *in lit.*
   Lepidoptera.

6. Orgya Ceylanica, N.
8. Trechis exigus, Delian in *lit.*
11. Drepontia.
12. Zeuzera coffeae, N.
with woolly hair and something of the African features, and file their front teeth to a point. The women wear enormous circles of pith in the lobes of their ears, which they distend down to their shoulders. A black monkey is their greatest dainty.

The other hill and forest tribes, chiefly residing on the Animalay, are the Malai Arnas, Irular, Puliya, and Madurali, subsisting precariously on wild fruits and roots, by the chase, or the sale of jungle produce. 40/8 per cent. of the population were Vellalar cultivators, 19/7 per cent. Pariahs, 8 per cent. Vannian or day-labourers, 6/3 per cent. Kukkar or weavers, with artisans (Kamman), Brahmins, washermen (Vannan), potters (Kusavan), fishermen (Sambadavan), barbers (Ambatian), and writers (Kanakan).

Coimbatore land is many times more valuable than it was forty years ago; and wheeled carriages, which were 603 in 1846–7, in 1867 were 4500. In Coimbatore two very different minerals pass under the common name of corundum. The one is true corundum of lamellar structure; the other softer and amorphous, but christature in its composition, apparently some form of hornblende. The mineral is abundant in the district, and easily procured at a small cost. Localities in Coimbatore supply the beryl, and are also supposed to have yielded the emerald, though Tavernier was not able to ascertain that any part of India, in his day, was yielding emeralds.—Tavernier’s Travels, p. 144; Lt.-Col. Hamilton, in litteris. See India, p. 324; Korumbur; Narapati.

COINS.

MONNOIE.

Monnoie,  
Fr. | Nagd, Sicen,  
HIND. | Mamreck,  
GRR. | Chilano,  
Richelt,  
| Conio, Donaro,  
| Tr., Sp.

The Hindus altogether neglected history, and, after the Greek occupation of Bactria until the advent of the Mahomeans, the coins of the rulers furnish almost the sole evidence of the dynastic changes and their individual rulers in the country of the Kophones river, i.e. Bactria, Asia, and Kábul. The earlier of the Greek successors of Alexander used Greek. This was adhered to by Theodotus I., b.c. 286, of the time of Arses i.; of Theodotus II., b.c. 240, who reigned in the Kábul valley. Euthydemus, b.c. 229, reigned in the time of the expedition of Antiochus the Great, and was defeated in battle near Merv by the united Syrian and Parthian armies. He then urged Antiochus to receive him in alliance, and so extend the Greek influence to the Indus. A peace was concluded, and Euthydemus led the Syrian army through Bactria, i.e. by the route north of the mountains to the Kábul valley, and across the Indus, in b.c. 206. There Antiochus made peace with Sophaganesus (Asoka), which that sovereign recorded by edicts on rocks and pillars in various parts of India, in characters exactly resembling those on the coins of Agathocles. In b.c. 206, Antiochus returned by way of Arachota. Agathocles, b.c. 190, coined with Greek and Sanskrit; is supposed by Lassen to have ruled Kábulistan to the Indus; and Mr. H. T. Prinsep supposes him to have been the governor left by Antiochus in Kábul, after his treaty with Asoka. Pantaleon, b.c. 195, coined in Greek and Sanskrit. Eukratides, b.c. 178 (Prinsep, b.c. 181; Bayer, Wilson, b.c. 165; Visconti, Lassen, b.c. 175). He seems to have made an expedition to India in 165 b.c., and on his return from it to have been murdered by his son. Numerous of his coins have been found in Bactria and Afghanistan; and Mr. H. T. Prinsep considers that he ruled originally in Bactria, subsequently made conquests in and south of Parapamisus in Kábul, and was the first of all the Greeks who coined in the bilingual Aryan inscription. The first use of two languages, however, is also ascribed to Agathocles, who used Greek and Sanskrit, while Eukratides used Greek and Aryan. Eukratides was certainly amongst the earliest of the Greek kings of Bactria, Kábul, and Arya, who adopted bilingual inscriptions on his coins, and his so doing is supposed consequent on his conquest of the Parapamisus, after assumption of the title of Great King. On his death, his wide dominion is supposed to have been broken into several independent kingdoms. Helioeoes, b.c. 155, the parricide of Eukratides, used bilingual inscriptions on coins in pure Greek and Aryan. His rule, though short, extended over Bactria and the Parapamisus.

Antimachus, b.c. 150, coined with Greek and Aryan. Bactria seems to have then passed under the sway of various Saca and Parthian and so-called Indo-Sceythian rulers, and during the first six or seven centuries of the Christian era it was one of the most important centres of Buddhist monasticism. As early as the second century b.c., the coins of Eukratides had the Bactrian–Pali, a language cognate with Sanskrit, but written with characters of seemingly Phoenician origin.

On the coins of the Parthian, Sassanian, Kanerki, Bactrian, Persian, Macedonian, Syrian, Indo-Sceythic or Buddhist rulers are Greek or Pehlevi inscriptions, several of them in both languages. The coins have been found of upwards of thirty Bactro-Indian rulers whose names were not Grecian, but who used Greek on their coins. They have been described in Prinsep’s Antiquities, Wilson’s Ariana Antiqua, and Bactrian Coins by Edward Thomas. The larger number are known as the Azes series, and the Kadphises and Turushka series.

The Hindu coins of the Andhra, Rajputana, Canauj, Indraprastha, and perhaps Magadhha or Belar rulers, are subsequent to Alexander’s invasion. The earliest forms in use in India and Central Asia were adopted from the Bactrian Greeks about b.c. 200. The earliest extant are the group of the Sah dynasty, b.c. 180 or 170 to about b.c. 50.

The Arabian khilafis and the governors of Persia on their coins used Pehlevi characters, and subsequently the Kufic. Their coins have been found struck at Balkh, Basra, Darabjird, Herat, Kerman, Khuzistan, Merw, Merw - ul - Rud, Nahr (van) Seistan, and Yazd.

The capital coins of Dehli, from the time of Altamish (A.D. 1211–1236) to the accession of Muhammad Taghalaq (A.D. 1328), were a gold and silver piece of equal weight, approximating to a standard of 175 grains troy (properly 100 rati). These coins appear to have been officially termed respectively Sikka and Filizat, but both seem eventually to have had the popular name of Ten-khwa. Sikka, a corruption of Hebrew origin, in India originally appears to have been a debased, and applied to the coin struck. At an early date the word gave a name to the Zecca or Cecca, or mint, of the Italian Republics; thence to the Zecchino or Cezzino which issued therefrom,
COINS.

and in this shape the word travelled back to the East, where the term Chicken or Chick survived to our own day, as a comprehensive Anglo-Indian expression for the sum of four rupees. Filizzat means 'metallic.'

The coinage of British India is regulated by Acts ii. and xvi. of 1855 and xii. and xiii. of 1862. Acts xii. of 1856 and xii. of 1844 declared that Sicas rupees, and Bhoons, Farrikahbal, and Trisaw Sycees, are not a legal tender. Other Acts of xxi. of 1837, xxi. of 1838, vi. of 1847, and xi. of 1844.

The silver coins coined and current in British India are the silver rupee of 180 grains, with its portions in half, quarter, and eighth.

By Act xxi. of 1835, the copper coinage consists of a double piece or half anna, weighing 200 grains troy, a quarter anna or piece of 100 grains, a half piece or one-eighth of anna of 50 grains, and a pie, being 1/12 of anna or one-third of a piece, 33 grains troy. The silver fractions and the copper coins are legal tender for fractions of a rupee. Gold has not been coined in the mints of India since the early part of the 19th century. Till then, the gold mohur, value 16 rupees, and the pagoda or bun, value 34 rupees, were current.

All the people of the east coast of Africa, Southern India, Siam, and Japan have the cowry shell, Cypraea moneta, for small change; and the radical character in the Chinese for silver, money, riches, property, and currency, is 'pooi,' or shell. Tavernier found pieces of twisted metal wire, called Lari (from the province of Lur, in Persia), current on the Malabar coast; and Thunberg likewise saw them current in Ceylon; and Knox tells of a coin (p. 197) 'like a fish-hook.' These have a resemblance to the Celtic rings of Britain and to the oboli of the Greeks, which were kabab-skewers, (oboloj) ረፋፋ, a handful of which made a drachma, from ከፋ, to grasp with the hand.

In assay reports from the Bombay mint in 1852 on Panjab coins, the average of 190 old Mohurkee rupees was equal to 90662 Company's rupees; that of 190 new was 88792; 190 Gondashai rupees averaged equal to 78961; 190 Jacobanisi, equal to 92781; and 190 Nanakshali, equal to 929657 Company's rupees. 190 old Farrakhabad rupees averaged 98837, and 190 new, equal to 98847 Company's rupees. 90 Khypur rupees averaged 87123 Company's rupees, and 90 Nadri rupees 106558 Company's rupees.

Southern India had a coinage of gold, and a small coinage of silver and copper, under the Hindus prior to the Mahomedan rule, and the maharajas of Travancore still coin in gold.

The Mahomedan silver (rupa) rupee was first struck at Dehli about A.D. 1541, in the time of Sher Shah, but was not made current in the south of India till 1654.

In 1601 the English introduced India money specially struck for India in the London mint. The coins had on them a portcullis. In 1660-61 the English established a mint at Madras. In 1770 there were in Bengal so many sorts of rupees, and rupees intrinsically of the same value differed so much in nominal value, which was regulated by the date of coinage, that no one but a scharf or money-changer could value the current coin, and the Government were forced to establish an ideal standard, called the current rupee, to which all calculations were made.

Most of the Feudatory States of India continue to coin in their own rulers' names, and under an Act of 1872 the coins of Native States of India are admissible as currency, under certain conditions. In the Hyderabad State there are several rupees, the Hali Sicee, and others, all of less weight than the rupees of British India. In Amrooti, the bankers used to pass sealed bags of money. In the Hyderabad State the copper coins in use are shapeless lumps, with some obscure marks on them. In reality these copper coins are the chief part of the currency, the value of the several silver coins being various, and each varying daily in the exchange of the bazaar. The reckoning is by four, which is called a ganda.

4 cowries (gavvalu) = 1 ganda.
14, 16, or 15 ganda = 1 thoodi or Pissa copper.
4 thoodi or doodi = 1 ganda of copper.
16 or 17 copper ganda = 1 rupee.

Nepal was conquered by the Gurkhas in the Newar year 888, corresponding with A.D. 1768. Prior to this epoch, the valley of Khatmandu was divided into three sovereignties, Patan, Bhatgaon, and Khatmandu, each governed by a raja. Hence, on the Newar coins, three series of rajas' names are found, those of Bhatgaon being generally distinguished by a shell, those of Patan by a risal, and those of Khatmandu by a sword. The old coins of the Mal or Newar rajas are much valued for their purity, and are worn by the women, strung to necklaces or armlets, as a memorial of their ancestors.

All money current north of the valley of Nepal, as far as the boundaries of Chinese Tartary, was formerly coined by one or more of the Nepal rajas. This was a source of considerable profit to them, the Bhutia giving them weight for weight in silver and gold-dust; but Ranjit Mal, the last reigning raja of Bhatgaon, sent them such base coins as to occasion a decrease of nearly one-half of their intrinsic value, which was no sooner discovered by the Bhutia than a desertion of the mint took place, and there has been no more Bhutia coinage made in Nepal.

The Nepalese procure all their silver from China, in the form of stamped lumps, as they are current in Lhasa, for the Tibetans generally follow the Chinese custom in their money transactions, of paying and receiving by weight, and the merchants carry scales with them for the purpose. Since the Gurkha conquest, the Vikrama era has superseded that of Nepal for ordinary purposes, and the Saka, commonly used in Hindustan, has been introduced upon the Nipalese coins.

A Kashmiri rupee was coined in 1840 by the late maharaja Partab Singh, bearing a Christian cross, and the letters 'I.H.S.' These were coined shortly after the annexation of the Panjab, when the maharaja was very anxious to show his loyalty in a way which he supposed likely to be most gratifying to a Christian Government.

Up to the beginning of the 19th century, the trans-Gangetic nations used lumps of silver like the sycee of the Chinese.

In the Straits Settlements the rupee is current, but there and throughout the Archipelego and the sea-coast of China the dollar is largely in use, and the Spanish dollar is the more valuable.

Chinese Currency.—Sycee silver, in Chinese Wan yin, is their only approach to a silver currency. In it the Government taxes and duties, and the salaries of officers, are paid; and
it is also current among merchants in general.

The term Sycee is derived from two Chinese words, Sc-soo, fine floss silk; which expression is synonymous with the designation of the term Wan. This silver is formed into ingots (by the Chinese called shoes, and by the natives of India, khuri, or hoofs), which are stamped with the mark of the office that issues them, and the date of their issue. The ingots are of various weights, but most commonly of ten taels each.

Sycee silver is divided into several classes, according to its fineness and freedom from alloy. The sole Chinese coin is of bronze, the silver and gold in China being sold by weight. An ounce of silver is the equivalent of from 1700 to 1800 of these bronze coins, which are also used by Europeans. They have some pieces of brass, called tsian, and in Mongol tcho, of which the inhabitants of Siberia make tchok and tchek; they are of less value than a copee. A kind of notes are in circulation among private persons. In China, smooth pieces of metal, which served rather for weights than for currency, date from Kieng-Wang, who reigned B.C. 524. But the earliest known piece is attributed to the emperor Wen-ti, of the lesser Sung dynasty, A.D. 465.

The kopang of the Japanese is simply an oblong plate of gold with the angles rounded off.

In Arabia and the Persian Gulf, the silver real and the copper fan are current; but the Indian rupee and the Spanish dollar also pass current. In Arabia, the Spanish or German dollar, worth about 4s. 6d., is the silver coin; but in the exchange with India, 100 dollars range from 212 to 226 rupees. The Indian rupee also passes current everywhere. British gold is becoming well known. The copper-piece of India are current, but exchange varies with the supply. Arabia has not any national coinage. According to Mardaen, it was not until the khilafat of Abdul Malik, in the year of the Hijira 76 (A.D. 695), that a distinct coinage was instituted with a view of superseding the currency of Greek or Byzantine and Persian gold and silver.

The dinar, under the khilafis, was about equal to 10s. 8d. About A.D. 1440-1450, in Ibn Batuta's time, a western dinar was to an eastern as 4 to 1; and an eastern dinar seems to have been 1/4th of a tankha, which, even supposing the tankha of that day to be equal to a rupee of Akbar, would be only 2½d. A dinar at Kâbul in the early part of the 19th century was so small that 200 made one abas; a coin of less value than a shilling. The tankha in Ala-ud-Din's time is said to have been equal to 50 jital (a copper coin which some said was equal to a paisa), and in Muhammad Taghalaq's time it was so debased as to be worth not more than 16 paisa. The tankha appears to be the coin represented by the modern rupee, and perhaps, when at its proper standard, was about the same value.

The rupee of Akbar contained 174½ grains of pure silver, and was divided into 40 dam or paisa (of 19½ grains of copper each). The dam was subdivided into 25 jital. Queen Elizabeth's shilling contained 88½ grains of pure silver; so that Akbar's rupee was worth 1s. 11½d. of English money at the time. Akbar's standard remained almost unaltered all over the Moghul dominions, until the breaking up of the empire in the middle of the 18th century. The rupee of India now contains 176 grains of pure silver, and exchanges for 64 paisa, containing 100 grains of copper each. Akbar had a four-cornered rupee, called Char-yari by the people, this being a term applied to the four immediate successors of Mahomed, viz. Abubakar, Usman, and Ali.

The current coin of Persia is the karan, a silver coin of which 209 are equal to 100 rupees, or about 11½d. each. The gold toman is worth 10 karan. 50 copper gau are equal to one karan.

The coins of Kâdphees, called Kâdphees Kor-nos, to distinguish him from Kâdphees (Kâdphees), the conqueror of Kâbul, and those of Kanerki, his successor, have been found throughout the whole of Upper India; two or three of them have been obtained from Mânlapâ, and one from Tânjore. In the Manikylâ tope, General Ventura found shell money, the cowry, the spherical flat ingot, Indo-Scevthian and Sassanian coins, all of which had been deposited at the same time. In another tope, opened by General Court, were found Roman denarii of Antony and Julius Caesar, and coins of some Roman families associated with Indo-Scevthian pieces of Kâdphees. In August 1856 there was discovered a pot of very beautiful gold coins of the time of Augustus and other emperors, near Callimpootoor, in the Iyupully taluk of Madura.

Symbols.—In the south of India, the figures of animals, the dog, the fish, a serpent or cobra, the lion, the bull, the elephant, the anika or elephant-goad, also weapons, sword, bow and arrow, a mace, an hymba or pines, were largely used on old coins as symbols. The dogs are brachying on fore legs or plays. The fish was the ensign of the Pandyan dynasty, but is also found on Buddhist seals. The chakram or wheel, the chaitya, the Ficus religiosa or pipal leaf, also a bow and arrow, a hand, and the swastika cross.

The old Mada and Tanka coins are all of gold, and generally cup-shaped, the reverse convex, the obverse concave, with fine impressions in relief, or with a lotus or padma and chank or shell.

In the ancient coins of India, lead was used for smaller denominations. These have been found of all weights and sizes near Amaravati, with a lion or the tree symbol. The lion is the most favourite symbol represented on Buddhist sculptures. It forms the crowning ornament of the celebrated laths or obelisks of Northern India, the most remarkable of which are the Allahabad column, those of Bettiah, Bakra, etc. It occurs prominently amongst the ornaments of ancient and modern degrop, and is a favourite symbol on the ancient coins of Bactria and S. India.

The elephant appeared conjointly with the lion on the Buddhist coins of Bactria and S. India; but in other S. Indian coins the elephant appears on the obverse, with some Buddhist symbol on the reverse.

The bull, both in Buddhist and Sâiva mythology, is a favourite symbol with both sects on many of their coins. It was early adopted by the successors of the Greek coins of Bactria, and with the extension of the Sâiva creed in India its symbolic adoption became almost general. The Indian coins with it are of lead, copper, and white metal.

The horse was a favourite symbol on Buddhist coins of S. India, of lead, copper, and white metal.
COIX.

The boar type of coin is the best known of all the old coinage of the S. of India. It was originally the badge of the Chalukya families of Kalyan and Rajamundry, from whom it passed to the later Chola dynasty, was subsequently adopted by the Kayar dynasty of Bijanagar, and is still found on the seals of some of the petty local chiefs in the Carnatic.

About 150 coins with symbols have been discovered, 27 of them have flowers (phul), dots, or stars; 14 have varieties of the lotus (padma) or trefoil; 12 have varieties of the trident (trisula) or spear (bala); 10 have flower (phul) or knot (padma phul); 4 with the bar/cha spear, or the guda scythe or mace; 15 have the jhar or thulhar, a tree or sprig; 6 the suraj or sun; 7 shamshiri dagger; 4 the katar dagger; 1 the ankus or goad; 13 with numerals or letters; and 13 with the shell, panja, or hand, the Hindu deities. Hanuman, elephant, the royal umbrella or chhata, or the swastika. — Yule, Catkay, i. p. cxvii.; Fraser's Journey into Khorasan, p. 74; Elph. pp. 420, 430; Mr. Walter Elliot in Mad. Journ. Lit. and Sc., Jan. to Mar. 1858; Mr. Edward Thomas' Princep's Useful Tables.

COIR is the fibre from the rind of the coconut, and is a corruption either from the Tamil Kayer, a rope, or the Maldivie Kauber, the name given to the corda with which the inhabitants, according to Abul Fazl, sewed together the planks of their ships. It is largely used in India, and the exports during the years 1850-51 to 1860-61 from India ranged between 2393 and 5882 tons, value £20,909 and £357,284. Between 1868 and 1878, the exports of coir and coir rope ranged up to 10,821 tons. Coir appears in the market in various degrees of fineness, depending upon the age at which the coconut is cut and the husk separated, and the care bestowed in steeping and cleaning. In order to remove this husk, an iron spike or sharp piece of hard wood is fixed in the ground. The nut is then forced upon the point, which passes through the fibres, and thereby separates the rind from the shell. In this manner a man can clear 1000 nuts daily. For the best coir, the outer rind of the nuts is bruised and steeped in water for two or three days, when it is taken up, and the fibres separated by the fingers and scraped gently with a blunt knife, and dried in the sun. If steeped in water too long, they get dark-coloured. Mr. Robinson thus describes the method of making coir in the Laccadives. The husk, he says, gets hard and woody if the fruit be allowed to become quite ripe, therefore the proper time for cutting it is about the tenth month. If cut before this, the coir is weak; if later, it becomes coarse and hard, and more difficult to twist, and requires to be longer in the soaking-pits, and thus becomes darker. When cut, the husk is severed from the nut and thrown into soaking-pits. These, in some of the islands, are merely holes in the sand, just within the influence of the salt water. Here they lie buried for a year, and are kept down by heaps of stones thrown over them to protect them from the ripple. In others the soaking pits are fresh-water tanks behind the crest of coral. In these the water, not being changed, becomes foul and dark-coloured, which affects the colour of the coir. When thoroughly soaked, the fibrous parts are easily separated from the woody by beating. If taken out of the pits too early, it is difficult to free the coir from impurities. If left in too long, the fibre is weakened, as is said to be the case also with that soaked in fresh water. The coir from the Laccadive Islands, Kadmat, Kiltan, and Chetlatt, is said to be of the best description. In the Laccadives the manufacture into cordage of the coir is entirely in the hands of the women. When soaked sufficiently long, it is taken out of the pit and beaten with a heavy mallet, and rubbed with the hands until all the interstitial cellular substance is separated from the fibrous portion. When quite clean, it is arranged into a loose roving, preparatory to being twisted, which is done between the palms of the hands in a very ingenious way, so as to produce a yarn of two strands at once. In these islands coir is one of the chief commodities of barter for the necessaries of life, as rice, salt, tobacco, etc. The coir is made up for the market in short 'kute' of a mixed length and weight, and at the end of the year these are collected and made up into lengths of 70 to 75 fathoms, as received by the Government. 40 coconuts are said to yield 6 lbs. of coir in Ceylon. Mr. Robinson says three large coast Laccadive nuts will yield 1 lb. of coir, measuring 22 fathoms, whereas ten small fine island nuts go to about 1 lb. of coir, but this will measure 35 fathoms. 2 lbs. of such yarn, measuring from 70 to 75 fathoms, are made up into soote, of which there are 14 to a bundle, averaging about a maund of 28 lbs. A Mangalore candy of 560 lbs. will thus be the produce of 5600 nuts, and should contain about 20,000 fathoms of yarn. The value of the coir produce of a tree is calculated to be from 2 to 2½ annas; and that of the produce of 100 trees, from 14 to 15 rupees. The average value of the total raw produce of a tree bearing fruit would then be 7 annas or 2½ rupees; and that of a p.y. traffic of 100 trees 45 rupees. The annual export of coir from the Laccadives to Madras ports is about 200 tons. In Ceylon, at Calpentsry and the Akkara-pattoo, the natives separate the coir by burying the husks along the border of the extensive salt-water lake, and when, after six months or more, they are dug out very clean, the fibres easily separate from the cellular tissue of the husk. This mode of preparing the fibre prevents the offensive smell emanated by macerating the husk, so common along the road from Colombo to Matura.

China imports coir from the Archipelago. Coir is made into cordage, both ropes and cables, for the produce of a tree, and which may be used for making ropes, as a substitute for oakum in caulking ships. The fibre is also made into brushes and gromms, as a substitute for bristles; is cleaned, cured, and dyed to resemble horse-hair; and made into matting, door-mats, and netting for sheep-folds, woven into stair carpets and floor-matting, bonnets, hats.— Loud. E. of 1862; Royle, Feb. Pl.; Robinson's Report on the Laccadives; Hon. Mr. Morrison; Oudatje.

COIX BARBATA. Rozb.

Adavi godhumulu. — Tel. Golive, Korimidi. — Tel. Gilla gaddi, Golu miilli. — Kokilakshamunu. — Grow.s in India. The Coix is a genus of plants belonging to the order Panicaceae. Several species are known in India, — aquatica, barbata, gigantea, heterocella, herima, pumilla; and the following are
Burman names for undetermined species,—Ka le poon poon, Ka le hmen, Ka le shee, Ka le theing, Lin ma, Thy doa.

COLEBROOKE, L. Job's tears, Coix millet.

The Burman names of Job's tears have large exument seeds, which are packed for sale in the bazar. A great deal of coix is cultivated in the Khasya Hills about Moulon; it is of a dull greenishpurple, and, though planted in drills and carefully hoed and weeded, is a very ragged crop. The shell of the cultivated sort is soft, and the kernel is sweet; whereas the wild coix is so hard that it cannot be broken by the teeth. Each plant branches two or three times from the base, and from seven to nine plants grow in each square yard of soil; the produce is small, not above thirty or forty fold.—Hooker, ii. p. 293; Manson; Williams.

COHIA, written Khojiah, Cojah. See Khajar.

COLABA. In the spacious harbour formed by the islands of Caramja, Colaba, Bombay, Salsette, and the continent, several smaller rocky islands are scattered, bearing different names. Of these are Bombay, Elephanta, and a little island close to the latter that Europeans call Butcher Island, but known to the people as Deipdeva, Holy Island, the island of the gods. Colaba island in ancient times formed a shelter for the pirate fleets of Western India. In 1662 Sivaji fortified it; in the 18th century Angria made it his stronghold.

Colaba is also a point or spur of rock protecting the entrance to Bombay harbour on the north; it was originally a chain of islets, which have been connected with each other and with the island of Bombay. On its S. and W. are extensive and dangerous reefs of rocks, called the Prongs. It is still the scene of many wrecks.

COLA NUT of the Cola acuminata, west tropical Africa. The seeds are much esteemed by the natives for their bitter flavour, and are said to enhance the taste of whatever is eaten after them. It might be largely cultivated in India.

COLAPORE. See Kolapore.

COLAR LAKE, a marine lagoon of great extent, lying between Ellore town and the sea. Several marine lagoons, known in India as backwaters, stretch around both sides of the Peninsula of India; north of Madras are the Ennore and Chilka and Ceder lakes, and there are several south of Madras and on the Malabar coast. Several streams flow into the Colar; and one, the Upputeru, is a tidal river. In the hot season, many routes are passable on foot or on horseback, which in the rainy season become part of the lake, and have to be crossed on pack rafts. The principal route across the lake is from Ellore to Kyakalare. From these two places palmyra rafts ply regularly to convey goods and passengers. The Colar does not extend to Ellore itself, but its edge in the rainy season comes within three or four miles of the town, to which there is a fairly good road. The lake abounds with fish.

COLEBROOK, HENRY THOMAS.

COLECHICUM. Linn.

Colchicum, the Hamsa Suranjan-talk, Pebs. J'yi-jin, Arab.

The Colchicum of the later Greeks and Arabs, and the sweet and bitter sorinjan of the Arabs, were no doubt species of this genus, perhaps C. variegatum, Planch.—O.S.; Royle.

COLENIA PROCOUMBENS. Linn.

Tripunkhi, T'yu-jin, HIND. | Hamas pudi., Tel. | Siru pudi., TAM. | Hama pudi., Arab.

A small plant growing in Southern India, used as a poultice fresh, also when dried, in powder with fenugreek seeds, to promote suppuration in boils.—Roxb.

COLE, ROBERT, Principal Inspector-General of the Medical Department of the Madras army; he wrote On the Laterite Formation, and Laterite of the Red Hills, in the Madras Lit. Soc. J. iv. 100.

COLE, COLONEL ROBERT, a military officer of the Madras army, eldest son of the above Dr. Robert Cole, author of an elementary grammar of the Corong language.

COLEBROOKE, HENRY THOMAS, was the first to give a tolerable sketch of the character and contents of the Vedas in 1805; and in 1823-1827 he expounded the principles of the different systems of Hindu philosophy. His father, Sir George Colebrooke, Bart., was for many years chairman of the E. I. Company. Henry Thomas was born in London, 15th June 1765, and died there 10th March 1837, aged 73. He arrived at Madras in 1783, from which he went on to Calcutta, where his elder brother was established. In 1786 he was appointed Assistant Collector in Tirhut. In 1801 he attained to the judicial line as First Judge in the High Court of Appeal, afterwards called the Sudder Diwani and Nizamat Adalat, and in 1807 he became a member of Council. He left India in 1813, at the age of 50: His principal writings were,—

On the Husbandry and Commerce of Bengal, Calcutta 1795.

Hindu Law on Contracts and Successions, Calcutta 1798, and London 1818; Sanskrit Grammar, Calcutta 1805; Amara Kosh, a Sanskrit Lexicon, Calcutta 1808; Translation of the Dayabhage of Jimutavahana and Yajnavalkya.

Two Treatises on the Hindu Law of Inheritance, Calcutta 1810; Algebra from the Sanskrit of Brahmagupta and Bhacara, London 1817.

In the Asiatic Researches, between 1795 and 1816, he wrote on the Duties of a Hindu Widow, Enumeration of Indian Classes, Indian Weights and Measures (1798), Religious Ceremonies of the Hindus, on the Sanskrit and Prakrit Languages and their Poetry, on the Vedas, on the Jaina Sect, on the Source of the Ganges, on the Gyal, on Oltamun, on the Dryobalanops camphora, on the Indian and Arabian Divisions of the Zodiac, on the Procession of the Equinoxes.

In the Transactions of the Royal As. Society, 1823 to 1828, on the Philosophy of the Hindus, on the Jaina Sect.

He was one of the original founders of the Astronomical Society, and of the Society for the Promotion of Oriental Literature, now known as the Royal Asiatic Society. His Sanskrit ms., which cost him about £10,000, he presented to the E. I. Co. At the time of his death he was a Fellow of the Royal Societies of London and Edinburgh, of the Astronomical, Geological, Liunesian, and Zoological Societies of London, of the Royal Academies of Paris and Munich, and of the Imperial Academy of St. Petersburg.—Jo. R. As. Soc. v. 1859; Ed. Review, 1872; Sir J. E.
COLEBROOKE, LIEUTENANT R. H.

COLEBROOKE'S Life of H. T. Colebrooke, Lond., 1872; Max Müller's Chips, pp. 377-417.


COLEBROOKIA OPPOSITIFOLIA. Smith. Panara, Hind. A large shrub of the Siwalik hills and Salt Range, growing up to 4000 feet; wood used as fuel, also to make gunpowder charcoal; and the leaves as fodder for cattle, and are applied to wounds and bruises. C. ternifolia, Roxb., grows in the Peninsula.

COLEHAN, a part of Singhbum occupied by the Ho as their proper country. The Colehan is divided into Pirhi or districts, each under a manki or chief, and each village has its mundal or headman.—Dalton, p. 163.

COLEOPTERA. See Insects.

COLEGROON, the most northern and largest branch of the delta of the Cauary river. The Coleeroon debouches in lat. 11° 25' 20'' N., and long. 79° 52' 10'' E. Its entrance is marked by a gap in the trees, and by the four porticos of the pagoda of Chellambur. The Coleeroon branch of the Cauary is separated from the Cauary below the island of Seringham, near Trichinopoly, and after a course of 80 miles (of which it is the boundary of this district) falls into the sea near Devicottah. An anicut or dam was in the year 1836 constructed across the Coleeroon, by which means a large supply of water is turned into the two southern tanks of Mannargoody and Chellambur, and is of material service to the cultivation. The Coleeroon anicutus are said to have been originally formed in the second century of the Christian era.

COLEUS AMBIGUCUS. Lour. C. crassifolius, Benth. Plectranthus aromaticus, Roxb.

Pathur chur, ... Beng. Karpura valli, ... Tel. Country borage is a delightfully fragrant plant of the Molucias and the Peninsula of India, and grown in gardens. Its leaves are eaten with bread and butter, or bruised and mixed with food, drink, or medicine.—Voigt.


A shrubby plant, with a strong but not disagreeable smell. Cultivated in gardens all over India as greens. The roots are pickled.—O'Sh. p. 191.

COLEUS OSIRIRHIZON. Elliot. Hrebera; Valuks, Sansk. | Iribeli Kuru-veru, ... Tel. It grows in Southern India, where it is cultivated in gardens. Hindu women use the scented roots to ornament their hair; and it is used as a drug, and as an offering to idols.

COLEWORT, a variety of cabbage, Brassica oleracea, of little value.—Jaffrey.

COLLADDI or Kolilady, a fort on the island of Seringham.

COLLIER, a race occupying the country south of Trichinopoly, until the 19th century, so predatory, that in the south of the Peninsula of India, Colleri became the ordinary designation of a thief; derived from Kallara, thieves, plunderers.

In ancient times they seem to have inhabited the woods from Trichinopoly to Cape Comorin. Orme describes them in the middle of the 18th century as expert thieves and plunderers; and the Jesuit Father Martin says they were very cruel. Pennant, in the 18th century, says 'the adjacent countries are covered with thick forests, and little cultivated by reason of the savage inhabitants, the Polugars and Colleries, who may be truly styled "sylvestres homines."' The Colleries, he adds, were predatory, and their government, as also that of the Polugars, feudal. The Collgeries are in number thirty or forty thousand. Their country is hilly. They generally sided with Mahommedans in the British wars against the French in the times of Clive and Duplex. Their chieftain is the Maharrja of Puducotthah.—Pennant's Hindostan; Orme's Hindustan.

COLLICHTHYE PAMA. B. Ham. The whiting fish.

COLOCAILIA, a genus of birds belonging to the family Cypselidae. C. linechi is the swiftlet that produces the edible birds' nests used in China as a restorative food. The other species is C. nilifica. See Bird's Nest; Birds.

COLOCASIA. Ray. A genus of plants of the family Araceae. Several species grow in the south and east of Asia, viz. C. antiquorum, cucullata, esculenta, fornicata, odor, Indica, bicolore, arborescent, montana, mucronata, nymphazia, virosa, macrorrhiza of Ceylon, and C. Himalensis of the Himalaya, all of them remarkable for containing a milky juice. They are grown in S. Europe, the East and West Indies, and in Polynesia, where the leaves and roots, under the name of yam, cocoa, tara, are and food. Colocasia and its allies are remarkable for the distillation of water from the extremities of their leaves. This process generally takes place at night or in a damp atmosphere, and supplements the evaporation which takes place from the surface of the leaves when the air is dry. Another curious physiological phenomenon, well shown by many Aroids, which have their numerous small flowers enclosed in a sheathing leaf (spathe), is the rise of temperature at the time of flowering in the floral organs, due to chemical changes in their tissues. In these plants the sheathing spathe prevents the dispersion of the heat, so that the temperature inside sometimes rises many degrees above that of the air outside. C. grandifolia, the great-leaved Caladium, is the Alu of Bombay.

COLOCASIA ANTIQUORUM. Schott. Arum colocasia, Linn. | A. Egyptianum, Rumph.

There are five varieties of this plant,—

1. Goori kuchoo, Beng. 2. Ashoo kuchoo, Beng. Shema kalengu, ... Tam. | Chema, Chama dumpa, Chema, Chama naoura, Tel. | Tel.

These are cultivated in most parts of India and Burma. Small offshoots from the tubers are, like potatoes, planted in well-manured friable rich soil. The roots of the Goori kuchoo are taken up in about nine months, and those of Ashoo kuchoo after seven months.

2. Kalo kuchoo. The roots send out numerous runners, but do not swell into tubers like the cultivated varieties. The leaves and petioles are used as greens.

3. Char kuchoo and

4. Bun kuchoo are not cultivated, and seldom
COLOPHONIA.

The roots is 2 lbs., and the crops are raised from November to April. It requires irrigation. The young stalks and leaves are used like spinach, or in soup. The root is employed for making the mindra or native bread. It contains much starch.

COLOASIA TRYPHONIFOLIA. Royle. Arum tryphonifolium, Caladium tryphonifolium, Roeb.

Colocynth, Citrullus colocynthis, Schr. Kansiel, Arab. Makhal, BENG. Bepunum pulpa exsicca, LATIN.

Bitter apple, DUT. Bak, BENG. Bepunum pulpa exsicca, LATIN.

Bitter apple, ENG. Tita commodo, SINGH.

Bitter cucumber, FRI. Coloquintida, SP.

Citrullus colocynthis, GER. Peycoomuti-kai, TARO.

Indray, Varzeocoloynthis, INDO.

Coloquintida, IT. Poost-kai, TEL.

Colocynthis, the Kanzil of the Arabs, has been used in medicine from the earliest times, and is one of the plants supposed to be the papyroth or wild gourd of Scripture. It grows on the sandy lands of the Dekhan, Gujerat, Kaira, Dehli. Dr. Burn states that two kinds of colocynthis occur in Gujerat, the Cucumis colocynthis, and the C. pseudo-colocynthis. The colocynthis of commerce is the dried fruit, peeled and unpeeled, and is brought from the Levant, north of Africa, and south of Spain. Colocynthis is useful for protecting shawls and feathers against insects. The colocynthis used in medicine as a hydrogogue cathartic is an extract from the fruit. That known in India by the Arabic names Indrayn and Bilamba, is said to be obtained from the Citrullus pseudo-colocynthis of Royle. Colocynthis oil is prepared in India from colocynthis seeds.—*His. Bot.*; *ROyle, Mat. Med.; Spry.*

COLOMBO, the seat of government in Ceylon, has a population of about 40,000. It is on the west coast of the island, in lat. 6° 56' N., long. 79° 53' E., and exports largely to Europe. Colombo is mentioned in Singahaless historical annals so early as a.d. 496; the name is said to signify a seaport. But this and Colove, south of Madras, and Quilon of the western coast, are all the same name, *Kulam.* It was visited by the Portuguese a.d. 1505, and occupied by them in 1638; but they were expelled by the Dutch in 1656, who in turn surrendered it to the British on the 16th February 1796.

COLOMBO ROOT. 

Colomborwels, DUT. Raiz de Calumba, PORT.

Racine de Calombo, FRI. Kaalambo khu, SINGH.

Kolumba wurzel, GER. Raiz de Colombo, SP.

Kalumb-ki-Jar, HIND, COLUMBA ver, TAM.

Kaloche di Colombo, IT. Columbus ver, TEL.

Colombo, the comlobo plant is the Cocculus palmutans. It grows wild on the coast of Mozambique, and at Oribo in East Africa, and is much cultivated in the Mauritius. The root is imported into Bombay for re-export to Europe, and is much esteemed in medicine for its powerful antisetic, tonic, and astringent properties.—*McCutcheon; Voigt.*

COLOPHONIA is in French, Bois de Colophane. To this genus De Candolle refers the tree produc-
COLOSSCHELYS ATLAS.

COLOSSCHELYS ATLAS, a huge fossil land tortoise, discovered by Dr. Falconer and Sir Proby Cantley in 1835 in the tertiary strata of the Siwalik Hills, skirting the southern foot of the great Himalayan chain. They were found associated with the remains of four extinct species of mastodon and elephant, species of rhinoceros, hippopatamus, horse, anoplotherium, camel, giraffe, sivatherium, and a vast number of other mammalia, including four or five species of quadruprana; also a great number of reptilian forms, such as crocodiles and lizards and fresh-water tortoises. Some of the crocodiles belong to extinct species, but others appear to be absolutely identical with species now living in the rivers of India, in particular, to the Crocodilus longirostris, between the existing forms of which, and heads dug out of the Siwalik Hills, no difference is detected. The same result applies to the existing Emys tectum, a common species in all parts of India. A very perfect fossil specimen, presenting the greater part of the evidence of the dermal scutes, is undistinguishable from the living forms, not varying more from these than they do among each other. Prof. Thomas Bell considers that there are no characters shown by the fossil, to justify its separation from the living. Emys tectum, now a common species found in all parts of India. There are therefore fair grounds for entertaining the belief as probable, that the Colosschelys atlas may have lived down to an early period of the human epoch, and become extinct since,—1st, from the fact that other Cheloneian species and crocodiles, contemporaries of the Colosschelys in the Siwalik fauna, have survived; 2d, from the indications of mythology in regard to a gigantic species of tortoise in India. One in the British Museum is 14 feet in transverse circumference, and is 9 feet long.—Journ. As. Soc. Beng. No. 247 of 1855. See Tortoise.

COLOUR.

White is the mourning colour of the Mahomedans of Persia and in India, and of the Hindus, Parsees, and Chinese. Blue with Hindus is an unlucky colour. No one will buy a ruby or garnet with a bluish tinge. But the celestial blue is the imperial colour of the Mongols and Chinese. The colour affected by Hindu, and in Burma by Buddhist, religious mendicants, is a dull orange. In the ceremonies of marriages of Hindus, and on other similar happy occasions, red-coloured clothes must be worn, and the invitation cards must be red-coloured.

Sir George Birdwood tells us that of all artistic powers that of colour, in the highest harmonies, is the most difficult to teach. Though general principles can be imparted by scientific rules, the power of colouring beautifully is undoubtedly one rarely attained. It seems to prevail in races as a special gift. It exists where the knowledge of form is unknown. It accompanies an unconscious sympathy with nature. Many actually savage nations colour their clothes or wraps or mats harmoniously, though absolutely devoid of social or mental cultivation. Europe may cultivate the study of colour, and understand its laws; but in textiles of all kinds, from carpets to gossamer muslins, and gold and silver tissues, the traditional taste of oriental nations remains unattainable by Europeans. In their silk and woollen fabrics, their metal work and other manufactures, there is an inherent feeling for, and power of producing harmony in, the distribution of colour, and in surface decoration. He tells us that in the colouring of carpets of India, full Indian red, broken by flowers or conventional leaves, in which orange predominates, forms a leading feature. A cool, low blue, a green of similar gravity of hue, and soft creamy white, complete the palette of the Indian designers of these fabrics. European purchasers have introduced changes into these oriental designs, but only to occasion losses of the exquisite harmony of the native arrangements of form and colour. Oriental colouring in textile fabrics seems to result from a gift to the various races that produce them. The native designers proceed in accordance with immemorial traditions, and with a certainty that resembles instinct. Their shaws are the finest textures, if not the most artistic products, of the loom. As studies of colour, the shaws of India have no rivals in the range of textile fabrics. The most celebrated of these productions are produced in Kashmir from the finest wool. The fineness and softness of its fibre retain colours of the most intense and delicate hue. Lakes, yellows, blues, orange, greens of several tints, rich and vivid; white, soft and low of tone, and absolute black, enable the designers to make up endless combinations. The designs in all Kashmir shaws are very similar to each other, with a cone or an occasional peacock amongst the rolling curves, and with the borders of the brightest colours. India also, though not manufacturing shaws, produces woven tissues, some embroidered, and some the work of the loom only, of a splendour unknown to European weavers. The gold and white, gold and purple, white and silver muslins, for colour, taste, and delicacy of arrangement, are amongst the artistic triumphs of the Indian loom. Some of them are of a gossamer transparency, intended for ladies' dresses.

Colour-sticks for the lacquer-ware of India are used in the Panjab by the kharati or wood-turner, to colour his ware when the turning process is complete. The stick consists of shell-lac, melted down with a certain proportion of wax and sulphur, and coloured by various simple or compound colours. They are applied by the hand. The operator holds the colour-stick against the turned wood object while revolving rapidly; the heat produced by the friction melts the lac, and the colour is deposited on the surface of the wood. The skill and fancy of the operator directs him either in laying on a uniform layer of colour, or else putting it on in little spots or touches, by allowing the colour-stick only very lightly to touch the revolving wood, thus producing either a smooth uniform colour, or the pretty mottled appearance so often observed in lacquered ware. Two or three different colour-sticks are often applied, giving the whole a marbled appearance of great beauty. The colour thus applied is spread, dried, and polished, by pressing the edge against the turned object while revolving. The final polish is given by a rag with a little oil. The principal colours are of lac, crimson, orpiment, red lead,
green made of orpiment and Prussian blue, dark blue, indigo or Prussian, black, white, brown or gold colour, light-blue or ultramarine.

**Colours for enamels.—**Vitreous masses are employed by the minakar, or enameller on silver, etc. The colours are principally green and blue, salts of iron and copper diffused through vitreous matter; a yellowish colour also is produced by litharge. The manufacture consists in taking a silver or metal vessel, having the pattern of leaves or flowers worked on it in relief, and filling the hollows with enamel in a melted state. The colours used are blue, green, and red. The art of making this material is known in Lahore, Multan, and other places.

**Chinese red colour** is made from Taow-fau, or copperas. Their mode of preparation is by putting a pound of copperas into a crucible, over which another crucible is luted, having a small hole in it, which is lightly covered over; around these they pile charcoal, and enclose the whole within bricks, when they fire the charcoal, and as soon as the fumes issuing from the aperture in the crucible become of a light colour, a small quantity of the copperas is taken therefrom, laid upon fir-wood, and moistened with water; if the colour then prove to be a bright red, they remove the fire; if not, they allow the copperas to remain subjected to the heat until it assumes that colour, and then remove the fire. When the crucibles are cool, a cake is found in the lower one, but the finest colour is encrusted on its sides and on the bottom of the upper crucible, which is kept separate from the cake; the pound of copperas produces about four ounces of colour.

**Chinese white colour** is made from calcined translucent flint, to an ounce of the powder of which they add an equal quantity of white lead.

**Chinese green** is beautiful. It is prepared with one part of powdered calcined flint, two parts of white lead, and six parts of the scales of well-hammered copper.

**Chinese violet** is produced by adding an additional quantity of the prepared white to the green.

**Chinese yellow** is made by combining equal portions of prepared white and red. *Liu* is the proper name of Chinese commerce. It is the Pi-en-tsing stone, an azure mineral, probably arseniuret of cobalt, roasted and powdered.

All these various colours are used by the china-ware painters, having been previously dissolved in gum-water, to which they occasionally add saltpetre, copperas, or white lead. The colours are laid on after the first baking and varnishing of the china-ware, but the beauty and depth of the colouring is imperceptible until after the second baking.

**Black china-ware**, the Ow-mi-ew, ornamented with gold, is very much prized in China. To make it, they mix three ounces of azure and seven of the oil of stones; this is laid on the ware, and when perfectly dry it is baked, after which the gold is laid on, and the vessel is re-baked.

**Cracked porcelain**, the To-wi-kie, is a porcelain prepared simply by varnishing the vessels with a whitish ash-coloured varnish, made from calcined translucent white pebbles; this has the property of marbling and veining the ware, and giving it an appearance as if it had been fractured into many pieces, which had been carefully reunited.


**COLOSFoot.**

In China two varieties occur, one with large flowers,
which, as also the leaves, are smoked in lieu of tobacco.—Smith.

COLUMBRIDE, a family of snakes, the last of the sub-order Colubrina of Dr. J. E. Gray. The Colubridae include the families Hydridae, Boidae, and Colubridae. See Reptiles.

COLUMBINA ASIATICA. R. Brown.
Cnemothus asiaticus, Linn. | C. capsularis, Forst.

The Asiatic red-wood is a large shrub with pale greenish flowers, belonging to the natural order Rhamnaceae. Other two shrubs of this genus are C. nepalensis of Nepal and C. magnifica of Martaban.—R. Brown; Voigt.

COLUMBA, a genus of birds belonging to the family Columbidae and order Geminotarsi. C. intermedia, C. rupestris, C. leucoma, occur in India, C. aromatica, C. coromana, and C. carphophaga have been referred to other genera. The most common in India is the—

Columba intermedia, the blue pigeon or pagoda pigeon.

C. livia, var., Blyth.
Kabutar , Hind. | Kovil pora, Tam.
Parivi, | Makh. | Gadai purai, Tel.

They congregate in large numbers, and breed wherever they can find suitable spots, on pagoda mosques, and tombs. The Indian blue pigeon differs from the C. livia of Europe, North Asia to Japan, and N. Africa, only in having an ash-coloured instead of a pure white rump. The C. livia of Europe, or rock pigeon, with its subspecies, is the parent form of all domesticated pigeons. Of these there are at least 150 varieties, in four groups.

The first group consisting of the German, Dutch, and English pouters.

A second group includes the Kali-par, Murassa, Bussora, dragon, and English carrier; the Bagdot hen, Scanderoon pigeon, eygne rient, the Tromfo, and the Bank.

The third group includes the Java and English fantail, the Turbit and African owl; the Persian Lotan; common and short-faced tumblers, the Indian frill-back and jacolin.

The fourth group includes the dovecot pigeon, swallow, spot, nun, English frill-back, laugher, and trumpeter.

Dr. Jerdon thus arranges the Geminotarsi or pigeons, syn. Columba, Latham:—

Fam. Ternonidae.
Sub-fam. Green pigeons; genus, Treron, Crocopus, Osmoteron, Sphenopereu.
Sub-fam. Carpodiplaga, fruit pigeons; genus, Carphophaga.
Fam. Columbidae.
Sub-fam. Palumbus, wood pigeons; genus, Azoconus, Otamibbus, Palumbina, Columba.
Sub-fam. Macropygina, Cuckoo doves; genus, Macropige.
Sub-fam. Turturina, turtle-doves; genus, Turtur.
Sub-fam. Gourida, ground doves.
Sub-fam. Phainopia, ground doves; genus, Calcopups Indeius.

Pigeons, doves, and turdes are abundant in Southern Asia and the Indian Archipelago.— Jordon; Blyth; Darwin.

COLUMBUS. Christopher Columbus, a Genoese, and famous navigator, with a fleet fitted out by the king of Spain, discovered America on the 12th October 1492. America had been discovered A.D. 986 by Bjarni Herjulfson; and in A.D. 994 Leif Erikson afterwards reached its shores, somewhere between Boston and New York. But the memory of those discoveries had passed away; and on Friday, August 2, 1492, Columbus set sail from Palos, steering to the west, to reach, in his belief, the East Indies. It was chiefly by the sail of the Pinzon family, a seafaring Spanish house, that he was able to get up the expedition. At midnight of the 11th October, a sailor discovered the island, on which Columbus landed at daybreak of the 12th, and named it San Salvador. It is now called Watling Island. He had carried with him a letter to the khan of Tartary from the king of Spain, and he died in the belief that he had reached the eastern shores of Asia, and hence gave it the name of 'West Indies.' By an ordnance of 4th May 1493, the Pope confirmed the king of Spain in the sovereignty of America, and strictly prohibited all persons to touch at any port within a line drawn from pole to pole 100 leagues westward of the Azores; and the Portuguese were to possess all eastward of this line. But when Magellan, sailing westward as a servant of the king of Spain, discovered the Philippine Islands in 1521, the Pope's demarcation was rendered useless, and Spain and Portugal came into collision.

COLVILLE, W. H., author of Notes on the Geology and Botany of the Coast between Bandar Abbas and Jaalik; do. between Shiraz and Bushahr; do. island of Kishm; do. around the head of the Persian Gulf, in 1863.

COLUMBIDE, a family of swimming birds, now classed with the Natatorides as Podicipides. The species of Podiceps are called Grebes. They haunt the sea as well as the rivers, are excellent swimmers, and dive frequently. They feed on small fishes, frogs, crustaceans, and insects; and their nests, formed of a large quantity of grass, etc., are generally placed among reeds and carices, and rise and fall with the water.

COLZA, oils of Brassica campestris and B. oleifera.

COMALA or Kamala. Hind. The lotus; pronounced Kawal. Aran-kawal, the lotus of the desert, from Aranya (Sanskrit), a waste, and Comala, lotus. By the spelling it should be called Aranakomal, but the pronunciation is as above.

COMANES, a city mentioned by Ptolemy, supposed to be Nagara, near Cambay, but in ruins. COMALI, known of the Khati tribe of Surashtra, whose pallia, or funeral monumental pillars, are seen in groups at every town and village. Abul Ghazi describes a famous tribe in Khiraram, the ancient Chorasma, called Comani, the remains of which were expelled by Chengiz Khan; and the royal author adds, 'Urgens was not always the capital; and Abulfeda tells us Cath, also spelt Kaht, in lat. 41° 45' N., was formerly the metropolis.—Rossi manhã, i. p. 59.

COMARASAMY, a hill south of Ramanallai hill, 30 miles west of Bellary, overlooking the valley of Sundur, used as a sanatorium.

COMARI, mentioned in the Periplus, is Cape Comorin. See Kumari.

COMATRESWARA, a colossal Jain figure, known by this name, stands in front of a temple at Sravana Belgoda; another colossal Jaina statue is at Karkala in S. Canara.

COMATULIDE, the feather stars of naturalists, found in the Eastern seas.—Coll.

COMBACONUM, in Tanjore, 175 miles S. from Madras, a large, populous town. In ancient times the Chola kings were settled in Tanjore and Com-
baconum, in and near the Caufvery and Colenu rivers, and, as some suppose, gave their name to the Coromandel coast. This town is built close to the river Caufvery. It has 12 pagodas, and in Hindo estimation is a very sacred place, celebrated for its learning. Brick remains of the palace of the Chola are found near Combaconum.

COMBERMERE. Stapleton Cotton, afterwards Lord Combermere, accompanied his regiment, the 6th Dragoon Guards, to Flanders in 1798. From the conquest of the Cape he returned to India, and he was in command of the 16th Light Dragoons in the year 1796, and was present at Mallavelly and Seringapatam. Returning as a colonel after ten years' service, he married the eldest daughter of the third Duke of Newcastle in 1801; and was at the head of his brigade of the 14th and 16th Light Dragoons at Oporto and Talavera. In 1809 Sir Stapleton Cotton was created locally a Lieutenant-General, and placed at the head of the whole allied cavalry. He was in the retreat from Almeida, and subsequently at Busaco, Fuentes d'Onor, Salamanca, El Botsont, the Pyrenees, Orthes, and at the battle of Toulouse. For his services in the Peninsula he was created a peer, and received the thanks of the British Parliament. In 1814 he married a second time, Miss Greville. Lord Combermere went to the West Indies as Governor of Barbadoes in 1817, and as Commander-in-chief of the forces in the islands at the end of the American war. He served in India as Commander-in-chief; and in 1825-26 he stormed and took Bhupert.

COMBOY. SINGH. A waist-cloth resembling a petticoat, worn by the Singalese.

COMBRETACEÆ. R. Br. The myrrabolan tribe of plants, consisting of trees or shrubs, simple or climbing, of 22 genera, and about 140 species in Madagascar, Bourbon, Mauritius, the Society Islands, China, and 64 in the East Indies, viz. 23 Terminalia, 25 Combretum, 2 Poivre, 2 Geotonia, 2 Quisqualis, 4 Anogeissus, 2 Lumnitzera. The various species of Terminalia yield several valuable economic products; the Anogeissus and Lumnitzera useful woods, and Quisqualis fruits excellent vermifuge. Terminalia bellerica gives a good serviceable wood where elasticity and strength are required. The withes of two species of the Combretum are extensively employed in the place of iron stretchers for the mouths of the leathern buckets used in drawing water from wells. Combretum ovalifolium, rotundifolium, costatum, acuminatum, Chines, and extensum occur in India.—Mason; Veit; Rosb.

COMBS. Kamm., DUT. Sisir, Gur, MALAY. Peignes, FR. Pentes, PORT. Kamme, GER. Grieben, RUS. Kunghi, HIND. Poines, SP. Pelzini, IT. Ships, TAM. Pectines, LAT. Duvenna, TEL.

Combs for cleaning and adjusting the hair are formed of horn, bone, tortoiseshell, wood, etc. In Ceylon, the marginal pieces of tortoiseshell are also used at Point de Galile in the manufacture of Decocts; and necklaces, formed of a chain of shell resembling anehve appearance, bear a higher price than such as are formed of the darker shell. In Ceylon, tortoiseshell combs are worn by men as well as women. In the numerous excesses into which European costume has been carried, the size of the back comb worn by ladies has never attained that of the Singhalese men, who also wear a narrow, long, bent comb across the fore part of the head. Five pounds even is a moderate price for a tortoiseshell back comb, which increases in value according to the size and quality of the shell. Hair-pins of tortoiseshell are worn by the women, gold and silver being substituted for full dress. These hair-pins are among the articles purchased by passengers. A comb is always part of the belongings of the darvesh of Central Asia.—Faulkner; Rohde, MS.; M'Culloch.

COMILLAH, the chief civil station of Tiperah.

COMMANDMENTS of the southern Buddhists are ten in number. Amongst them,—Kill not, Steal not, Commit not adultery, Lie not, Take nothing that intoxicates.

COMMELYNACEÆ, the spider-wort tribe of plants, comprising the genera Anellema, Campbellia, Commelyna, Cyonitis, Mauritania, Pollia, and Tradescantia. Wight describes Commelyna Bengalenis, criystata, nana, papillacena, polyspatha, and scapiflora. C. caspitosæ occurs in Burma; and Dr. Honigberger received C. nudiflora from the Himalayas under the name of Kandoolee. The rhizomes of some species are starchy, and are eaten. C. Rumphii is used in India as an emmenagogue.—W. Jc.; Riddell.

COMMELLYNA BENGALENSIS. Morrison. Ho-tan-t'su, CHIN. | Kan churu, kanuraka, ID.

Has small blue flowers.—Smith.

COMMELLYNA COMMUNIS. Linn. Calt grass, EXG. | Venna-devi kura, TEL. Vataxprim, IND. | Niru kasaun, TAM. Kanang kirati, TAM. | Venna mudra, TEL. Kunnu katti pili, TAM. | Venna vedara, TEL.

Its succulent leaves are used by the Hindus for feeding young calves when they wish to wean them from their milk. The plant has a small delicate blue flower, and is found growing on the banks of watercourses, along which it spreads rapidly, sending suckers into the ground. Found in lawns. The leaves are used by the natives mixed with other greens.—Ainslie; Jaffrey.

COMMELLYNA MEDICA. Smith. The Tsun- tung of the Chinese. Its tubers are used as a cooling medicine. The same name is given to the roots of the Ophiopogon Japonicus, and of a species of Anellema.—Smith.

COMMELLYNA OBLIQUA. — Is the Xanjuara and Kana of Hindustan. The root of this plant is edible.

COMMELLYNA POLYGAMA. Smith. Yah-chih-t'sau, CHIN. | Chuh-yeh-t'a1, CHIN.

The duck's foot grass or spider-wort. In China is much cultivated as a pot herb, which is eaten in spring. The juice of the flower is used as a bluish pigment in painting upon transparencies.—Smith.

COMMERCE. From the earliest historic times, products from the S.E. of Asia have been carried to the west by the same sea routes as are now followed, or have been, as now, carried across the deserts of Central Asia and through the passes in its mountain ranges.

The earliest route between Europe and India of which there is any record in the works of Herodotus, Strabo, Pliny, and others, was by the Red Sea. Even before the building of Troy, spices, drugs, and many other kinds of merchandise were
COMMERCE OF INDIA.

sent from the East by this route. The ships coming from the Indian seas landed their cargoes at Arsinoe (Suez), from whence they were carried by caravans to Cassou, a city on the coast of the Mediterranean. The distance from Arsinoe to Cassou was about 105 miles. According to Strabo, this route was twice altered in search of a more commodious one. Sesostris of Egypt started the idea to which M. de Lesseps in the Christian year of 1869 gave effect. The Egyptian monarch caused a canal to be cut from the Red Sea to a branch of the Nile, and had ships built for carrying the traffic, but for some reason the enterprise did not succeed. In 1 Kings ix. 26, also, it is mentioned that about 1000 B.C., Solomon king of Israel 'made a navy of ships in Ezion-gaber, which is beside Elath, on the shore of the Red Sea, in the land of Edom.' And these ships brought gold, silver, and precious stones from Ophir and Tarshish in such quantities, that king Solomon 'exceeded all the kings of the earth for riches.' Silver was so plentiful at his court, that he accounted nothing of it.' The king's drinking-cups were made of pure gold, and his shields were covered with beaten gold. We are distinctly told that the navy of Tarshish brought 'gold and silver, ivory and apes and peacocks,' and Ophir has been supposed to have been some district or port in India. The Tarshish fleet is said to have arrived at Ezion-gaber only once every three years, from which we may infer that the voyage was a considerable one, or that the ships had to go with the S.W. monsoon and return with the N.E. winds, or made a trafficing voyage from one place to another, until the one cargo was sold and another shipped. Neither place has been identified. Had the ships visited the Malay Peninsula, Sumatra, Java, or Borneo, they would have known of the Simia stryus (the orang-utan of Malacca and Sumatra), the mia of Borneo), or seen the Siamanga syndactylic, the long arms of which measure five feet six inches across in an adult about three feet high. As at the present day, the ancient navigators boldly crossed the Arabian Sea, and reached Muziris, a port on the Malabar coast of India, in a voyage of forty days, or about the middle of September, and they left India on their return at the end of December. The races ruling in Mesopotamia, on the shores of the Persian Gulf, the Akkad and the Phenicians, also prosecuted the Eastern trade. The land routes have varied with the revolutions that have raised and swept away the military rulers. They have, at times, led through the deserts of Africa, have crossed the immense steppes of High Asia, and over the passes in its mountain ranges, and, as at the present day, caravans of camels, with their bales and chests bound with cords, as described in Ezekiel, trailed their long length along. Piny (lib. vi. c. 4) particularly describes one route. 'Having arrived at Bactra,' he observes, 'the merchandise then descends the Indus, as far as the Oxus, and thence are carried down to the Caspian. They then cross that sea to the mouth of the Cyrus (the Kure), where they ascend that river, and, on going on shore, are transported by land for five days to the banks of the Phasis (Rion), where they once more embark, and are conveyed down to the Euxine.'

In the days of Augustus, Aulus Gallius described the caravans of Arabia as being like armies in magnitude. The time and course of each caravan was marked by the convenience of merchants and the position of waterings-places. Each had its fixed time of starting, its variable daily halting-places, its entrepots, and its points of junction with other caravans who would join it for protection.

At one time two great lines of caravans started from Yemen. The one proceeded from Hadramaut by Oman, and took the line of the Persian Gulf; the other came by the Hejaz along the coast of the Red Sea, and arrived at Petra, and from hence bifurcated off into two roads, the one going to Gaza and the other to Damascus. From Yemen to Petra the time of the caravan march was seventy days; and the stations of the present day are the same as those described by Athenodoros, and were probably the same in the days of Ismael and Abraham. The Maadite tribes found in this traffic an immense field of employment. Some let their camels for hire, some acted as guides, some engaged protection in return for payments of money, some engaged themselves in traffic. Some revolution interrupted this caravan trade; the vast cities which maintained their enormous prosperity by the passage of caravans fell into decay; but remains of colonnades, temples, and amphitheatres excite the traveller's admiration and surprise, amid the sands of the Hauran and the deserts east of the Dead Sea and the Lake of Tiberias. Palmyra, Philadelphia, and the cities of the Decapolis were the northern stations or termini of the great caravan road from Petra to Damascus. But the position of Petra was peculiarly adapted to advance it to that incredible degree of opulence which won the admiration of visitors in the days of Greece and Rome, which was described by Athenodoros the Stoic, and which, after having been forgotten in the desert for centuries, still exists, within its rock ramparts and its richly chiselled and stately pillars and edifices, to remind and instruct the modern traveller. Petra, in fact, was one of the chief points of junction of the great caravan traffic, and it was here that the cargo of the caravan changed hands from the carriers of the southern to those of the northern merchants.

With the fall of the mighty Roman empire, the routes by the Red Sea and Arabia seem to have been abandoned; and centuries afterwards, when the Genoese engaged in commerce and navigation, a former trade route had been reopened up between India and Europe. The merchandise from the western part of India was now carried up the river Indus as far as it was navigable, and then across country, through Samarcand, to the river Oxus, down which it was shipped to the Caspian Sea. In like manner the merchandise from China and the Moluccas was shipped across the Bay of Bengal, and up the rivers Ganges and Jamna, and then carried overland to the Oxus. Samarcand was then a great emporium, and the merchants of India, Turkey, and Persia met there to exchange their wares. The ships sailed across the Caspian to the port of Astracan, at the mouth of the Volga. Thence the goods were carried up the river to the city of Novgorod, in the province of Reizan (a city that must have been considerably to the south of the famous Nijni Novgorod of to-day), then overland for some miles to the river Don, where they were loaded in barges and carried down stream to the Sea of Azof, and on to the port of Caffa or
Theodosia, in the Crimea. Caffa belonged at that time to the Genoese, and they came there in their galleys to fetch Indian commodities, which they distributed throughout Europe. In the reign of Commodita, emperor of Armenia, a better route was followed, by the merchandise being transported from the Caspian Sea through Georgia to the city of Trebizond on the Black Sea, whence it was shipped to all parts of Europe. This was doubtless the origin of the connection of the Armenians with the trade of India. So highly was this route approved of, that another Armenian emperor is said to have actually begun to cut a canal, 120 miles in length, from the Caspian to the Black Sea, for the greater convenience of the trade, but the author of this scheme was slain and the enterprise fell through.

After a time the Venetians came upon the scene, and took up a new and much shorter trade route to India, that down the river Ephrates,—a route which even at the present day is believed by some to be the best that could be selected for communication between India and Europe. The Venetian merchants sailed from Venice to Tripoli; thence their goods were carried in caravans to Aleppo, which was a famous mart, and whose reputation Shakespeare did not fail to notice. From Aleppo the caravans made their way to Bir on the banks of the Euphrates. Here the merchandise was transferred to boats, and conveyed down the river to a point near Baghdad on the Tigris. Baghdad being reached, the merchandise was then transferred to boats on the Tigris, and carried down to Bassora and the island of Ormus in the Persian Gulf. In those daysOrmuz was the greatest emporium in the south of Asia. Here all the velvets, cloths, and manufactures of the West were exchanged for the spices, drugs, and precious stones of the East.

The wealth acquired by the merchants of Venice in their trade with the East excited the envy of the whole of Europe. The Portuguese especially spared no expense in their endeavours to discover a new route to India, and in the latter part of the 16th century they found their way to Calicut by the Cape of Good Hope; and the cheapest route between Europe and India was the high sea. But after making use of the Cape sea route for 400 years, the world has returned to that by the Red Sea, which was followed by the ships of king Solomon and Hiram king of Tyre.

Along the eastern coast of Africa, merchants from Great Britain, France, Portugal, and Germany are now settled, but Asiaties form a connecting link between the Europeans and the African races, and Hindus from Sind and from Cutch, have from time immemorial traded on that coast, and the Arab dynasties of Johanna and of neighbouring places gave accounts of their arrival on the coast, which was long prior to that of the Portuguese, having been far back in the middle ages, and there appears to have been settlements on the coast of powerful Arab and Persian emigrants in the early centuries of the Christian era.

The arrival of the Portuguese revolutionized the trade. It was not only that a stop was put by their discovery to the Venetian and Genoese trade with India, but its effect was very nearly to drive away from the coast of Africa the Indian and Arab traders who had carried on commerce in this region. Vasco da Gama and the early Portuguese traders describe in these regions a state of things much superior to what we have since known of them.

They describe the region near the coast north of the limits of Cape Colony as occupied by well-settled kingdoms, some ruled over by Arabs, some by natives, and all enjoying a tolerably advanced state of civilization. The European traders did not contribute to the peace and happiness of this region. The stronghold of Captain Kny is shown still in the neighbourhood of Johanna, and his castle was certainly built about that time. A system of plunder prevailed. The power of the Portuguese was much crippled by their rivals, but when they were on the mainland they did nothing but turn their attention to the capture and sale of slaves; commerce dwindled, and the country sank. The early Portuguese maps show that the country which in those older maps was represented as filled with towns, has in the later ones been set down as almost unknown.

The people who have now the most influence in commerce, and carry on by far the largest trade, are the Asiatics from the north-west coast of India. They are of different tribes. None of them can tell very accurately when they began to come to Africa to trade. They do not bring their wives and families with them, but are generally young men who trade on the coast for some years, and return to India to manage the same trade in its home branches. During the Portuguese domination, they were very nearly expelled. The Bhatia and Banya, who form a large number of these traders, are Hindus, and are very strict ones; yet it is remarkable that they may leave India and live in Africa for years, without incurring the penalty of loss of caste which is enforced against Hindus residing in India.

Several land routes through Central and High Asia continue to be followed. The present channels of trade between Afghanistan, Persia, Western Turkestan, and India, are the passes of the Sulimani range and those leading to and from Peshawur. The Moolla pass near Gandava, level throughout, may be traversed in all seasons. Through the Bolan pass the trade passes from Kandahar into Sind, a distance of 400 miles. The Guleri pass, opposite Dehra Ismail Khan, is the chief trade route between Afghanistan and the Punjab; the trade through it is in the hands of Povindah, a hereditary clan of merchants. The Tataras and Akhkanas passes, leading from Kâbul to Peshawur, are practicable all the year. The Suliman mountains form the western frontier of the Punjab and Sind. The Bolan pass collects the trade both of Kandahar and Kalat, and other passes that of Shirkapan, whose merchants have direct dealings with the remote cities of Central Asia. The Gonal pass, leading from Ghazni to Dehra Ismail Khan, is followed by the half-military, half-trading clan of Povиндahs, who bring their own caravans of camels into the heart of India. The Khaibar pass leads from Kâbul to Peshawur. The aggregate value of the annual trade with Afghanistan cannot be less than one million sterling each way, or a total of two millions. In 1875-76 the total imports from Kâbul were valued at £914,000, consisting chiefly of raw silk, dried fruits and nuts, manjist or madder, and other dyes, charrus (an intoxicating preparation of hemp), and other drugs, wool, and furs. The total exports were valued at £281,000, chiefly cotton goods both
of native and European manufacture, Indian tea, indigo, and salt.

The Punjab also conducts a considerable business, via Kashmir, with Yarkand, Kashgar, and Chinese Tibet, estimated at about one million sterling altogether. The chief marts on the side of India are Amritsar and Jullundur, from which latter place the route runs northwards past Kangra and Palampur to Lahore, where a British official has stationed since 1867, in which year also a fair was established at Palampur, to attract the Yarkand merchants. Merchandise is usually conveyed across the Himalayan passes on the backs of sheep and yaks; but British enterprise has successfully taken mules as far as Lahore. In 1875-76, the total imports from Kashmir were valued at £484,000, chiefly pashmina or shawl-wool, charras, raw silk, gold dust, silver ingots, and borax; the exports were valued at £342,000, chiefly cotton goods, food-grains, metals, salt, tea, and indigo.

In this land traffic the difficulties to contend with are partly from the social and political state of the nations through which the trade passes, and partly the physical difficulties of the countries which it has to traverse. Every skin of Bohara silk in the market of Amritsar, has to traverse upwards of 1000 miles over unbridged rivers and mountain passes, one of them 11,700 feet above the level of the sea; every fabric from Europe exposed in the bazaar at Yarkand, has to perform a journey of 325 miles from the Panj, over passes of 11,300, 12,570, 13,446 feet in height, to Lahore, thence over still loftier mountains and through an inhospitable route for 573 miles. Nevertheless, to combat these difficulties, we find in existence an indomitable mercantile energy, hereditary in certain tribes, as the Babi of South Afghanistan, the Povindah of the Guleri pass, the Parasha of Turkestan, and the Kyrakash of Yarkand. Year after year their caravans stream into the Panj, from Mashed, Kabul, Bokhara, and Yarkand, bringing tales of perils overcome; native ballads bewailing the hardships of the travelling merchant, but they still stream on.

Afghanistan, a mountainous region lying between lat. 30° and 36° N., and long. 60° to 68° E., with a population estimated at 4,200,000, contains within its limits three great entrepôts of trade between Europe, Persia, Turkestan, and India,—Herat, Kabul, and Kandahar,—where the silk of Bokhara and Khotan, the shawl-wool of Kirman on the south-west, and Khokand, are exchanged for the fabrics of Europe and for the indigo and the spices of the east. Passing the well-watered plains of Mughlab and the petty Uzbek states to the north-west of the Bamian hills and the Kunduz districts, in whose eastern frontier are the ruby mines of Badakshshan, and the lapis-lazuli quarries of the valley of the Kokeh, we come to the plains of the Oxus and Jaxartes, the Amu Dariya and the Syr Dariya, into which Russia has passed, but formerly divided politically into the three Uzbek khanate states of Khiva, Bokhara, and Khokand. Of these, Khiva khانate has a population estimated at 2,500,000; Bokhara, one of 2,000,000; but Bokhara is at once the most productive, and its capital is the great depot for the trade of Central Asia, occupying the position held in more ancient times by Balkh and Samarcand. Its silk is used throughout the north-west of India; its cotton is exported largely to the north; and the black lambkin wool of Karakul, one of its provinces, is a staple article of trade; while it imports considerable quantities of tea, fur skins, iron, and cotton goods. Caravans leave yearly for Russia via Orenberg and other frontier towns, and the trade with that country is estimated at upwards of £300,000 per annum; it has also a considerable trade with Western China via Yarkand, with Persia via Meshed, and with India via Kâbul and Peshawur. Under Russian supremacy, Samarcand is resuming its former position as the more important mercantile site.

Proceeding eastward to the borders of Chinese Turkestan, including the provinces of Yarkand, Kashgar, and Khotan, we find the former the entrepôt of trade between China and Bokhara, and the latter celebrated from the time of Ctesias for its mineral products, its jade and emeralds, its shawl-wool and flax; a considerable importer of furs, broadcloth, leather, and sugar, and at one time the entrepôt of a vast trade with Hindustan.

Turning south, we come to the kingdom of Kashmir, including its outlying province of Ladakh, the former sending its valuable shawls to all parts of the world, while the latter supplies shawl-wool in exchange for opium, the produce of the Kul hills, otter-skins, cotton piece-goods, spices, and drugs. The Quetta trade goes on to Kandahar, but not much further west, as the maritime trade from Bombay up the Persian Gulf carries articles more cheaply than they can be conveyed by any land route.

The trade into Kashmir is conducted with the districts of Hazeru, Rawalpindi, Jhelum, Gujerat, Sialkot, and Gurdaspur.

With Kâbul the trade passes through Peshawur, Kohat, Dehra Ismail Khan, and Bannu. That through Peshawur is by the Khâibar, Tatta, Albhana, and Gandal routes; that from Kohat is by the Thul and the Kurrum valley; that by the Dehra Ismail Khan district goes by the Gomal pass, and Sewastan is reached by this.

The Bajaur trade is via Peshawur and Hazara; to Yarkand, via Amritsar; and to Ladakh, through Kulu.

The route to the west from Kâbul to Bokhara runs via Bamiian, Saighan, Doala, Hibark, Haarak Sultan, Kuhm, Balkh, Kilif-ford, and Karshi. Bokhara is the great centre mart to which merchants resort from Samarcand, Tashkand, and Khokand.

The Chinese Tibet trade goes via the Hindustan Tibet road, the several routes converging at Wango, where the Sutlej crosses the road. At Gartekh town, in Chinese Tibet, a commercial fair is held twice a year, at which traders meet from Ladakh, Nepal, Kashmir, and Hindustan.

The routes to Tibet are by five passes, viz. the Nilanghat, at the eastern corner of Native Garwhal (Tehtri); the Mana and Niti passes in British Garwhal; and the Johar, the Darna, and the Byans passes in Kamaon.

The routes into Nepal are by Kamaon, Philibbit, Kheri, Bahraitch, Gouda, Basti, and Gorakhpur.

Nepal Trade Routes.—From Chhaimandu two routes branch off over the central range of the Himalaya, which both ultimately come down into the valley of the Tsangpo, or great river of Tibet. In 1877-78 the registered trade with Nepal (which is doubtless under-estimated) amounted to a total of £1,687,000, of which more than
two-thirds was conducted by Bengal. The exports from Nepal were valued at £1,054,000, the principal items being food-grains and oil-seeds, cattle, timber, and horns. Other articles of export are musk, borax, chiretta, madder, cardamons, chaurn or yak tails, ginger, balchar or scented grass, furs, and hawks.

British India is geographically adapted to maritime trade, and an Indian nation might have been a naval power almost as easily as the British themselves have become so. The coast of India offers a ready means of intercourse with foreign countries. The mountains on the north are a great barrier to trade with Central Asia. But to the south-east and west are countries and people with whom the nates of India have established independent relations. India possesses a long coast-line of over 2000 miles and about 300 harbours; but the foreign trade of the Indian empire is practically confined to Akyah, Cacanada, Chittagong, Corings, Negapatam, Bepur, Calcutta, Bombay, Madras, Rangoon, Moulmein, Colombo, Trincomalee, Galle, Tuticorin, and Kurschee, all of which, excepting Madras, are excellently situated as central marts for the distribution of articles of commerce. To Rangoon, Moulmein, and Bassein naturally flow the Irawadi all the products of Upper Burma and of Pegu; while the railway between Rangoon and Prome offers further facilities for the conveyance of merchandise. Calcutta is the most convenient point of distribution of the trade conveyed by water through Bengal, while it is also the terminus of the two main railway systems of Bengal. The river, too (formerly dangerous to navigation), is now carefully charted, while the Parsee Trust has provided conveniences for shipping which are probably unequalled in the whole world for the case with which cargo is loaded and discharged. The Northern Bengal State Railway has opened out rich tracts, producing tobacco, jute, and other valuable commodities in great abundance, and rendering trade to some extent independent of the rivers in that region, which cease to be available highways for the conveyance of goods when the waters are low.

Sir John Strachey has remarked that 'India is a country of unbounded material resources, but her people are poor. Their characteristics are great power of production, but almost total absence of accumulated capital. On this account alone the prosperity of the country essentially depends on its being able to secure a large and favourable outlet for its superfluous produce. But her connection with Britain and the financial results of that connection compel her to send to Europe every year about 29 millions worth of her products, without receiving in return any direct commercial equivalent. This excess of exports over imports is, he adds, the return for the foreign capital, which is invested in India, including under capital not only money, but all advantages, which have to be paid for, such as intelligence, strength, and energy, on which good administration and commercial prosperity depend. From these causes, he says, the trade of India is in an abnormal position, preventing her receiving the full commercial benefit which would spring from her vast material resources.' In the thirty-six years between 1855 and 1871, the value of merchandise exported from India amounted to £1,012,000,000; the value of merchandise imported into India, to £533,000,000, showing an excess of £429,000,000 on the exports. The value of treasure imported in the same period was £312,000,000 against £37,000,000 re-exported, being a nett import of £275,000,000. In 1880, India sold to foreign nations £66,000,000 worth of strictly Indian produce, which the Indian husbandman had raised, and for which he was paid. In the year 1881-82 the total trade of India, including exports and imports, exceeded £141,000,000.

The commercial transactions of British India with foreign countries are chiefly with the United Kingdom of Great Britain and Ireland, and with China. In the year 1881-82, the total value of the imported merchandise and treasure was £58,314,865, and that of the exports £82,999,946. Cotton piece-goods, twist and yarn, thread and other sorts, imported were of value Rs. 29,99,41,683. The values of sugar, refined and unrefined, and of woollen goods, were each above a million sterling; metals, raw and manufactured, 31 millions; while of the exported articles the opium was valued at Rs. 12,43,21,418; rice, grain, pulse, wheat, seeds, £17,240,750; tea and coffee, £5,056,601; raw cotton, cotton goods, twist and yarn, £16,946,475. In that year twenty-five of the most important imports were—

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Import Value</th>
</tr>
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<tbody>
<tr>
<td>Cotton</td>
<td>£57,984,549</td>
</tr>
<tr>
<td>Tea</td>
<td>£20,14,133</td>
</tr>
<tr>
<td>Jute, raw</td>
<td>£3,982,228</td>
</tr>
<tr>
<td>Woollen goods</td>
<td>£20,14,133</td>
</tr>
<tr>
<td>Sugar, refined</td>
<td>£24,58,900</td>
</tr>
<tr>
<td>Silk, raw</td>
<td>£71,98,381</td>
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<td>Salt</td>
<td>£8,141,047</td>
</tr>
<tr>
<td>Rice</td>
<td>£11,655,395</td>
</tr>
<tr>
<td>Tobacco</td>
<td>£8,141,047</td>
</tr>
<tr>
<td>Drugs</td>
<td>£8,141,047</td>
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<tr>
<td>Yarn</td>
<td>£8,141,047</td>
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<tr>
<td>Leather</td>
<td>£8,141,047</td>
</tr>
<tr>
<td>Mutton</td>
<td>£8,141,047</td>
</tr>
<tr>
<td>Tea, raw</td>
<td>£8,141,047</td>
</tr>
<tr>
<td>Indigo</td>
<td>£8,141,047</td>
</tr>
</tbody>
</table>

The opening of the Suez Canal in 1869 stimulated every department of eastern trade into greater activity, but has not materially changed
still retains its supremacy as the centre of at least 60 per cent. of the trade of the Indian Empire; but Trieste, Venice, Genoa, and Marseilles play an increasingly important part in the commercial race.

The imports of merchandise via the Suez Canal from Europe, Egypt, and the Levantine coast of Asiatic Turkey, increase year by year. The route is not so largely used for exports of Indian produce, the reason being that large quantities of these, such as opium and rice, find their way to China and the Straits, Mauritius, Ceylon, Arabia, and other countries.

China trade with India is practically confined to the opium traffic, though, within the last few years, that country has become an important consumer of Indian-made twist, which no doubt displaces to some extent in the Chinese markets the spinnings of Manchester. The time will come when the Chinese will spin for themselves, and then India will have to contend with her own local markets for her goods. In all respects but one the Chinese are better adapted than the people of India for the profitable manufacture of cotton: they are capable of longer and more sustained exertion, they are more ingenious and skilful as operatives, and their commercial classes are at least as acute and bold in speculation as those of India. But China is compelled to import cotton, and India will have a good market in China and Japan for a portion of the out-turn of her mills. The imports from China, even with the addition of treasure, amount to hardly a fifth of the exports thither, the truth being that the opium is paid for by China through Great Britain. The chief articles imported into India from China are copper (supposed, however, to be Japanese, imported via China), raw silk and silk piece-goods, and sugar and tea in small quantities. The imports of raw silk reach the comparatively high figure of 41½ lakhs (£415,000). The sugar brought from China is landed in Bombay, where it supplements or competes with Mauritian sugar. The tea imported from China is of inferior quality.

Straits Settlements trade must be regarded in connection with the trade with China. The goods imported are of little consequence, tin excepted.

Ceylon trade with India is identical in character with the coasting trade carried on from port to port. Crowds of Tamil labourers flock to Ceylon every year from the Madras Presidency, to work on the coffee plantations, and over two-thirds of the exports consist of grains for their sustenance. The imports from Ceylon are hardly a sixth of the exports.

Between India and France the articles chiefly consist of apparel and millinery, brandy and wines, and silk goods; while the exports comprise cotton, coffee, indigo, oil-seeds, especially rape and gingelly, raw silk, and raw jute.

After France, the United States do the most trade with India. Imports are small, and practically were confined to ice and kerosene oil; but ice is now manufactured and sold in India at half the rate hitherto charged by the Tudor Ice Company. In kerosene the value rose from 3,18,985 rupees in 1876–77 to 16,37,966 rupees, and 21,07,907 rupees in the two following years. The imports of grey cotton goods from America are increasing. Indian exports to the United States consist mainly
of indigo, hides, skins, raw jute, gunny bags and cloth, lac, saltpetre, and linseed.

Mauritius sends sugar very largely to India. The most important export to Mauritius is rice, which with other food-grains amounted to nearly a kror of rupees in value.

Italy's trade includes corals, glass beads, false pearls, spirits and wines, and silk goods. The exports to Italy consist mainly of raw cotton, hides, oil-seeds, sesame, and raw silk. The total value of the import and export trade with Italy in 1878-79 was about two krore of rupees.

India is rich in raw products, mineral, vegetable, and animal. It supplied all its own people's wants until the maritime intercourse with foreign nations, and particularly since the construction of the lines of railway allowed the delivery of many articles in the Indian ports, and even in its remote provinces, at lower rates than the native products could be obtained. Its marketable mineral substances useful in the arts, are,—alum, agates, amber, antimony, arsenic, asbestos, barytes, beryl, bismuth, bloodstone, borax, cornelian, chrome ore, coal, cobalt, copper, corundum, diamond, emerald, fluor spar, garnet, gold, graphite, gypsum, iron ores, jade, jasper, kao-lin, kyanite, lapiz-lazuli, lead, lithographic stone, magnesite, manganese, marbles, meerschaum, mercury, mica, mineral oils, petroleum, platinum, potstone, rock-crystal, rubies, salt, salt-petre, sapphire, turpentine, silver, sodium compounds, spindel, sulphur, talc, tin, topaz, turquoise, zinc. The chief of the vegetable exports are,—coffee, cotton, indigo, grain, and pulse, jute, oils, opium, seeds, sugar, tea, and wood; and of animal produce are,—living animals, feathers, hides and skins, horns, ivory, lac, musk, oils, saltpetre, silk, wax, wool.

The chief imports into British India are,—apparel, coal, cotton twist and manufactures, liquors, machinery and mill-work, metals, provisions, railway plant and rolling stock, silk, raw and manufactured, spices, sugar, and woolen goods. In the progress since the opening of the Suez Canal, British India is now competing with some of these. Indian mills have taken strong hold of the market for the lower qualities of twist. Of metals nearly 80 per cent. consisted of iron, which always forms the largest item in this category. Sugar comes third in the list of imports, the value being 1,48,08,805 rupees. Indian beer costs but 54 rupees a dozen at Simla, as against 9 rupees a dozen charged for English beer. Imports of various light German beer have largely increased. The imports of raw silk and silk goods amount to nearly a kror and a half (about £1,500,000), the raw silk being valued at about 56,75,000 rupees. This may be due to a decline in the silk-weaving industry in India. The import of coal, coke, and patent fuel has fallen off. Very little coal is landed in Calcutta, the bulk of it going to Bombay, which is too far from the deposits of Central India to be able to avail itself of its product with profit.

In 1881-82 the value of the foreign merchandise re-exported from India was 2,64,67,165 rupees.

The re-exports are mainly goods consigned in the first instance to Bombay, and then re-exported to ports in the Persian Gulf and Red Sea, Zanziber, and the eastern coast of Africa. More than half of these consist of cotton twist and piece-goods (chintz and prints), amounting to 1,32,47,706 rupees in value.

In 1881-82, the declared value of the opium exported was 14,32,33,143 rupees, the largest sum it had attained. Grain and pulse were valued at 17,24,07,506 rupees, the two most important of these being rice and wheat. The exports of raw cotton, twist, yarn, and manufactured, were 16,94,64,755. The first mill for the manufacture of cotton yarn and cloth by steam machinery was opened in Bombay in 1854. Since then others have been established in various parts of India, but mostly in the city of Bombay and in the cotton-growing districts of Gujarat. In 1878-79 there were 58 cotton mills in India, containing 11 million spindles and 12,000 looms, which employed upwards of 40,000 persons,—men, women, and children. India commits enormous waste by exporting rapeseed, linseed, and til (Sesamum orientale) in a crude condition, instead of expressing it on the spot, and obtaining thereby a valuable food for cattle and land fertilizer in the shape of oilcake. The manufacture of jute on a large scale was unknown until 1857, but there were 21 jute mills in India in 1881.

Indian tea exported was 48,60,725 lbs., valued at 3,60,91,360 rupees. The cultivation of tea and coffee has taken deep root in India, and a large amount of European capital and indigenous labour is absorbed by these industries. No less than 664,326 acres were taken up in 1878 in connection with tea cultivation, though only 206,000 acres were actually planted with it. The quantities of coffee exported have hardly increased during the last 11 years, prices have largely augmented, coffee being now worth nearly double what it was at that time. The quantity exported in 1881-82 was
Agriculture.—The extent to which the population of India are dependent upon the land, may be realized partly from the census returns, which show us that 74 per cent of the adult male population derive their support from the land either directly or indirectly.

Merchants.—The internal trade of India has been very much extended; it greatly exceeds the external commerce. In the interior of the Bombay Presidency, business is mainly divided between two classes, the Bhatta or Banya of Gujerat, and the Marwari from Rajputana. The former are Vaishnava Hindus of the Valabhacharya sect, the latter are Jainis. In the central parts of the Dekhan and Mysore, their place is taken by Lingacets, who follow the Vira Saiva form of Hinduisum; but along the eastern seaboard the predominating classes of Hindu traders are the castes named Chettiar, Komati, and Natha Cottiyar. Many of the trading castes of Hindu still claim Vaisyas descent.

In Bengal, many of the upper classes of Sudras have devoted themselves to wholesale trade; although there, also, the Jain Marwari from Rajputana and the north-west occupy the front rank. Their headquarters are in Murshidabad district; and Jain Marwari are found throughout the valley of the Brahmaputra as far up as the unexplored frontier of China. They penetrate everywhere among the wild tribes; and it is said that the natives of the Khassia Hills are the only hillmen who do their own business of buying and selling. In the North-Western Provinces and Oudh, the traders are generally called Banya; and in the Punjab are found the Khatri (Kshatriya), who have perhaps the best title of any to regard themselves as descendants of the original Vaisyas.

Not inferior to any Hindus as active, intelligent traders, are the Labbi, a Mahomedan race, who also speak Tamil; another Mahomedan race, the Khoja, have spread from Sind to the western and central parts of the Peninsula of India, and along the shores of Arabia and of eastern Africa as far south as the Portuguese dominions. The Borah and Memon Mahomedans are keen traders. The Mopla Mahomedans are but little engaged in inland traffic. Other Mahomedans from Persia are trading in all the ports of Southern Asia; and Arab Mahomedans, as merchants and missionaries, are occupying all the eastern and northern parts of Africa, and have gone eastwards through the Indian Ocean to the islands of the Archipelago. Another race of Aryan descent, the Parsees, are seen throughout all the south and east of Asia, and with mercantile men of Indo-Germanic race, from Great Britain, France, Germany, and America, and possibly even from the ancient parts of the foreign trade.

The bold, self-reliant non-Aryan tribes of British India have emigrated largely as labourers to Ceylon, the Straits Settlements, and Burma; to the West Indies, to S. America, S. Africa, the Mauritius, and Bourbon; but as skilled producers they have been far outstripped by the Chinese, whose numbers in Borneo, in Australia, Mauritius, and the western parts of the United States, have assumed political importance; and to the east, in the Archipelago, the Bugi or Macassar men traverse the seas from Sumatra to New Guinea.—Rich's Koristan; Madras Mail, 7th June 1870; Imp. Gaz.; Stat. Abstract; Maritime Trade of British India; Foreign and Inland Trade Reports; Accounts of Trade and Navigation; Moral and Mat. Prog.; Miscellaneous; Statistics; Trade and Nav. Accts.

COMMIA COCHIN-CHINENSIS, a small tree of Cochinn-China, with a resinous juice. It yields a gum which possesses emetic and purgative properties, recommended in dropsy.

COMMISSIONER, an appellation generally given in India to officials invested with full revenue and judicial powers. In the Punjab, Sind, Burma, etc., are styled chief commissioners, and have commissioners under them. In the Bengal Presidency, a commissioner is a revenue officer who has the superintendence of several collectoratest, with collectors under his control.

COMORAH, a bay on the Malabar coast, 51 miles north of Severndrug.

COMORIN, or Cape Comorin, in lat. 8° 4' 20" N., and long. 77° 35' 55" E. The Greek writers refer to a bathing festival here, which is still continued.—Imp. Gaz. See Cape Comorin.

COMORO, a group of volcanic islands midway between the N. extremity of Madagascar and the coast of Africa. Great Comoro is an active volcano 8500 feet high. They rise over a submarine bank of 500 fathoms.

COMPASS.

Siekompas, ... DAN. ... Puduman, ... MALAY. ... Zeckompas, ... DUT. ... Compas do mare, ... PORT. ... Compa de mer, ... F.R. ... Kompas korablni, ... RUS. ... Iouosole, ... SIjoompas, ... S.R. ... Kompass, ... GER. ... Agua de marc, ... Bussola, ... IT. ... Kompasi, ... TEL. ... 

The compass is used for nautical purposes by the principal native traders of Southern and Eastern Asia, and of the Archipelago. The Bugis of Celebes use small rude compasses, made expressly for them by the Chinese of Batavia, at the very moderate cost of from one shilling to eighteen pence a-piece. The directive power of the magnet is said to have been known to the Chinese for many ages,—by their own account, no less than 2634 years B.C. Their knowledge of the magnet is supposed to have led them to a knowledge of the compass; and the mariner's compass was invented by the Chinese in the reign of Hoang-Ti. The subdivisions of this nautical instrument, as
made by the Arabs, the Chinese, and the Malays, all vary. The Malay comstock is divided into sixteen parts, twelve of which are multiples of the four cardinal points. For the cardinal points the different nations have native terms; but for nautical purposes, those of the Malay language are used throughout, as in the case of the nations of Celebes, the most expert native navigators of the present day. The introduction of iron ships has materially affected the value of the compasses on board of them, the variation being as much as five points, even up to 243 and 35°. The sole apparent remedy for this, but it is one of easy application, is to erect a high platform, 15 feet high, over the taffrail, on which to place the compass, and to examine repeatedly.—Craw-fford’s Dict.; Bunsen, ill. p. 389; M'C. Dict.

COMPOUND. This Anglo-Malay word is a corruption of the Malay Compound or village, and properly applies to the outhouses of the servants, which are erected within the enclosure. It is applied in almost the same sense all over British India, where, however, some suppose it to be derived from the Portuguese word Campagna; and another writer says it is from the Portuguese word Componze, and still another Complio. It is also applied by the Europeans of India to the grounds or enclosure in which a house stands.—Earl; Surr.

COMPRADORE. Anglo-Indian. A purveyor; in China, an accountant.

COMPTI, Kompti, Kamatti, Mahr., Tam., Tel., in the Peninsula of India, persons engaged in trade, as shopkeepers and general merchants, and commonly recognised to be Vaisha Hindus; they wear the sacred string or zoner. They are, amongst the Teling and Tamul people, what the termus Gujarati, Banya, Marwari, and Vais are amongst the traders from Raiputana and Gujarat; they are never soldiers.

CONAJI ANGRIA, a person of low origin who long carried on a piratical warfare on the western coast of India, and rose to princely power. Gheriah was his headquarters, but Severndrug and every creek were fortified. After he acknowledged raja Saho, he remained in nominal dependence on the Mahrrata state, but employed his own resources with little or no control. His piracies, which he called levying chou’t on the sea, rendered him formidable to all his neighbours. The British made repeated attacks on him with considerable naval forces, and on one occasion (A.D. 1719) in co-operation with the Portuguese, yet failed in all their attempts. The Dutch also sent a strong force under Dusmans Lang and Dusmans Derme, with equal ill success. The Peshwa interposed in a dispute between two brothers of the family, and received from one of the brothers two forts situated in the Ghats (about A.D. 1734). The contest, however, continued, and the Peshwa, though latterly assisted by a British fleet, was unable to bring it to a conclusion till the time of Baji Rao’s death. Long afterwards, Gheriah was captured by Clive and Admiral Watson in 1755. —Elphin., p. 641.

CONGAN, a small, narrow strip of land lying between the Western Ghats and the sea-coast. The low land in the Conean, Gujarat, and Malabar is traversed by many rivers and smaller streams running to the sea, and is indentcd by numerous creeks and channels of the ocean. The cold weather is clear and bracing, but the hot season of April and May is succeeded by the deluging rains of the south-west monsoon, when 150 inches fall from June to September, and render much of the already humid lands impassable swamps; the atmosphere is then very damp. The Conean districts extend from Goa to Daman, or very nearly to the Tapri river. In the northern parts of the Bombay Presidency, the chain separating the Conean from the Dekhan is called the Northern Ghats, or Sahyadra mountains. See Konkan.

CONCH or Chank, species of Turbinella. See Shank.

CONCRETE. Dana terms this calcareous sand rock, ‘drift sand rock.’ Major-General Nelson terms it Æolian formation. It occurs on the coast near Bombay, and at the Bermudas Islands. CONCUBINAGE is very common all over India amongst all religiousists. It is more particularly prevalent in great cities, and in places where, from any cause, the people are necessarily absent from their families and birthplaces.

CONDA-CUPI. TAM. A necklace.

CONDAPILLY, CONCUBINAGE, in lat. 16° 37’ N., and long. 80° 33’ E., is a town in the Masulipatam district in the Northern Circars. The rocks of the hills near contain garnets, and diamond mines are near.

CONDA-PUCHI. TAM. A head ornament.

CONDIMENT. A substance used as a condiment or spice; also a spice used as a condiment.

CONDOLOOLO. Tel. Cajanus Indicus; dhal. One kind of dhal is condooloo conda, Tel., malatovari; TAMIL; another variety is condi-puppoo, Tel., tovarai-puppo, TAM. See Dhal.

CONDYLODERA TRICONDYLOIDES, a cricket of the Philippines. It is exactly like a tricondyla, one of the tiger beetles. Both insects run along the trunks of trees. The tricondyla...
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are very plentiful; the insect that mimics it is, as in all other cases, very rare. It is a remarkable instance of an insect of another order mimicking a beetle.

CONFUCIUS BARK, Tellicherry bark.

Curajia; Curajia. Hnk. Cheere; Kutaja, SANSK. Palapatta... MaiLAX. Veppalei,... TAM. Codaga pala,... PAL. Veppalei, Manopaula, CRU-de-pala,... PORT. Tel.

Consci bark is the produce of the Wrightia antidysenterica, belonging to the natural order Apocynaceae, a native of most parts of India. It is astringent and bitter, and is considered febrifuge; it are termed Indrajov.

Consci seed.

Lisan ul nasafeer, ARAB. Indrajava,... SANSK. Indrajov, GUS, HIND. Veppalei arisee, TAM. Ahir,... PERS.

The seeds of Wrightia antidysenterica.—Faulkner, Eng. C13.; O'Sh.

CONF. Palmmontologists have pointed out the curious fact that the Hyrax Syriacus, called 'cone)' in the Bible, Lev. xi. 5, Deut. xiv. 7, Ps. civ. 18, is really only a diminutive and hornless rhinoceros. Remains have been found at Eppelheim which indicate an animal more like a gigantic hyrax than any of the existing rhinoceroses. To this the name of Acerotherium (hornless beast) has been given. Sha-phan or Dama, as it is termed in the hyrax of Scripture, is confined to Srdy. Every bush fever has been found in the warm waters of the hot springs of Surajkhand, in Behar; and two species, one ochreous brown and the other green, occur on the margin of the tanks themselves, and in the hottest water; the brown is capable of bearing the greatest heat, and forms a belt in deeper water than the green. Both appear in broad luxuriant strata wherever the temperature is cooled down to 168°, and as low as 90°.—Hooker, Him. Jour. i. p. 21.

CONFLUENCE or fork of two rivers is the Sangam of the Hindus, who esteem all such unions sacred, and make pilgrimages to them. That at the junction of the Jumna and Ganges, at Allahabad, is one of the holiest spots in Hindu estimation; and until the early part of the 19th century many of this faith voluntarily drowned themselves there.

CONFIUS, Kung-fu-tze, was born B.c. 551 in Tsaw, a district of the province of Shan-tung. He died in the year 479 B.C., at the age of 72 or 73. He was of a ducal house, descended from a brother of Chow, the last sovereign of the Yin dynasty. His father, Shuh-leang-heih, was a soldier of great bravery; and Confucius was the child of a second marriage when he was upwards of seventy years of age.—Gray, p. 76. Confucius married when nineteen years of age. He was almost contemporary with Pythagoras, Thales, Solon, Buddha, and Herodotus, in an epoch of philosophical and literary activity equally important for the west, which commenced with Pythagoras, as contemporary of Confucius, embraced Zeno, Empedocles, Herodotus, Thucydides, Socrates, and Plato, and ended with Aristotle, who died about the same time as the Mencius (Mang-tsze) of the Chinese. Confucius devoted himself to reducing the traditions and rough records of antiquity into a perfect form, and he succeeded before his death in compiling and editing the five King,—five canonical books which are revered as embodying the truth, upon the highest subjects, from those whom they venerate as holy and wise men. He was the founder of the school of philosophy in China, which contains injunctions as to conduct, and may be termed the moral code of China, in which learning (Wen), courtesy, good-breeding, and propriety (Li), doing as you would be done by (Shu), sincerity in worship of the deity (Tsien), are everywhere inculcated, and form a recognised state religion. Every word he uttered has become in China a maxim, a proverb, and an aphorism; and in the fact that his language is intelligible to every Chinaman at the present day, his injunctions are of greater power than any in the Latin or the Greek, both of which are unknown to their descendants. Once he was asked whether there were one word which represented all the duties of life, he answered 'Shu,' a word which Confucius and his commentators have explained to mean, 'As I would that others should injure me, so would I not injure them also.' And, certainly, to seek the good of others equally with your own, is to fill a large portion of the field of virtue. The number of his disciples was about 3000, of whom about 72 were his more intimate associates. All his teaching consists of a few simple words. One of his aphorisms, 'Chu chung sin,' verbally, 'Head, faithful, sincere,' mean that fidelity and sincerity are the paramount or primary virtues. Another is that Wen and Li make up the whole sum of it, which is termed 'Lun yu,' 'Judge others indulgently, yourself, severely.'

Confucius was a sage and a statesman. He and Lao-tze were contemporaries, and Lao-tze was the founder of the Taoist or Reason Sect. But Lao-tze was an ascetic, who discouraged acceptance of public employments. He made reason the groundwork of his doctrines, and they have much to recommend them; but his teachings have merged into gross idolatrous rites, the study of astrology and necromancy, fanatical observances, self-inflictions, such as dancing in flames, mutilating the body, practising abstinence and seclusion.

Among other celebrated literary labours undertaken by Confucius in B.C. 490 and the following years, he edited the Yih-king, and appended those annotations which have given the work its subsequent value. What philosophical views may have been attached to the Yih-king of Wan-wong and Chou-kung by the contemporaries of Confucius, we know not. That work, together with the other three works edited or compiled by Confucius, viz. the Shu-king and the Le-ke, constitute the whole of the ancient literature of China which has come down to posterity, and who have it only, as it was explained, arranged or modified in passing through his hands. It is well known that he expressly repudiated portions of it, as containing doctrines adverse to the views which he held and strove to diffuse. The names only of some celebrated ancient books, one dating from the times of Fuh-ho himself, have been preserved. It is these circumstances which constitute the labours of Confucius the commencement of a distinct literary epoch. Apart from the labours of Confucius himself, the permanent literary results of this, the first of the two great philosophic or literary epochs of China, are contained in the collection of works called the Four Books, composed by different members of the school which he founded. The last contains record of the ethical and political teachings of Mencius (Mang-tsze), a philosopher who died in
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B.C. 317, and closed the first epoch. The Chinese people are in nowise prohibited from worshipping in the Buddhist and Taoist temples; in other words, they may regulate their purely religious life by the tenets of these, or indeed of any other sect. But where Taoism or Buddhism would leave the region of religion, and, in the form of philosophy or morality, extend their direct influence into the domain of the social science and art, there Confucianism peremptorily and effectually prohibits their action. Not only are the national legislation and administration formed exclusively on Confucian principles; it is by them also that the more important acts of the private life of the Chinese are regulated, as for instance marriages. The cause of the prevalence of Mahommedanism in China, in spite of discouragements, lies in the fact that Confucianism says little or nothing of a supernatural world or of a future existence. Hence it leaves almost unsatisfied those ineradicable cravings of human nature, the desire to revere, and the longing for immortality. That it has, notwithstanding its want of holds on the human heart, maintained itself not simply in existence, but as the ruling system, is a fact that must, as soon as it is perceived, form for every true thinker a decisive proof of the existence of great and vital truths in its theories, as well as thorough soundness and wholesomeness in the practical rules which it dictates. By Chinese philosophy must be understood Confucian philosophy, and by Chinese morality the moral principles rooted in that philosophy.

The works of Confucius, which are used by his followers, are called the 'five canonical books,' and are held in the greatest veneration. The whole tenor of these works indicate morality and sound political views. One political extract must suffice. Let those who produce revenue be many, and those who consume it few; let the producers have hourly and monthly profit, and let the consumers practise economy; and thus there will be at all times a sufficiency of revenue.

It is the fact that, though the authors of the first and second epochs, Confucius himself included, professed to teach only what was contained in pre-existing sacred books, and though they possibly themselves believed that they did only teach what was virtually contained in such pre-existing books, they nevertheless did, in each case, originate some entirely new views and doctrines.

It is now impossible to ascertain what part of his writings was original, and what obtained from previous writers; but it is generally recognized that he largely annotated the ancient work, Yih-kung, and bequeathed five classics and four books. His works, Shu-king and Shih-king, contain the historical records of the country and the poems then extant. His Book of Rites regulates the manners and customs and outward forms of the whole society, and constitutes a part of his moral code. Confucius is described by one of his disciples as wise, affable, condescending, just. Another says, gentle, but inspiring respect; grave, but not austere; venerable, yet pleasing. In the troubles that occurred from the efforts at arroganziment which the several kings made, he was sometimes in high employ, but once at least a fugitive; but at the close of his long life he left about three thousand followers of his doctrines. The smaller states were annexed by the race of Tsin, of which dynasty the first emperor was Ch'ü- Hoang, who built the Great Wall. The Chinese have no existing records of the interval from the time of the race of Chou, in whose reign Confucius lived, and from his time authentic history commences. In the first of his four books, Confucius traces a system of government from that of a family to that of a province, and from a province to a kingdom, making the family the foundation of the government. Indeed, the Chinese religion has never advanced beyond a love of parents, obeying and reverencing them while alive, and worshipping them when dead. It is rather a system of morality and moral philosophy, than a religion; and inculcates rather the duties of men to one another, than to a Supreme Being. Their books teach that the true principles of virtue and social order are obedience to parents, elders, and rulers, and acting towards others as they would be done by. They regulate the duties alike of the sovereign and of private families. It does not deny the existence of a Supreme Being, but neither admits this fundamental article of every rational creed, nor inculcates the necessity of worshipping the only God. He inculcates polytheism, by enjoining the worship of heaven and earth, the spirits of hills, rivers, winds, and fire; in fact, all nature, except nature's omnipotent God. His doctrines, called in Chinese Ju-kea-su, the religion of scholars, is the orthodox creed of the state. To the founder divine honour is paid by all his followers, who are not very scrupulous in worshipping one idol more or less, and have long maintained the most absurd pantheon.

The followers of Confucius are, by some authors, called the sect of Ju-kea-su. In reality, the religion, or rather the doctrine of the disciples of Confucius, is positivism. They care nothing about the origin, the creation, or the end of the world, and very little about long philosophical theories. Although the emperor builds and endows temples belonging to the two other sects, the Confucian is the religion of the state, and the court pretend to follow the scheme of ethics and politics laid down by Confucius.

Confucius taught the providential government of an overruling Providence, and that in this world the good are rewarded and the wicked punished. He evidently attached great importance to the solemn public worship of Shang-te by the head of the state in person, assisted by his ministers. He said to his disciples that by the ceremonies of the sacrifices to heaven and earth they served God, and by the ceremonies of the ancestral temple they sacrifice to their ancestors. He who understands the ceremonies of the sacrifices to heaven and earth, and the meaning of the several sacrifices to ancestors, would find the government of a kingdom as easy as to look into his palm.

Confucianism does not provide for the spiritual wants and desires of man's nature. He adhered to the worship of heaven and earth as he found it in the classical books of the ancient empire. His moral teaching was far inferior to that of Buddha. He said, 'Thou shalt not do unto others that which thou wilt not that they should do unto thee.' Also, 'Requite injury with justice, and benevolence with benevolence.' But he inculcated the avenging of murder with murder.
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His descendants are still numerous in the province of Shan-tung, and have hereditary titles.—

Gray's China; Sirr's China; Bowring: Bunsen's God in History; Gutzlaff's Chinese History; Huc's Christianity; Professor E. Douglas, Confucianism and Taoism.

CONGANI. TAM. In the western parts of Tinnevelly, a hood or penthouse, made of reeds, to protect the person from rain.

CONGEA. In the neighbourhood of Moulin and Amherst, the forest scenery is often ornamented with the numerous large purple bracts surrounding the small inconspicuous flowers of a species of conega. There are three different species in the Tenasserim Provinces, C. azurea, C. tomentosa, C. velutina, all called ka-yau, the same Burmese name. The leaves of C. villosa have a heavy smell, and are used medicinally.

Mason; W. J.; O'sh. p. 486.

CONGEE. ANGLO-HIND. Rice gruel.

CONICOPOLY. TAM. An accountant; from Kanika, an account, and Kapila, a collector or subtender.

CONIDE, the Cone family of molluscs, comprising the genera Conus and Pleurotomaria, with several sub-genera.

CONIFER. A natural order of Gymnosper-rous, exogans, called by Dr. Lindley Pinaeae, consisting of resinous, mostly evergreen, hard-leaved trees or shrubs, inhabiting all those parts of the world in which arborescent plants can exist. The following names embrace the better known coniferous plants of Southern and Eastern Asia, with a few of Australia:—

A. dumosa, Loudon, Nepal.
A. Smithiana, Wall., Himalaya.
Araucaria bidwillii, Hook. N. E. Australia.
A. Cookii, R. Br., N. Caledonia.
A. Cunninghamiana, R. Br., N. Holland.
A. excelsa, R. Br., N. Holland.
Callitris quadrivalvis, Algeria.
Cedrus deodora, Loudon, Himalaya.
Cunninghamia Sinensis, Rich., China.
Cupressus funebris, Endl., Bhutan.
C. gianu, Lamb.
C. sempervirens, Wiltde, Himalaya.
C. torulosa, Don, Himalaya.
Daeryllum elatum, Wall, Tenasserim.
Dammara Australis, Lamb., kauri pine, Norfolk Isld.
D. orientalis, Lamb, Ambeyna.
Juniperus aquatica, Roxb., China.
J. ceaia, Roxb., China.
J. cernua, Roxb., China.
J. Chinenalis, Linna., China.
J. communis, Linna., China, a shrub.
J. dimorpha, Roxb., China.
J. excelsa, Bieb., Himalaya.
J. patens, Roxb., China.
J. nana, Don, Himalaya, a shrub.
J. Wallischi, Hook., Himalaya.
Larix Griffithi, Hooker, Nepal.
Picea Webbi ani, Lamb, Himalaya.

var. a. Pinnow.
var. b. Kuthrow.

Pinus excelsa, Wall., Himalaya.
P. Gerardiana, Wall., Himalaya.
P. Litteri, Mason, Burma.
P. longifolia, Roth, Himalaya, the chir.
P. massoniana, Lamb, China.
P. Merkusii, Jungh., Burma.
P. Sinensis, Lamb, China.
Podocarpus abies, Bh., Cachar.
P. latifolia, Wall., Tinnevelly.

CONIFERAE.

P. nitens, Lamb, Sikkim.
Salsiburiana adiantiformia, —? China, Japan.
Taxodiurn muellerum, Drag., Japan, Nepal.
Taxus buschii, Hook, Himalaya, Tong-si of Sikkim.
Thuja orientalis, Livan., Nepal, China, Japan.

The coniferous of the Himalaya were described by Major Maddon in 1846 to 1849.

No order of plants can be named of more general importance to mankind than this. The pitch, tar, resins, and turpentine of commerce are products of the plants of this order. Their timber is known as deal, fir, pine, and cedar; and that known to Great Britain and other parts of Europe is principally the wood of the spruce, larch, Scotch fir, Weymouth pine, and Virginian cedar.

The Norfolk Island pine, Araucaria excelsa, is an immense tree, rising to 150 feet; the kauri tree of New Zealand, Dammara Australis, attains to 200 feet in height. Pinus Lambertiana, and Abies douglasii of N.W. America, rise to 250 feet. The seeds of the Pinus Gerardiana, Wall., are used as food in Kuma war, as are the cones of the Bunya-bunya pine (A. Bidwilli, Hooker), by the aborigines of Moreton Bay, Australia.

Thunberg mentions many pines in Japan, and they are numerous in the fucuses of Sikkim and Bhutan there are twelve coniferae, viz. juniper, yew, Cupressus funebri, Abies Webbi ani, A. Brunnoniana, and A. Smithiana, larch, Pinus excelsa and longifolia, and Podocarpus neriifolia. Four of these, viz. larch, Cupressus funebri, Podocarpus neriifolia, and Abies Brunoniania, are not common to the N.W. Himalaya, west of Nepal, but the other eight are common. Of the 13 natives of the N.W. mountains, again, only the following five, Juniperus communis, the deodar, Pinus Gerardiana, P. excelsa, and Cupressus torulosa are not found in Sikkim. Dr. Masson mentions the P. Litteri as growing in Tenasserim, and Dr. Brandis adds P. Massoniania, Lamb, and P. Khassiana.

Dr. Clegern described the following:—

Cedrus deodara, Loudon, deodar or Himalayan cedar, Kela; grows on the north slope of Dhaola Dhar, and in Kulu.
Pinus excelsa, Wall., Kail; grows in Kulu, not in Kaungra.
P. longifolia, Roeb, chill or chir; grows luxuriantly on north slopes; timber best at 4000 to 5000 feet.
P. Gerardiana, Wall., edible pine, Neco; a few trees across the Dhaola Dhar, near Glasma on the Kavi.
Picea Webbi ani, Lamb, silver-fir, Tos; the wood is not much valued; shingles are laid on the roofs of houses. Var. a. Pinnow. Var. b. Kuthrow.
Abies Smithiana, Wall., Himalayan spruce, Rai; often 100 ft. high, and 5 ft. in diameter.
Cupressus torulosa, Don, twisted cypress; at the head of the Parbatii.
Taxus baccata, common yew, Bramhi or Rakhab; in Kulu very scarce.
Juniperus excelsa, Bieb., pencil cedar, Leuri or Suri; on the crest of Dhola Dhar and in Lahul.

The deodar has not been seen east of Nepal, nor the Pinus Geradrana, Cupresus torulosa, or Juniperus communis. On the other hand, Podocarpus is confined to the east of Khatmandu. Abies Brunoniania does not occur west of the Gogra, nor the larch west of the Cosi, nor funereal cypress (an introduced plant, however) west of the Tista in Sikkim. That the deodar is possibly a variety of the cedar of Lebanon, is now a prevalent opinion, which is strengthened by the fact that so many more Himalayan plants are now ascertained to be European than had been supposed before they
CONCURCARUS GR.
Burm.
Tel.

Hooker, | A Burm. A Anogeissus John Account such timber Mahr. |

Dr. Royle says there is little doubt of this being the sàvár of the Greeks and the Ciuta of the Romans; but it must not, from the similarity of name, be confounded with Ciuta maculata. Ciuta virosa occurs in Kashmir, where it is called Zahr-gugal, poison turnip, and Salep-i-Shaitan, Pers., or devil’s sable. Spotted hemlock is the Shokran of the Arabs, who give Kunun as the Greek name. It is found in Europe, east of Asia, and America. It derives celebrity from being considered to have been used as the Athenian state poison, by which Socrates and Phocion perished. The extract of hemlock is employed as an anodyne in scrofulous or cancerous affections, in rheumatism, neuralgia, and painful ulcers.

O. N. | Royle.
CONJEE MARAM. Tam. | A light, red-coloured wood of Travancore, sp. gr. 0.650, used for furniture, etc.

CONJEVERAM, or Kanchi-varam, a town and taluk, in the Chingleput district of the Madras Presidency, in lat. 12° 49’ 45” N., long. 79° 45’ E., and in 1871 the town had a population of 55,396. It is one of the seven sacred cities of the Hindus in Southern India, and in the time of Hiwen Thsang, in the 7th century, was the capital of the Dravida country, ruled by the Chola dynasty. It was then a great Buddhist centre; subsequently professed the Jaina creed, followed by Hinduism. Two of its Hindu temples are the largest in Southern India; one of them belongs to the Saiva, the other to the Vaishnava sect. During the wars of the Karnatik, the town repeatedly changed hands, was taken by Clive on the 28th August, and again in December 1751, and again in 1752. Since 1758 it has been in the hands of the British. Many Jaina sculptures have been discovered there. The Chola held sway in the south of India from the eighth to the sixteenth centuries, when Sha-ji, the father of Sivaji, totally annihilated every vestige of their once great power. It was one of the most ancient and prolonged of all the Indian dynasties.

CON-MOO. Bum. A tree of Tavoy; timber good, used for buildings and boats.

CONNARIUS CHAMPIONI. Thew. A tree of the central province of Ceylon, growing up to an elevation of 4000 feet.—Thew. p. 80.

CONNARUS MONOCARPUS. Linn.
Doke-ka-det. BU. Raddleya-gass, Singh. A tree of Burma, and very abundant in the hot, drier parts of Ceylon.—Thew. p. 80.

CONNARUS NITIDUS. Roxb. A small tree of Sylhet. In British Burma it is a shrub about ten feet high, very plentiful, especially in the Rangoon districts, and affords an oil-cake of small size, but rich in a sweet oil. C. paniculatus, Roxb., is a large timber tree of Chittagong.—Voigt; M’Clelland.

CONNARUS SPECIOSA. M’Clelland.
Gwai-douk. BU. Kadon kadeeth. BU. Khwas touk, | A large tree, very plentiful throughout the Rangoon, Pegu, and Toungoo districts. Growing in all the forests scattered with teak. It has a large, heavy, and strong timber, white-coloured, adapted to every purpose of house-building. It is remarkable for the quantity of its seeds, which are of large size, abounding in sweet oil.—Dr. M’Clell. it

CONNARUS LATICOLIA. Thew. A moderate-sized tree of the central province of Ceylon, growing at an elevation of 3000 to 4000 feet, rather rare.—Thew.

CONNELLY. Four distinguished brothers of this name served in India, Captain Edward Connelly, Captain Arthur Connelly, Captain John Connelly, and Henry Valentine Connelly. Edward was killed at Toolian Durrah (Purwan Durrah?), October 1840; Arthur, the traveller, went on a mission to Bokhara in August 1840, and is believed to have been murdered in prison along with Colonel Stoddard; John was killed at the capture of Kabul in July 1842. Their brother, Henry Valentine Connelly, of the Madras Civil Service, was murdered 11th September 1855, at the instigation of Mopla fanatics.


Captain A. Connelly wrote on the White-haired Angorn Gout, Lond. As. Trans. vi. p. 159; Overland Journey through Persia and Afghanistan to India, Lond. 1834, 2 vols.

CONOCARPUS ACUMINATUS. Roxb.

This is a large, very valuable, and plentiful timber tree, growing throughout the southern forests, along with Conocarpus latifolia. In British Burma it is almost equal to the Terminalia microcarpa in size and the regular growth of its stem. Its wood is reddish-brown, hard and strong, its breaking weight being 262 lbs. A cubic foot weighs 50 to 57 lbs.; and in a full-grown tree on good soil the average length of the trunk to the first branch is 80 feet, and average girth, measured at six feet from the ground, is 12 feet. It sells in Burma at 12 annas per cubic foot. It flowers during the cold season. Its wood is exceedingly light, and fully as strong and durable, if kept dry, as the C. latifolia, but, exposed to the water, it soon decays. It is thus unfit for the marine yard, but is equally fit for house-building when it can be obtained straight, which is seldom the case. But for its weight, it would be most excellent timber.—Dr. M’Cl. and Brandis; Mr. Rohde’s MSS.; Voigt; Roxb. ii. 443.

CONOCARPUS LATIFOLIA. Roxb.
CONVOLVULACEÆ

This large timber tree grows in the Dehla Doon, in the Kenneri jungles, valleys of the Konkan rivers, on the inland Dekhan hills at Chilimale, and on the mountains which separate the Circars from the Nizam's dominions. It grows in Ceylon, to the north of Kandy, up to 1500 feet. It flowers during the cold season, in January and February. Its trunk is erect, straight, varying in length and thickness, the largest being 35 feet to the branches, and about 6 feet in circumference. In Coimbatore the specimens sustained 500 lbs. It also grows in Chittagong. Its timber is esteemed for almost every economical purpose, house-building, shafts, and vales, in general use for railway purposes, and it makes very good cabinet furniture. Towards the centre, it is of a chocolate colour. For house and ship building the natives reckon it superior to every other sort, Pentaptera tomentosa and teak excepted. Captain Sankey, writing from Nagpur, says it is a white wood with a heart of a dark colour, and somewhat like rosewood. Its average length there is 12 feet, and girth 7 feet. It is so much prized by the natives of Nagpur for axletrees, that but few trees are permitted to attain their proper growth. By all accounts, in Nagpur, about 20,000 axletrees are made from this wood yearly. It is attacked by white ants. It ranks high as a rafting timber.

CONVOLVULACEÆ. R. Br. The bindweed tribe of plants, in which there are about 28 genera and more than 450 species in the west and east of Asia. The more important genera are avisia, argyryca, batatas, Blinkworthia, Breweria, caloce, calystegia, convolvulus, cressa, evolvulus, Havittia, ipomsea, Moorerofia, neopetals, pharbitis, porana, quamoclit, rivea, sepiostemon, skinuma, etc. Convulvulus arvensis, Linnaeus. C. arvensis, Linn., Corn bindweed. It is native throughout Europe in sandy fields and by-roads, also in China, Persia, and some parts of India; it is abundant as a weed all over the plains of the Panjab, and up to 10,000 feet in the Panjab Himalaya. The official hirn-padi (deer's foot) appears to be from this plant. It is said to possess a purgative quality, as also C. soldanella, C. maritimus, and C. macrocarpus.

CONTINUOUS, a term applied in British India to designate the armies which, by treaty, the feudatory princes were required to keep. The Mysore contingent of 4000 soldiers has been enrolled since the treaty of Seringapatam. The Nizam of Hyderabad's contingent of 7498 men, in six regiments, of four, of cavalry, and of four batteries of artillery, was established by the treaty of 1798. The contingent of H.H. the maharaja Sindia, of 5000 cavalry, whose capital is Gwalior, was arranged for by the treaty of Gwalior of November 1817. In the same year a contingent of 300 men was arranged for from the Gaekwar at Baroda. The treaty of Bhojal of February 1818 provided for a contingent of 600 cavalry and 400 infantry; and by the treaty of the 6th January 1818, maharaja Man Singh of Jodhpur undertook to furnish 1500 cavalry for service with the British Indian Army. The Indore contingent of 3000 cavalry horses by the maharaja Holkar, by the xi. article of the treaty of Munderas, was agreed to be provided ready for service. See British India, p. 464.

CONUS, the Common genus of Gasteropodus Molusca, founded by Linnaeus. The species are found in southern and tropical seas. Lamarck records 181 recent species and varieties. C. textilis, Linnaeus, found at Ancyrium of the N. Hebrides, is a poisonous acid fluid into the wound, occasioning the heart to swell, and often endangering life.
1834, and he died in Britain in 1862. The Kodaga had successfully opposed Hyder Ali and his son Tipu; but Vira Rajendra (Doddla), who died in 1809, was guilty of about 5000 summary executions; his successor, Linga, died 1820, was greedy, cunning, and cowardly. The aspect of Coorg (Kurg or Kodagu, meaning steep mountain), presents an entire forest; the long and narrow cultivated valleys enclosed within it serve but to render the vast woods more striking. The country is intersected in every direction by culldungs or breast-works, estimated at 600 miles in extent, many 12 feet deep and 10 or 15 feet across the ditch. They cross the ranges of hills and each other with little appearance of order, and defy conjecture as to their object. The prevailing languages are Coorg, Kodaga, Canarese, Malealam, Tamili, Tulu, Hindustani, and English. There are about 40,000 native Coorgs (Kodaga) scattered throughout the country. They are tall, muscular, broad-chested, well-favoured race of mountaineers, far superior in physique to the inhabitants of the plains, whom they greatly despise. They are far advanced in civilisation, and very intelligent. The vice of drinking has a deep and widely-spread hold upon them. They marry at a ripe age, but the wives of brothers are considered as common property. They generally retain the old devil-worship of the Dravidian race. The raja's palace is supposed to have been built by an Italian, who is said to have been bricked up in a wall as soon as the building was finished. The tribes and races of the population in 1881 was 178,302 souls, comprised, besides the Coorg or Kodaga proper,—

Amna or Amna Kodaga or Kaveri Brahmanas.
Ambakula, goara or herds.
Higgade, cultivators.
Aimaya Badage, artisans in iron and wood.
Kavati, jungle cultivators.
Paleya, farm labourers from the Tulu and Malela districts.
Kurubar, two tribes, the Jennu and Betta.
Yerava, slave emigrants from Malealam.
Med, the umbrellas makers.
Holey, viz. Keinbati Holey, who speak Kodaga, and Badaga Holey, who speak Canarese.

There are also someMahattas, Rajputs, Rache- war, and Rajpinde, the last being connections of the late rulers. The out-castes number 34,100, and the wild tribes 14,783.

In 1837 there was a rebellion in the British district of Canara, adjoining Coorg. The Coorgs at once marched there, quelled the rebellion, and recaptured for the British the treasures carried off by the insurgents. The Governor-General directed that the recovered treasure should, as a reward, be divided amongst the Coorgs, but they to a man refused to receive it, and proudly declared that they had not fought for loot. The British Government, awoken to a sense of the spirit of these rude warriors, then directed juggars and omali lands to be conferred on them, and presented their chiefs with horses, rifles, knives and umbrellas of mother of pearl. Later still, when British supremacy in India had been shaken to its foundation, a body of Coorgs, armed to the teeth, suddenly made their appearance at Periyapatna in Mysore, under the secret instructions of the late Sir Mark Cubbon, and by their presence tended to suppress the growing insolence and dissatisfaction of the Mahomedan classes of Seringapatam and the adjacent parts of that province.
leaping vigorously into the air. The Coorg or Kodagu language has been regarded as Canarese, modified by the Tulu. But Mr. Moelinger states that it is more nearly allied to the Tamil and Malelau to the Canarese. Caupans or tumuli are in great numbers. They conceal kistvaens. There are also Kolle Kalu, or sculptured tombstones in honour of warriors slain in battle. Raja Virajendra Raja's daughter Gauramma, whom he brought with him to London, was baptized as Victoria, Queen Victoria being the sponsor, and she married a British army officer, but shortly after he and her daughter disappeared, and she died in 1864.

—C. Coory; Bowering's Eastern Experiences; Rice, Coory; Coory Gazetteer; Moelinger's Coory.

COORMEE or Koomree, a race of cultivators under the different names of Coormee, Kumbhi, Kunaib, Koombhee, extend throughout the greater part of Hindustan, Berar, and the Western Dekhan. They are famous as agriculturists, but frequently engage in other occupations. The Coormee women, like the Jatii, assist the men in husbandry, and have passed into a proverb for industry.—Experiences.

'Chhudee jat koombin kee khooppee hath
Ekh per naawane apne pee he sah.'
The Coormee of the provinces are said to have seven subdivisions, which are usually enumerated as Khurrencebind, Puturya, Ghorchurula, Jyswar, Canoujea, Kewut, and Jhoooneya.—Eliot, p. 227.

COOROOKOO, oil of prickly poppy, or Jamaic yellow thistle, pale yellow, limpid oil, from the round corrugated seeds of the Argemone Mexicana, is sometimes expressed by the natives and used in lamps, but is doubtless adapted to more important uses.—Madras Ech. 1855.

COOROOMBAR or Kurumbar, properly Kuruba, a shepherd, from the Canarese Kuru, a sheep.

COOROOMBAR, a race of Wynad, very docile, quick of imitation, and slavishly submissive to their moody or head, who exercises undisputed power over his own family, numerically containing about a hundred or seventy being. Those employed by the coffee-planters are a little civilized, appreciating the comforts of life in a slight degree higher than their more savage brethren. They erect rude huts for themselves and family, on elevated ground, surrounded by jungles, and about six in number; they touch one another, and the whole present the form of a crescent. One larger than the rest, styled the cutcherry, is erected in the middle, in the shape of a hall, for the sojourn of casual strangers; it is dedicated to their village deity, and the place cannot be contaminated by a shod foot. The presence of a suspected stranger in their vicinity, sickness, or other trembling but natural cause, make them emigrate from one place to another, sometimes miles away, but always preferring lonesome localities and dense jungles. Some are partly civilized. Government possess some forest lands towards Periah and Teriante, and in some spots over Wynad. In the teak belt are several bands of Cooroombars, some of the Jani, and others of Moolla clan. The former live entirely in the forest. They are the only axe men, and without them it would be difficult to work a forest. Other tribes are the Panniar, Puliar, Gurchea, Chetty, and squatters. The Cooroombar, through their headmen, are held responsible, and the Chetty are also responsible for their Panniar or farm slaves. The

COOROOMBAR's services are constantly called for by the wood contractor and the planter. They will not leave their haunts in the forests for any time. During the gold speculations of the western coast from 1876 to 1881, the Cooroombar were found useful labourers.—C. H. S. in Newspaper; Clough, Forest Report. See Kurumbar.

COOROOMBRANADA, a district of Malabar.

COOROMINGA. TAM. A bee, the Butocera rubus, which penetrates the trunk of young cocoanut trees near the ground, and deposits its eggs near the centre. The grubs eat their way up and destroy the tree.

COORTALLUM, not very far from Cape Comorin, is a large place, with several bungalows close into the hills. Of the cataracts close at hand, the lowest falls from a height of 200 feet. The scenery is splendid. There are in all three falls, the highest being 2000 feet above the sea. The average temperature of the water is 72° to 75°, and invalids derive great benefit from bathing in it. The bathing place is under a shelving rock, affording the most delightful shower-bath possible. The climate is particularly enjoyable to Europeans in June, July, and August.

COOSSUMB. SANSK. Carthamus tinctorius.

COOSY, a tributary to the Hoogly, also written Coosi and Kosi. It rises in the Rangpur district, lat. 23° 55', long. 86° 58', runs S.E. to the Hoogly. Its length is 240 miles.

COOTANAD, a district of Malabar.

COOTE, SIR EYRE, K.C.B., a distinguished British officer, who served in India from the middle of the 18th century, and in command in the Karnatic from 1759 during the contests for supremacy between the British and French. At the battle of Plassey in 1757, while a Major in rank, he had commanded the third division of the army, and he seems to have taken command in the Karnatic in 1759. He was out-manoeuvred on the Palar river, but in 1760, after defeating Lally at Wandiwash, and driving him back to Pondicherry, he took easy possession of Cuddalore in April 1760, of Chellumbrum, and other French garrisons. He took Pondicherry on the 4th Jan. 1761. The French shortly before had destroyed Fort St. David, and in retaliation Coote razed the fortifications to the ground. On the 18th June 1781, Colonel Coote had been repulsed with loss by Hyder in a night attack on Chellumbrum. After forcing his way through two or three enclosures, and when falling back to Cuddalore, and he had passed on a few miles from Porto Novo, he found his march intercepted by the whole army of Hyder Ali, 60,000 strong. Hyder had made a rapid march, and had thrown up batteries across Coote's line of retreat; he had his left protected by a range of sandhills, and his right by the sea. Coote made two determined assaults, one on the batteries, which were carried, the other through a passage in the sandhills left unprotected by Hyder, which flank became thus exposed. A war schooner at the same time appeared in sight, and, anchoring close in, poured her broadsides on the enemy, causing great confusion. Hyder's army was completely routed. Coote's strength was 7878 men, including artillerymen. It was known as the battle of Metapoliam, and was fought on the 1st July 1781. In June 1782, while Coote was advancing rapidly on Arne, where Hyder had treasure and military stores, Hyder overtook and
COFFEE.*

but in Sw. Malay. but at DuT. Pkrs. found dissolved imbedded occasionally portionported. London respects temperature Africa, from lying by kinds resembling copal. — Faulkner; Royle, p. 364.

COPAL, Pa-na-yu, CHIN., Chandras, HIND.

This very important resin is obtained from trees of America, Africa, Madagascar, India, and Australia. It exudes spontaneously from Rhus copalum and Elaeocarpus copalifer, the first being an American and W. Indian; and the second an E. Indian tree. Another copal is obtained from the coasts of Guinea; and several species of Hymenaea, on the Amazons, are said to produce kinds of copal, one of the plants being Hymenaea verrucosa. Vateria Indica furnishes the resin called in India copal, which is said to be inferior by the Japanese to the true copal of America and Africa, and not permitted to be exported. Another copal is said to be found in Surinam.*

This semi-fossil copal is called copalline. Specimens of the leaf, flower, etc., obtained from the semi-fossil gum, agree in all respects with those of the living tree. The peculiar and more valuable properties of the buried gum animate are supposed to be from a chemical action, the result of a long retention in the earth. It is classed as raw or jackass copal, and ripe or true copal. The value of the latter is estimated by its colour, the clearest and most transparent pieces being the highest prices, after them the light amber, lemon, dark yellow, and red. Sometimes the gum, like amber, contains drops of water, bees, bees, flies, and other insects. The diggers do not excavate more than the depth of a man's waist, and the copal occurs in a red sand underlying blue clay.

Copal is generally imported into England in lumps about the size of small potatoes, of a slightly yellow tint, and often including insects and animal remains. It is often covered with a clay-like substance, from which it is freed by the dealers by scraping. The finest and palest lumps are selected for what is called body-gum; the next best forms carriage-gum; and the remainder, being fired from wood and stones, forms what is called third, or worst quality, and is used for gold-size or Japan-black. Fracture conchoidal; it is transparent, and tasteless. Copal is liable to be confounded with angle, when the latter is clear and good; but the solubility in alcohol furnishes a useful test,—the angle being readily soluble in this fluid, while copal is sparingly so. Copal is also brittle between the teeth, whereas angle softens in the mouth. The American copal occurs in commerce in flat fragments; whereas the East Indian is generally obtained in roundish masses. The latter furnishes the finest varnishes.

—Dr. Kirk, in Madras Agri.-Horticul. Proc.

COPALM BALSAM is a product of the Liquidambar styraciflua.

COPAL, VARNISH is a solution of copal gum resin in linseed oil, oil of turpentine, spirits of wine or alcohol; it is used for japanning autufboxes, tea-boards, and similar articles. Copal varnish and amber varnish are also much employed by the artist and by the photographer for the preservation of their works. Fresh essence of turpentine dissolves copal completely, but old turpentine will not do so. It is stated that essence of turpentine, digested upon sulphur, will dissolve double its own weight without letting any fall. The oil of rosemary also dissolves copal with great readiness. An excellent varnish may be made by dissolving one part of copal and one of essence of rosemary, with two to three parts of pure alcohol.

COPAUDROOG, taken by the British, by storm, on the 14th May 1819.


COPPHONES of Arrian, supposed to be the Kabul river.

COPPER.

Nehass, ARAB. Nehass, BURM. Tambara, MALAY. Nehas, CUPRUM.

Chi-tung; Tung, CHIN. Tanbaga, MANG. Chitung, Misa, PERS. Tse-jen-tung; Chi-kin,*. Cobre, Miedz, POL. Cobb., Dan. Kopper, DUT. Krasnoi'mjed, Mied.; REN. Copper, DUT. Kopper, GEI. Copper, SW. Kumpe, GER. Kopper, SAK. Kupfer, Shembe, TAM. Nehes, HEIL. Tambram; Raghi, TEL. Nehes, Kine, IR.

Copper ore is abundantly diffused in nature, being found native as an oxide, a sulphuret, a sulphate, carbonate, arseniate, and phosphate, in Persia, Baluchistan, Nal, Kashmir, Tibet, India, Sumatra, Borneo, China, and Japan. Copper ore in the form of sulphuret is abundant in Rangun in Beshkawati. Near Ajmir, carbonate of copper is found in small veins, and in connection with ores of iron (Gen. Med. Top. p. 169). A silicate of copper occurs in Nellore and Onogale, but not in workable lodes. Copper ores are found in the Jeypore dominions, and in the vicinity of Nejeebabad, Nagpur, and Dumphur. Copper has been pointed out near Beila, in the province of Luz, on the western frontier of Lower Sind, by Captain Del Hoste and Captain Harris; in Kamaon, by Lieutenant Gasfurd and Captain Durand; at Porke and Dumphur, by Captain Richards; at Almorah and in Afghanistan, by Captain Drummond. It is said to have been worked in Cutch.

From Gurgaon there was sent to the Panjab Exhibition a piece of copper pyrites, also specimens of good copper ore from the Hissar district, and of the metal got from it; from Pelang in Kali, 805.
COPPER.

and from Manikarn near Kuhn, in the Kangra district, some copper pyrites, and with blue carbonate of copper from Spiti. Copper is found in Himachal, but it is not an article of trade.

Iron and copper mines occur at Marna, S.E. of Byana, and the people bring copper pots to barter with the Chaudansi and Byansi races. Copper mines in Kamaon, Garhwal, Nepal, and Sikkim, are worked by the natives on a small scale.

Copper has been discovered in Singhah; in mines in Kamaon and Garhwal. Copper mines occur at Papulee, Pringlapamni, Murbuggetee, and old mines at Kerraye, Belar, Rae, Seera, Toma Cottee, Dobere, and Dhumpore. The Beng. As. Soc. Journ., No. 1 of 1851, p. 1, mentions the copper of Deoghor or Byjnath, a small town in zillah Bhirbug. The surface veins run east and west, and present the ore in irregular masses of 3ths of an inch broad, so much corroded by atmospheric influence as to appear in a soft, friable, red, yellow, and liver-coloured or gemet-coloured crust, but can digested a couple of feet below the surface of the ground, the veins become a compact liver-coloured mass, spangled with shining particles of copper; the whole enclosed in a soft, friable apple-green, yellow, or white felspathic rock. Traversing the copper from north to south, small veins of lead appear, which occasionally form the containing walls to the copper. Mr. Vincent traced the vein of copper for about 100 feet east and west, and dug to the depth of 2 feet only. With the aid of coal dug from Banslee Kullah in the Rajmahal hills, he smelted some of the ore, which gave a return of 30 per cent. of good copper; inferior specimens, mostly water-worn pieces picked up on the surface, gave 25 per cent.

The mountainous parts of Nepal are rich in mines of iron and copper. The produce of the former is smelted. The copper is of a very superior kind, and was at one time preferred for consumption in the territories of the King of Oudh to that exported from Britain.

In Singhbhum, copper ore is found extending over 80 miles to the westward of Midnapur. Three slabs, weighing about 139 lbs., were subjected to lamination, and proved to be well suited in all respects for purposes of coinage. The quality of this metal is decidedly superior to imported copper.

The copper ore of the Nellore collectorate of the Madras Presidency, was called by Dr. Thomson an anhydrous carbonate of copper, containing 60-73 per cent. of black oxide of copper. It occurs in hornblende schist at Bungeral Mettah, and the carbonate, passing into malachite and mountain blue there, and at Gurumanny Pentah, Salgherri, and Yerrapally.

The occurrence of copper ore in the Callastri, Venkatagiri, and Nellore districts, was ascertained by Dr. Heynes about the year 1797, and he described that of Wangapadu.

Copper ore is found about 20 miles east of Kurnool, about 2 miles from the village of Gunny, in the centre of a low range of hills; also at Sidhout and Badawal.

Dr. Helfer said that the copper on the Lampaee islands is worthy of attention. Mr. O'Riley stated that the copper ore from several islands of the Mergui Archipelago, is the grey copper ore, containing from 40 to 50 parts of the metal, in combination with antimony, iron, and sulphur. Dr. Mason had a fine specimen of the green carbonate, or malachite, found near the headwaters of the Atrara; and natives assured him that the same mineral exists up the Salwin. He had also seen specimens from Cheduba, near the coast of Arakan.

Copper is found in the Shan States, also at Kolen-myo and Sagaing; at Bawmyne and Kolen-myo the malachite appears to be of a rich description, and the deposits seem to be abundant. The Sagaing mines were worked in former times by Chinese. The surface ore is not promising. Most of the copper used in Upper Burma is imported from China. It is plentiful in the province of Yunnan. Serpentine mines are said to occur at the Ur river, about 45 miles north and 30 west from the modern town of Moun-goung, in native Burma, and about 30 miles from Seesagur in Upper Assam; carbonate of copper was, however, mistaken for it. But the serpentine rocks above Bamo appear to imbed oxides of copper. Copper and antimony occur in Shwe-green, and in the hill country of Togia.

Copper ores have been found in Siamatra, Celebes, and Timur. In the two former, mines of it are said to be worked.

Copper abounds throughout the whole Japanese group, and some of it is said to be not surpassed by any in the world. The natives refine it, and cast into cylinders about a foot long and an inch thick. The coarser kinds they cast into round lumps or cakes. Quicksilver also is said to be abundant. Lead also is plentiful. Tin in small quantities, and of a quality so fine and white that it almost equals silver. Iron is found in three of the provinces, of which they make steel unsurpassed in excellency. The copper ore found in Japan contains gold in alloy; it occurs in the market in small red bars, six inches long, flat on one side, and convex on the other, weighing 4 or 5 lbs. each; this copper is the most valuable of any found in Asia. The Chinese and Dutch exported upwards of 2000 tons annually.

A natural alloy found in China, known under the name of white copper, is used in great quantities. It seems peculiar to China, and was supposed by Dr. Black to owe its distinguishing colour, to an alloy of nickel (Ains. Mat. Metd. p. 53). It is used for dish-covers, candlesticks, tripods, plates, etc., which, when new and polished, look almost as well as silver.

Copper ores have been found as long ago as 1802 at Port Curtis, near the southern extremity of the range which extends along the north-east coast of Australia. Flinders met with indications of copper at Good's Island in Torres Strait. Lead and copper mines have been worked in South Australia for some years past, and others have been opened recently in the western coast range. A little to the north-west of Swan River, Hematite and peculiar iron ore and copper pyrites have been found on the north-west coast near Admiralty Gulf.—Kime®s Geog. Memoir; M'CuUoch's Dict.; Piddington in B. As. S. J.; Crawford's Dict.; Mason's Ten.; Irvine's Ajmee; O' Bh. Beng. As. Soc. Tr., 1841 to 1844; Heyne's Tracts, Bomb. Geog. Soc. Tr. vi. 117; Friend of India, 28th Feb. 1850; Flinders' Voyage; Powell, Handbook; Smith, Nepal; Smith's Report on Singrowee.

COPPER, ACETATE OF.

Theng-twa, . . . BURM. Taibembaga, . . . MALAY. Piria, . . . HIND. Zangar, . . . PERS. Senan, . . . MALAY. Vangals patchi, . . . TAM.
COPTI8 TEETEA.

Tapirobanes, West.  
Copris, Geoffr.  
Pirim, Fabr.  
Onthophagus, Latr.

COPRIDE and Dynastidae correspond to the dung beetles. In some of them are of great size, with immense horn-like protuberances on the head and thorax of the males, and, combined with their polished or rugose metallic colors, render them perhaps the most conspicuous of all the beetle tribe. See Insects.

COPTUS, a genus of birds of the order Insessores, Fam. Merulidae, and sub-family Saxicolinae. C. sularis is the dial bird, common in Ceylon.

COIT, a race in Egypt, about 150,000 souls, following Christianity. Though now more or less mixed with other races, they are the undoubted descendants of the ancient Egyptians. The Coptic language became almost extinct as a living tongue in A.D. 1700. They now for the most part speak Arabic. It was found, when the hieroglyphic letters were written in English letters, that the words formed were in the main Coptic, with a slight admixture from the Hebrew and other tongues; and that the language of the ancient Pharaohs did not differ so much from the language of their modern descendants, as modern English does from that of Alfred the Great. This, and the fact, that it is known from some, now nearly exterminated, Coptics, that they have little credit to the sovereignty of ancient Egypt. Of the diminution of the numbers of the Copys, some idea may be formed from the reduction of the number of their bishops. They were seventy in number at the period of the Arabian conquest. They are now only twelve, and most of these are settled in Upper Egypt.—Dunson's Egypt; Cal. Rev., No. 75. Sept. 1861, p. 119; Niebuhr's Travels, p. 104; Sharpe's Egypt, i. p. 133.

COPTIS TEETA. Wallach.


The golden thread root plant of Assam, is a native of the mountainous regions bordering on Upper Assam, and its root is in high repute among the Mishmee, Lamas, and Assamese. Quantities are sent down to Assam in neat little baskets with open meshes, made of narrow strips of rattan, and measuring 3 to 4 inches in length, by 21 in breadth and 11 in thickness; each basket contains about an ounce of small pieces of the root, from 1 to 3 inches long. The taste is intensely and purely bitter, very lasting, with only a slight aroma. On mastication, the root tingles the saliva yellow. In North America, the Coptis trifolia is much employed as a bitter tonic. Coptis teeta root brings a very high price, and is deemed a tonic remedy of the greatest value. It's influence in restoring appetite, and increasing the digestive powers, are very remarkable. It did not seem to excite any febrifuge virtue, but under its influence several patients recovered from acute diseases, manifestly and very rapidly improved in strength. The dose

COPTERAS.

Acetate of copper (argus, verdigris) is a common bazar article in India, and is prepared on a large scale, by stewing copper plates with grape husks or tamarind pulp. During the fermentation of the tracer of sugar in the husk, the copper combines with oxygen, and the oxide with acetic acid formed by the grape sugar. The process is extremely tedious.—Beng. Pharr. p. 324.

COPTERAS, Ts'ing-fan, Chln., an impure sulphate of iron.

COPPER PASTILLES. Pastilles containing sulphate of copper, when burned, destroy bags, mosquitoes, and fleas, using three or four in a day.

COPPERSMITH is the small green barbet, Megalaima viridac, Gmel. (Xantholeuma Indica), common in the Peninsula of India. It generally perches on the top branch of a tree, and the sound of its voice is Took, took, took, continuously, almost identical with that of striking a metal vessel.

COOPER, SULPHATE OF. Blue-stone.

Tung-lo, . . . . | Capri sulphus, . . . Lat. 
Sulfate de Cuivre, . Fr. | Turushu, Nila tutum, Tam.

This salt is produced naturally in the water of copper mines, and is manufactured in many parts of India and the eastern islands. It is easily prepared, by heating copper to redness in contact with the air, removing the black scales which form, and dissolving these in dilute and boiling sulphuric acid, and crystallizing. In the refining of silver it is incidentally prepared in very large quantities (Beng. Pharr. p. 322). It is much used in dyeing operations, in the printing of cotton and linen, and for various other purposes in the arts. It has been employed to prevent dry-rot by steeping wood in its solution, and it is a powerful preservative of animal substances; when imbued with it and dried, they remain unaltered. It is obtained by the decomposition of copper pyrites, in the same manner as green vitriol from iron pyrites. It is manufactured for the arts from old copper sheeting, copper turnings, and copper refinery scales. A little sulphate of copper or blue vitriol mixed with the rice or flour paste used for joining papers, very effectually keeps these destructive pests at a distance. It is made at Amritsar by boiling sheet copper in oil of vitriol. Sells at 8d. per lb.—Royce; Beng. Pharr.

COPPER-WARE and tatanague utensils, with coral and glass beads, form small portions of the Chinese trade to India; the Chinese seldom use glass beads as ornaments.

COPRA. Hind.

Kobara tengai, . . . Tam. | 

This is the dried albumen or kernel of the coconut. In preparing it, the kernel is taken out when fully ripe, divided in the middle, and dried. It is used as an ingredient in curries and in medicine, and is largely exported from India. The kernel of the coconut has much the taste of a filbert, and is a valuable ingredient in curries. It is considered as very nutritious. The correct Hindi word is Khopra.—Ainslie; Faulkner; Scaman.

COPRICA. Leach. A family of coprophagous beetles, or dung beetles, containing the genera—

Ateuchus, Weber.  
Sisyphus, Latr.  
Gymnopleurus, Illig.  
Orcipanaecus, Kirby.
COQUILLA NUTS.

was 5 to 10 grs. of the powder, or an ounce of the infusion thrice only. Latterly, medical officers have used it as a substitute for quinine, both in remittent fever and in common agues. The tincture is a bitter tonic, and its flavour and colour are much more agreeable than the tincture of colombe.—Beng. Phar.; Beng. Disp.; Voigt.

COQUILLA NUTS are produced in the Brazil by Attalea funifera, Martius, the Cocos lapidea of Guttent, and the latter title is highly descriptive. The plant might advantageously be introduced into S. Asia. The coquilla nut shell is nearly solid, with two separate cavities, each containing a hard, flattened, greasy kernel, generally of a disagreeable flavour; the cells occasionally envelope a grub or chrysals, which consumes the fruit. The passages leading into the chambers are lined with filaments or bristles, and this end of the shell terminates externally in a covering of these bristles, which conceal the passages; this end is consequently almost useless, but the opposite is entirely solid, and terminates in the pointed attachment of the stalk. Sometimes the shell contains three kernels, less frequently but one only, and a coquilla nut has been seen entirely solid. The substance of the shell is brittle, hard, close, and of a hazel brown, sometimes marked and dotted, but generally uniform. Under the action of sharp turning tools it is very agreeable to turn, more so than the coconut shell; it may be eccentric turned, cut into excellent screws, and it admits of an admirable polish and of being lacquered. They are extensively used for the handles of bell-pulls, small tops, the knobs of walking-sticks, umbrellas, and other articles. In addition to the nuts, a coarse black fibre is obtained from the dilated base of the petals. It is partly used for consumption, partly exported to Europe, tied up in bundles of several feet in length, and sold in London under this name at about £14 the ton. It is manufactured into cordage in its native countries, and as it is light, cables made of it do not sink in the water. In 1850, about 250,000 nuts were imported into England, and sold at 30s. to 40s. the 1000.—Seeman; Holtzapfel; Poole’s Stat. of Com. p. 98.

COKA, also Kora. Hind. New, raw, fresh. Hence the Hindi Ghilek, and the Greek Koree, a virgin.—Pop. Poetry of Persia, p. 542; Elliot. See Corn.

CORACIAD,E, a family of birds of the order Incessores, consisting of 2 gen., 7 sp., viz. Coracias pileata, garrula, Indica, affinis; Eurystomus gularis, orientalis, and pacificus. C. Bengalensis is seen in this country. This and the king crow habitually perch on the telegraph wires to watch for their insect prey, the former displaying his gaily-painted wings to advantage as he whisks and flutters about. C. Bengalensis meets in the Panjeb, etc., the European C. garrula; in Assam, Sylhet, Tipperah, and more rarely in Lower Bengal, it coexists with the C. affinis. C. garrula, the roller of Europe, Africa, W. Asia, Afghanistan, Kashmir, Sind, and the Panjeb, is migratory. Celebes has the Coracias Temminckii.—Wallace, p. 284. See Birds.

CORACLE. For crossing the rivers in the S. of Asia, on the Tigris, Euphrates, the Upper Indus, and its affluents, the practice of three thousand years still continues. Xenophon’s ten thousand were ferried over on inflated skins; and three slabs in the British Museum show the representation of the king of Assyria crossing the Euphrates in this mode. Canoes are of common use on rivers; and two pieces of the hole of a palm tree, scooped out and blocked with clay at the end, and fastened together, are used in the Circars. The coracles of Tibet and all India are circular wicker baskets, six or eight feet in diameter, covered with green hides; when laden, they float lightly on the water, and, presenting but little obstruction to the current, are easily paddled. The wicker and leather coracles traverse most of the rivers in the Peninsula of India. The ferrymen on the Kistna river in the Peninsula are the Koli race, stalwart men. The Kili-katr or Maddakapore race are also Kabi-gira or ferrymen. See Boat.

CORAL-GFERA. See Java.

CORAIL, also written Cora, the mercurial name of plain silk cloth undyed. Bandanna is the same article dyed. This word is derived from Bandanna, to tie, because in dyeing the materials, the portions to be left white are tied into knots. See Cor; also Cotton Piece-Goods.

CORAL

| Bussud, | Arab. | Corale, | It. |
| Gulli | DUKH. | Poalam; Karang, MALAY. | Lat. |
| Keradon, | DUT. | Koralli, | Russ. |
| Corsil, | P. | Vidruma, SANSK. | |
| Koralen, | GER. | Prabala, | |
| Ramuth, | Heb. | Bubalo, | SING. |
| Marjan, H., MALAY. Pers. | | Pavalam, | TAM. |
| Munga, | HIND. | Pagadam, | Tel. |

Coral, as seen in the market, is the calcareous cell of a mollusc, whose flesh has been removed. It is merely carbonate of lime secreted by species of polyp; its particles cemented together by a gelatinous secretion from these animals. Marselli, an Italian naturalist, thought coral to be a marine plant, and the polype animal its flower, and Dr. Parsons entertained similar views; hence the name zoophytes, or plant animals. The polyp which makes the coral so much used for ornament and jewellery, are chiefly Antipathes globelilla, Madrepora corymbosa, M. pociilfera, Gorgonia tuberculata, two species of Astraea, Leioptes globelilla, and L. Lamarkii. When still alive in the sea, the rough surface is seen dotted with red spots, and a minute examination detects thousands of the polypi or coral insects, each inhabiting permanently a little cell of its own. Many of the polypi or coral insects have a little parasol-shaped cover for the head; the arms are furnished with eight claws, are long compared with the body, and are generally seen extended, and carried for food. Some to the kinds of coral resemble gigantic plants, with flowers and leaves. Some grow like a tree with leafless branches, and others spread out, fan-like, into broad, flat surfaces. Coral is in great abundance in the Red Sea, in the Persian and Arabian Gulfs, in various parts of the Mediterranean, at the Mauritius, on the coast of Sumatra, in Japan, etc. It is carried to China from all the islands of the Indian Archipelago in native vessels, and there is wrought into ornaments and official knobs or buttons. It sells from 40 to 60 dollars per pikul, according to the colour, density, and size of the fragments. The red or precious coral, Corallium rubrum, is gathered from the rocky bottoms of the borders of the Mediterranean or its islands, and most
abundantly at 15 to 20 feet, though occurring at 1000 feet. There are independent coral fisheries on the coast of Southern Italy, off Ponza Island; off the Gulf of Gaeta; off Sicily, especially at Trapani, its western extremity; off Corsica and Sardinia, and the islands off Bonifacio; off Algeria, south of Sardinia, near Bona, Oran; off the Marseilles coast, and other places, which in 1853 afforded 80,000 pounds of coral. It is imported to some extent into India, where the most esteemed is the red coral. The pale, delicate pink colour is the most valued in England.

The coral polyp of the E. Indies, Red Sea, Zanzibar, and Central Pacific comprise genera of the Atræacea, Fungiacea, Oculinaea, Madreporae, Aleyonoida, Milleporeae, and Nulliporeae. In the Fiji Islands, Atræas and Menudinas or brain corals, are abundant. Madreporae add flowering shrubbery of many kinds, besides large vases and spreading fowla, some of these fowla being over six feet in expanse. Many and related species produce clumps of large flowers; Menumæ, Echinopora, Gemmipora, and Monipora form groups of gracefully infolded or spreading leaves; Pavonie, Piccölipora, Seriatopore, and Pories, branching tufts of a great variety of forms; Tubipora and Xerna, beds or masses of the most delicately tinted pinks; Spongiolidae, large pendent clusters of orange and crimson; and Fungiæ display their broad discs in the spaces among other kinds. It will suffice here to name the more beautiful of the coral polyps:—

Aleyopora verrilliama, Dana, Fiji.  
Atræa pallida, Dana, Fiji.  
Aleyonum, sp.  
Anthelia lineata, Stimpson, Hong-Kong.  
Cancerseca expansa, Stimpson, China Seas.  
Dendrophyllæa nigrescens, Dana, Fiji.  
Fungi lacera, V., Fiji.  
Goniopora columnæ, Dana, Pacific.  
Madrepora ebrirzida, Dana, Fiji.  
Madreporsa Formosa, Dana, Fiji.  
Porites moldax, Dana, Fiji.  
Telesio ramlussa, V., Hong-Kong.  
Xema elongata, Dana, Fiji.

Coral reef corals comprise species of the Atræa tribe, and all but two of the Fungiæ tribe.  
Of the Oculina tribe, all of the Orbicellids and Piccölipora, parts of the Oculinds, Stylistides, Caryophyllids, Astrangidae and, Stylophorids.  
In the Madrepore tribe, all of the Madreporids and Poritids, many of the Dendrophyllæa family, or Eupasammids.

Among Aleyonoids, numerous species of the Alcyonum and Gorgonia, and some of the Penitulaceæ.  
Among Hydroïds, the Millepores and Helioporeæ.  
Among Alzeæ, many Nullipores and Coralines.  
The corals of colder waters are mostly solitary polyps, either outside the coral reef seas, or at considerable depths, within them, and comprise a few Fungiæ, some Oculinds, many Eupasammids, some of the Gorgons and Penatulaceæ, and a few of the Aleyonium tribe; a few Millepores of the genus Plocobothros.

Coral Reefs are classed by most authors into lagoon islands or atolls, barrier or encircling reefs, and fringing or shore reefs.

The Atoll or Lagoon Reefs are vast rings of coral rock, often many leagues in diameter, here and there surmounted by a low verdant island, with dazzling white shores, bathed on the outside by the foaming breakers of the ocean, and on the inside surrounding a calm expanse of water, which, from reflection, is generally of a bright but pale green colour. These are raised by soft and almost gelatinous coral polypiers, which work on increasing the outer edge of the reef, which day and night is lashed by the breakers of an ocean never at rest.

Barrier Reefs are little less marvellous than atolls. In rare places, the whole of the part of the reef that is visible is converted into land; but more usually the barrier reef is shown by a snow-white line of breakers, with here and there an islet crowned by cocoanut trees, and separating the smooth waters of the lagoon-like channel from the waves of the open sea. There are many such outside the small islands in the Pacific Ocean, but the Barrier Reefs of Australia and New Caledonia have excited much attention from their proprietors.

Fringing Reefs or Shore Reefs differ from barrier reefs in not lying far off shore, and in not having within them a broad channel of deep water.  
Darwin supposes that as the reef-building polypiers can flourish only at limited depths, the foundation on which the coral was primarily attached has subsided, alike in the case of the atoll as in that of the barrier reef.

Sometimes the barrier reef recedes from the shore, and forms wide channels or inland seas, where ships find ample room and depth of water, exposed, however, to the danger of hidden reefs. The reef on the north-east coast of Australia and New Caledonia extends 400 miles, at a distance varying from 30 to 60 miles from the shore, and having many fathoms of depth in the channel. West of the large Fiji Islands, the channel is in some parts 25 miles wide, and twelve to forty fathoms in depth. The sloop-of-war Peacock sailed along the west coast of both Viti Lebu and Vanna Lebu, within the inner reefs, a distance exceeding 200 miles. A barrier reef, enclosing a lagoon, is the general formation of the coral islands, though there are some of small size in which the lagoon is wanting. These are found in all stages of development; in some the reef is narrow and broken, forming a succession of narrow islets with openings into the lagoon; in others there only remains a depression of surface in the centre to indicate where the lagoon originally was. The most beautiful are those where the lagoon is completely enclosed, and rests within a quiet lake. Marake, one of the Kingsmill group, is one of the prettiest coral islands of the Pacific. The line of vegetation is unbroken, and, seen from the mast-head, it lies like a garland thrown around it. It is in 30° 30’ S. on the Pacific Ocean that coral reefs and coral islands are seen in the greatest perfection. The largest known coral reef is the Great Barrier Reef, that runs for 1000 miles parallel to the coast of Australia, and at a distance from the shore of from 20 to 60 miles. The barrier reef of New Caledonia is 40 miles long.—Dana, Corals and Coral Islands; Darwin, Naturalist’s Voyage; Darwin, Structure of Coral Reefs; Goss, Natural History; Macgillivray’s Voyage; Figuier, Ocean World; Maury, Physical Geog.; Hartwig; Jansen; Collingwood.

CORALLINACEAE, a family of marine plants, belonging to the order Alzeæ. According to
Cordage.

Harvey's definition, it includes the Corallinae and Spongiteae of Kutting, and the Corallinidae and Nulliporidae of Dr. Johnston. They secrete a dense skeleton of carbonate of lime.—Eng. Cyc.

Coral Plant.

Cultivated in India and China as a fibrous plant, like C. olitorius. Jute is sown in good land, well ploughed and drained. It needs damp soil, but requires no irrigation. It is ripe in three, four, or five months, when the flowers turn into fruit capsules. Jute, like hemp, sow around cotton fields protects them from insects and caterpillars; 5000 lbs. to 7000 lbs. may be obtained from an acre. 100,000 tons were woven in Dundee in 1876, and 50 million gunny bags were exported from Britain in one year.—Roxb. ii. p. 581; V. Mueller.


Corychorus olitorius. Linn. Jute. C. decem-angulairis, Roxb. Gania, &c. Ambin. Kowria of. Cuttack. Pat; Ban-pat, Beng. Jew's mallow. Eng. Bhungu-pat; kooshta, Rami tuin, Malay. Pat-cut-wn, Burma. Putta, &c. Sansk. Omos, Ch. Parinta; Perintakura, Tel. An annual plant. In Bengal there are two varieties,—the green (Pat, Beng.), the reddish (Bun-pat, Beng.); both are used for their fibres, which are called jute and used in the jute of commerce. A coarse kind of cloth (tatt) is woven from the jute, and affords the material for the well-known gunny bags. An infusion of the leaf is much employed as a fever drink among the natives of the Lower Provinces. It grows wild about Rangoon during the rainy season, though not to the extent that it occurs in the native plants. The leaves of this plant are used in Egypt as a pot herb, and under the name of Nurcha or Sag greens; they are in common use amongst the natives of India. Both C. capsularis and C. olitorius afford the jute of commerce, which, both in the raw and manufactured form, is exported from India. The plant is known to be grown under cultivation. Every farmer requires rope and twine, and so grows a little jute. The fibre is extracted similarly by the sun's hemp. Mr. Le Franc of New Orleans constructed a machine for cleaning jute and other fibre plants. With it four men in a day produced a ton of fibre, and it leaves no butt or refuse.—Roxb. ii. 582; Voigt; Jeffrey; Rolle; M'Clelland; O'Sh. p. 229; Cuttack Local Committee. See Jute.


Corychorus Trilocularis. Linn. The plant—Bà-phälli, H. The seeds—Island, Hind. Grows wild in the Panjab; seeds are given in rheumatism; it is a C. acutangulus. Lam.—Stewart.

Cordage.

Cordage is the commercial term for cord or rope of every kind. Cordage of excellent quality is manufactured in India, and plants of Southern and Eastern Asia yielding fibre are as under:—

Abelmoschus esculentus, Veddoo fibre.
A. ficifolius.
Abutlon Indium, Toottee.
A. polyandrum.
A. tomintus.
CORDIA

Aacula Aréica.
A. leucopéloa.

Aeschyménènome canabánína.
Agave Americani, Fitá fibre or great aloc.
A. viargy, Kathala.
Alliantus Malebaricus, Poror maram.—Inner bark.
Aloc Indica or A. vulgaris, Kutallya nar.
A. perfoliata, aloc fibre.
Anamasa sávia, pine-apple fibre.
Andropogón schenánthus, Camsyche pillo.
A. intolatum.
Antíaris saadícóra, Aresgée.
Arundo donax.
Bauhlinía racemosa.
B. difíphylla.
B. Vahli, Vepé tree bark.
B. tomentosa, Vellay ateé nar.
Bignonia coronarías.
Bochémia; several species.
Borassus fíbheîlfíformis, Palmyra fibre.
Butea fréema.
Callacápa lanatá, Thondy nar.—Inner bark.
Calotropis gigantea, Ak, Mudar, Yerceu.
C. procéra.

Cannabis sátiva, hemp.
Carex Indica.
Chamorropó Ritébeiana, hemp pálmp.
Cordia obliqua, Pothóoverócosen nar.
Crotaláriá Burhía.
C. vanços, Sunn, Wuckoo nar, Canamboo.
C. tennifolia.
Cocos mucoféa, coir.
Corchorús olítórius, jute.
C. capsularis, jute.
Cyprésus textíllis, mat-grass, or Cooray.
Decáphisía crotonífolia.
Declámólium argenteum.
D. nilacásfólium.
Dennía exténsa, Ootrum.
Eriechónoa Cánólólli.
Eriodendró anfractósum, bast.
Eroóphórum cósósmus.
Erytrínía Indica.
Fícis régerias, Arasa nar.
F. rómoos, Attí dar.
F. Indica, Aulamara nar, Aalen nar.
F. opétífolía, Bódda nar.
F. Mysórecas, Kul-aíln nar.—Not much used.
F. Róxburghii; F. venosa.
Fouroorsy géantás, Seemay Kathałay.
Girárindía Leschénuáltia, Néigherly nelttle.
Gosseyrión Indiče, Indían cotton.
G. áccinátum, Brazil cotton.
G. Barodáneas, Peruviánum, religíósum.
Grewía Asiatíca, bast.
G. opótolífolia.
G. tálífolia.
G. rotundófolia, Oomó.—Moderate strength.
Guazuma tómentosa.
Hímaláus cánnábus, Polychay fibre.
H. mácropyllús.
H. sábádárrif, Rosèe fibre.
H. vásícárius, wild ambara.
I. Chénúmía, shoe plant fibre.
I. étífolía; I. lánáma; H. mácropyllus.
I. osa corylifólia, Valumbríkai, Kywen nar.—The most valuable fibre in Travancore. The plant grows abundantly at the base of the hills.
Fíbre is from the same.
Línum usitásiósimum, flax.
Marádenia Roylii.
Mímoos intía, Eény nar.
Missíssyea.
Musa paradísiácea, plantain fibre.
M. textíllis, Manílla hemp.

ORTHANHTHA VÍMINES.
Pandanus odorátióisus, fragrant screw-pine.
Parítium mácropyllíum.
P. hílácum.
Phádélphus, sp.
Phóéáx acánís.
P. dactylífera.
P. sylvestris.
Rhinus.
Saccharum spontáneum.

CORDIA LATIFOLIA.

S. sara, Sára.
Sáusevícera Zelynáncia, Margheé or Maroó.
Sálánialía Malebarica, Élumavo paróosty.
Sébbánía canabánína.
Sílah výpallá.—Used for cordage, etc.
Stycíños potámátorum, Kathavén nar.
Simlax oválifólia, Knúndddy nar.—Used for tying bundles, etc.
Sterculia gútta; S. ornánta; S. rános; S. villoésa.
Sterculia alata, Moróochen nar. Bark very strong, and lasts many years; used for dragging timber, cordage, etc. Common in the forests.
T. béleri, Umbróothée nar.
Tylophóra astmástica, Koórinja.
Typhicus angúla, Ma.
Uínia campestrías.
Urtica heterophylla.
Vernonia antihémbííntia, Cánt Secargráam.
Wluxramía salátíífla.
Yúca graéiosa, Píla or Adám's neelle.
Y. aloéfolia.

The exports of cordage, excluding jute, from British India, were as under:—

1877-78, . . . . . . . 30,216 cwt. Rs. 3,38,673
1876-77, . . . . . . . 24,193 . . . . . . . 2,65,603
1877-78, . . . . . . . 46,087 . . . . . . . 3,55,790
1878-79, . . . . . . . 32,812 . . . . . . . 3,55,577

It still requires to be determined whether tanning or tarring is the better mode of preserving cordage in India, and whether a substitute for tar might not be discovered in some of the numerous resins and gum-elastic from Southern India.

CORDIACEAE, an order of plants comprising the genera Cordia, Cordiopsis, and Erycbe. The chief species of Cordia known are,—angustífolia, cuneata, domesticia, fulvus, geracanthus, grandis, latifolia, Leschenaultií, monoeica, myxa, obliqua, orientalis, Perrotettii, polygama, prionodes, Rothii, sebestana, serrata, tectonáfolia, tomentosa, trichostemon, wallichii. C. fragrantíssima, Kurz, is of Burma; C. Nepálensis, Wall., also occurs in Simla; C. obliqua, Tách, is a tree of Ceylon; C. tomentosa is confined to the southern parts. In the Delura and Khera jungles is C. látora, Húm., Buch., perhaps only a variety of C. myxa, and a new species, C. ínæca. The bark of some of the Cordia, when young, may be found to yield a useful fibre.—Voigt, p. 441; W. Jc.; M. E. J. Rep.; Royle, Itt. Hin. Bot.

CORDIA ANGUSTIFOLIA. Royb.
C. reticuItata, Royb. | Narrow-leaved sepdanp.
Gund; Goondi; HINT. | Navavalli; M. | TAM.
Gundli; Goochni, " | Chínna botukú, " | Tel.
Líyar, . . . . . . . SÍND. | Nukkeru, . . . .

This tree grows from 30 to 40 feet high in Hurdvar, Gujerát, and the Dekhán; the wood is very tough, is used for carriage poles, posts, and is recommended for gunstocks. It is common about villages in the Circars, but never seen in the jungles. Fruit the size of a large pea, round and smooth, the pulp yellow and gelatinous, edible, but tasteless.—Royb.; Royle; Riddell; Bedlome; Voigt; Bird.

CORDIA LATIFOLIA, Royb. Sepiáíst.
Bhuhari, . . . BENG. | Pisar-sug, . . . PERS.
Bare bahobouro, . . . Cédoooro, . . . SÍND.
Bégpoud; Vargoud, G. | Sheloe, . . . SÀNKS.
Bhokur; Bara leera, H. | Kichí virgí chettu, Tel.

The tree occurs in Gujerát, Hindustan, but is mostly confined to the southern parts of India. It has numerous spreading branches, and the young shoots are angular and smooth. Phæleata or slow matches are made of the bark. The tree
CORDIA MACLEODII. Hooker.

C. monoeia? | Hemigynnma Macleodii.
Dhengun, .... | Hind.? | Dhyen; Deygan?, Hind.

A tree of Jubbulpur, from which there was sent to the Exhibition of 1862 specimens of a remarkably beautiful wood, found in Mundla and Sonee, and also Central India. Its wood approaches teak in its properties.—Cal, Catalogue, 1862.

CORDIA MYX A. Linn. Leubuk of Avicenna.
Machoytt of Forskal.

Phrmus sebestana, Hook.
Corrae anguineus, Forsk.
Cordia officinalis, Lam. C. domestica, Roth.

S. myxa, Commel. S. officinalis, Gartn.

The Fruit.
Behuari, .... | Beng. Bhiorecaraka, . SANSK.
Tha nat, .... | Bhirn. Lulu, .... | SINGH.
Buckhorn, .... | Dec. Vidi maram, .... | TAM.
Sepistan plum tree, Eng. Nakkeru; Iriki, Tel.
Lasura, Gondhi, | Hind. Peldu botuki, ....
Kendal, .... | JAY. Moookoom, Barra, ....

A pretty large tree, a native of Egypt, Persia, Arabia, Ceylon, the forests of the Godavry, Hindustan, and Nepal. It grows wild in the Siwalk up to 4000 feet, and it is common throughout the Konkan, Pegu, and the Malay Peninsula. The trunk is from 8 to 12 or 15 feet high, generally crooked, but as thick as, or thicker than, a man's body, with numerous spreading branches bent in every possible direction, and forming a dense shad sy wood. The wood is soft, and of little use except for fuel. In Sind, fuse is prepared from the grey cracked bark. It is reckoned one of the best kinds of wood for kindling fire by friction, and is thought to have furnished the wood from which the Egyptians constructed their mummy cases. The wood and bark are said by Dr. Royce to be accounted a mild tonic. Its dried fruit is the smaller sebestans or lobateons of European medicine; it is a yellow berry, with a strong, sweetish taste, and serves as a preserve; the juice of that fruit is excellent. The root is said to be purgative. The larger fruit is called lasur, and the smaller variety lasuri; its seeds are the Chakoon ki binj, Hind., used in powder mixed with oil as an application in ringworm.—Roxb.; O'Sh.; Stewart; Royle; Brandis; Riddell; Bird; Powell; Eng. Cy.; Pl. And.; Voigt; Thw.

CORDIA OBJUQUA. Wild.
C. tomentosa, Wall. | C. domestica? Roth.
C. Wallchelli, G. Don. | Gondhi; Lasura, Hind. | Sela; Naruwalli, Tam.

This is a large, handsome tree, common in the lower provinces of India, with a small, round, reddiay-coloured, pleasant-tasted, but glutinous fruit; furnishes a fibre, Pothoveroosen nar, of moderate strength.—Ainstie, p. 228.

CORDIA POLYGAMA. Roxb. i. p. 494.
Botta kuru chettu, . Tel. | Pach-cha botaku, . Tel.
A strong, close-grained wood, small and crooked, found in the Circars.

CORDIA ROTHII. Roxb. et Sch. C. cuneata, Heyne.
Bokur, .... | MAH. | Narvilli maram, .... | TAM.
Dr. Wight believes the wood is very inferior, the trees being usually small; and Dr. Gibson says that C. Rothii, C. fulvosa, and C. obliqua do not yield timber fit for anything but firewood. They are not uncommon in the Bombay forests, but are more generally met with near cultivated lands and villages.—Roxb. i. 591; Wight; Gibson.

CORDIA VESTITA. H. f. et Th.
C. incana, Rouyle. | Gymnion vestitum, D. C. Kambi of, .... | BEAS. Karuk of, .... | SUTLEJ.

A small tree of Garhwal, rare in the Siwalk tract, nearly as far as the Jhelum, and in the Salt Range to 3000 feet. Common in N.W. Provinces. The wood is valued for wheel-work. The fruit is eaten, and said to be sweet.—Stewart; V. Mueller.

CORDIA WALICHII, G. Don. C. tomentosum, Wall., is a small sized tree, rare and common throughout the Madras' western forests, also in Mysore and the Bombay Presidency. Technically it is hardly distinct from the common Cordia myxa, but the densely woolly leaves will distinguish it. The timber is serviceable, and in use with the natives.—Beddome, Pl. Sylv. p. 245.

CORDYCEPS SINENSIS. Smith. Hia-taunt-Ch'ung. This fungus, the Sperma of some writers, grows upon the head of a caterpillar, as a disease of the insect; supposed to be a species of Hepialus. It is said to be common in Southern Tibet; it occurs in Sze-chuen, Hu-kwang, Hu-peh, and Hu-nan. It is reported to be as good as ginseng, and to be worth four times its weight of silver.—Smith.

CORDYLES, the Zonuridae family of the lizards. See Reptiles.

CORDYLLA PALMARUM, the grub of the palm weevle; is eaten roasted in the West Indies. It is the size of the thumb.

CORDYLINE BANKSHI. J. D. Hooker. The long-leaved palm lily of New Zealand. Its leaves furnish a superior fibre for ropes. C. Baueri, J. D. Hooker, of Norfolk Island, rises 40 feet high; and C. indivisa, Kuanth, of New Zealand, also furnishes the toi fibre.

COREA or Korea, the Koali of the Chinese, called Chaou Seen by the natives. Corea is a kingdom in a large peninsula, stretching from lat. 42° 19' N., southwards to the Straits of Corea, area 91,000 square miles.

The peninsula of Corea bears a strong resemblance in its physical aspects to Italy. An axial range of mountains runs close to and parallel with the east coast; the rivers which flow westward from it, and fall into the China Sea, being of considerable length, and those that flow eastward into the Sea of Japan, small and unimportant. Regarding the west coast but little is known. It is for the most part a flat and uninteresting coast, inhabited by a class of people reported to be rude and inhospitable, and dangerous to navigation on account of rapids and high tides. The east coast, on the contrary, is a magnificently wooded series of mountain spurs, running down from the axial range of the country close to the water's edge, and
CORINA.

They are polygamic, and purchase their wives.

Their women are seduced. The dead are buried in wooden coffins or wrapt in sheets. Rice is the chief article of diet; they eat largely, and drink much alcoholic fluid; are fond of music, honest, good-natured.—Ernest Offler's Forbidden Land: Yule, Cathey, ii. 268.

CORIGE. Twenty pieces of cloth.

CORIANDER SEED.

Kezirah, ... Arab. Coriandrum. 
Nan nan, ... Bum. Coriandr seed. 
Cottimhry, ... Can. Cottamalli. 
Shih-lo, ... Chin. Dhanialu. 
Indo-European. 
Coriundoro, ... Fr. Dhanialu. 
Coriander saanan, ... Ger. Dhanjia. 
Korion, ... Gkt. Dhanjia. 
Gad, ... Heb. Dhanjai. 
Coriandro, ... It. Dhanjai. 

This is the fruit or seed of the annual plant. Coriandrum sativum, cultivated in the East and in Europe, and procurable in all Indian bazaars. When fresh, their smell is strong and disagreeable, but by drying it becomes sufficiently graceful. They are used as an ingredient in curries in India, and medicinally as a stimulant and stomachic. In Europe, coriander seed is chiefly used by distillers to produce an aromatic oil. The quantity imported annually into Britain is about fifty tons, and sells at 24s. the cwt.—M. E. J. H.; Simmonds; M'C.: Birdwood; Waring.

CORIANDRUM SATIVUM. Linn. The coriander plant is found in the cornfields of Tartary, the Levant, Greece, Turkey, and south of Europe, and it is grown in every part of South Asia, where the leaves are used by the natives for chatnis and curries; the fruits being also carminative and aromatic, are used in decoction, in sweetmeats, in certain stomachic liqueurs, and in some countries in cookery; they are little esteemed in England. During the unripe state, the odour resembles that of bugs, but this changes rapidly as ripening proceeds. Fee derives Coriandrum from ζεϊς, a bug.—O'Sh.; Robz.; Voigt; Lindley.

CORIARIA MYRTIFOLIA, Linn., is used in tanning leather, and also for staining black. It is worth £9 to £10 per ton.

Shaha, Baulu, ... Kashmir. 
Guch, ... Hind. Kadu, Bala, Ray, Baut. 
Massorie, Majuri, ... Archalwa, ... Slejed, ... Schere, Liechako. 

Grows all along the Himalaya, from 5000 to 7000 feet, and, from its abundance, has bestowed its name on Mussoori hill station. The fruit formed by the junction of several pistils is eaten in the hills, although that of the European species is poisonous, inducing narcism and tetanus.—O'Sh.; Clegh.; Stewart; Voigt; Ryle; Powell, Handbook, i. 336.

CORINGA, a town at the northern mouth of the Godavery river, on a branch generally called the Corings river. It is a seaport town, where ships are built, and is in Bay from the Bay of Bengal: population, 56,00.

The district has been repeatedly inundated. In May 1787, after a long and very violent gale from the northward, the sea rushed over the site of the town, and in a moment destroyed nearly the whole of the people, 4000 in number. A similar catastrophe occurred in 1837, when 15,000 people and 100,000 head of
cattle were destroyed; and the ships in the bay and on the stocks were swept far inland. It is 9 miles S.W. of Coeanada, in lat. 16° 48' 25" N., and long. 82° 16' 20" E. It is the only harbour between Trincomalee and Calcutta, where ships can be docked.

COR. Kork, Vlothout, DUT., GER. Coriaceae, (de Soovere), PORT. Liege, FR. Korkowoe, Derewe, RUS. Bhuj, HIND. Coreho, SP. Sughero, Suvero, IR. Karko, TAM. Suber, LAT. Birula, TEL.

Cork is the outer bark of Quercus suber, an evergreen oak growing in Portugal, Italy, the south of France, Corsica, and in Spain throughout the whole extent of the Tierra Caliente, but most abundant in Catalonia and Valencia, whence the principal exports have been made. This substance is developed on other plants, but on none in so large quantity as in the Quercus suber. It is light, porous, compressible, and elastic, and many articles are cut out of it. As soon as the bark dies, it falls off in flakes, which correspond to the layers that are formed annually. These outer layers the Spaniards collect; the inner living bark should be spared. In Corsica and Spain, where the tree is abundant, this bark is removed for tanning, and contains twice as much tannin as oak-bark of average quality. The tannin appears to resemble that of catechu; it affords scarcely any bloom, and gives a dark colour to the leather.

At the Madrid Exhibition of 1855, two specimens of a cork-like substance were exhibited, one good, from the 'Western Coast Jungles,' and another inferior, from Cimbatore; the trees producing the samples were not mentioned. The deeply cracked spongy bark of the Bignonia suberosa, the country cork tree, yields an inferior kind of cork.—M. E. J. R.; Eng. Cyc.; M. C. Dict. of Com.; ROyle, Arts and Manufacturers, p. 484.

CORK TREE of China. Smith. Fan-Sha, CHII. Its bark resembles that of Quercus suber.

CORMORANT. Salach, HEB. Cormorants are trained in great numbers, in the eastern Chinese provinces, to capture fish, and are sometimes under such good order that they will disperse at a given signal, and return with their prey without the precaution of a neck-ring. A single bontman can easily oversee twelve or fifteen of these birds; and although hundreds may be out upon the water, each one knows its own master. If one seize a fish too heavy for it alone, another comes to his assistance, and the two carry it away. The birds themselves are fed on bœuf, and eels or fish. They lay eggs when three years old, which are often hatched under barn-yard hens, and the chickens fed with eels’ blood and hash. They do not fish during the summer months. The price of a pair varies from 5 to 8 dollars. See Fisheries.

COR. Korn, DAN., GER. Butir, Biji, MALAY. Kraanen, Goren, DUT. Zobo, POL. Bildecs, FR. Gras, PORT. Getredecs, GER. Chiljeb, RUS. Araz, HIND., FERS. Granos, SP. Blade, Granus, FR. Sad, Spammel, Sw. Frumentum, LAT.

The grain or seed of cereal plants used as food; wheat, barley, oats.—Faulkner; M'Cull.
CORNWALLIS, CHARLES, MARQUIS.

has white flowers; slender, supple branches, with long pointed leaves, downy on the under surface. Its fruits are astringent, and leaves used in coughs.—Smith.

CORNWALLIS, CHARLES, MARQUIS, was twice Governor-General and Commander-in-Chief in India. He served successfully in Ireland, but subsequently in America with great disasters. He was sent out by Mr. Pitt to India, and the Act of Parliament of 1784 and 1786 was passed to give him supreme power. He arrived in Calcutta on the 12th September 1786, and re-embarked on the 10th October 1789. During this period the second war with Mysore occurred. He was the first to bring about a spirit of action between the Indian and Home Government, and the first to recognise the duty of paying Indian servants well, and to abolish all distinctions between the King's and Company's military officers. In 1788 he received power to bestow local commissions on the latter. His care was directed alike to financial and administrative measures, but also to the moral and social condition of the Anglo-Indian community; and in 1793 he issued regulations which for 38 years formed the basis of the administration of justice in India, and were changed only in 1851 during Lord William Bentinck's administration. He gave effect to the long-discussed subject of perpetual settlement under a zamindar class, a system which has since been greatly condemned. In 1793 he went from India to Ireland. He received the title of Marquis, and returned to India on the 30th July 1805, from which date, till his death at Ghazipur on the 6th October 1805, he was a second time Governor-General. A monument was erected to his memory at Ghazipur, and a statue at Madras.

COROMANDEL, with Europeans a geographical designation of the coast-line in the south of the Peninsula of India washed by the Bay of Bengal. It extends from Point Calimere near the mouth of the Kistna river. Its revenue districts are Tanjore, S. Arcot, Chingleput, N. Arcot, and Nellore. The name is not known to the people, and has been supposed to have its origin from the village of Coroimandel, on the Pulicat marine lagoon north of Madras, and to give its name to the entire eastern coast of the Peninsula. It has also been derived from Cholamandalam, which Paolin the Carmelite explained to mean the middle country, but which scholars interpret as the dominion of the Chola race, one of three Hindu dynasties who anciently held the Tamil country in the south. It is not impossible, however, that the general name has been connected with this particular village of Kurr-mandlum, Tax., meaning 'Black Sand.' It is situated on the north-west of the Pulicat lake, about 35 miles north of Madras, and formerly held by the Dutch. It is in the Chingleput district, in lat. 13° 26' 10" N., long. 80° 20' 36" E. Population, 3050 in 1871. See Chola-Mandaloor.

COROMANDEL WOOD is the produce of the Diospyros hirsuta, a Ceylon tree of great size, having a dingy ground, and sometimes running into white streaks. The figure is between that of rosewood and zebra-wood; the colour of the ground is usually of a red hazel-brown, described also as chocolate brown, with black stripes and marks. It is hard, but veneer saws cut it without particular difficulty; it is a very handsome furniture wood, and turns well. Mr. Layard says there are three varieties,—the Calamander or Coromandel, which is the darkest, and the most commonly seen in England; the Calemberri, which is lighter-coloured, and striped; and the Omnander, the ground of which is as light as English yew, but of a redder cast, with a few slight veins and marks of darker tints. He says the wood is scarce, and limited to Ceylon; that it grows between the clefts of rocks; this renders it difficult to extract the roots, which are the most beautiful part of the trees. Its names are corruptions of two Singhalese words, Kalu mederiyer,—Paikker; Medius; Tredgold; Holtzopfel; Ferguson.

COROSOS, or Ivory Nut, is produced by the Phytelephas macrocarpa, growing in Central America and Columbia (Humboldt). The tree is a genus allied to the Pandanaceae, or screw-pines, and also to the palms. They are seeds with oosomas albumen. The nuts are of irregular shape, from one to two inches diameter, and when enclosed in their thin husks they resemble small potatoes covered with light-brown earth; the coat of the nut itself is of a darker brown, with a few loose filaments folded upon it. The internal substance of the ivory nut resembles white wax rather than ivory. It has, when dried, a faint and somewhat transparent tint between yellow and blue; but when opened, it is often almost grey from the quantity of moisture it contains, and in losing which it contracts considerably. Each nut has a hole which leads into a small central angular cavity; this, joined to the irregularity of the external form, limits the purposes to which they are applied, principally the knots of walking-sticks, and a few other small works. It might be introduced into India.—Holtzopfel.

COROXYLON GRIFFITHI. Soda is made from this plant by burning and levigating; three kinds are recognised,—Chao-sajji, the purest; Hat'ha-sajji, second sort; K'bara-sajji, third sort.

CORFULENCE is a state of body very frequently seen amongst the richer of the Hindus. A tabular statement, taken from a mean average of 2648 healthy Englishmen, was formed and arranged for an insurance company by the late Dr. John Hutchinson. His calculations were made upon the volume of air passing in and out of the lungs, and this was his guide as to how far the various organs of the body were in health, and the lungs in particular. It may be viewed as an average, some in health weighing more by many pounds than others:

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CORREA. Shortly after the occupation of Malacca by the Portuguese, Antonio Correa was sent to Pegu, with the object of opening a trade with Burma.

CORREA, GASPAR, author of the Lendas da India, 4 vols. 4to, the oldest historian of the Portuguese in India; written 1561 (printed at Lisbon 1858-1864), from Vasco da Gama's voyage in 1497 to the government of Jorge Cabral in 1550.

CORROBORY, a dance amongst Australian
CORROSIVE SUBLIMATE.

natives, in which the performers, with shields in their lanés, circle round a fire.—Am. Enc. p. 247.

CORROSIVE SUBLIMATE.
Poch-kiang-tan, Chin. Bichlorure du mercure, Fr. 
Poch-kiang. Racapurar, Hind. 
Doppelt Chlorkeek-silber. Hydrargiri bi-chlori-
Dut. dram. Lat. Dar-chugna, Panj.
Sublime corrosif, Fr.

This is largely made in India, but in an imperfect manner, and used in native medicine. Some very fine specimens were shown at the Panjab Exhibition from Amritsar and Lahore.—Powell. See Mercury; Racapurar.

CORSICAN MOSS. See Edible Seaweed; Fucus.

CORTES. Hernan Cortes, a Spanish navigator, who, in A.D. 1528, endeavoured to follow up the discoveries of Magellan. He took possession of the Marianas and Ladrone Islands, but, with all the members of his expedition, fell victims to the climate and the hostility of the Portuguese.

CORTINARIUS EMODENSIS, Berkley, and also C. Violaceus Fr. are two beautiful fungi, the Onglan of the Tibetans and the Yungla s'chenmo of the Bhot, a favourite article of food.—Hook. 


CORUNDUM.

Kit-kang-shih, Chin. Samada, Ghi. 

Several substances, differing considerably in colour and sometimes in form, but nearly agreeing in composition, are classed together under the name of kuruudu by the natives of India. This mineral is, with the exception of the diamond, the hardest substance known. It is generally of a pale grey or greenish colour, but sometimes of red and brown tints. It is found in India, China, and in some parts of Europe. The Indian variety is whiter than the Chinese, and is considered the purer. In India, diamond dust is very rarely used in polishing gems, marbles, and metals, corundum being the chief material employed. This mineral is found in granite, or the detritus of granite rocks in the Mysore country and in the neighbourhood of the S.W. Ghats. Though excessively hard, it is by no means tough,—it flies in pieces after a few strokes of the hammer, and is easily pulverized in a mortar. The natives generally powder it on an anvil or stone, keeping it from flying about by a collar of cotton rope. The fine particles are separated from the coarse by siftmg; the European process of lixiviation is not so seemingly resorted to. For sharpening swords or burnishing metals, it is generally used like a whet-

stone or burnisher; for polishing gems, it is either made up into a cake with lac, or into a paste with oil or grease. It is never employed for the manufacture of emery paper or anything resembling it. For polishing marble or other stone, it is used in two forms, viz. that of a cake of about eight inches long, three across, and two deep. This is used by an individual in the hand. For heavier purposes, a cake a foot square or so is employed, placed in a frame. Two men work at this, and the reducing process is very rapidly accomplished by it; it is in fact a file with a lac body and corundum teeth.

The corundums of the Madras Presidency are well known to the people, who use them in mass or mixed in lac; they are used by cutters, etc., in the form of discs for lps, or wheel grindstones, also, in the form of whets, and hone, and rags, for sharpening the finer and coarser cutting implements used by farriers, etc. The first specimens sent to Europe were forwarded by Dr. James Anderson to Mr. Berry, a lapidary in Edinburgh, as the substance used by the people of India to polish masses of stone, crystal, and all gems, except the diamond, and it was then examined by Dr. Black, who named it adamantine spar.

The sites where corundum occur are—

Nammanal, Viralimodos.—On the north bank of the Cauvery, in the Permuttta taluk.—Newbold.

Sholasigamay (probably Scholasaermen).—Trichingode taluk, near the village in a low hill, in great abundance.—Newbold.

Caronel, Aupore, Mallapolly, and at various localities up the river Cauvery as far as Corcorambodi in Permutt, where it is dug by the natives in the fields, and remains of many ancient excavations are to be traced.—Newbold.

Gopalchetty pollium, 50 miles north of Salem. Yalaurry. 

Goundapady, French Rocks.—Captain Lowdon.

Golhushally, in the division of Noogullu.—Newbold.

Kulkairi, in the division of Chirnayapatnam.—Burkunhulli, in the division of Chinrayapatnam.—Newbold.

Kundeo, in the division of Chinrayapatnam.—Newbold.

Yedgunkul, in the division of Chinrayapatnam.—Newbold.

Noritik, in the division of Narsapur.—Newbold.

Deysoni Carbonhully, in the division of Banswaram. Appanully, in the division of Haranally.—Newbold.

Nullapady, on the road to Bangalore, Mysore. 

Mundum, in the Astagram division. 

Cuddoes, in the Nugar division. 

Nugur, in the Nugar division.

It occurs also at Gudjehnatty in Coimbatore, at the Tapoor Ghat in Salem, at Chennimully in Coimbatore, and in Cuttack. At Namallu and at Viralimodos on the north bank of the Cauvery; in the Permutttaluk, Salem district, it occurs embedded in gneiss and a greyish earth, resulting in part from the disintegration of that rock. It is found in great abundance in a low hill near the village of Sholasigamay, Trichingode taluk, Caronel, Aupore, Mallapolly, and at various localities up the river Cauvery, as far as Corcorambodi, where it is dug for by the natives in the fields; and there are the remains of many ancient excavations still to be traced. The ore is usually employed in collecting it is the Vittawav. At the Madras Exhibition of 1855, Mr. Rohde exhibited specimens from Guntur, and remarked of them that experienced jewellers would pick out stones suited for common jewellery from it, and the refuse cannot be worth less than £15 and £20 a ton at home. From Hyderabad was received a very excellent sample of picked stones, possessing an irregularly crystalline structure. Professor Thomson mentions (Mineralogy, i. 213) that fibro-

lite is found accompanying crystals of corundum in the Karntic, and that it is a component part of the granite which is the matrix of the corundum of China. Professor Jameson, in his Geognosy of Peninsular India (Ed. Cab. Lib. No. viii. p. 349-50), states that the corundum of Southern India occurs embedded in granite and sienite in the district of Salem. In the Nalgonda country, associated with Cleavelandite, Indianite, and fribroite; but near Gram at Golhushally and Kulkairi, at which good corundum is obtained, the mineral occurs in decomposed beds of a talcose slate, to which gneiss is subordinate, associated with nodules of indurated talc, and of a poor quartz iron ore; asbestos, chlorite, actinolite, and schorl were
CORUNDUM.

found in the talcose slate. Newbold mentions that in the Salem district, also, this mineral occurs embedded in gneiss and a greyish earth, resulting in part from the disintegration of that rock. Rubies, sapphires, emeralds, and topaz have from time to time been discovered in many of the corundum localities just enumerated, associated with this mineral, particularly in the gneiss at Viralimodos and Sholasirmany in the Trichingole taluk and at Mallapollye, though, comparatively speaking, rare. The formation around Gram is gneiss associated with protogene. Proceeding from it in a westerly direction, the northern shoulder of the imbricated range, south of the village of Beladaira, running nearly north and south, is crossed, and the soil suddenly changes from a light sandy colour to a deep red. The surface of this soil is covered with fragments of a ferro-silicious schist, with quartz in alternate layers. The natives have a tradition that gold was formerly got from this hill, which is not at all improbable, as it is found in similar gange near Baitmangulam. The corundum mines of Golhushully lie four or five miles north-east of this place, and those of Kulkairi about a mile farther. The surrounding country is a succession of smooth, slightly convex plains, except to the south-east, where the gneiss rises above the soil in a rocky ridge, terminating in a knoll about 700 yards to the east by south of the mines, to which it descends, rising again into a slope to west north-west of the mines, on which lie fragments of a light brown compact quartz iron ore. Nearly at the bottom of this stone are the mines, from which the ground descends on both sides to the north-west to a tank, and towards the south-east to the village of Golhushully, about a mile distant.

The chert and a dark-red ferruginous jasper are used by the natives as flints. Salt springs occur in the vicinity. The wells about Gram are both sweet and brackish within a short distance, and a fragment of rock-salt was found in the green earth of the mine. A little to the east of Kulkairi is a low plain nearly covered with a white travertine, partly compact, partly cellular, resembling that found in the bowl of the Cauvery at Seringapatam. The corundum mines at Kulkairi are situated both near the summit and at the foot of the excavations of the rising ground there. There are a series of excavations varying from two to twelve feet in depth, sunk perpendicularly though similar strata to those just described. The corundum is thrown out, cleansed, and separated by the miners into four classes, viz. the red, the white, the grey, and the refuse. The three first form the article of commerce.

The corundum of Battagamman is frequently found in large six-sided prisms, is commonly of a brown colour, whence it is called by the natives Curyat galle, cinnamon stone; occasionally it is to be met with partially or entirely covered with a black crust, and is merely the stone with an unusual proportion of iron.

Corundum is found about eight miles S. from Sahapur, in the Singraula territory, about 120 miles from Mirzapore. It is found in masses as large as a man's head, on a ridge. Common corundum occurs, like the sapphire and ruby, commonly in the secondary form of six-sided prisms, but usually much larger. It is sometimes nearly colourless, and rather translucent; it presents great variety, greyish, occasionally brown or red, rarely blue. It occurs also in acute and obtuse double six-sided pyramids. Corundum pebbles are found in the gem-sand of Ava river.

Prismatic corundum, or chrysoberyl, is found among the Torra hills near Rajmahal, on the Bunias in irregular rolled pieces, small, and generally of a light green colour; these stones are considered by the natives as emeralds, and pass under the name of panna, but they are aware that they are softer than the real emerald.—Bunias, Engl. Cyc.; Edward Balfour, Report on 1856 on the Government of Ceylon, Madras, &c. Ed. 1855. E. Jur. Rep.; Dr. Mason; Captain Newbold; Irvine, Gen. Med. Top. of Ajmir; Jameson, Ed. Journ. ii. 1820, p. 305.

CORUNGA MUNJJI-MARAM. TAM. Rottlera tinctoria.

CORUITT. TAM. Tricosanthes palmata.

CORVIDE, the crow family of birds, sub-fam. Corvina, crows, magpies, nutcrackers. Corvus culminatus, corone, corax, splendens, intermedius, Thetanus, tenuirostris, and frugilegus, occur in India. The genus corvus has no representative in all South America, nor in New Zealand, nor in the numerous archipelagoes of the Pacific, and there is one species only in Australia. Corvus corax, the raven, takes the circuit of the northern regions; rare in N. Africa, Panjeb, Kashmir, Afghanistan. The true raven is pre-eminently a bird of the coldest climates; though a few occur so far southward as in the Barbary States, in America so low as the Carolinas, and in India within the Panjab only. The raven, remarks Sir John Ross, is one of the few birds that are capable of braving the severity of an arctic winter. In the fearful cold of a northern Siberian winter, Von Wrangel says, the raven still cleaves the icy air with slow and heavy wing, leaving behind him a long line of thin vapour, marking the track of his solitary flight. The Tibetan raven is considered as a peculiar species by Mr. Hodgson, an opinion to which the Prince of Canino seems to incline; it may be presumed to inhabit the lofty mountains of Bhutan to the north. The smaller crow of Southern Asia is the C. splendens; the common black crow of all India is C. culminatus. The true rook, C. frugilegus, is known to visit the Peshawur valley, Afghanistan, Kashmir (the rook of China and Japan being considered a distinct species, C. pastinator of Gould); and the jackdaw, C. monedula, accompanies it in those countries. C. advena is a rare black and white crow, occurs along with Cittura cynoetes, the forest kingfisher of Celebes. C. corone is the carion crow of Europe. Afghanistan, Japan; C. cornix, hooded crow of Europe, Asia Minor, Afghanistan, Japan (Temminck); Barbary; C. monedula, the jackdaw of Europe, Siberia, Barbary, W. Asia, Peshawur valley, Kashmir. A nutcracker and a magpie occur in the Himalaya.

CORVINUS, a genus of fishes, several species of which, C. boha, C. chapias, and C. coitor, furnish isinglass. C. boha, M'Clett., Bolo chapias, Buch., furnished the isinglass which Mr. O' Riley sent to Calcutta from Amherst. It is closely allied to C. niger, but of monstrous dimensions compared with the European species. The jawbone of this fish is described as Boalee.—Mason; M'Clett.

CORYATE, THOMAS, a native of Britain, a
CORYDALIS AMBIGUA.

most singular traveller. After publishing, in 1611, his most portable travels, styled Coryate, His Crudities, prefixed by above forty copies of verses by the waggitish wits of the time (amongst which is one in the ancient British language), he set out on his greater travels, and seems to have been buried at the port of Swally, near Surat, in December 1617.—Pennant's Hiudostan., i. p. 73.

CORYDALIS AMBIGUA. Smith.

Yam-hu-soh., CHIN. [Huan-hu-soh., CHIN.]

A Chinese plant belonging to the sub-order Fumariaceae, the fumitory tribe; its tubers are used medicinally in heamaturia. —Smith.

CORYDALIS GOVANIANA. Wall. Bhootkes, HIND.

Is common above 8000 feet of elevation in the Choor mountains, where it is regarded as a charm against evil spirits. The roots sent by Dr. Falconer were long, fibrous, tough, and exceedingly bitter, dark brown externally, yellow within. —O'Shaughnessy.

CORYDON SUMATRANUS, a singular and rare bird; it is crepuscular, very likely diurnal as well, and so stupid or tame as to allow itself to be pelted without moving.

CORYGAUM, a small village on the left bank of the Bhina river, half-way between Poona and Seroor on the Gor-naddi. It is memorable for the defence made on the 1st of January 1819, by a small body of Madras artillery and native infantry about 500 strong, against the entire army of Raja Rao, Peshwa. About 4000 Arabs continued the attack from daybreak till dark.

Surgeon, afterwards Sir James Wylie, of the Madras Medical Department, greatly aided in their repulse. Captain Staunton of the Bombay army, with the 2d battalion of the 1st Bombay Native Infantry, mustering 600 bayonets, 26 of the Madras Artillery under Lieut. Chisholm, and 300 Auxiliary Horse under Lieut. Swanston, in all 296 strong, on New Year's eve were ordered to Poona to join Colonel Burr's brigade. On New Year's morning of 1818, as he approached Corygaum, he saw the army of the Peshwa, consisting of 20,000 horse and 8000 foot, covering the plain beyond. Both parties made a rush to seize the village, but entered it together at different ends. All day long the strife was kept up, fresh bodies of Arabs coming from the enemy to take the place of those who fell. Of the eight officers, Lieutenants T. Pattinson and Chisholm and Dr. Wingate were killed or mortally wounded. Captain Staunton and Dr. Wylie were amongst those who survived, but 175 had fallen. The E. I. Company voted Captain Staunton a purse of 500 guineas and a sword of honour, and afterwards erected a granite obelisk, 70 feet in height, with the names of all the brave men who fell, engraved on it in English, Persian, and Marhatta. Assistant-Surgeon Wylie was afterwards created a K.C.B.

CORYLUS AVEIILANA, the European hazel, is abundant in the Himaalaya. Fruits (nuts), called Bindik and Finduk in bazaars, are grouped in clusters together; inodorous, taste sweet and agreeable, become rancid very quickly. By expression the kernel yields a very agreeable oil, nearly in the proportion of half its weight. The wood of the hazel was the material of the dividing rods of the magicians and snake enchanters, who, even in modern times have had their believers in Europe. The Japan hazel is C. heterophylla, Fischer; C. ferox, Wall., is a plant of the Simla hills. —O'Sh.

CORYLUS COLUMNA. Linn. Hazel.

C. Jacquemontii, Dne.


Hazel, Urvrj, Umii, Geh., PANj. Sharoi, Sharoli.,

Ivrni, Ivrni, War., Shurlie, Bankins. (Eng.)

This tree grows to a height of 40 feet at elevations of 5500 to 10,500 feet in the Panjib Himalaya. Wood elastic, light and compact, used for hoops and small articles. The nuts edible. —Dr. Cleghorn and J. L. Stewart.

CORYNOCARPUS LEVIGATA, a New Zealand tree with beautiful evergreen foliage; the pulpy portion of the fruit is eaten by the natives. CORYPHA, a genus of palms of the order Coccoaceae. Sec. D. Coryphe, C. elata and C. taliera grow in Bengal; C. rotundifolia and C. utan, in the Moluccas; C. umbraclifera in Ceylon and the Moluccas, and C. gebanga in Java. It seems to be C. gebanga which Mr. Wallace (p. 158) describes as a great species in Lombok, called Gabbong, which grows there in great abundance. He says it has a lofty cylindrical stem, about a hundred feet high and two or three feet in diameter. C. taliera, the Tara of Bengal, and the Talipat of the Peninsula, is much employed for making leaf hats and leaf umbrellas; the leaves, when smoothed, are much used for writing on, and also for tying the rafters of houses, as they are strong and durable. C. umbraclifera, the cobba-panna of Madras and the talipat of Ceylon, and very like the former, is common in Ceylon, and found also on the Malabar coast. The dried leaf is very strong and limber (Knox's Ceylon). The Burmanee books are all made of the leaf of a species of Corypha. C. australis is the cabbage-palm of the northern part of Australia to Port Jackson. It rises erect to 70 or 100 feet, with a diameter of 1 foot.—G. Bennett; Seemann; Royle, Fl. Pl.; Voigt; Wallace, 155.

CORYPHA ELATA. Roxb.

Tallera elata, Wall. —Bajoor, Bujar, Batool, Beng.

This stately palm grows in Bengal, and, according to Mr. Mason, in the Tenasserim Provinces. It has a straight trunk, but often varying in thickness. A tree about thirty years old, when in flower, was seventy feet to the base of the inflorescence, another about sixty; circumference near the root, eight feet, and about the middle of the tree five and a half or six; their whole length strongly marked with rough, dark-coloured spiral ridges and furrows, which plainly point out the spiral arrangement of the leaves. The ligneous filars, as in the order, are on the outside, forming a tube for the soft spongy substance within, of a dark chocolate colour, tough and hard, but by no means equal, in either quantity or quality, to the very serviceable wood of Borassus flabelligerum. This palm, in Bengal flowering in March and April,—the seeds require about twelve months to ripen,—is to be at once recognised by its black spirally-marked trunk. From the other species of Corypha it is abundantly distinct by its long obviously spirally placed ex auriculate petioles, and by the smaller dark-green flat lamina, with narrow linear-ensiform segments. The fruit is smaller.—Voigt; Mason, Proc. I. 376.

CORYPHA GEGBANGA. Brot. it is one of the most useful of all the palms of South-Eastern Asia. Its pith furnishes a sort of sago. In Java, thousands of boys and girls are employed in
fabricating its leaves into baskets and bags; thatched and broad-trimmed hats are made of them; fishing-nets and linen shirts are woven from its fibres, and ropes from its twisted leaf-stalks; the root is both emollient and slightly astringent; and Waitz says it is a valuable remedy for the periodical diarrhoea which in the East Indies attacks Europeans. It flowers in a huge terminal spike, on which are produced masses of a small round fruit, of a green colour, and about an inch in diameter. When these ripen and fall, the tree dies, and, after standing a year or two, it too dies. Flocks of green pigeons and troops of the Macacus cynomolgus monkeys resort to the trees when fruiting, the latter chattering and showering down the ripe fruit. Kurz joins C. elata to this.

CORYPHA TALIERA. Roxb. ii. 174.

An elegant, stately palm of Bengal, has a trunk, perfectly straight, about thirty feet high, and, as near as the eye can judge, equally thick throughout, of a dark brown colour, and somewhat rough with the marks left by the impression of the fallen leaves. It is a native of Bengal, but it is scarce in the vicinity of Calcutta. The flowers at the beginning of the hot season, the second or third month afterwards. It is so closely allied to C. umbraulifera, as to be difficult to distinguish when out of flower. The leaves are much employed for making leaf hats and leaf umbrellas, and for tying the rafters of houses. They are in about 80 divisions, each 6 feet long by 4 inches broad, radiating from the point of a leaf-stalk from 5 to 10 feet long, and covered with strong spines at its edge. Roxburgh describes the spadix as decomposed, issuing in the month of February from the apex of the tree and centre of the leaves, forming an immense diffuse ovate panicle of about 20 or more feet in height. The fruit is the size of a crab-apple, wrinkled, dark olive, or greenish-yellow. The leaves are used by the natives of India to write upon with steel styles; it is known as the book palm, and is not unfrequent in the neighbourhood of religious edifices in the Tenasserim Provinces.—Roxb. ii. 174; Voigt, Eng. Cyc.; Mason.

CORYPHA UMBRAULIFERA. Linn.

The talipat palm of the Moluccas, Malay coast, Malabar, and Ceylon, is similar in appearance to, but its leaves are not so round as, those of C. taliera, the divisions in the centre being shorter than those at the sides. It has a stem 60 or 70 feet high, crowned with enormous fan-shaped leaves, forming a head 40 feet in diameter, each leaf with 40 or 50 pairs of segments. These frouds, when dried, are very strong, and are used for hats and umbrellas. The petiole is 7 feet long, and the blade 6 feet long and 15 feet broad. Fans of enormous size are manufactured from this plant in Ceylon. The bole is wholly pithy, which furnishes a sort of flour, of which bread is made; the leaves make excellent thatch, and are also used for writing on, like those of the C. taliera. Griffith met with trees in flower at Mergui, which he thought belonged to this species; and Dr. Mason saw trees in Tavoy, which he regarded as probably talipat palms. The dark-coloured roundish seeds of these trees are used as beads by the Tadar or Dsari religious mendicants. C. umbraulifera is found also on the Malabar coast. The dried leaf is very strong and limber, and, according to Knox, is "most wonderfully made for men's consumption to chew along with them; for though this leaf be thus broad enough to cover fifteen or twenty men when it is open, yet it will fold close like a lady's fan, and then it is no bigger than a man's arm; it is wonderfully light."—Knox's Ceylon, in Royse's Fl. Pl.; Seeem; Eng. Cyc.; Mason; Roxb.; Voigt. Kurz joins C. taliera to this.

CORYPHA UTAN. Lam.

A palm of the Moluccas.—Roxb. ii. 178.

CORYPHAEA, a genus of fishes belonging to the section Acanthopterygi, family Scornbride, and fifth group Coryphana. There are nine genera in the group; one of them, Coryphana, has six species. C. hippurus, Linn., is the dolphin or dorado, and is often confused with the delphinus or porpoise, from its bearing the same name. Its colours when swimming are very lively, and tail of a golden hue. When dying it presents a greatly varied play of colours. It is good for eating.—Bennett.

CORYPHODON BLUMENBACHII, the 1st snake of Ceylon, is almost domesticated in households.—Tennent, p. 42.

COS, a little Dorian island on the coast of Asia Minor, which fell under the power of Ptolemy. It was the first spot in Europe into which the manufacture of silk was introduced, which it probably gained under the power of Persia before the overthrow of Darius. The luxury of the Egyptian ladies, who affected to be overheated by any clothing that could conceal their limbs, had long previously introduced a light thin dress; and for this, silk, when it could be obtained, was much valued; and Pumphila of Cos had the glory of having woven webs so transparent, that the Egyptian women were enabled to display their fair forms yet more openly by means of this clothing. Occasionally, also, they sent their children and their children's children there as a place of safety from Alexandrian rebellion; and there the silk manufacture flourished in secret for two or three centuries. When it ceased is unknown, as it was part of the merchants' craft to endeavour to keep each branch of trade to themselves.—Sharpe's Aristotle, Hist. An. V. 19; Hist. Egypt, i. p. 263.

COSCIUM FENESTRATUM. Coleb.

Mansiopsema fenestratum, Gartn.


COSI, a river of the Himalayas, is formed from seven alpine feeders, the Sapt Cosi of the Nepalese, which unite within the Himalaya mountains. Bengal has a river of the same name, with the town of Midnapur on its bank.

COSMAS, called from his maritime experiences Indicoleucus, was apparently an Alexandrian Greek, who wrote between 530 and 550. He was the first Greek or Roman writer who speaks of China in a matter-of-fact manner, by a name which no one has ever disputed to mean China.

He was a monk when he composed the work.
which has come down to us, but in his earlier days
he had been a merchant, and in that capacity had
sailed on the Red Sea and the Indian Ocean,
visiting the coasts of Ethiopia, and apparently
also the Persian Gulf, and the western coasts of
India, as well as Ceylon. His book was written at
Alexandria (A.D. 535), and is termed Topographia
Christian a (Universal Christian Topography),
the great object of it being to show that the tabernacle
in the wilderness is a pattern or model of the
universe. Sir J. E. Tennant (Ceylon, i. p. 542) says
that Cosmas got his accounts of Ceylon from
Sopatrus, whom he met at Adule; and Lassen
ascribes all Cosmas says of India to the same
authority (i. 773). But they have not given the
ground of these opinions. One anecdote is
ascribed to Sopatrus, no more. He gives a clear
account of the commerce between India and
Egypt in his day. He says that the produce of
Kalliana was brass, sesame logs, and cotton
stuff; of Sindus, castorin and spikenard; of
Male (Malabar), pepper; and that from Tanitza
(China) and other countries beyond Sieldba or
Taprobane, came silk, aloes-wood, cloves, nutmegs,
and sandal-wood. Writing of the island of Tapro-
banie in Further India, Cosmas says where the
Indian Sea is, there is a church of Christians, with
certain monks, who believe that I know not if there be
any Christians further on in
direction. And such also is the case in the
land called Male, where the pepper grows. And
in the place called Kalliana there is a bishop
appointed from Persia, as well as in the island
which they call the Isle of Dioscoris, in the same
Indian Sea. The inhabitants of that island speak
Greek, having been originally settled there by the
Ptolemies, who ruled after Alexander of Macedon.
This Male is evidently Malabar, probably the
Kalliana of the Peripus, which Lassen identifies
with the still existing Kalyani on the mainland
near Bombay. Father Paolina, indeed, will have
it to be a place still called Kalyanapuri on
the banks of a river two miles north of Mangalore,
but unreasonably. Via Guida, Indie Orientale,
p. 100, in Yule Cathay, i. p. 171.

COSMETIC BARK.

Cosmetic Bark, Dusting-powders.
Puh-fen, Shuwei-fen, CHN. Fu-yung-fen, . . . CHN.
P'ing-hie-kung-fen, . . .

In China, the shells of several molluscs are
washed, scraped, calcined, and levigated, and
scented with musk or other ingredients. The
addition of Borneo camphor makes these powders
exquisitely cooling to the skin, especially if
troubled with prickly heat. Water is used with
the Shuwei-fen, in laying it on the face. An inferior
cosmetic wood of Burma, is the tuberole of some
plant. The Burmese appear from their name to
regard the tree as a medicinal one, but it is
rarely used except by the Chinese, for they call
them erythrina thorns; but Mr. Mason suspected that it is a
toddalia aculeata and T. floribunda. The cosmetic wood of Mergui from
one of the Xanthoxylaceae? is fragrant. It is
sold in the bazar.—Mason; Smith. See Abir.

Coss, the traditional measure of India, of
which the precise value has been much disputed,
chiefly on account of the difficulties which attend
the determination of the exact length of the
guz or yard. The Ayin-i-Akbar lays down distinctly
that the coss consists of 100 cords (tunab),
each cord of 50 guz; also of 400 poles (bans), each
of 123 guz; either of which will give to the coss the
length of 5000 guz. The distances in English yards
between the old minars or coss pillars may be con-
sidered to afford the correctest means we have of
ascertaining the true standard, viz.:

By Road, Direct.

Octagonal minar to Nurelah in Delhi,. . . 4513 4498
Minar between Nurelah and Shapurgur, . . . 4554 4591
Minar opposite Alipur, . . . 4522 4579
Minar opposite Sirpar, . . . 4579 4573
Ruins of Minar opposite to Shalimar, . . . 4610 4591

Length of the coss, 2 miles 4 furlongs 158
yards. It is important to observe that the length of the
Ihaee guz, deduced from the measurements,
is 32.818 inches, showing how very nearly correct
is the length of 33 inches assumed by the British
Government. The Chinese li is the distance
which can be attained by a man’s voice exerted in
a plain surface; and the same may be remarked of
the oriental meel, as well as the European mile
and league. The two former evidently derive
their names from the Roman milliare, and the
difference of their value in different places proves
that the more natures was borrowed, without any
reference to its etymological signification. Cos
is an Indian word; the equivalent word in Persian
is Kuroh, the same as the Sanskrit Koroa, of which
four go to the yojan. Malcolm says the coss is
in general estimated at forty-two to the degree;
but its length differs in almost every province
of India. It may be computed as never under
a mile and a half, and never (except in that intro-
duced by the mandate of the late Tipu Sultan
in Mysore) more than two miles. In Gujerat they
estimate the coss by the laying of kine (gao),
which in a still day may be heard at the distance of
a mile and a quarter. Thus twelve coss is barn-
ago.—Elliot, Supp.; Malcolm's Central India, i. p.
20. See Ihaee Guz.

Cossack, an irregular soldiery whom the
Russian Government recruited from the country at
the foot of the Caucasus, known as Little Kabarda
and Great Kabard, bordering on the Maka
and Kuma rivers. Cossack (Kazak) is also a term
by which the Malarrattas described their own
mode of warfare. In their language, the word Cossakee,
borrowed, like many of their terms, from the
Maghuls, means predatory.—Malcolm’s Central
India, i. p. 69. See Kabarda.

Cossaya or Cissia is the name by which the
Greeks knew the tract east of the Tigris. It was
also called Elam or Elymas. It is now called
Khuzistan. Cossaya is supposed to be derived
from Koh-siah, or Black Mountain. The people
spread their conquest over Susiana and the districts
eastward. See Luristan.

Cossair or Cossair, a town and harbour on the
western side of the Red Sea. It was occupied by
the French in their expedition to Egypt, and
then by the English, under their last crown on
the east, but on the north reefs advance into the
sea; on the south is a chain of mountains of
some elevation. The bottom is rocky.

Cossid, Pers. properly Kassid. A mounted
messenger.

Cossya Hills, or Khassia Hills, estimated
area 7290 sq. miles, 80 miles in length from N.
to S., and 40 in breadth, extend from lat. 24° 35'
COTTON, General Sir Willoughby.

COTTON, General Sir WILLWOUGHBY.

COTTON, General Sir WILLWOUGHBY, K.C.B. and G.C.B., born 1783, died in London on May 1848, only son of Admiral Cotton, cousin of Lord Combermere. In his 16th year he entered the 3rd Guards as ensign. He commanded a division of Sir Archibald Campbell's army in the Burmese war. He commanded the 1st division of the Bengal army in the Afghan war in 1838-39, under General Sir Henry Fane, and afterwards under General Sir John Keane. He was present at the storming and capture of Ghalzi on the 23rd of July 1839, at which he commanded the reserve which entered the city after the storming party had established themselves inside. He received the Order of the Bath of all the grades, being nominated a Grand Cross of that order in 1840. He was made a Knight Commander of the Royal Hanoverian Guelphic Order in 1830, and had conferred upon him the Order of the Durance.
COTTON.

Empire of the 1st class at Kabul, in September 1839.—Men of the Time.

COTTON.

Katun; Qatan, ARAH. K’ob-ung, MONGOLIA. 

Fii-hwa-jung, CHI. Punba, PER. 

Mien-hwa-jung, 

Sze-miu; Hanien, Bawelna, POL. 

Bomuld, DAN. Algodon; Algodeiro, POET. 

Boonwol; Kateon, DUT. Chlopts-chateja, RUS. 

Cotton, FR. Karpasa, SANSE. 

Baunwoile, Katun, GER. Kupu, SING. 

Bosnaki; Lanaga, G. Akgol, SW. 

Kapas; N. HIND. Bomul, Tel. 

Cotton; Bombagia, IT. Patti (in the pod); Dudi, Tel. 

Gossypium; LAT. 

Cotton consists of the delicate, tubular, hair-like cells which clothe the seeds of species of gossypium. Its commercial value depends on the length and tenacity of these tubular hairs, which, in drying, become flattened, and are transparent, without joints, and twisted like a corkscrew. Under water, they appear like distinct, flat, narrow ribbons, with occasionally a transverse, line which indicates the end of cells.

In America, two distinct varieties are indigenous—G. Barbadense, yielding the cotton from the United States, and G. Peruvianum or acuminatum, that which is produced in South America. India also has two distinct species, —G. herbaceum, or the common cotton of India, which has spread to the south of Europe, and G. arboreum, or tree cotton, which yields none of the cotton of commerce.

Cotton plants have been characteristic of India from the earliest times; and at the present day, the majority of its people are clothed with fabrics made from cotton, which is woven to a large extent in India, but more largely in Europe and America. Indigenous varieties in the tropical regions of Asia, Africa, and America, and in the southern provinces of the United States, have been cultivated with such success, that its produce is an important article of commerce.

Dr. Cleghorn compared all the species of gossypium in the herbarium of the Botanical Society (comprising the collections of Buchanan Hamilton and Lady Dalhousie, with contributions from Drs. Wight, Campbell, etc.), and also those in the herbarium of Professor Balfour, with a view to explicate the specific characters by which to discriminate them from one another. The series showed the striking difference which soil, climate, and culture produce in species, and which may appear in nature, giving rise to a multiplication of species. But the whole group of so-called species seemed to him referable to G. herbaceum, Linn., G. arboreum, Linn., G. Barbadense, Linn., and G. acuminatum, Roxb.

Since 1790, efforts to improve the Indian cotton crops have been almost continuous. Experienced planters from America were employed, and Drs. Wight and Watson were long engaged in experiments in Coimbatore, Gujerat, and Dharwar. The plant has always been grown in almost every district of India, for local use or export, in soils suitable and unsuitable to its growth; and at the London Exhibition of 1862, the values of 138 samples exhibited ranged from sixpence to three shillings the pound.

Mr. Shaw (p. 186, Cotton Report) cotton cultivation in India would not be a profitable speculation for Europeans; the natives can grow it much cheaper. Our function is simply that of buyer. We have no local market for the American cotton. It does not answer for native spinning so well as their own.

The use of cotton dates from a very early period. Sanskrit records carry it back at least 2600 years, while in Peruvian sepulchres cotton cloth and seeds have been found. It is noticed in the book of Esther, i. 6, where its Sanskrit name Karpas is translated 'greens' in the English Bible. Herodotus and Ctesias notice it; but it was not till the invasion of India by Alexander that the Greeks were acquainted with the plant, as may be seen in Theophrastus, and also in Pliny.

Pliny, writing about 500 years subsequent to the time of Herodotus, mentions (lib. 19, c. 1) that the upper part of Egypt, verging towards Arabia, produces a small shrub which some call gossypion, others xylon, and from the latter the cloth made from it, xylina, bearing a fruit like a nut, from the interior of which a kind of wool is produced, from which cloths are manufactured inferior to none for whiteness and softness and therefore much used by the Egyptian priesthood.

The varieties of cotton known in the commercial world may be referred to three distinct species, each having several sub-varieties. The Gossypium Barbadense is the species cultivated in the West Indies, North America, and in one or two parts of the Peninsula of India. Gossypium Peruvianum yields the cotton of Brazil, Pernambuco, Peru, etc. Gossypium Indicum is the species which, in a number of varieties, produces the great bulk of the cotton of India and China. The Gossypium arboreum, or tree-cotton of India, and peculiar to India alone, is unfitted for manufacturing purposes, and is unknown to commerce, though yielding a beautifully soft and silky fibre, admirably adapted for padding cushions, pillows, etc. In commerce, Indian cotton has usually been known under the names of the locality of its growth or place of shipment. The staple of these sorts appears to range from 0'85 to 1'1 of an inch in length; the staple of the celebrated Sea Island cotton being usually 1'5 in length.

The three qualities by which the value of cottons are determined are, length of staple, strength of fibre, and cleanliness of sample. Colour, which at one time was thought much of, is no longer looked upon as a matter of moment. The respective lengths of the different kinds of cottons are given by Mr. Clements Markham as under:

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Max.</th>
<th>Mean.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Island</td>
<td>1'41 in.</td>
<td>1'60 in.</td>
<td>1'51 in.</td>
</tr>
<tr>
<td>Egyptian</td>
<td>1'20</td>
<td>1'32</td>
<td>1'29</td>
</tr>
<tr>
<td>Peruvian</td>
<td>1'10</td>
<td>1'50</td>
<td>1'30</td>
</tr>
<tr>
<td>Brazilian</td>
<td>1'03</td>
<td>1'31</td>
<td>1'17</td>
</tr>
<tr>
<td>New Orleans or Uplands</td>
<td>0'98</td>
<td>1'16</td>
<td>1'02</td>
</tr>
<tr>
<td>Uplands grown in India</td>
<td>0'86</td>
<td>1'01</td>
<td>0'90</td>
</tr>
<tr>
<td>Indigenous Indian cotton</td>
<td>0'77</td>
<td>1'02</td>
<td>0'98</td>
</tr>
</tbody>
</table>

The cotton of India is allowed to be inferior as regards its staple and purity, but in durability it at least equals the produce of any part of America, and of this fact the Hindus are themselves perfectly aware. Dr. Royle gives 3 distinct varieties of cotton, all indigenous to Hindustan. The common description is found scattered more or less throughout India, reared as a triennial or annual. It reaches the height of 5 or 6 feet in warm, moist climates. The seeds are five in number, clothed with a short greyish down. In the Peninsula there are two distinct varieties of this sort, known amongst
COTTON.

the natives as Opopum and Nadum. The first thrives only on the richest black soil, and is an annual, producing a fine staple; the latter is a triennial plant, and grows on the poorer red soil, yielding small crops of inferior quality.

Second.—Dacca cotton is a distinct variety of the Gossypium Indicum. It differs from the previous variety in the plant being more erect, with fewer branches, and tinged with a reddish hue, whilst the cotton is finer, softer, and longer. This variety is reared more or less extensively throughout Bengal, especially in the Dacca district, where it is employed in the manufacture of the exceedingly fine muslin cloths known over a great part of the world as Dacca muslins, and whose delicacy of texture so long defied the imitation of the art-manufacturers of the West.

A third variety is the cotton grown in Berar, in the northern provinces of the Madras Presidency, and in Surat and Broach. This plant attains a greater size than the preceding, bears for a longer period, and produces a fibre of a finer quality than the former. It appears to thrive best on a light black soil.

Soil.—The soil in which all these Indian varieties thrive may be classed under two distinct heads, the black cotton soil and the red soil. The former of these, as its name indicates, is of a black or deep brown colour, absorbs and retains much rain, forming in the rains a heavy tenacious mass, and drying into solid lumps in the hot months. An analysis of this gives 74 per cent. of silex, 12 of carbonate of lime, 71 protoxide of iron, 3 of alumina, 2 of vegetable matter, and 3 salts, with a trace of magnesia. The red soil of India has been found in some localities better suited to the growth of cotton than the black earth. It is a rather coarse yellowish red soil, commingled with particles of the granitic rocks,—silex, felspar, and aluminous earth. It mainly differs in composition from the preceding in the iron existing in the state of peroxyde or red oxide, whilst the carbonate of lime is found present in greater abundance. Analyses of the best cotton soils of America prove that they differ from those of India chiefly in the large proportion of peaty matter which they contain.

Cotton-wool bears value according to its colour, length, strength, and fineness of fibre. Pure whiteness is generally held to denote a secondary quality; whilst a yellowish tinge, provided it be not the result of casual exposure to damp, or the natural effect of an unfavourable season, is indicative of superior fineness. Many varieties of raw cotton are seen in commerce, each sort being distinguished by the name of the locality where it is produced. American, Bourbon, Egyptian, Aramoti, Dacca, Opopum, Nadum, Orleans, Sea Island, etc. etc.; but the main distinction recognized is that between the long and short-stapled qualities; though of these, again, there are different degrees of excellence. The 'Sea Island' cotton of Georgia (so named from being raised on certain narrow sandy islets lying along the coast of that province) is esteemed the best of the long-stapled kind; and the upland produce of the same state excels amongst the short-stapled classes. The indigenous Asiatic cotton is exclusively of the latter class.

The indigenous plant of India is an annual, and succeeds best in the rich black soil that characterizes various districts. The American plant, though in reality perennial, is practically an annual in India; for in India neither native nor foreign cotton is cultivated on the same ground more than one year in three, its properties being found to exhaust the productive powers of the soil. American cotton grows well on the black soil of India, but thrives still better on the light red lands. Each of these species possesses advantages peculiar to itself. The Indian variety is capable of being manufactured into fabrics of extraordinary durability and wonderful fineness; its colour, too, is superior, but the staple short. The American species, on the other hand, excels in length of staple. The plant yields more flowers, and each flower a larger pod, whilst the quantity of seed contained in the pod is smaller, and more readily separated from the fibre.

Mr. Laing, in a letter to The Times as to the future supply of Indian cotton, showed that Sir C. Wood makes it entirely a question of price, citing the authority of Lord Hardinge. Mr. Laing thinks that both climate and soil are so much against India, that its average produce per acre will never approach that of America. But Mr. A. N. Shaw, collector of Dharwar, has expressed an opinion that while Mr. Laing's facts may hold good of indigenous cotton, there are few parts of India where American cotton will not grow as luxuriantly as in Alabama, the best cotton-field in America.

Mr. Talboys Wheeler, who wrote the Cotton Handbook for the Madras Presidency, drew the following four general conclusions, viz.:

1st. American cotton can be grown, but the profit is questionable.
2d. Indian cotton may be improved, but only to a degree.
3d. American cotton must always command a higher price than Indian.
4th. The demand for Indian cotton must always depend on the supply of American.

But a superior cotton can undoubtedly be raised in the Karnatic at a cost not exceeding the production of the common native fibre. The tenure of land in the Madras Presidency leaves the ryot free to grow what crop he pleases; there is no export duty or special tax on cotton, and the assessment is nowhere heavy. The exports of cotton from the Madras Presidency have increased of late years; and if cotton be still not grown in the quantity or the quality desired, the cause must be that some other crop is more remunerative to the ryot. A steady market at a remunerative price is the great want, and this the mercantile community alone can supply. There is grown in India a vast supply of cotton, and it is capable of increase by extended cultivation consequent on increased demand. A large portion of the existing supply is absorbed by the local manufacturers, but is capable of diversion if increased prices are offered by exporters. The diversion to other markets may be immediate; but an increase requires the lapse of at least one season after the demand arises, and some prospect of a continuance of that demand. Every rise in price of Indian cotton in England, however small, if likely to be permanent, exercises an immediate effect on the export of cotton from India to England. The quality is capable of great improvement, but by a more tedious process. The American cotton plant
COTTON.

cannot withstand so much drought as the Indian. The ordinary native cotton-cleaning machine, for freeing the cotton fibre from the seeds, has not yet been equalled by all the mechanical skill of Europe.

Native Indian cotton is a small-podded, small-seeded, short-stapled variety; but in picking the seed, in carefully gathering and ginning, it may be much improved.

Indian cotton is somewhat difficult to spin from its often breaking, and requiring more turns of the spindle, and from its shortness of fibre, than that of America. But the yarn made from a pound of East Indian cotton, which costs 3d. sterling, will sell for 7d., while from the American, which costs 4½d. the pound, the yarn sells for 7½d.

Imports into Great Britain.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cotton Imported</th>
<th>Value (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877</td>
<td>12,11,21,819</td>
<td>354,189,197</td>
</tr>
<tr>
<td>1878</td>
<td>11,97,25,28</td>
<td>33,52,362</td>
</tr>
<tr>
<td>1879</td>
<td>13,17,1,043</td>
<td>36,27,669</td>
</tr>
<tr>
<td>1880</td>
<td>14,85,2,585</td>
<td>42,76,183</td>
</tr>
</tbody>
</table>

In the four years 1877 to 1880, 75 per cent. of the quantity imported was received from the United States, 8 per cent. from British India, and an equal quantity from Egypt.

**Number of Acres under Cultivation in British India.**

<table>
<thead>
<tr>
<th>Years</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1874-75</td>
<td>11,581,853</td>
</tr>
<tr>
<td>1875-76</td>
<td>11,846,769</td>
</tr>
<tr>
<td>1876-77</td>
<td>9,650,994</td>
</tr>
<tr>
<td>1877-78</td>
<td>9,055,630</td>
</tr>
<tr>
<td>1878-79</td>
<td>10,163,835</td>
</tr>
</tbody>
</table>

The yields per acre of cleansed cotton in the years 1874-75 to 1878-79, ranged as under:—

<table>
<thead>
<tr>
<th></th>
<th>Rs.</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Madras,</td>
<td>30 to 40 lbs.</td>
<td>17 to 51 lbs.</td>
<td>21 to 30 lbs.</td>
</tr>
<tr>
<td>Bombay and</td>
<td>43 to 54 lbs.</td>
<td>40 to 71 lbs.</td>
<td>39 to 51 lbs.</td>
</tr>
<tr>
<td>Sind,</td>
<td>11 to 13 lbs.</td>
<td>16 to 30 lbs.</td>
<td>57 to 91 lbs.</td>
</tr>
<tr>
<td>N.W. Provs.,</td>
<td>29 to 56 lbs.</td>
<td>17 to 61 lbs.</td>
<td>24 to 34 lbs.</td>
</tr>
</tbody>
</table>

The value of the raw cotton exported from India has been—

<table>
<thead>
<tr>
<th>Years</th>
<th>Value (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877-78</td>
<td>9,38,35,349</td>
</tr>
<tr>
<td>1878-79</td>
<td>7,91,26,458</td>
</tr>
<tr>
<td>1879-80</td>
<td>14,95,56,565</td>
</tr>
<tr>
<td>1879-80</td>
<td>11,14,64,928</td>
</tr>
</tbody>
</table>

The largest consumption of cotton-wool is in the tropical countries. Americans consume 11½ pounds per head; and it has been calculated that the British Indian people consume 10 pounds per head, but Great Britain only 4½ pounds per head.

In America, for the cultivation of cotton, the ground is well ploughed, and cast into ridges about 10 inches in height, and from 6 to 7 feet apart, according to the richness of the soil or the kind of cotton to be cultivated. In poorer soils the ridges are narrower, so that the plants, which do not grow so large, may yet be able to cover the ground. The ridges allow superfluous moisture to be carried off by the water furrow, which in low situations is made into a trench. The soil is allowed to settle for a few days before sowing, as the young plants take root more vigorously than when they spring up in freshly ploughed and loose earth. Sometimes the ground is manured by running a deep furrow early in the spring between the old rows of cotton stalks, which are beaten down into it by women and children, who follow the ploughman; or well-rotted cotton seed is added as manure, and well covered up by forming a slight ridge over it. When the ground is quite prepared, a one-hole drill makes a slight furrow, from 1½ to 2 inches deep, along the centre of the ridge. The sower follows, and drops in the seeds pretty thickly. These are immediately covered by a light harrow, which also smooths the ridge. Sometimes five or six seeds are dropped into holes, which are made at intervals of about 15 inches on the top of the ridge. In favourable weather the plants make their appearance in five or six days, and are thinned out as soon as they put forth the third or fourth leaf. This operation is performed by scraping out with the hoe all the superfluous plants and weeds, leaving three or four together, with spaces of 12 or 14 inches between them. When the plants are sufficiently established, they are reduced to a single one, and care is taken to remove every particle of grass or weed. A light furrow is then run with a one-horse plough within 5 or 6 inches of the plants, turning the earth inwards towards the roots, and even drawing it around them with the hoe, in order to supply the place of that previously removed by scraping. Hoeing and ploughing are frequently repeated, so as to keep the ground free from weeds; and this is considered essential towards obtaining a good crop. The above processes, besides loosening the soil and keeping it clean, must assist in drying it, at the same time that they prevent much lateral extension of the roots. Lopping or pinching off an inch or two of the top of the plant is not always necessary, but is useful when there is a tendency to the production of wood and leaves, to the detriment of flowers and buds.

In S. India the land should be well ploughed two or three times, and the deeper the better. All the weeds should be collected into heaps on the ploughed land and burnt, as the ashes make the best manure for cotton, and burning the soil improves its quality. Salt and lime are also good additions to a soil, as cotton requires chiefly alkali and silicates for its nourishment. Animal
and vegetable manures are injurious, as they breed insects, which destroy the roots, leaves, and young pods of the cotton. After the land has been well and deeply ploughed, it should be left for three or four days to get well aired; it may again be ploughed into long ridges from five to five feet apart. The seed is to be planted on the tops of these ridges carefully, at the depth of an inch or two, and at the distance of five feet between successive seeds for Cotton, Nadum, or religious cotton; six to seven feet apart for Bourbon, New Orleans, or Havanna; ten feet apart for Sea Island, Peruvian, Egyptian, or Queensland; and fifteen feet apart for Brazil or Pernambuco cotton. Cotton seed may be sown in any month of the year, but if there is no rain, it requires to be watered about three times; it germinates about the fifth day. If sown during the monsoon, the ridges must be eight inches high, and the water must be led away from the young plants, or they rot; the seed must be sown on the top of the ridges. If the leaves begin to get pale or to shrivel up, the remedy is to dig trenches between the plants so as to let air in about the roots, but must not injure them. The uncultivated cotton plant lives for three or four years; but it becomes dwarfed, and produces smaller leaves and smaller pods each year till it dies. In clay or cotton soils the plants do not attain nearly the size, nor do they produce such fine leaves or pods as in the other loose soils. The cotton plants require sun, air, and moisture, but not so much of the last as of sun, light, and air at the roots; the lighter and looser the soil, the more healthy is the plant. The best soil for cotton is a sandy soil with iron and salt; or, if far from the sea, ashes of plants or of firewood may be used as a substitute for salt. When the cotton plants have attained the height of a foot, they do not require to be much watered; once in ten days will be sufficient. Opopum or common cotton cotton varies from one to six feet in height, and covers from two to five feet of ground; on cotton soils it seldom grows to more than two feet in height. The Pernambuco and Brazil cottons attain a height of thirty feet on favourable loose soils, and the stem grows to ten inches in diameter. They yield crops for twelve or fourteen years, but hardly any produce the first year. They bend over in the second year, and do not afterwards stand higher than eight or nine feet.

Irrigation, in Assam, is generally unnecessary, though it may be found partialy beneficial in dry and sandy soils, if judiciously applied. Irrigation is not resorted to in the Benares, Allahabad, and Jubbulpur divisions, and the feeling is against its employment. In the N.W. Provinces the cotton crop is invariably irrigated, where a want of rain is likely to prove detrimental to the plant, and the process is not supposed to be in any way injurious to the fibre.

In most parts of the Madras Presidency artificial irrigation is not carried on; this remark applies more particularly to Coimbatore, Madura, South Arcot, Bellary, Western Mysore, and Nellore. In Vizagapatam, on the other hand, the opinion is that irrigation would prove beneficial rather than injurious in seasons when rains fail or vary in their supplies.

Artificial irrigation is almost unknown in the Bombay Presidency, Berar, and British Burma.

In some parts of the Panjab, cotton is irrigated from wells, and well water is considered better for the purpose than river or canal water. In other parts, more especially in the Jullundur Doab, the best cotton is produced upon unirrigated lands, irrigation being very sparingly resorted to in tracts where water is abundant.

Artificial irrigation to cotton is rather the exception than the rule in most parts of India; it is not considered serviceable to exotic than to indigenous kinds; and in heavy black soil cotton will seldom flourish under irrigation, even of the most careful kind, while in sandy and light red sorts it might be much benefited.

Maure.—Salt marsh mud is used for manure in various parts of the cotton-growing districts of the United States, more especially in Edisto island, one of the largest of the South Carolina group, about 30 miles S.W. of Charleston, which yields the finest cotton in the world. As much as 40 cartloads of this mud is used to the acre. Some compost it, others put it in the cattle pens. Some dry it before hauling, and then spread upon the land; while others prefer to use it as soon as dug, spread upon the land wet, and ploughed in. It is supposed that the Sea Island qualities owe their superiority to the use of marsh mud, which is rich in alkalies and alkaline earths.

In the Panjab, the localities best suited for the growth of cotton are the two plains of districts of Ambala, Hoshiarpur, Gujerat, and Peshawur. The time of sowing varies from February in the south, to the middle of June in some of the northern districts. The flowering commences according to locality, between August and December; the picking following about a month after the flowering, and continues at intervals for two months.

There the average produce per acre, after the cotton is cleaned from its seed, is a little over one maund (or 80 lbs.), the rate varying from three maunds (240 lbs.) of raw cotton in the Hoshiarpur, to 16 seers (32 lbs.) of cleaned cotton in the Kangra district.

The Nurna-bau cotton is cultivated in small quantities all over Hindustan, and its produce is in great request for the manufacture of the best kind of Brahmanical thread. It is a bushy plant, grows to the height of about seven feet, and lasts about six years. It is cultivated all over Orissah, usually as a mixed crop, in light soils, with arhar (Cajanus Indica), or with kodo (Paspalum scrobiculatum), and often with maize. It is sown in the month of June. It is sown broadcast with the above, and nothing is done to it, till it begins to ripen the pods. The cotton is picked out of the shell, which is left on the tree. The proportion of staple produced is very small. It is generally on high lands, on which the rain water does not lie.

Agra, Rohilkhand, Meerut, and Allahabad are the great cotton-producing districts of the N.W. Provinces, and their average yield per acre is moderate. In Aligur the sowing is in June and July, and gathering from October to end of December.

In Gorakhpur and the neighbouring districts, the indigenous sorts are called Kuki, Murwa, and Desi. The Kuki kind is sown in February, in calcareous soils, when the ground has been but slightly prepared; it is picked in September and October. It is an annual, and the same ground is never used in two consecutive seasons.

Murwa cotton, if carefully tended, is triennial,
COTTON.

or even quinquennial; it is generally grown both in silicious (bangur) or calcareous (bhat) soils, as a border round sugar-cane or vegetable plots.

The Desi or indigenous variety is common to all Gorakhpur and its neighbouring districts. It is sown in June, in ground but little prepared for its reception, and does not yield till the following April. It is an annual; bears poda for six weeks only, and is then cut down.

In Bundelkhand cotton grows to great perfection, and its produce is of a softer texture and of a whiter colour than that of the Doab.

The mor or maura black soil of the first quality is the most productive, yielding on the average 286 lbs. per acre.

The parea soil of Bundelkhand is reddish, a mixture of sand and clay, and yields 191 lbs. per acre, 2-7ths being the proportion of cleaned cotton.

Bunkar is a light-coloured, sandy, gravelly soil, which yields 143 lbs. per acre, 1-5th of the produce being cleaned cotton.

In Bundelkhand cotton is sown as a mixed crop, at the beginning of the rains, and if the season is favourable, picking begins in the middle of September in the poorer soils, but not till the middle or end of October in the rich ones. Two ploughings and three weodings are necessary. The seed is rubbed in moist cow-dung, to serve as manure, and is sown broadcast. The cost of cultivation per acre is Rs. 9. After the removal of the fibre, the seed (binouna) finds a ready sale in E. Oudh at 50 or 60 seers the rupee.

Jaloun, Jhansi, and Bundelkhand lie to the westward of the Jumna, and have always been famed among the natives for their cotton.

Central India cotton has always been esteemed. The soil in many places is the black cotton soil. In some parts of Nagpur the field is tilled and manured with ashes and cow-dung before sowing. In pargana Boondoo, besides the common Kappas, there are two other sorts of cotton, called Turee and Guteh. The former is sown in October, and picked in April and May, the field being tilled ten or twelve times before sowing. The latter is sown in July; cotton is picked two or three times in April; the trees last from three to four years, producing cotton every year, and they are 2½ yards high. This is grown by the poorest class in their own premises. The time of picking, speaking generally, is the whole of November and December, excepting in pargana Boondoo, where, as already stated above, the Turee and Guteh or Gujar are picked in the months of April and May.

In Berar, the Chundeleer, a very fine cotton fabric of India, so costly as to be used only in native courts, was made from Ammoti cotton. The chief cast bestowed was on the preparation of the June, which, when of very fine quality, sold for its weight in silver. The weavers worked in a dark under-ground room, the walls of which are kept purposely damp, to prevent dust from flying about.

Mr. Terry has stated that the Ammoti cotton, if well prepared, is equal to any American cotton for the great bulk of the manufactures of England.

Hinginghat cotton is not exclusively produced in the neighbourhood of the town, but is grown elsewhere, attracted to Hinginghat by the ready market there found; thus some of inferior quality goes into the market at Hinginghat. The best foreign cotton is that brought from Edalabad in the Hyderabad territory, where the growth of the Pain Ganga valley is collected. This cotton is reckoned quite as good as the Hinginghat staple, and is eagerly sought after.

The Bombay Presidency's best cotton districts are the Southern Mahratta country, about 16° N., where experimental farms were established. In Gujerat and Kattyayardistricts, superior cotton has long been grown by the natives; in consequence of which, these were selected as the sites of the northern experimental farms, much favourable land for the purpose being found between the latitudes of 21° and 24° N. The causes which favour the growth of cotton, esteemed both in India and England, in the tract of country extending from Surat and Ahmedabad, or from about lat. 21° and 23°, in a broad band across Malwa to Banda and Rajakhaira, in about 25° and 27°, near the banks of the Jumna, are no doubt physical. The black cotton soil which is spread over a great portion of this tract, has undoubtedly a considerable share in producing the result; but good crops of cotton are produced in some parts where there is no black soil, as immediately on the banks of the Jumna and in the Doab.

In the Kanadeh model farm in 1875-76, the average yield was 50 lbs. of clean cotton per acre of the Hinginghat variety, the maximum being 150 lbs. per acre. The average in the Nagpur model farm was 50-6 lbs. per acre. On unmanured land only 28 lbs. per acre. On Syedapet farm, the western variety yielded 353 lbs. per acre, and in the Sind Hyderaband collectorate the yield was 316-94 lbs. per acre of uncleaned cotton.

Cotton, wheat, and bajra (Penicillaria aphaca) all ripen in Gujerat at the same period of the year, about the end of February, and the cotton-picking continues to the middle of April. The first picking of cotton affords the best kind, the second is the most abundant, and the third is greatly inferior to the other two, both in quantity and in quality.

In Cuttack and Orissa there are two highland or upland varieties, the one called the Daloona, because the plants throw out numerous branches. The second kind of upland is called yellow, from the colour of the flowers; the flower of the Daloona being white. A third variety may be called the lowland, and is known locally as the Kela. The upland varieties are grown more or less all over the Gutjuto or Hill States, wherever a virgin forest soil exists. They are grown generally in the Sambulpore district and its dependencies, throughout the Tributary States, and in Dhenkanal and Khoordah. A virgin forest soil is the only requisite for the successful cultivation of these varieties. The jungle is cut down, all the brushwood cleared, heaped and burnt on the spot, the stems and roots of the larger trees being left in the ground, which then receives a superficial ploughing. These clearings are called tala, and the cotton grown in them Tela cotton. These preparatory processes are attended to in Sambulpore, Khoordah, and Dhenkanal, just before and during the first falls of rain, in the latter half of May and the first half of June, so that the plants
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shoot and grow and arrive at maturity through the rainy months. Dwarf paddy, sooa, Panicum italicum, Eleusine coracana, bajar, or castor-oil, are sown with the cotton seed broadcast. The edible-seed-crops in the third or fourth month are gathered as they ripen, then the ground is weeded and turned about. In January and February the cotton plants yield the first picking, and a month after the castor-oil seed ripens, and its plants are plucked and removed. Dalooona cotton plants last for two or three years, and yield three pickings annually, and reach a height of 9 to 12 feet. With the yellow upland, it is not so generally the practice of sowing other crops.

The cultivation of the Keda or lowland variety of cotton is confined almost to the settled and open districts of Cuttack, Puri, and Balasore; a little is raised in Dhenkanal and Khordah. The best soil selected for this variety is dune, or double crop. It is generally a light sandy soil, handy for irrigation purposes. The seed used in the district for lowland cotton is procured from Khordah and Dhenkanal, it being alleged that none other will germinate in the lowland districts. It is placed in a pot, and soaked in dung and water for a night, and then dried by exposure to the sun on the following day. It is afterwards laid on straw, contained in an earthen vessel covered over with castor-oil leaves and placed near a fire. So soon as the seed splits and shoots it is planted, and watered at intervals of two, three, and four days. November and December are the usual months for the planting. The plants are annual, and attain a height of 4 to 6 feet. The cold weather showers falling occasionally in December, January, and February, favour the plants, and when plentiful, constitute a good season. The pickings are obtained continuously in April, May, and June. In the latter month all the bolls are picked off the plants, and after exposure to the sun, open. After the month of June, the lowland cotton plants are plucked up, and they are cleared for a paddy crop.

Madras Presidency.—Dr. Anderson was employed in sending Mauritius cotton seeds, as well as brown cotton seeds, imported from Malta, to different parts of the Peninsula; and Dr. Roxburgh, who left Samulcotta in the Northern Circars, and took charge of the Calcutta Botanic Garden in 1793, had already ascertained that the elevated, dry, and less fertile soil of Coromandel was better suited than that of Bengal to the Bourbon cotton. He obtained its seeds from Mr. Hughes, who had for some time been engaged in the culture of cotton in the Tinnevelly district, and whose success was so considerable with Bourbon cotton, that for twenty years Hughes Tinnevelly cotton continued to be quoted in the Liverpool market as the best from India, and sold at higher prices than the American short-staple cottons, and 9d. per pound above the best Suratis. The fact is important, as accounts of the latter of Tinnevelly being only 84°, and because the success was evidently the result of skill applied to the culture. The produce, only 100 lbs. per acre, was fine in quality and much esteemed. The cottons of the Madras Presidency are more largely grown in the valley of the Kistna, and in the Bellary, Kurnool, Tinnevelly, and Coimbatore districts.

At Coimbatore, the Oopum or best indigenous cotton is raised in rotation of two years, with cumboo, Panicum spicatum, Pennicillaria spicata, and cholom or Sorgum vulgare. The Oopum cotton is raised on black soil.

In Bellary, cotton is grown in drills along with cholom or millet; with the former, the drills are about six feet apart, and have from four to six rows of sorgum between each one of cotton; with the latter, the drills of cotton are only three feet apart, and have two rows of millet between them. When the crop of the millet is cut down, a very singular and sudden change occurs; one day nothing is seen but yellow grain, which on the next disappears, and a thick crop of green cotton plants, about half a yard high, remains. None of the fields are enclosed, but they are generally protected at the sides of the road by rows of the prickly Jamaica yellow thistle, Argemone Mexicana.

In Vizagapatam, about lat. 17° N., very liberal pruning is practised, and the return is much greater than in any other of the Madras districts. In the sandy soil near the sea, the Oopum cotton yields the more largely.

In Mysore, large belts of land in the northern and central taluks are deemed excellent for cotton culture.

For a series of years up to 1850, Dr. Wight, an eminent botanist, was employed in experimental cotton-growing in the collectarates of Tanjore, Coimbatore, and Tinnevelly, and he formed the opinion that the less yield of the cottons ripening there in January, was owing to the insufficient warmth of that season of the year.

In Ceylon, cotton is grown very generally both by the Singhalese and Tamil races, but upon no regular plan nor to any extent.

Bengal Presidency.—The indigenous cotton of Dacca has long been celebrated for its superior quality. It is cultivated along the banks of the Megna from Feringhybazar to Edilpore in Bakarganj, a distance of about forty miles, on the banks of the Brahmauttra creek (the ancient channel of the river of the same name), and along the Luckia and Banar. It presents different shades of quality, the finest of which is named Photee, and is the material of which the delicate muslins are made. It was described by Roxburgh as differing from the common herbaceous cotton plant of Bengal in several particulars, chiefly in having a longer, finer, and softer fibre. It has, however, often been doubted whether the superiority of the Dacca manufacture was dependent on the skill of the workmen or the goodness of the cotton; but, from Mr. Lamb's account, it appears to have been carefully cultivated. Probably both had some influence; and it is certain that the workmen prefer the Dacca cotton, because, as Mr. Webb long ago explained, its thread does not swell in bleaching, in the case with the cotton grown in North-western and Central India.

In Burdwan the Websbee or native cotton plant is sown in the month Ashar. The soil is ploughed four or five times, the seed is kept in water for three or four days, is taken out on the day before it has to be sown, and is then mixed with ashes and cow-dung, and in this state is scattered over the ground, which is then again ploughed. Some cultivators, however, put four or five seeds in
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small holes at the interval of about 1½ cubits. In
the month of Magh (January—February), when
the plants become ½ cubit high, they are watered.
The picking of the Wescooe cotton is commenced
in the month of Cheyt, corresponding with April,
and finished in June and July (Joyte). Nurna
cotton is cultivated in the month of Ashar, cor-
responding with June. The roots of the plants
are well covered with earth. No irrigation is
required, as nurna cotton is a rainy season plant.
Its cotton is picked in November and December.

The Garo, Tiperah, and Chittagong hills pro-
duce a large quantity of inferior cotton, called
Bhogia. It is used in the manufacture of the
inferior kinds of humnum, bafta, boonoo, saree,
jore, etc., also for making ropes and tapes, and
the coarsest of all fabrics, viz. garha and guzzeh,
which are commonly used for packing other
cloths, and for covering dead bodies, for which
purpose a large quantity of them is consumed
annually both by Hindus and Mahomedans.
A piece of guzzeh cloth, measuring 10 yards, could
be purchased for 12 annas (eighteenpence), which
is the one hundred and twenty-fifth part of the
price paid for a piece of mulmul-i-khas of the
same dimensions.

In Tirhut the cottons produced are of the kinds
called Bhodra, Bhogla, and Kooktee; the two
former ripen in April and May, the Kooktee ripens
in September. The fabric manufactured from
Kooktee cotton is not white, but of a stained white
colour, white cotton being produced only from the
Bhodra and Bhogla kinds.

The finest of the cottons cultivated in Bengal
is called Cheh-hwa. It is sown in April and
May, produces white cotton, and ripens between
the middle and end of July. The cotton, when
ripe, is gathered, and is bleached and bleached
with a liquor of white earth. The bleaching
process continues eleven days, and during this
time the cotton is subjected to the rays of the
sun. It is then dried, and is ready for market.

In Burmah, the cotton grown is Gossypium
herbaceum, and it reaches a very fair staple. The
soil on which it thrives best is the alluvial deposit
left by the numerous mountain streams and
rivulets on their subsidence at the close of the
south-west monsoon. It also grows very well on
recent forest clearings, where, often, soils contain-
ing a considerable portion of peaty matter and
lignite are met with, and appear very suitable for
the good of the plant. It appears to thrive also
in a limestone soil, which abounds in these pro-
vinces.

Cotton grows all over China. The Nankin
variety is called Tsz-hwa. The Kiang-hwa plant
grows in Central China. The cotton plant of
Shan-tung and Peh-chi-li is called Peh-hwa, and
Cheh-hwa is that of Che-hiang. China has ever
been a largely importing country. The cotton-growing
area in that country is, however,
very large. The yellow cotton from which the
beautiful Nankin cloth is manufactured, is called
Tze-mie-wha by the Chinese. Although the
yellow variety has a more stunted habit than the
other, it has no characters which constitute a
distinct species. It is merely an accidental variety;
and although its seeds may generally produce the
same kind, they doubtless frequently yield the
white variety, and vice versa. Hence specimens
of the yellow cotton are frequently found growing
amongst the white in the immediate vicinity of
Shang-hai; and again, a few miles northward, in
fields near the city of Poo-shan, on the banks of the
Yang-tze-kiang, where the yellow cotton
abounds. Mr. Fortune often gathered specimens
of the white variety. Nankin cotton is chiefly
cultivated in the level ground around Shang-hai,
where it forms the staple summer production of
the country. This district, which is part of the
great plain of the Yang-tze-kiang, although flat,
is yet several feet above the level of the water in the
rivers and canals, and is consequently much better
fitted for cotton cultivation than the plain of
Ningpo, where the ground is either wet and
marshy, or liable at times to be completely over-
flowed. The soil is a strong rich loam, capable of
yielding immense crops year after year, although
it receives but a small portion of manure. The
manure applied to the cotton lands of the Chinese
is obtained from the canals, ponds, and ditches,
which intersect the country in every direction,
and consists of mud which has been formed partly
by the decay of long grass, reeds, and succulent
water plants, and partly by the surface soil which
has been washed off the mountains by the heavy
rains. In the end of April and beginning of May, the
land having been prepared in the manner just described, the cotton seeds are
carried in baskets to the fields, and the sowing
commences. They are generally sown broadcast,
and then the labourers go over the whole surface
with their feet and tread them carefully in. The
cotton plant produces its flowers in succession
from August to the end of October; but sometimes,
when the autumn is mild, blooms are produced
even up to November. As the pods are bursting
every day, it is necessary to have them gathered
with great regularity. When perfectly dry, the
process of separating it from the seeds commences.
This is done by the well-known wheel with two
rollers, which when turned round draws in the
cotton, and rejects the seeds. It is a simple and
beautiful contrivance, and answers well the end
for which it is designed.—Reports of East Indian
Company on Cotton, p. 350; Agri-Horticultural
Societies of India and of Madras; C. B. Saunders,
Esq., Commr. of Mysore; Dr. Cleghorn, in Rep.
Brl. Association; Bonygue, America; Proceedings,
Madras Govt.; Friend of India; Cal. Review;
Indian Field; Royle, Flb. Plants; Royle, Produc-
tive Resources of India; Annals, Ind. Admini-
strations; Madras Chamber of Commerce; Dublin
University Magazine; Elliot, Supplement; Cotton
Mackay's Commerce Reports, 1863; Walter R.
Cussell's Cotton, 1862; J. G. Medlicott, Cotton
Handbook, 1862; J. T. Wheeler's Cotton Hand-
book; Dr. Short's Letters; Love's Sarawak; Mark-
ham, Peruvian Bark; Central Committee, Lahore;
Carragy; T. B. Lane, Esq., Collector, Tirhut.
Smith.
COTTON BALES.

COTTON BALES weigh—

In America, 440 lbs.
In China, 240 lbs.
In Brazil, 180 lbs.
In Bengal, 300 lbs.
In Egypt, 280 lbs.
In Madras, 300 lbs.
In Bombay, 284 lbs.

COTTON GATHERER.

Binaian, Pinjara, Hindo, Phyrana of Bunderkhand, Phyrana of Beemun, Phyrana of Dera, Pooree of Delhi.

In India generally these receive one-tenth of the gross produce as well as a share, sometimes equal to a fourth, of the ordained compensation.

COTTON - GRASS, Eriophorum cannnabinum. Its seeds are clothed at their base with a silky or cotton-like substance, with which pillows are stuffed, and wicks of candles, as well as paper, made. Its name is bhabhur and bhabhuree, and it is made into ropes by the Hindus. An old writer says, 'The wind-trees of that country bear fleeces as their fruit, surpassing those of sheep in beauty and excellence; and the Indians use cloth made from those trees.'—Birdwood.

COTTON MANUFACTURES. Amongst the goods which appear to have been brought to Europe from the Indian sea, in the days when Arab traders were the only medium of intercourse between the eastern and western worlds, we find mentioned cloths of silk and cotton of various colours and devices. It does not appear, however, that there existed in Europe any great demand for cotton,—the consumption of the Roman people, who were then the customers for all luxuries, being chiefly confined to cloths of silk and wool. During the trade of Europeans with India by the long sea route, the calicis and fine muslins of that country came into general notice; and until the production of machine-made fabrics in Britain, they continued to rise in public estimation. It was deemed a great thing with the Lancashire manufacturers, when, by the aid of mechanical and artistic skill, combined with the potent agency of steam, they found themselves able to produce an article which was considered equal to that which the unlettered Hindoo had manipulated in his little mud hut on the remote banks of the Ganges, and which had been produced of like excellence by their ancestors, when the 'father of history' penned his observations upon their countries. That the Hindoo paid considerable attention to the details of this manufacture in the most remote ages, there remains sufficient proof on record. In the Indian work of highest antiquity, the Rig Veda, believed to have been written fifteen centuries previous to the Christian era, the occurs the following passage: 'Cares consume me, Satakrah! although thy worshipper, as a rat gnaws a weaver's threads,—the temptation to the rat being evidently the starch employed by the spinner to impart tenacity to the thread; nor can there be any doubt that cotton was the thread alluded to. Again, in the Institutes of Menu, we find it directed as follows: 'Let the weaver who has received ten palas of cotton thread, give them back increased to eleven by the rice-water (starch) and the like used in weaving; he who does otherwise shall pay a fine of twelve palas.' In recent times the cotton fabrics of India formed a considerable item in the exports from the East, during the early days of British Indian commerce; the delicacy of their fabric, the elegance of their design, and the brilliancy of their colours, rendered them as attractive to the better classes of consumers in Great Britain, as are, in the present day, the shawls of Kashmir or the silks of Lyons. So much superior, indeed, were the productions of the Indian spinning-wheel and handloom, to those turned out by the manufacturers of Lancashire in the middle of the 18th century, that not only were Indian calicoes and Indian prints preferred to the British-made articles, but the Manchester and Blackburn weavers actually imported Indian yarns in large quantities for employment in their factories. It was about the year 1771-72 that the Blackweavers, taking advantage of the discoveries and improvements of Arkwright, Hargreaves, and others, found themselves in a position to produce plain cotton goods, which, if they did not quite equal the fabrics of the East, at any rate found their way very rapidly into general consumption in Europe. The invention of the mule jenny in 1779 was the commencement of a new era in the history of the cotton manufacture of Great Britain; and when, six years later, Arkwright's machines were thrown open to the public, a revolution was effected in the production of all kinds of yarns. Great Britain found herself able not only to supply all her own wants with cotton goods of every variety of quality, but also to carry the produce of her looms 10,000 miles across the sea, and, placing them at the doors of the Indian consumer, undersell some kinds of the goods made by his own hands from cotton grown in his own garden. No other country in the world was so early in the market as India, and the West are able to beat out of their own markets the weaver of the East. There have been masters in their craft who produced fabrics more exquisitely delicate and light in texture than those beautiful muslins of Dacca, so long and justly celebrated with a world-wide fame. Although in some particulars these latter fabrics claim a certain degree of superiority, many of the Hindus prefer much of their own woven goods to those of Manchester and Glasgow; and the cotton manufactures of British India have been steadily advancing in the out-turn of twist and yarn and piece-goods. It is generally believed that Manchester will fail to contend with the Indian mills in respect to the precise class of goods they are in the habit of turning out. The cotton mills of Bombay have made, since the date of their first starting in 1854, very rapid progress.

In the 25 years between 1857-58 and 1881-82, the value of all the cotton goods imported into British India from foreign countries rose from £5,726,618 to £20,772,998. Since 1868-69 the values of the twist and yarn and of the piece-goods have but little increased. In 1881-82 the twist and yarn was of value £32,220,648. British India has been latterly holding its own. The exports have consisted of cotton goods, including twist and yarn, and have risen from £637,651 in 1850-51, to £1,906,686 in 1881-82.

The yearly increasing exports from Europe milled exporters, for Europe had seldom been able to compete either with the delicate hand-made fibres which the Hindus and Mahomedans have been producing, or with the strong, coarse fabrics which the village weavers produce during the slack time of their agricultural pursuits. In the middle of the 19th century, British India also began to use machinery. In 1880 there were 58 cotton mills at work in British India, with 1,471,730
spindles, mules, and throstles, and 13,283 looms, turning out twist and yarn and cotton cloths, with a nominal capital of four millions sterling.

With their rude implements the Hindus of Dacca formerly manufactured muslins, 'to which,' as Dr. Ure observed, 'European ingenuity can afford no parallel,'—such, indeed, as has led a competent judge to say it is beyond his conception how this yarn, greatly finer than the highest number made in England, can be spun by the distaff and spindle or woven by any machinery' (Ure's Cotton Manufacture of Great Britain, i, p. 54). The jawbone of the codfish (Silurus bosilis), the teeth of which being fine, re-curved, and closely set, serves as a fine comb in removing minute particles of earthy and vegetable matter from the cotton. The Hindoo spinner, with that inexhaustible patience which characterizes the race, sits down to the laborious task of cleaning with this instrument the fibres of each seed of cotton. Having accomplished this, she then separates the wool from the seeds by means of a small iron roller (dullun kathee), which is worked with the hands backward and forward, on a small quantity of the cotton seeds placed upon a flat board. The cotton is next bowed or teased with a small bow of bamboo, strung with a double row of catgut, muga silk, or the fibres of the plantain tree twisted together; and, having been reduced by this instrument to a state of light downy fleece, it is made up into a small cylindrical roll (pun), which is held in the hand during the process of spinning. The spinning apparatus is contained in a small basket or tray, not unlike the cathetometer of the ancient Greeks. It consists of a delicate iron spindle (tukooa), having a small ball of clay attached to it, in order to give it sufficient weight in turning; and of a piece of hard shell imbedded in a little clay, on which the point of the spindle revolves during the process of spinning. With this instrument the Hindoo women almost rival Aramelie's fabled skill in spinning: The thread which they make with it is exquisite fine; and doubtless it is to their delicate organization and the sensibility with which they are endowed by nature, that their inimitable skill in their art is to be ascribed. The finest thread is spun early in the morning, before the rising sun dissipates the dew on the grass, for such is the tenacity of its fibre, that it would break if an attempt were made to manufacture it during a drier and warmer portion of the day. The cohesive property of the filaments of cotton is impaired by high temperature accompanied with dryness of the air; and, hence, when there is no dew on the ground in the morning to indicate the presence of moisture in the atmosphere, the spinners impart the requisite degree of humidity to the cotton, by making the thread over a shallow vessel of water. A specimen which Dr. Taylor examined at Dacca in 1816 measured 1549 yards, and weighed only 22 grains, which is in the proportion of upwards of 250 miles to a pound weight of staple. During the process of preparing the thread, and before it is waxed, it is steeped for a couple of days in fine charcoal powder, soot, or lampblack, mixed with water, and, after being well rinsed in clear water, wrung out, and dried in the shade, it is rubbed with a sizing made of parched rice (the husk of which has been removed by heated sand), fine lime, and water. The loom is light and portable; its cloth and yarn beans, batten, temple, and shuttle are the appurtenances requisite for weaving.

Dacca was the seat of a manufacture of muslins known by its name, and spoken of by the ancients as 'woven webs of air.' The principal varieties of plain muslins manufactured at Dacca were Mulmuli-i-Khas, Ab-rawan, Siab-nam, Khas, Jhuna, Sircar Ali, Tazeb, Alabulbee, Nyan-rook, Raddan Khas, Turandam, Sarbinte, and Sarband, all names which, either denote fineness, beauty, or transparency of texture, or refer to the origin of the manufacture of the fabrics, or the uses to which they are applied as articles of dress. The finest of all was the Mulmuli-i-Khas (literally, muslin made for the special use of a prince or great personage). It was woven in half-pieces, measuring 10 yards in length and 1 yard in breadth, having 1900 threads in the warp, and weighing 10 seccas (about 3½ ounces avoirdupois). The finest half-piece was weighed 9 seccas, priced 100 rupees. Some of the other muslins were also beautiful productions of the loom, as Ab-rawan, compared by the natives from its clear pellucid texture to running water. Shab-nam, so named from its resemblance, when it is wetted and spread upon the bleaching field, to the evening dew on the grass, impregna, a light transparent net-like fabric, made for natives of rank and wealth, worn by the inmates of zenanas and dancars, and apparently the cloth referred to in the classics under the figurative names of Tela aremarum, Ventus textilis. All these muslins were made in full pieces of 20 yards in length by 1 yard in breadth, but varying considerably in the number of threads in the warp, and consequently in their weight. Of figured fabrics, as striped Dooria, chequered Charkhanee, and flowered Jandance, there exists a considerable variety, both in regard to quality and pattern. The flowered muslin was formerly in great demand both in India and Europe, and was the most expensive manufacture of the Dacca Urung. There was a monopoly of the finer fabrics for the court of Delhi; those made for the emperor Aurangzeb cost 250 rupees per piece. This muslin is now seldom manufactured of a quality higher than 9 or 10 seccas per piece.

For the masses of the people the British manufacturer sends to India the plain and striped Dooria, Mulmuli, Aghabani, and other figured fabrics, which have established themselves there, and which, both from their good quality and moderate prices, are acceptable to the numerous classes who make use of them. Some of the chintzes of Musulipatam and of the south of India are as beautiful in design as they are chaste and elegant in colour.

Printed cloths are worn occasionally, as in Berar and Bundelkhund, for saris; and the ends and borders have peculiar local patterns. There is also a class of prints on coarse cloth, used for the skirts or petticoats of women of some of the poorer classes in Upper India; but the greatest need of printed cloths is for the kind of bedcover called palampore (palangpash), or single quilts.

In the costlier cloths woven in India, the borders and ends are entirely of gold thread and silk, the former predominating. Many of the saree or women's cloths, made at Berun, Pytam, and Burhanpur, in Gujerat, at Naraingpat and Dhanvarum in the Hyderabad territory, at Yeokla in
COTTON MANUFACTURES.

Khandesh, and in other localities, have gold thread in broad and narrow stripes alternating with silk or muslin. Gold flowers, checks, or zigzag patterns are used, the colours of the grounds being green, black, violet, crimson, purple, and grey; and in silk, black shot with crimson or yellow, crimson with green, blue, or white, yellow with deep crimson and blue, all producing rich, harmonious, and even gorgeous effects, but without the least appearance of or approach to glaring colour, or offence to the most critical taste. They use colours and effects which suit the dark or fair complexions of the people of the country; for an Indian lady who can afford to be choice in the selection of her wardrobe, is as particular as to what will suit her especial colour—dark or comparatively fair—as any lady of England or France. Another exquisitely beautiful article of Indian costume for men and women is the do-patta or scarf, worn more frequently by Mahomedan women than Hindu, and by the latter only when they have adopted the Mahomedan lunga or petticoat; but invariably by men in dress costume. By women this is generally passed once round the waist over the petticoat or trousers, thence across the bosom and over the left shoulder and head; by men, across the chest only.

The do-pattas, especially those of Benares, are perhaps the most exquisitely beautiful of all the ornamental fabrics of India; and it is quite impossible to describe the effects of gold and silver thread, of the most delicate and dainty descriptions, imagined in brocaded, rich borders, and profusion of gold and silver flowers, or the elegance and intricacy of most of the arabesque patterns of the ribbon borders or broad stripes. How such articles are woven at all, and how they are woven with their exquisite finish and strength, fine as their quality is, in the rude handlooms of the country, it is hard to understand. All these fabrics are of the most delicate and delightful colour—the creamy white, and shades of pink, yellow, green, mauve, violet, and blue, are clear yet subdued, and always accord with the thread used, and the style of ornamentation, whether in gold or silver, or both combined. Many are of more decided colours—black, scarlet, and crimson, chocolate, dark green, and madder; but whatever the colour may be, the ornamentation is chastest and suitable. For the most part, the fabrics of Benares are not intended for ordinary wearing; but the dyers and scouers of India have a process by which the form of flower can be discharged from the fabric, and it can then be re-dyed. The gold or silver work is also carefully pressed and ironed, and the piece is restoried, if not to its original beauty, at least to a very wearable condition. The do-pattas of Pytun, and indeed most others except Benares, are of a stronger fabric. Many of them are woven in fast colours, and the gold thread—silver is rarely used in them—is more substantial than that of Benares. On this account they are preferred in Central India and the Dekhan,—not only because they are ordinarily more durable, but because they bear washing or cleaning better. In point of delicate beauty, however, if not of richness, they are not comparable with the fabrics of Benares.

Scarfs are in use by every one.—plain muslins, or muslins with figured fields and borders without colour, plain fields of muslin with narrow edging of coloured silk or cotton (avoiding gold thread), and narrow ends. Such articles, called selha in India, are in everyday use among millions of Hindus and Mahomedans, men and women. They are always open-textured muslins, and the quality ranges from very ordinary yarn to that of the finest Dacca fibres. Comparatively few native women of any class or degree wear white; if they do wear it, the dress has broad borders and ends. But what all classes wear are coloured cloths,—black, red, blue, occasionally orange and green, violet, and grey. All through Western, Central, and Southern India, sarces are striped and dotted in an infinite variety of patterns. Nannaimp, Dhanwar, and Mukul, in the Nizam's territories; Guldak and Bettigerry in Dharwar; Kolhapur, Nasik, Yeoka, and many other manufacturing towns in the Dekhan; Arnee in the south, and elsewhere, send out articles of excellent texture, with bountifully arranged colours and patterns, both in stripes and checks. The costly and superb fabrics of cloths of gold and silver (kimkhab), and the classes of washing satins (mushroo and hemroo), even if European skill could imitate them by the handloom, it would be impossible to obtain the gold and silver thread unless they were imported from India. The native mode of making this thread is known, but the result achieved by the Indian workman is simply the effect of skilful and delicate manipulation. The gold and silver cloths (kimkhab) are used for state dresses and trousers, the latter by men and women; and only of rank usually possesses petticoats or skirts in these gorgeous fabrics. Mushroom and hemroo are not used for tunics, but for men's and women's trousers, and women's skirts; as also for covering bedding and pillows. They are very strong and durable fabrics, wash well, and preserve their colour, however long worn or roughly used; but they can hardly be compared with English satins, which, however, if more delicate in colour and texture, are unfitted for the purposes to which the Indian fabrics are applied. For example, a labada or dressing-gown, made of scarlet mushroom in 1812, has been washed over and over again, and subjected to all kinds of rough usage, yet the satin is still unfrayed, and the colour and gloss as bright as ever. Many of the borders of louchees, dhotees, and sarces are like plain silk ribbons, in some instances corded or ribbed, in others flat.

In Europe, it has been usual to name particular fabrics after the place of their manufacture, and this practice was extended to eastern products, as calico from Calicut, gauze from Gazz, muslin from Musul from Soosi, chintz from the Hindi chinte, spotted. In British India, however, the people name their woven fabrics from the form of their construction, their appearance, or the use to which they are applied. The cotton goods sent from Bombay to the Paris Exhibition of 1855, comprised batia, boonee, carpets, chandni, choli, dastarkhan, dhoti, ek-patta, do-patta, dunagi, khadi, lungee, peshigir, phakta, pagga, quilts, razai, sailcloth, saree, soosi, turban, tablecloth, table napkins, and towels.

Omitting the second-rate kinds of cloth, which constitute the great bulk of the Dacca cotton manufacture, a class worthy of attention is that of fabrics of a mixed texture of cotton and silk. They are designated by various names, as now-butee, kutan, roomee ajpoola, and lucka; and, when embroidered with the needle, as many of

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them frequently are, they are called kusheda. The silk used in their manufacture is the indigenous muga silk of Assam and Sylhet; but the cotton thread employed is now almost entirely English yarn, of qualities varying from Nos. 30 to 80. These cloths are made exclusively for the Jodda and Bussora market; and a considerable stock is yearly exported in the Arab vessels that trade between Calcutta and these ports. Pilgrims, too, from the vicinity of Decca not unfrequently take an investment of them, which they dispose of at the great annual fair held at Meena, near Mecca. They are used by the Arabs chiefly for turbans and gowns. The golden colour of the muga silk gives to some of these a rich lustrous appearance. Pieces made of native-spun cotton thread and of the best kind of muga silk, would be admired in England.

In Ganjam is fabricated a cotton cloth, each side of a different colour. This effect is produced not by dyeing the cloth after it is woven, but by a dexterous manner of throwing the wool across the warp on either side. Madapolam and Ingeram used to be famous for cotton cloths, but since the abolition of the Company's trade, the finer panjangs have not been made. Palampores, as bed coverings, of the former place deserve attention. Very fine muslins are made at Ongola, north of Cocanada, and handsome turbans, with gold thread interwoven; but all these things are far surpassed by the Bengal fabrics. The Chincacole muslins are, however, prized by European ladies. Cotton cloths from Nellore consist of manufactured articles which find a ready sale in the markets of this Presidency.—Madras Exh. Jar. Rep. 1855, 1857; Dr. Taylor of Dacca, Reports of Great Ex. of 1851; Cal. Cot. Ex. of 1862; Juries' Report, Ex. of 1862; Royce, Arts of India; Royce, Prod. Res. of India; Bombay Times.

COTTON SEED is the Binour, Binoula of Hindustan. It is chiefly used in India for feeding cattle, and also sometimes as manure for cotton plants. In the year 1878, 175,000 tons were imported into Great Britain, and sold there at from 7½. 17s. 6d. to 8½. 10s. Cotton seed oil is expressed from cotton seeds. It is used for burning in lamps, and is also considered to have, in a peculiar manner, the virtue, when externally applied, of clearing the skin of spots and freckles. It is a drying oil, and therefore unfit for lubricating. When obtained by pressure, its colour, owing to the presence of a resinous substance, is of a very dark red, and 10 to 15 per cent. is lost in bleaching it. When prepared by steaming the seeds and collecting the oil by skimming it from the surface of the water, it has a bland, light-coloured appearance.—Faulkner.

COTTON, SIK. The silk-cotton trees of India are the Eriodendron afrafruitosum, D.C., and the red cotton tree, Salmalia Malabarica, Schott. The seeds of E. afrafruitosum are embedded in silky cotton. The capsules, on bursting, discharge flocculent down, which is about as much as cotton, and named silk-cotton. It differs also in not spinning like cotton. Mr. Williams of Jubbulpur, however, succeeded in spinning and weaving some of it, so as to form a very good coverlet. It is used for stuffing pillows, muffs, and coverlets; for wadding, or for conversion into half stuff for papermakers. In the Trans. of the Agri-Hortic. Soc. iii. p. 274, there is a report from the Society of Arts on two pieces of cloth made from the simal or silk-cotton tree; but from the shortness of the staple of the down, and its elasticity, it cannot be spun by ordinary cotton-spinning machinery. A silk-cotton surrounds the seeds of Bombax ceiba, L., a South American tree, and is used for stuffing cushions and the like, but not suited to work into cloth fabrics. Another beautiful silk-cotton (West Indian name the Turkey Jackson) —Fig., Pl. COTTON SOIL, or Black Cotton Soil, is the name given to the 'regar.' See Soil.

COTTON THIEF, a name applied in Ceylon to the beautiful long-tailed bird, Tecltagia paradisi, Linn., the sultana bulbul of the Mahomedans of the Peninsula, its long white feathers in the tail streaming like cotton as it flies.

COTURNIX VULGARIS, the common quail of Europe, Asia, Africa, is chiefly migratory, and is abundant in India.

COULAM, in Southern India, is the name given by the Tamil people to the whole island of Ceylon. It is also the name of the towns which Europeans call Covelong near Sadas, on the east coast, and Quillon on the west coast, of the Peninsula.

COUNTRY: a prefix in use amongst the British to indicate a product of India. It is the translation of several vernacular words, used to express an article local and not foreign. The Tamil word Nat'chhas this signification.

Country Almond Tree, Terminalia catappa.
Country Borage, Coleus Ambicolius.
Country Fig Tree, Ficus racemossa.
Country Galls, myrabloan.
Country Gooseberry, Cicca Distichia.
Country Greens, Amaranthus crenarius.
Country Kreat, Exacum Bicos, Chiretra.
Country Mallow, Abutilon Indicum.
Country Rosin, dammer.
Country Sarsaparilla, Helisemus Indicus.
Country Walnut, Alleirus trifolia.

COURMARINE, an aromatic principle found in Mellilotus officinalis, or common melilot, and in the tonquin bean, Dipertix odorata.

COURSE, a term applied by European residents in India to the places of evening promenade, probably obtained from the Corso of southern Europe.—Eliott.

COURT, a general of Ranjit Singh. He had previously been a lieutenant of the old Imperial French Guard.

COURT, M. H., major of the Madras Artillery, wrote an account of Palambar, 1821.

COURTALLUM, a town near Timnevely in the Arangole pass. It is in lat. 8° 56' 20" N., long. 77° 20' E., and is 700 feet above the sea. It has waterfalls considered sacred by the Hindus.

COURTNE, an ancient village 11 miles from Bellary, in which the Jain religion was formerly prominent, supposed to have been suppressed by the Jangams of Tibet.

COUSIK, a tribe of Sambusi Raijputs; their name would, however, seem to imply Brahmanical descent or connection.—Eliott.

COVADE, a custom amongst several ancient and some existing tribes. According to Apollonius Rhodius, this singular custom prevailed among a people called the Tibareni, at the mouth of the Black Sea.

In the Tibetian land,
When some good woman bears her lord a babe,
'Tis he is washed and groaning put to bed;
Whilst she arises, tends his baths, and serves
Nice posses for her husband in the straw.'
COVELLIA GLOMERATA.

Diodorus Siculus mentions that in Corsica the wife was neglected, and the husband put to bed and treated as the patient.

Marco Polo, in the 13th century, seems to have observed the custom in the Chinese province of West Yunnan amongst the aboriginal tribes of the land, the Miao-tze, who practise it to the present day. The father of the new-born child, so soon as the mother can leave her couch, gets into bed, and there receives the congratulations of acquaintances. And Marco Polo mentions that in the Zar-dandan (gold teeth) tribe on the frontiers of Burma, when a woman bore a child, she rose and went about her business, and the husband took to bed for forty days, and was fed on posset.

About the beginning of the Christian era, Strabo (iii. 4, 17) mentions that among the Iberians of the north of Spain, the women after the birth of a child tend their husbands, putting them to bed instead of going themselves. In the same locality, amongst the modern Basques in Biscay, M. Michel found the same custom prevailing a few years ago. The women, he says, rise immediately after childbirth and attend to the duties of the household, while the husband goes to bed, taking the baby with him, and thus receives his neighbours' compliments. This practice seems to have spread to France, and to have there received the name of faire la coward. It has been found in Navarre and on the French side of the Pyrenees.

Amongst the Caribbees of the West Indies, the father is put to bed and fed on meagre diet, and his body punctured and tortured; and the Abipone husband of S. America is treated like a lying-in woman.

The Yerkala or Yerkal-wanu dwell in the Telugu districts of the Madras Presidency. Those in the neighbourhood of the Dungapurian practise the Covendale. Directly the woman feels the birth-pangs, her husband puts on some of her clothes, places on his forehead the mark which women apply to their foreheads, retires to a room where there is only a very dim lamp, and lies down on the bed, covering himself up with a cloth. When the child is born, it is washed and placed on the cot beside the father. Asafetida, jagari, and other articles are then given, not to the mother, but to the father. During the days of ceremonial uncleanness, the man is treated in the manner that on such occasions other Hindus treat their women. He is not allowed to leave his bed, but has everything needful brought to him.—Mr. John Cain in Ind. Anti., May 1874; Apoll. Rhod. Argon, ii. p. 1012, in Quarterly Review, July 1868; Miller's Chaps., ii. pp. 277-284.


COVELLIA OPPOSITIFOLIA. Gasparr. C. Daemonum, Miq. | Ficus oppositifolia, Wildt. C. Assamica, | F. Daemonum, Vahl. C. Dayacarpus, | SINGH. Kuta-dimboss-gass, | SINGH. Very abundant in the warmer parts of the Ceylon island.—Thu. Pl. Zeyl. p. 266. COVELONG, Coulam, or Kovilam, a scaport village 22 miles south of Madras, in lat. 12° 46' N., and long. 80° 18' E. A fort, now demolished, was erected by Anwar ud Din near the ruins of one that the Imperial E. I. Company of Oost had erected. In 1750 the French obtained possession of it, but in 1752 it surrendered to Captain Clive.

COVIL GRASS, or Penna stipata, during the month of June is in flower, impregnating the atmosphere with an aromatic perfume. On this grass feed innumerable flocks of horses and mares, and its flower communicates to the milk of the mares a certain aromatic quality. Out of the milk is made the Tartar koumiss, and the drinkers of koumiss at this time of the year set at defiance most of the woes that distress mankind.

COVILHAM. Pedro da Covilha and Alfonso de Payva were sent as merchants in 1494, via Genoa, Alexandria, Cairo, and the Red Sea, to Aden, where they negotiated, agreeing to meet again at Cairo, Payva to search for Prester John in Abyssinia, whom he heard of as reigning there over a highly-cultivated people, but he died before reaching Abyssinia. Covilha went on to India, where he made drawings of cities and harbours, especially Goa and Calicut. Thence he returned along the coast of Persia to Cape Guardafui, and continued south to Mozambique and Zofala, where he ascertained that that land joined the Cape of Good Hope. From Zofala he returned to Abyssinia, and sent his diary, charts, and drawings to Genoa by some Portuguese merchants who were trading to Memphis. On receipt of these, King Emanuel, in 1495, sent four ships under Vasco da Gama, who visited Natal and Mozambique. In 1498 he was at Calcutta, and in 1499 back at Lisbon. See Portuguese.

COV. Vacca, | FER. GOW, | LEET. Kuh, | GER. Choo, Chowi, OLD HIGH Bous, Boes, | GR. Ga, HIND, PERS., ZEND. GO (Gons, pl.), | SANS. Ngun, Gao, Gai, | COO, SCOTCH. Vaca, | Sp. A good milk cow should have a good-looking udder, fine skin, and fine tail. The herdsmen of Indian villages take out cows daily to graze, receiving 2 to 8 annas a month. In ancient Egypt the cow was a sacred animal, as also were the bulls Apis and Mueves. At present the cow is worshipped amongst all Hindus; and the Banjara are perhaps the only race in British India who apply the cow to labour. But the Vedas do not enjoin reverence to the cow; and in the Hindu marriage ceremony, where a milk cow, Surabhi, is released on the intercession of a barber, sufficient remains to show that the sacrificial rite of killing a cow was formerly practised at marriages, for the sake of hospitality.

Two Hindu traditions seem to indicate the domestication of the cow. In Hindu mythology, the Cow of Plenty, called Kamadhenu, Surabhi, Savala, granting all desires, is said to have been produced by the Sura and Asura, at the churning of the ocean after the deluge, for the recreation or production of the Chaodas-matna or fourteen sacred things; another fabulous cow, the cow of five colours, or Panch-hara, was given by Indra to the parents of Rama. It is common for Brahmins and others to feed a cow before they take their own breakfast, ejaculating as they present their food, "Daughter of Surabhi, framed of five elements, suspicious, pure, holy, sprung from the sun, accept this food by me; salutation unto thee!" Or if he conduct the kine to grass, "May cows, who are mothers of the three worlds and daughters of Surabhi, and who are beneficent,
With water, cow-dung forms a useful wash for walls and floors, and it enters into the composition of the farmer's fomentations; it hides bad joinery. But its chief use is in forming bratties, or dried cow-dung cakes for fuel. The ground cropped by cattle, and which supplies straw, ought to receive it back before it is reduced to ashes; till this be done, lands must be unduly exhausted. Cow-dung mixed with paddy husk and earth is a fuel much used in Southern India for burning bricks and chunar, also for heating iron tyres for tyre wheels, for which purpose it answers better than any other. It is more economical than coke, as it is neither a disagreeable smoke, but when thoroughly ignited, the heat given out is very intense. The cow-dung ashes balls are Tirunar unde, TAM., and Vibud in Telugu.

A cake of cow-dung is placed on the top of a heap of corn to ward off the evil eye, and to make the grain increase (barhê, HIND.); hence this cow-dung cake is a Barh-awan, also Chauk and Ch'hatur. A Hindi couplet ridicules the practice:

†Jag baurhê śritama bibas bhut puj bhau len;  
Barhô na barhê barhwan jin kisan rakš den;†

†The world is mad, and for the sake of avarice will worship devils, and will still put on the Barhwan, increase or not.—Rohde, MSS.†

COW-FISH, Globicephalus Rissii.
COW-GRASS, Trifolium medium.

Cowage, probably a corruption of the Arabic or Hindustani and Bengali names of one of the plants that produce it. Cowage consists of the hairs found upon pods of different species of Mucuna. They are exceedingly slender, brittle, and easily detached, and the fragments readily stick into the skin, and produce an intolerable itching. Cow-iitch is used medicinally as a vermifuge, by being mixed with syrup till of the consistency of honey, and given in doses of two or three teaspoonfuls. The species are found in hedges, thickets, on the banks of rivers, and about watercourses, in the E. and W. Indics, and in America within the tropics. M. urens and M. pruriens usually furnish the substance; but that from M. monopera, called by the Telings, Enogoa dola Gunda, or elephant's scratchweed, is said to exceed the others in the irritating, burning property of its hairs. Dr. Roxburgh states that M. pruriens was one of the plants formerly used in India to poison wells; but it is less hurtful than was supposed.—Roxb.; Eng. Cyc. p. 177.

COWRIE.

COWRIE.

pure, and holy, accept the food given by me!'

(Colebrooke, As. Res. vii. p. 276). In marriage ceremonies the hospitable rites are conducted by letting loose a cow, at the intercession of the guest, a barber, who attends for that purpose, and explains, 'The cow! the cow!' upon which the guest pronounces this text, 'Release the cow from the fetters of Varuna. May she subdue my foe! may she destroy the enemies of both him (the host) and me! Dismiss the cow, that she may eat the grass and drink water.' When the cow has been released, the guest thus addresses her: 'I have earnestly entreated this prudent person, saying, Kill not the innocent, harmless cow; I call her in my name of the god of the Vais, sister of the Aditya, the source of ambrosia,' etc. (ibid. p. 293). In the Hitopadesa (p. 110), the earth is called Surabhi, and the learned translator (Wilkins) notes the same to be not usually so applied, although the earth may well be called the cow of plenty.

The cow with the female buffalo furnish most of the milk used by the people of India, and there are several breeds of cows famed for the large quantities they yield; one of these, from Aden in Arabia, is much praised.

The custom in India, of using cow-dung for smearing floors and walls, is practised by all sects as well as Hindus, as the most cool and cleanly appliance. Cow-dung is plastered over the cooking-place before the meal of a person of a high class is cooked; or, in camps, or on journeys, a space of 10 or 12 square feet is so purified, but is easily polluted by the approach of impure persons or things, in which vexatious case the food becomes unclean. The ashes of cow-dung, vibud, are also of a very purifying nature; and Hindus of almost all ranks and degrees, men and women, occasionally or frequently use them, mixed sometimes with other ingredients, to mark their foreheads, necks, arms, etc. Sometimes men, especially religious mendicants, or penitents, or those having some claims to sanctity, are rubbed all over with these ashy mixtures, and present a curious sky-blue appearance. Amongst Hindus, the greatest of all purifiers is the urine of a cow. Hindu spirits of impurity abhor this sin-expelling, sanctifying liquid. Images of cows, who is mother of all, and merciful to the poor and to all humanity, is rubbed over the body or into the hair; no man of any pretensions to purity or cleanliness would pass a cow in the act of staling without receiving the holy stream in his palm, sipping a few drops, and with his bedewed fingers marking and crossing his forehead, shoulders, and breasts. —Moore's Pantheon, p. 143; Williams' Nata, p. 136; Kennedy on Languages, p. 43; Wilford; Colebrooke, p. 276; Coleman, p. 293.

COW BEZOAR, and beozors from all ruminating animals, always find a ready market in China, where Chinese doctors lay it up as a rare medicine. They are not unfrequently deceased by an artificial preparation of piperclay and ox-gall, mixed with a little water. — Williams' Middle Kingdom, ii. p. 406. See Bezoar; Calculus.

COWDEE, seeds of Aristida setacea, a wild grass, also of Exacum bicolor, and of the wild grass Kuai.

COW-DUNG BRATTIES, ANGLO-TAM.

Bouse, S. B. Ar.  
Balai; Upa; Gobar, HIND.  
Kuna-gossa; Theperi,  
Bau-ganda,  
Bau-kanda,  
Chapre; Chot; Doja, HIND.  
Arni kanda,  
Gomayam,  
Peda; Piddi-cau,  
Bhati; Shhau,  
TAM.

Cowries are small, white, or yellow, glossy shells, of the genus Cyprea, found in abundance on the shores of the Laccadive and Maldives islands, African coast, Zanzibar, and the Sulu
islands, etc. There are many species, but the Cyprea moneta pass current as coin in payment of fractional parts of a piece, in India and some parts of Africa. They are brought to India in large quantities, and are re-exported to Britain, where they are used in inlaying, in ornamenting toys, work-boxes, etc., and in the manufacture of the superior kinds of porcelain-ware. They were, during the slave trade, exported from Bombay to Africa. The cowrie seems never to have been used for money among the Indian islanders, as it has immemorially been by the Hinduts. Yet the Malay and Javanese name Boya is Sanskrit, and is one of the synonyms which express duty, impost, or tolls. In the currency of India, 4 cowries make a ganda, 20 ganda = a paisa, and 5 paisa = one anna. In A.D. 1740, a rupee exchanged for 2400 cowries, in 1756 for 2560 cowries, and in 1870, in Madras, as many as 5700 cowries were obtainable for one rupee. The Persian name, Khar-mohra, means literally a jackass' or mule's shell, because mules are ornamented in that country with trappings of shells, as a Gossain's bullock is in India. Ibn Batuta says cowries were carried from the Maldiv Islands to Bengal, to be used as coin. The Kamoos adds that a split or broken shell is suspended from the neck to avert the evil eye, and this is still done in India. Among European nations, excepting the British, these shells are known by the name Porcelli, Porcellian, Porcellaneous, and Porcelain, on account of the fancied resemblance of their shape to that of the back of a little pig; and thence arose the term for the Chinese ' porcelain,' of which the glaze or varnish is similar to that of the cowrie. Liverpool imported as under:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
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<tr>
<td>1851</td>
<td>1704 cu.</td>
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<td>1852</td>
<td>2793</td>
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<td>1853</td>
<td>1690</td>
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</tbody>
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Two commercial varieties are known, the 'live cowrie' and the 'dead cowrie.'—Morrison's Compendious Description; Crawford's Dictionary.

COW-TREE, a tree belonging to the natural order Urticaceae, Borousium utile of Endlicher. When wounded, a milky juice is discharged in such abundance, it is said, as to render it an important object to the poor natives in whose country it grows. It is described by Humboldt as being peculiar to the Cordilleras of the coast of Caracas, particularly from Barbula to the lake of Maracaybo, near the village of San Mateo, and in Caucauga, three days' journey east of Caracas. In these places it bears the name of Palo de Vaca, or Arbol de Leche, and forms a fine tree, resembling the star-apple of the West Indies. The Kirigahuna plant of Ceylon, Gymnema lacteformum, is described as another cow-plant, notwithstanding it belongs to the acrid and dangerous aaspectaaneous order.—Eng. Cyc. New Conn. Pl.

COX, CAPTAIN II., was sent on an embassy to the king of Burma, and wrote his Journal of a Residence in the Burman Empire.

CRAB. Cancer.


See Crustacea.

CRAB-MUNGOOS, Urvia cancrivora, Hod. CRAB'S-EYES, seeds of Abrus precatorius, L., used in India by jewellers and druggists as weights, being nearly each one grain. They are strung together for necklaces, rosaries, etc.

CRACKERS, etc. Chinese fire-crackers are exported to the United States, to India, and S. America. They are made up in strings, and then in papers, and lastly in boxes, five of which are estimated to weigh one pikul. The market of Canton is chiefly supplied with fireworks from Fatshan.—Compendious Description.

CRAMBE CORDIFOLIA, Steven. A plant of Persia, Caucasus, Tibet, and Himalaya, growing up to 14,000 feet. Root and foliage of this kale are eaten. Crambe maritima, Linnae., is seakale.

CRANE.


Crane differ from storks in their appearance, habits, anatomy, modes of breeding, and everything except that both happen to be long-legged birds. The Argila or adjutant, Leptoptilus argala, is erroneously termed the gigantic crane. The words Crane, Geranos, and Grus, and the Hindustani names of the three common Indian species, Saras, Karranch, and Kankara, all have reference to the loud trumpeting of these birds, which have a curious internal conformation resembling that of the trumpeter swans; whereas the storks are voiceless birds, having actually no vocal muscles, and can make no sound but by clattering their mandibles together, which they do pretty loudly. In Australia the term crane is applied to the egrets, or white paddy-birds, as they are called in India, of the family Ardeide; while in the Malay countries the so-called paddy-bird is a finch; and the real crane of Australia, Gr. Australasiana, is known as the Native Companion. Some cranes and storks, four-fifths of the ducks, and the great majority of the scolopacide, breed in the north, and come to India in the cold season.

(a) Grus antigone, Linn., Grus torquata, Vieillot, the Saras, a noble bird, is the largest of the whole tribe. During the breeding season it has a pure white collar below the crimson papillosse naked portion of the neck, whence the name Torquatus. It is mostly seen in pairs, a few of which breed in India in extensive flocks, but the great majority cross the Himalaya for that purpose.

(b) Grus leucogeranos, Dallis, is the beautiful arge white crane of N. Asia, with black wings, primaries, and crimson naked face. A few strai pairs have been observed in the Upper Provinces of Hindustan; and Burns figured it from the vicinity of Kubal.

(c) Grus cinerea, L., the Kulung or European crane, common to Asia and N. Africa, visits India in great flocks, which wholly disappear in the breeding season. If we except the Manchurian species, the European crane is equal to any in the majesty of its gait and the beauty of its plumage.

(d) Anthropoides virgo, L., the Karkara or Demoiselle, common to Asia and N. Africa, is only known in India during the cold weather. It is the smallest, and certainly one of the most elegant, of this particularly graceful group, the only one with the head fully feathered. And it is adorned with beautiful white neck-tufts, and with lengthened and drooping tertaries, and a
bright crimson eye. Highly gregarious, the flocks are sometimes immense. Cranes are easily tamed, and they are very ornamental birds to keep. They have a curious and peculiar habit of skipping about at times, attitudinizing or dancing, and now and then emitting their loud cries. In the wild state they do much damage to the crops from their numbers; and repair during the heat of the day to sandflats in rivers, or to other extensive waters, returning to feed morning and afternoon at regular hours. They fly in V-like flocks, like wild geese. The young, commonly two in number, follow their parents after exclusion, unlike those of the stork and heron tribe, with which the cranes have little in common.—Z.

CRANE-FLY. This gnat is a species of Tipula. Its grub is a pest of the young poppy plant, both on and under the surface of the soil.

CRANGANORE, on the Malabar coast, in lat. 10° 12' N., built on the Aycocka river, seems to have been one of the most ancient capitals of Malabar, and in some of the ancient copper deeds appears to have been called Muyiri-Kodu, the classical Muziris (?).—Horsburgh; Yale, Cathay.

CRANGONIDÉ, a family of Crustaceæ belonging to the division Decapoda Maeroua. The type of the family is the common shrimp, Crangon vulgaris. See Crustaceæ.

CRANI. Anglo-Hind. A Christian copyist or clerk in a public office, generally of mixed European and native descent. The term may be a mispronunciation of Karana, by which the Kayē'kh (Kayastha) or writing caste is designated in Bengal. The word Krani has begun of late years to be considered decidedly dyslogistic. In India, Kayasthas are now never called Khaja. In Mahomedan countries, however, the term Khaja is still applied to writers and teachers. Dr. Shaw says of the Moors in Barbary, 'The Hojas suspend their inkhorns in their girdles' (p. 227); and Lady Montagu says, 'The monastery is now belonging to a Hoja, or schoolmaster.'—Letters, p. 176; Elliot, Supp.

CRANIAL DEFORMITIES. Certain tribes alter the shape of the skulls of their children, making use of, for this purpose, various mechanical contrivances, so as by pressure to bring about that outline which comes up to their peculiar ideas of beauty. Captain Cook noticed it in the island of Ubeta; Marnsen mentions it at pp. 44, 45 of his Hist. of Sumatra. In the Narrative of the Voyage of Her Majesty's Ship Battersnake, Maggillivray mentions (1855) having seen some skulls of children at Cape York, altered into quite a conical shape by a constantly-applied manual compression of their mothers. Dr. Mikluco-Maclay, a countryman, when visiting, in April 1880, the islands of Torres Straits, had an opportunity of seeing, at Mabiak, this strange operation performed on the heads of several lately-born children. During the first weeks of the child's life, the mothers are accustomed to spend many hours of each day in compressing the heads of their infants in a certain direction, with the object of giving them quite a conical shape. Dr. Maclay saw the operation performed daily, and on many children, and fully convinced himself that the deformity which is perceivable in the adults is the result of this manual deformation only. It would appear that among these people we have the only well-authenticated examples of cranial deformities brought about in this way. At Mabiak the deformation is intentional; but Dr. Maclay observed on the east side of New Guinea, numerous cases of distortion of the heads of adult females, in consequence of the practice of their carrying from childhood heavy burdens in large bags, the band of which serves as a handle, and rests across the head a little behind the coronal suture, where a permanent transverse and saddle-shaped depression of the skull occurs. In some cases this depression was not less from three to four millimetres; and he thinks that the acquired cranial deformity has a great chance of becoming more or less transmitted from generation to generation by inheritance, and is therefore most worthy of being recorded.

CRAPE. Crepe,R. ; Fr. Sendal, PORT. Flohr, Kraus flohr, GER. Flor, RUS. Equinilla, Squillo, IT. Crespon, Sp.

A light silk manufacture.—M'Culloch, Dict. CRATÉGUS, a genus of plants belonging to the natural order Rosaceous, and the sub-order Pomeae. C. glabra, Thunb., occurs in Japan. C. crenulata, Roxb., the Indian Pyracantha, or white thorn, is the Gengarn of the Panjab. It is a plant of Nepal, Kamaon, the east of the Panjab, and the Sultej valley between Rampur and Sungnam at an elevation of 3000 to 7000 feet. It is shrubby, with large white flowers; wood used for staves, etc.—Cleghorn, Panj. Rep. p. 64; Stewart, Panj. Plants; Eng. Cey.; Voigt.

CRATÉGUS CRENULATA. Thompson. White thorn, R. ; Eng.; Gengarn., —HIND. Grows in the Garhwal forests, where it attains a height of 20 feet, with a trunk 12 to 15 feet long and 2 to 2½ feet in girth. Timber useful, and yields crushers for sugar and oil mills.—Thompson; Roxb.

CRATÉGUS OXACANTHA. Linn. Pingrat; Ring, Chena, GER. Ring; Ringo, KANGRA. Ramnīa, Patakhen; Phindak, RAVT. Ban-sīnį, Jhēlum, DURANA; Pushtū. Sur-sīnį, Gwanzā; ZR-IND. Not uncommon in various parts of the Himalaya at 5000 to 9000 feet elevation. Fruit not palatable.—Stewart.

CRATÉGUS PINNATIFIDA. Smith. Shan-cha, CHIN.; Mau-cha, CHIN. The large red fruits of this Chinese plant are стрны as beads by Chinese children.—Smith.

CRATÉVA, a genus of plants belonging to the natural order Capparidaceae. The Ægle marnellites (Bilva or Mahura), formerly considered a species of this genus, is now referred to the order Aurantiacae. C. Roxburghii and C. nervula grow in India. The bark of the root of C. gnandyrna, a native of the W. Indies, is said to blister like cantharides.—Eng. Cy.; Voigt; O'Sh.

CRATÉVA NURVALA. Buch. Ham. Cratèva tapia, Born.; C. inermis, L. Tapia, Birni, HIND. Mavalingum, TAMAR. Nirvala, ; MUKAL. Maṭ, TEL.; TR. A small tree, 15 to 20 feet high, which grows in Malabar and Mysore.—Voigt.

CRATOXYLON NERIFOLIUM.

Tikto shak, ... BENG. Tapia, Varana, ... SANSK.
Ka-dat, ... BURM. Narvala, ... TAM.
Birm-ti-tjar, ... DUKH. Mullavinga maram, ... TEL.
Three-leaved caper, ... ENG. Tolla ulmaira, ... TEL.
Garie pear, ... PAK. Tolla ulmilidi, ... TEL.
Kurwan, Koonma, ... MAIH. Usik mainu, ... TEL.
Barna, ... PANJ.

A small and very handsome tree of both the Indian Peninsula, of the Cercars, and growing in Bengal, and at Sarannupur; common on the banks of rivers, and is much planted by natives. Wood white and hard; the native dhul is often made of it, and it is used for many common purposes, and for carving models. Dr. Gibson says it is not common on the Bombay side. The fruit is hard, globose, and woody, something like that of the wood-apple; the mucilae of the fruit furnishes a cement. The juice and a decocction of its sargrrent bark are given in intermittent fever and typhus. The bark, macerated in water and mixed with ginger, long pepper, milk, and gingelly oil, is applied as a limiment for drying up sores. An infusion of the bark is also given in flatulency. — Flor. And.; Voigt; Ainslie; Wright; Gibson; Useful Plants; Cat. Ex. 1862; Beddome.

CRATOXYLON NERIFOLIUM, Kurz, and other species, timber trees of British Burma.

CRAW-FISH. See Crustacea; Palinurus.

CRAWFURD, JOHN, F.R.S., a medical officer of the E.I. Company's army. He entered the service in 1808, and died in 1868. In 1811 he accompanied Lord Minto in his expedition to the conquest of Java, and was afterwards appointed to a native court. In 1817 returned to Britain; and in 1820 he published his History of the Indian Archipelago. He returned to India, and was sent on diplomatic missions to Siam and Cochinchina; and in 1823 he was, on the retirement of Sir Stamford Raffles, appointed Governor of Singapore. In 1826, Lord Amherst appointed him Commissioner in Pegu; and, on the restoration of peace, sent him as Envoy to the Burmese court. In 1827 he returned finally to Britain; and in 1828 he published his Embassy to Siam and Cochinchina; and in 1829 an Account of his Mission to Burma. In 1856 he published a Dictionary of the Malay Archipelago; and he took part in all the discussions of the learned at the ethnological and other societies. His publications were:—History of the Indian Archipelago, Edin. 1820, 3 vols.; Researches in India, Lond. 1817, 2 vols.; Embassy to Siam and Cochinchina; Grammar and Dictionary of the Malay Language, 2 vols. 8vo, Lond. 1851; Dictionary of the Indian Archipelago, Lond. 1857; Journal of an Embassy to the Court of Ava in the year 1827, containing a Description of Fossil Remains by Buckland, 4to, Lond. 1829; View of the Present State and Future Prospects of the Free Trade and Colonization of Asia, 8vo, Lond. 1829.

CREAM is made and Tang of the Chinese, and Mallah of Hindustan.

CREAM OF TARTAR or bitartrate of potash, deposited in a crude state upon the bottom and sides of casks containing fermenting wine. 57,898 cwt. were imported in 1870 into Britain.

CREED. Mahomedans distinguish between a creed and a sectarian faith. Din is a creed, and Mazhab a faith. See Kalamah.

CREEK, Kyunggeyc, BURM.; Sherm of the Arabs. CREMATION was common among the old German tribes, and among the ancient Britons in druidical times; but where Christianity established itself, there cremation ceased. Amongst the Hindus it is called Bhoidagélala, Sansan, Samasan. A cremation site is Chilan, Chihan, Chihan, Mar-ghat.

CRESCENT. This is used by the Mahomedan rulers of Turkey and of Hyderabad in the Dekhan as a symbol on their standards. The Adal Shahi also retained it. The crescent is worn by the Hindu god Siva and by his consort Parvati.

CRESS. American or Belleisle cress has a harsh flavour, but, being of a more robust nature than the garden cress, is easier cultivated on the plains of India. It is raised from seed; the young leaves, cut when young, are used for salads; requires plenty of water.

Garden Cress, Lepidium sativum.

Reshad, ... ARAB. Looit patiiah (leaves); HIND. Cresson, ... FR. Cresonne, ... IT. Cresse, ... GER. Tureh-tezak, ... PERS. Chuner, ... GUL. HIND. Berro, ... SP. Halim (the seed), ... HIND.

The leaves are gently stimulant and diuretic; as a salad, they are wholesome and palatable, and serviceable in scrobutic diseases. Cress should be sown thick in very narrow drills, about one inch deep and a few inches apart. It requires to be well watered, and is in season all the year round. It should be cut for use when two inches high.

Water-cress is the Shwii-'k'in- tai of the Chinese.

Cress Seed.

Hurt, ... ARAB., HIND. | Aliveri, ... TAM. Rohitasareshupa, SANSK. Adala Vittilla, ... TEL.

Cress seed is of a reddish colour, and agreeable, warm taste, and is used by native practitioners as a gentle stimulant; also as a warm aperient, when bruised and mixed with lime-juice. — Ainslie; Riddle; Jaffrey.

CRESSA INDICA. Willde. Goon of Sind; an erect, ramous annual. Its seeds are ground, and the flour made into cakes, pure or mixed with flour. — Herb. ii. p. 72.

CREX-RATENSIS, the landrill of Europe, Asia, N. Africa, is common in Afghanistan, rare in the N.W. of India.

CRICKETS in China are pitted against each other, and largely betted on. The cricket species of Acheta and Gryllolatpa are very destructive to garden and field plants. See Insects.

CRINUM ASIATICUM. Willde.

a. toxiciarium, Herb. | c. anomalum, Herb.
 b. bracteatum, | d. declinatum, ...
 C. defixum, Ker. | Bulbine Asiatica, var. a.
 Sukh darsun, ... BENG. Vismahandal, ... SANSK.
 Nag-downa of BOMBAY. Maha tabalo, ... SINGH.
 Var. a. Poison bulb, ENG. B. Masha punghe elle, ... TAM.
 B. indica kanoro, ... H. Visha vedoruka, ... TAM.
 Beluta pola-tali, MALEL. Lakshmi narayana, ...

There are about forty species of Crinum in S.E. Asia, many of them with several synonyms. C. asiaticum is common in Indian gardens and groves. The flowers are fragrant and ornamental. The Bengali name means interview of ease. The root of the variety toxiciarium is a good substitute for squill. The succulent leaves are about two inches broad and two or three feet long. The natives bruise and mix them with a little warm castor-oil, and consider them useful for repelling whitlows and other infammations on the ends of the fingers and toes. The juice of the leaves is applied to
CRINUM LATIFOLIUM.

A plant common in Southern India. In Tenasserim are species of crinum, which Europeans usually denominate lilies. A very large-petalled species, of which there are two varieties, is much cultivated in gardens.—Mason.

CRINUM SINICUM, Rech., Wan-shun-lan of the Chinese, is a beautiful plant, cultivated in India, Ceylon, Cochin-China, China, and the Moluccas.—Smith.

CROCODILE.

Crocodile, Crocodylus porosus, of the Malayan Archipelago. C. porosus, Siam, Sam, Jamboja, Sian, Porosus, Crocodile, Borneo, and the Moluccas, is C. porosus; but there is another in the rivers of Borneo, formidable by its size and rapacity, partaking of the character of the hipopatrus and the garial of the Ganges (Crawford, p. 10). Crocodiles are in every creek, in every river, in the Sunderbans, varying in size from a span in length to 18 or 23 feet. They are usually seen lying on the surface of the black mud, basking in the sun; they sleep very soundly, for a steamer may be going at full speed, and making the usual splash and noise, passing within ten paces of a sleeping crocodile, without disturbing their slumbers. To a casual observer they resemble mud-covered logs of wood; and it is not until the large square glittering scales, which are of exceeding strength and beauty, when closely examined, and the elevated and doubly dentilated ridge or crest that runs along either side of the tail, become visible, or are seen to glint in the sun, that the shapeless mass is found to be a fierce, carnivorous, and dangerous animal. The Ganges' garial is not seen in the Sunderbans; it appears to love the sweet and, comparatively speaking, quieter waters of the upper rivers of India and their clean sandbanks, where they may be seen lying with their mouths wide open, but for what purpose it is difficult to divine, unless it is to get rid of numerous small red filamentous worms that cluster about their fauces. The lower jaw being prolonged backward beyond the skull, causes the upper jaw to appear movable, which it only is when accompanied by the whole of the skull. A small brown bird has been seen to alight upon the tongue of an open-mouthed crocodile, and pick the worms from the throat as it lay upon a sandbank in the Ganges. It is generally believed that the snubbed nose crocodile always remains in fresh water; but such is not the case, as they are found all along the Chittagong and Arakan coasts,—never far from the shore, it is true, but still in bona fide salt water, where they are as dangerous as sharks. In the rivers of the delta of the Ganges, where they flow through the cultivated portions of the country, stakes are driven into the bed of the river at the watering places or ghats opposite to the villages, where the inhabitants may bathe in security, and draw water for domestic purposes; but even this precaution is not always sufficient to ward off the attacks of the fiercer crocodiles. The crocodile finds no difficulty, when pinched by hunger, in turning the flank of the stakes, and taking up his rest within the enclosure, where he silently awaits his prey. A surveyor on the banks of the Ganges was witness to a shocking occurrence in connection with these enclosures. A young Hindu girl about 14 years old came to fill a pitcher with water, and had hardly put her feet into the water, when a crocodile, which had been lying in wait inside the enclosure, rushed at the poor girl, seized her in its formidable jaws, scrambled up the banks of the river, holding the shrieking, struggling girl well up in the air by the middle of her body, and plunged heavily into the river outside of the stakes. A smothered scream, a ripple upon the water, a few bubbles, and the frightful scene was closed. A more daring attack by a Sunderbun crocodile than even the above, occurred at Hooa. A gang of ironed convicts were being inspected by the magistrate prior to their being sent off to another and a more distant jail. The men, numbering with their guards about fifty, were drawn up in line on the raised embankment or levee of the river; the examination was proceeding, when a crocodile rushed up the bank, seized a manacled prisoner by the legs, dragged him from the ranks, and in a moment, and before any assistance could possibly be rendered, plunged into the river and disappeared. The Peer-puker at Punna, in Sind, is a large tank, forty feet deep and 500 years old. The most remarkable tenant of this tank was a tame crocodile, called Fatteh Khan, which answered the call of a fakir living upon the embankments. On summons, the monster would show itself upon the surface, and keep floating for several minutes. Captain von Orlich saw thirty crocodiles in a tank near Kurchee, which at the call of the fakir instantly crept out of the water, and, like so many dogs, lay in a semicircle at the feet of their master. In Colonel Tod's time there were two crocodiles familiar to the inhabitants of Udaipur, who came for food when called. He often exasperated them by throwing an inflated bladder, which the mon-
Crocodile.

Herodotus (ii. p. 69), after describing the
honours paid to the sacred crocodile by the Egyp-
tians, adds: 'But the people who live round about
Elephantine even eat them; they don't think them
sacred.' In Siam the flesh of the crocodile is sold
for food in the markets and bazaars. The Singhalese
believe that the crocodile can only move swiftly
on sand or smooth clay, its feet being too tender
to tread firmly on hard or stony ground. In the
dry season there, when the watercourses begin
to fail and the tanks become exhausted, the marsh-
crocodiles have occasionally been encountered in the
jungle, wandering in search of water. During
a severe drought in 1844, they deserted a tank
near Korngalle, and traversed the town during
the night, on their way to another reservoir in the
suburb; two or three fell into the wells,
others, in their trepidation, laid eggs in the
jungle, and some were found entangled in garden
fences and killed. Generally, however, during
extreme drought, they bury themselves in the
mud, and remain in a state of torpor till released
by the recurrence of rains. At Arme-tweo, in the
eastern province of Ceylon, while riding across
the parched bed of the tank, Sir J. E. Tennant
was shown a recess, still bearing the form and
impress of a crocodile, out of which a crocodile
had been seen to emerge the day before. They
are said to eat only living creatures, but the dead
bodies in the Ganges are also said to be eaten by
them. A curious incident occurred in Ceylon
some years ago on the Magurganga stream,
which flows through the Pamun Corle to join the
Bentotte river. A man was fishing seated
on the branch of a tree that overhung the water,
and, to shelter himself from the drizzling rain, he
covered his head and shoulders with a bag, folded
into a shape common with the natives. While in
this attitude, a leopard sprang upon him from the
jungle, but, missing its aim, seized the bag and
not the man, and fell with it into the river. Here
a crocodile, which had been eyeing the angler in
despair, seized the leopard as it fell, and sunk
with it to the bottom.

The gharial of the Ganges is supposed to be the
largest of the living saurians. The measurement
of the largest mentioned by Messrs. Dumeril and
Bibron is given at 17 feet 8 inches. The gharial
abounds in all the great rivers of Northern India.
It is found in the Indus, from its delta north-
wards to near Attock, and up the Punjab rivers
for a considerable distance, where it is most
abundant.

Major Court mentions that as canoes were
paddled along the Mosee river in Palenbong, he
saw, on two occasions, crocodiles raise their
heads out of the water near the boat's side,
and attempt to seize one of the paddlers. The
boatmen escaped their grasp by moving away.
During the time he was at Palenbong, seventeen
paddlers were carried away by crocodiles. Two
gentlemen coming in a small boat up the river to
pay him a visit, had provided themselves with
a basket of provisions for their journey. On
their way, a crocodile raised its head from the
water; the paddlers shrieked, and fortunately
escaped, but the basket of provisions became the
prey to its voracity.—Letter from Gomerat
Monodellor, Interpreter of the Supreme Court, 19th
January 1861; Cal. Rec.; Jo. B. A. S.; Low's
Sarawak; Sir Tennant's Ceylon, p. 288; Court's
Palembang; Adams.

CROCODILE ROCK, a dangerous rock 16
miles due east of Cape Comorin.

CROCODILE, the crocodile tribe, a family
of Saurians, of the order Emydosauroi, which
includes also the family Gharialidae, which
includes the largest living forms of that order of reptiles.

Dumeril and other naturalists distinguished the
family by the appellation of Aspidoc (shielded)
saurians, while many modern zoologists have con-
sidered them as forming a particular order. See
Crocodiles.

CROCUS, in the arts, a peroxide of iron, used
as a polishing material.

CROCUS SATIVUS. Linn. Saffron, Crow
Saffron.

Zafren, Ar., Malat., Pers. Tanger, . . . MALAT.
Zafren, Ind., India, . . . Calcutta.
Koner, . . . MALAT.
Zafren, Mal., Malaga, . . . Malaga.
Zafren, Mad. . . . Handa.
Zafren, . . . Peking.
Kazumura, jamma. . . SANSK.
Zaffran, Kangan, Hind. Khoo cannon.
Zaffran, Kangan muthi, . . . TAMB.
Kusun, Kangan muthi, . . . Kusun Kungo, . . . TAS.
Kong, Kusun Kungo. . . TAL.
Kashmiri, Kash., KASHM.

A native of Asia Minor, naturalized in England,
France, and many other parts of Europe, and
cultivated in Persia and in Kashmir, in one small
tract at Pampur, not far from the capital. The
saffron is exported both to south and north from
Kashmir. Vigne says it goes mostly to Yarkand;
and Cayley mentions that, in 1867, 51 mounds
reached Leh, which would be worth at Yarkand.
1840. The saffron of commerce consists of the
dried stig mata of the flower. These are picked
out, dried on paper, either in a kiln or by the sun.
If compressed into cakes, it is called cake saffron.
Hay saffron is what is usually met with, and it
consists of the stig mata, each about an inch and
a half long, brown-red, the upper part flattened,
widened, and cleft; the lower hair-like and
yellowish. The odor is fragrant and very fragrant;
the color is saffron yellow, Mr. Perea informs us that one grain of good saffron
contains the stig mata and styles of nine flowers,
so that one ounce of saffron is equal to 4320
flowers. Cake saffron, as now met with, contains
none of the real article, being prepared from the
florets of the safflower (see Carthamus), made
into a paste with gum-water. Dr. Hohnberger
mentions that Crocus sativus is monopolized by
the Kashmirian government, and that the hakims
of the Panjab use saffron in melancholy, typhus
fever, enlargement of the liver, and retention of
urine.—O'Sh, p. 654; Howig; Royge; Stewart;
Birdwood; Waring. See Saffron.

CROCUS THIBETANUS. Smith. Tsang-hung-
lwa, Chinese. A saffron of Tibet.—Smith.

CROMLECH is a word applied by the British
to widely different structures. It is derived from
the Keltic word Krom, crooked or curved, and
Lech, a stone. In Brittany they are known as
the Grottes aux fes, also the Roches aux fees. Its
correct application is a circle of upright stones,
The cromlech of the British anticiparian is the same as the Welsh and English 'quoit,' such as Arthur's quoit or cocon (Coetme Arthur) near Cricceth, Lanyon quoit and Chum quoit and others in Cornwall, Stanton Drew quoit in Somersetshire, the Kitts koty or quoit near Maidstone, and the Coit-y-enroch in Guernsey, all of them circles of upright stones. Professor Svon Nilsson, however (on the Stone Age, p. 150), defines the English cromlech as synonymous to the French dolmen, the Scandinavian dis, and the dys of Denmark, consisting of one large block of stone supported by some three to five stones arranged in a ring, and intended to contain one corpse only, several of these dorras being sometimes enclosed in circles of raised stones. Following, however, the nomenclature given by the late Dr. Lukis, we cannot be far wrong in assigning the word cromlech to all elaborate megalithic structures of one or more chambers, in which category the passage graves may be included.

The dolmen (Dola, table, Moen, a stone) is, as its name implies, of different structure. The cromleches of Jersey and the adjacent islands partake of the character of the French grottes aux fees, the fairy's grotto, as well as the Gangriter, the gallery tombs of the Swedes, the Jettestuer or chambered tumuli of the Danes, and the German Hunenbetten.

In China the chambered tumuli associated with megalithic avenues have attained their greatest development. The great tomb (the Ling or resting-place of Yung Lo of the Ming dynasty), thirty miles from Pekin, consists of an enormous mound or earth barrow covered with trees, and surrounded by a wall a mile in circumference. In the centre of the mound is a stone chamber containing the sarcophagus, in which is the corpse. This chamber or vault is approached by an arched tunnel, the entrance to which is bricked up. This entrance is approached by a paved causeway, passing through numerous arches, galleries, courts, and halls of sacrifice, and through a long avenue of colossal marble figures, sixteen pairs of wolves, kelines, lions, horses, camels, elephants, and twelve pairs of warriors, priests, and civil officers.

The tombs of the Hova race of Madagascar consist of stone vaults, made of immense slabs of stone, flat inside, forming a subterranean grotto. They also erect stone pillars similar to the menhir. The supposed aborigines of Madagascar were the Vazimba, whose tombs are small tumuli or cairns, surmounted by an upright stone pillar. The cromlech or trilithic altar, in the centre of all Druidic monuments, is supposed by Iod to be a toon or triumphal arch, sacred to the sun-god Belenus.

In 1881, Lieut. Conder saw 400 cromleches in E. Palestine, in seven central localities. In addition to the cromleches, several menhirs or standing stones were found, and ancient stone circles in connection with both classes of monuments. Among the sites explored were Hesibon, Elealeh, Mediobna, Baal-Baal, Nebi, and Pisgah, the hot springs of Callirrhoë, Rabbath Ammon; he found the place of the worship of Baal-Peor and the site of Bamoth-Baal; he discovered the method by which the enormous stones used at Arak el Emir were brought up from the quarries.—Lt. Oliver, R. A. F. R. G. S. Quarterly Journal of Science, April 1870. See Cairn.

CROMLECH.

CROOM. Beng. A dip, a ravine, a valley, a hollow.

CROPS. On fertile lands susceptible of irrigation, British India enjoys two crops during the year, one called the Kharif, or rain crop, sown in June and reaped in October; the other sown in October, and reaped in March and April, called the Rabi, or cold - weather crop. The latter, embracing the months which approximate in temperature to that of the season of cultivation in colder countries, corresponds with them also in the nature of the plants cultivated, as, for instance, wheat, barley, oats, and millet; peas, beans, veteh, tares, chick-pea, pigeon-pea, and lentils; tobacco, safflower, and succory; flax, and plants allied to mustard and rape, as oil-seeds; carrot, coriander, and cumin, and other seeds of a similar kind, as ajwain, sonf, soya, anesun. In the rainy season, a totally different set of plants engages the agriculturalist's attention, as rice, cotton, indigo, and maize, with sorghum, pulse, joar, koda, most of the tropical legumes, as well as several of the cucumber and gourd tribes, together with the sesamum for oil, and varieties of the egg-plant as a vegetable. The sumn and sumne, two corage plants, are also cultivated at this season.

Dr. Royle gives the following arrangement of the countries of which the plants will grow in the different parts of India:

- Tropical and East Island crops. Brazil, Guiana, W. Indies, and Florida.
- East and west coast of Africa.
- S. of Africa, extra tropical N. Holland, S. America beyond lat. 23° S. Mediterranean region.

- Chino - Japanese region.
- Middle Andes, Peru, and mountains of Brazil.
- North of Europe, north of Asia, and North America.
- Himalayan mountains, regions of oats and pines.
- Arctic regions, mountains of Europe, elevated Andes.

- Tropics of the southern hemisphere, in the Cuddapah district, is usually sown mixed with nine other seeds. Delichos uniflorus, D. Sinensis, Phaseolus mungo, Cicer arietinum, Cajanus Indicus, Lablab vulgaris, Sesamum orientale, and Hibiscus subdariffa.

- The rai crop (Eleusina, species) is usually sown mixed with Lablab vulgaris, this pulse being put in lines, without reference to the rai crop, being dropped in a furrow made with the native plough. Mixing crops is of the utmost importance, for the purpose of the growth of one crop, as the plants differ in demands on the soil; the variety increases the chances of success; and, as they ripen at different stages, they give continuous work to the ryt and his family.

56°2 per cent. of the adult male population of British India are engaged in agriculture, the total
being 34,844,000. The number of persons returned as engaged in agriculture and in tending or dealing in animals, is 371 millions; but besides these, the boys and girls and wives of a household, and many tradesmen and artisans, own land which they cultivate by the aid of the younger members of the family. The farms of India are all small, and the machinery and capital proportionate. The farmer works the soil himself, assisted by relatives, laborers, and hired. The plough is light and rude, and the draught cattle are in general small; but the fields are ploughed and re-ploughed a dozen times, and freely exposed to the weather. The crops raised are excellent; and no Mahomedan, European, or East Indian has ever been able to compete with the Hindus.

In Mysore, where the ragi and other dry grains occupy about 80 per cent. of the cultivable area,—rice 10 per cent,—little has been done to provide water for artificial irrigation.

Very good land in Bengal will yield 48 maunds per acre, and in exceptionally good lands 53 maunds. In an ordinary year, in that good land, the range may be 36 to 40 maunds. Ordinarily fair low land in a really good year, from 30 to 35 maunds; and, on an average of ten years, 18 to 24 maunds. Poor or high sandy lands, 18 maunds, or, on an average, 12 to 13 maunds. The average of all classes of land, 15 maunds per acre. (J. C. Otteley in Mor. and Mat. Pro., 1874-75, pp. 56-37.)

In the Upper Provinces of N. India, the following is the detail of seed sown per acre, and the yield, of the more ordinary crops:

<table>
<thead>
<tr>
<th>Grain</th>
<th>Seed Yield</th>
<th>Grain</th>
<th>Seed Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>1 lb. 25s.</td>
<td>Ury</td>
<td>0 m. 71s. 6d.</td>
</tr>
<tr>
<td>Barley</td>
<td>1 lb. 0s. 3d.</td>
<td>Makro</td>
<td>0 m. 21 s. 6d.</td>
</tr>
<tr>
<td>Peas, Gram</td>
<td>1 lb. 10 s.</td>
<td>Kakun</td>
<td>0 21 5</td>
</tr>
<tr>
<td>Sattih dhan</td>
<td>1 m. 45s. 12 d.</td>
<td>Sannak</td>
<td>0 m. 10 0</td>
</tr>
<tr>
<td>Jarhan</td>
<td>1 m. 45s. 12 d.</td>
<td>Patna</td>
<td>0 0 3</td>
</tr>
<tr>
<td>Bajra</td>
<td>0 21 7 20</td>
<td>Cotton-Kayas, Ruddha</td>
<td></td>
</tr>
<tr>
<td>Juar</td>
<td>0 21 7 20</td>
<td>Maruna, 0 m. 4 s. 4 d.</td>
<td></td>
</tr>
</tbody>
</table>

One of the most important points for the Indian statesman is to discover other industries than that of the production of food, in order to give profitable employment to the varied capacities of the people. A large addition to the production and manufacture of tobacco, sugar, wool, silk, jute, paper, etc., would have this effect, and this could be obtained without curtailing the supply of food, by the addition of one-tenth to the yield of food crops,—a result that might easily be brought about if greater attention was paid to the cultivation. This would set free an area covering 20 million acres, which would add 200 millions sterling to the general wealth, at the moderate value of £10 per acre, when the crops were converted into a manufactured product by the well-employed industry of the people. To aid in this, further attention to artificial irrigation is needed. The inferior pulses are greatly dependent on rain; but for garden cultivation, as for the vegetables, the poppy, tobacco, and sugar-cane, artificial irrigation is indispensable everywhere, except in low-lying lands near rivers. Every tank should be kept in repair, wells sunk wherever water is to be met with, and manure largely used. Mr. Schrattly says that in the middle of the 17th century the average quantity of rice produced in India from each acre of land was 1358 lbs.; of wheat, 1155 lbs.; cotton, 670 lbs., unpicked, which is equal to 223 lbs. of picked. But the statistics of the 19th century show that the land yields rice now at an average of 800 to 900 lbs. per acre; wheat, 600 lbs.; and picked cotton, 52 lbs. In 1828, certain lands in Central India yielded 128 lbs. of cotton per acre. In Broach, in 1844, the yield was 83 lbs. and at the present time the quantity produced does not come to above 85 lbs. And the conclusion arrived at is that the lands are becoming poor, and unless it gets a portion at least of what is taken from it, its producing qualities will still further deteriorate.—Carmegy.

CROREJ or Kror, ten millions. A crore of rupees is equal to one million sterling. The names of the higher numbers, Elliot says, are thus given in the Zabdat-ul-Quanin:—

100 crore = 1 urub. 100 pudum = 1 sunkh.
100 k'urub = 1 sunkh. 100 old = 1 urub.
100 neel = 1 pudum. 100 neel = 1 puna.

When Akbar introduced his revenue reforms, he appointed a collector for every crore of dams (i.e. Rs. 25,000,000), whom he designated by the title of Amil or Amliguzar; and to that functional the instructions are directed in the Ayin-i-Akkbar; the designation of Crori being of subsequent introduction.—Elliot.

CROSS.

The symbol of the circle and the cross, under every variety of circumstance, in Egypt, Africa, Britain, China, Scandfnavia, and America, in every age, by every people, from the dawn of secular history to the present hour, has been held by all in the same superstitious veneration, has been honoured with the same distinguishing rites, and has always expressed the same doctrine or mystery. Divine potentiality was sometimes indicated by two or more sceptres arranged at right angles or quadrangularly, with the nave of a wheel, or a simple circle, or six or eight round stars, at the point of intersection, with other orbs or ornaments. Osiris by the cross gave eternal life to the spirits of the just. With the cross the dove smote eternal life to the spirits of the just. With the cross Therman the head of the great serpent. The Muscaemmother shed the children beneath a cross, trusting by that sign to secure them from evil spirits. The cross-cake, says Sir Gardner Wilkinson, was the hieroglyph for civilized land, obviously a land superior to their own, as it was indeed to all other mundane territories; for it was that distant traditional country of sempiternal contentment and repose, of exquisitely delightful and serene, where nature unassisted by man produces all that is necessary for his sustentation, and whose midst was crowned with a sacred and glorious eminence,—the umbilicus orbis terrarum,—towards which the heathen in all parts of the world and in all ages turned a wistful gaze in every act of devotion, and hoped to be admitted, or rather to be restored, at the close of this transtitory scene. The Crux ansata is the earliest known form of the cross. It is commonly called the key of the Nile, because often seen on Coptic and Egyptian monuments. It was very similar to the Roman letter T, with a roundlet or oval placed immediately above it, and signified hidden wisdom or the life to come. It was used by the Chaldæans, Phoenicians, Mexicans, and Peruvians; doubtless it was intended to denote the solar and terrestrial
CROTALARIA

spheres. And, subsequently, sovereigns each adopted the circle, associated with it the cross, and this symbol of royalty is in use with every king of Europe. The Chakra in the hands of Brahma, Vishnu, and Siva, is a modification of it. In Egypt and China it was used to indicate a land of corn and plenty; and, when divided into four equal segments, it was the symbol of the primeval abode of man, the traditional paradise of Eden. The cross, says Colonel Wilford (As. Res. x. p. 124), though not an object of worship amongst the Buddhists, is a favourite emblem and device amongst them. It is exactly the cross of the Manichees, with leaves and flowers springing from it, and fruit also, it is said. It is called the divine tree, the tree of the gods, the tree of life and knowledge, and productive of whatever is good and desirable, and is placed in the terrestrial paradise.

The pre-Christian cross is not unfrequently associated with a tree or trees. The sign of the cross began to be used by Christians in the fourth century, and is described by Lactantius as an impregnable fortress to defend those impressed with it, for such the devil cannot approach. The use of the pre-Christian cross, either in the form of the handle cross of the Mediterranean districts, or the swastika of the Buddhists, was widely spread amongst ancient peoples, and it is in use at the present day over all Buddhist and Hindu countries. Mr. W. King has described many cruciform monoliths at Mungapet, in the Tuluncha taluk, on the right bank of the Godavery on the road to Hanumconda, in the Nizam's dominions.—Journal Bengal Asiatic Society.

CROSS, ROBERT, a skilled gardener who aided Mr. Clements Markham, C.B., in introducing cinchona trees (1860-1879) and coca trees (1875) into India from S. America, species of castilla. He made five journeys to procure cinchona plants.—Markham, Peruv. Bark.

CROSSBILL, Loxia pyrha, Hodgson, inhabits the pine forests.

CROTALARIA, a genus of plants of the order Fabaceae, sect. B. lotus, of which 40 species are known in India. The fibres of the banks of C. Burha, C. juncea, and C. retusa are largely used as cordage material. C. juncea yields the sum of commerce; the C. tenuifolia furnishes the Jubbulpur hemp.—W. Jc.

CROTALARIA BURHA. Ham. Bach.

Khp, Bhat, Bui, Beas. Bada, Khip, S. STELE.
Latha, Kharsan, Hind. Sia, Sissi, TR-IND.
Dranrote, Sind. Meini, Pul, E.

A naked-looking, bushy plant, common in Sind and in all the more arid parts of the Punjab, from Dehli to Trans-Indus up to Peshawur. It is browsed by cattle. It has a very tough bark, and with exactly the smell of broom when bruised, which probably gets it the name Bui, fragrant. Twine and small ropes are in many parts made from it by the dry process (and apparently sometimes after two or three days' steeping), but notably not so in places near Dehli, where the khip used for this is from Orthanatha, a very different plant.—Stewart.

CROTALARIA JUNCEA. Linn.

C. Bengalensis, Linn.
C. tenuifolia, Rosch, ill. 263.
C. fenestra, Sintz.
C. porrecta, Wall.
C. serticea, Willd.

Kind and quality of Rope.

<table>
<thead>
<tr>
<th>Kind of Rope</th>
<th>Size (inches)</th>
<th>Government Proof (Cwt.)</th>
<th>Breaking Weight (Cwt. qr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oiled Jubbulpur hemp, artillery traces</td>
<td>3</td>
<td>36</td>
<td>39 2</td>
</tr>
<tr>
<td>Uninterred do., superior four-strand, plain laid</td>
<td>3</td>
<td>42</td>
<td>58 3</td>
</tr>
<tr>
<td>Uninterred Dnushee (Zsch. nomina cannabina, Rosch.), Sannam</td>
<td>3</td>
<td>49</td>
<td>75 0</td>
</tr>
<tr>
<td>Pine-apple fibre,</td>
<td>3</td>
<td>42</td>
<td>57 0</td>
</tr>
</tbody>
</table>

CROTALARIA VERRUCOSA. Linn.

C. cunulina, Jacq. | C. anguiss, Linn. | C. bunsoni, BENG. HIND. | Ghilghirinta, | Tel. |
| C. tundali-kotti, MALEAL. | All-gili-gich-chs | Tel. | Vutti-khillo-kilpuri, TAM. |
CROTONALDE.

Grows in Malabar and Bengal. It has bright blue and greenish-white flowers. The juice of its leaves is used in medicine.—Voigt.

CROTONALDE, a family of reptiles of the order Ophidia, and sub-order Serpentes vipersi.

CROTON, a genus of plants of the natural order Euphorbiaceae. The species of India and the Archipelago are.—C. aromaticum, bicolor, drupaceae, fieicodana, jovra, levigata, laicferum, microdenia, Monnii, muricata, nigro-viride, oblongifolia, pavanum, polyandrum, tigillum, urophylla, unbellatum. The seeds and oil of C. polyantrum and C. tigillum are purgative. A species of croton, whose roots are used by the Burmese for a cathartic, abounds in some parts of Burma, especially on the Monmel hills.—Mason.


A native of the East Indies, very common in Ceylon up to 3000 feet; trunk arborescent, with rude and angular branches, and is said to furnish the finest of all the sorts of lac, of a bright red, and also to furnish a brilliant varnish in Ceylon.—Thew. p. 275; Eng. Cyc. p. 212; O'Sh. p. 553.

CROTON OLBONGIFOLIUM. Roxb. | C. levigatum, Wall., Bhatam kusaam, | SANSK. | Bhutala bhai, | Tel.

A small tree not uncommon in S. India and Ceylon. The Telugu name means demon-driver or devil-goad, sticks made of it being carried as a protection against evil spirits. — Voigt; Elliot; Thew. Zeyl. p. 276.


Grows in the Circars, Bengal, and Hindustan, near hills and streams in moist places. Perennial; seeds exactly like those of the castor-oil plant, but much smaller. Esteemed by the natives of India to be a good purgative, one seed bruised with water being given for each evacuation desired. The Burmese cultivate this species of croton, which grows into a thick bush. It is very common also on the banks of the Jumna, where it is called Jamalgota.—Royce; O'Sh.; Roxb.

CROTON SANGUISFLUA, the blood-wood of Norfolk Island; is said to be of little value except for firewood. On an incision being made in the bark, a fluid exudes which is used for marking the convicts' slopes, staining furniture, etc.; and it is a good tonic and astrigent, strongly resembling dragon's blood (Dam-ulkwain).—O'Sh.; Keppel's Ind. Arch. ii. p. 282.

CROTON SCABIOSUM. Bedd. A small tree on the Nullaymalay mountains, Kurnool district, where it is most abundant about the Yerrachalma (2000 to 3000 feet elevation); its very silvery appearance renders it highly ornamental.—Beddome, Pl. Sylte. p. 283.

CROTON TIGLIUM, Croton-oil plant. Crotton Jamalgota, Buxh. | Tiglium klotchianum, Rh.

Batu, also Dunti, | ARAB. | Japhota Battauma, Pais.
Jypal; Rechuk, | BENG. | Dunti, | PERS.
Kanakooh, | BURM. | Jumalgota, | NEPAL, | SANSK. | Singh.
Jayapala, | CAN. | Jumalgota, | NEPAL, | TAM.
Jamalgota, | HIND. | Bori, | MALAY.
Nirvala, | MAEAL. | Nirvala, | NEPAL, | Tel.
Kadel-avannu, | 

This small tree grows to 15 or 20 feet high in most parts of India, Assam, and the Mouluccas. Every part of the plant is purgative, but the fruit or seeds are dangerously so, and in the medicinal practice of Europe they are never given, though in India native practitioners separate the embryo, and give it internally. The seeds yield a powerfully cathartic oil, by grinding the seeds, placing the powder in bags, and pressing between plates of iron. The oil is then allowed to stand 15 days, and afterwards filtered. The residue of the expression is saturated with twice its weight of alcohol, heated on a sand-bath from 120° to 140° Fahr., and the mixture pressed again; the alcohol is distilled off, the oil allowed to settle, and filtered after a fortnight. One seer (2 lbs.) of seed furnishes 11 fluid ounces of oil,—6 by the first process, 5 by the second.

Crotton Oil. Nagala oil; Tiglii olem.

Dund, also Batu, | ARAB. | Dunti, | PEUS.
Kanakooh, | BURM. | Nirvala yennai, | TAM.
Jumalgota-ka-net, | HIND. | Naypalam nuna, | Tel.
Bori, | MALAY.

This oil is prepared by grinding the seeds of C. tigillum, placing the powder in bags, and pressing between plates of iron. The oil thus expressed is allowed to stand about a fortnight, and then filtered. It is of an orange-yellow colour, is soluble in alcohol, and reddens litmus paper powerfully. It is an exceedingly powerful cathartic. It has a heavy oily smell, and is very irritating to the skin. It is procurable in most Indian bazaars, often adulterated with castor-oil and other fixed oils. The seeds are administered by native doctors; and when the operation is excessive, they give the patient the juice of the sour lime, which is said to counteract the effect of the croton seeds.

Crotton Seed.

Hab-ul-malak, | ARAB. | Cherakan, | JAV.
Pa-tan, | CHIN.

The seeds of C. tigillum are about the size of a small marble, of a convex shape on one side, and bluntly angular on the other, enveloped in a thin shell.—Paulukner; Ausile; Royce; Roxb.; Voigt; O'Sh.; Lindley; Jnr. Rep.

CROTON VARIEGATUM, an ornamental shrub, commonly called the laurel; the leaves are variegated. There is a variety of it with specially variegated leaves, and handsome; the plants thrive best in large pots or tubs, shaded from the moonlight sun.—Jeffrey; Graham; Thomson's Records.

CROWS.

Cornelle, | FR. | Cantare, | IT.
Krahen, | GER. | Kaka, | SANSK., TAK.
Kowa, | HIND. | Griy, Darra, | ST.

Conostoma cemodium, one of the Rassorial Crows, of the sub-family Glaucopinae, inhabits the northern region of Nepal, and in Celebes; and on the Malabar coast black and white crows occur, also occasional albinos. The crow is reckoned a bird of ill-omen in India; still Malabar women are sometimes named Kaka, the name in that dialect, as well as in Sanskrit, for the crow. The females
of Malabar are, more than others, called after animals. Mani, the crocodile, is a name among them. In Christian countries, Barbara, Ursula, — Barbarian and Little Bear, — are not unusual. The crows incubate chiefly in March and April. The common crow of India is of unwonted familiarity, impudence, and matchless audacity. Mr. Sitr mentions a crow seizing a bread from a toast-rack, and another taking food from a dog while eating. Sir James E. Tennant mentions that one of these ingenious marauders, after vainly attitudinizing in front of a chained watch-dog, that was lazily gnawing a bone, and after fruitlessly endeavouring to divert his attention by dancing before him, with head awry and eye askance, at length flew away for a moment, and returned bringing a companion, which perched itself on a branch a few yards in the rear. The crow's grismaces were now actively renewed, but with no better success, till its confederate, poising itself on its wings, descended with the utmost velocity, striking the dog upon the spine with all the force of its strong beak. The dog started with fear and pain, and the bone he had been gnawing was snatched away by the first crow the instant his head was turned. The Corvus culminatus, or large black crow of India, may be constantly observed wherever there are buffaloes, perched on their backs, and engaged, in company with the small minah (Acridotheres tristis), in freeing them from ticks.

—Tennant's Ceylon; Sivr's Ceylon. See Corvica.

CROZOPHORA PLICATA. Juss.
Croton plicatum, Vahl. | C. tinctorium, Burm.
Khoo-di-okra. | Beng. Subali. | HIND.
Indian turnos. | Eng. Linga maram. | TAM.
Saha-devi, Nilak-rai, Hind. | Linga manu. | Tel.

Common in all the south of India, in rice-fields, flowering in the cold weather. Its value in leprosy is asserted. The juice of its green leaves dyes blue.—Voigt.

CRUCIBLE. Musa, Tel. In India, these are made by coppersmiths, etc., for their own use, of pipeclay or other suitable clay, beaten up for a considerable time on the anvil with burnt paddy husk; being formed, they are left to dry and are then ready for use. Mr. Rohde had seen a crucible formed for melting silver, simply by spreading wet clay on a bit of rag, which was immediately placed on the fire, which again was urged by the breath through a bamboo tube.—Rohde, MSS.

CRUCIFERE. This order of plants is so called from the four flower-leaves (petals) being disposed, more or less distinctly, in the form of a cross, as in the the wallflower, cabbage, and cress. Nearly all are herbaceous; none are poisonous, though they are generally a little acid; they are especially antiscorbutic.

CRUDE, a commercial term applied to raw and unrefined products, as crude camphor, crude tar, crude porcelain rouge.

CRUDIA ZEYLANICA. The. A large tree, of Galpata, near Calturua.—The.

CRUSADES. Military expeditions made from Christian countries in the 11th to 13th centuries, to recover the sacred buildings famished from the first origin of Christianity. At the time of the first crusade, the Mahomedan power was shared between those of Arab and those of Mongol origin. The Arab movement had been stayed by their defeat by Charles Martel, on the banks of the river Loire, and they had settled down in the countries which they had conquered, advancing in civilization and cultivating science. But later, the fresh converts to Mahomedanism, the Seljukian Turks and Tartars, issued from Central Asia, carrying ruin in their path. Asia Minor was lost to the Greek empire, and Constantinople itself imperilled, when Peter the Hermit roused Christian Europe to recover the Holy Sepulchre at Jerusalem. It was subsequently, in 1187, lost again by the conquest of Salah-ud-din; and at the time that St. Louis of France took the cross, Chengiz Khan with his followers had so ruined the whole tract from the Caspian to the Indus, that the succeeding centuries have not sufficed to restore it. The right wing of this enormous host was bringing ruin on the Slav nations of eastern Europe, while its left wing was menacing Bagdad and Syria. Poland and Hungary were invaded in 1258, and they had entered Bohemia and Moravia. Frederick II., in 1229, after Salah-ud-Din's death, recovered the Holy City, but it was again finally lost to the Kilwaite by the Black Sea to every Christian whom they found. Not long after, the Christians were again defeated at the battle of Gaza, which was fought in company with Malik Mansur, the ruler of Damascus, against the king of Egypt. St. Louis made two crusades, in the first of which he was completely defeated. The Ayubi are descendants of Salah-ud-Din. The family are known as the Hasan Keif, and occupy the district of Shrivan. In Mr. Rich's time, the Boy was powerful and independent. See Acre; Eyubi; Kafra.

CRUSTACEA. The Crustacea of the French, and the Krustenthiefe of the Germans. The common crab, the lobster, and crayfish, the common shrimp and the water-flea, may be taken as types of different sections of this family.

Cancer is a genus of short-tailed crustaceans, and is the type of the family Canceride of Linneaus; it includes a very numerous species of the genus Cancer; and the term Crab, which is a translation of it, is in common parlance applied to the great bulk of the brachyurous crustaceans. Dr. Leach restricted the genus Cancer to the form of Cancer pagurus, Linn., the large edible crab of British coasts, which was, when he defined the genus, the only species known. For the Blood-spotted Crab of the Asiatic seas (Cancer maculatus, Linn., etc.), and the Coralline Crab (Cancer corallinus, Pabur.), Dr. Leach instituted the genus Carpi/us, characterized by the existence of a single tooth on the border of the carapace, and by the tridentated front; and for the "Eleven-toothed Crab" (Cancer undecimdentatus, Pabur.) Egeria is a genus of brachyurous decapod crustaceans established by Dr. Leach. E. Indica, in size, general form of the body, and length of the feet, bears a great resemblance to Inachus scorpio; but, besides general differences, the arms are rather the short and slender. It inhabits the Indian seas. The Hermit Crabs are very common; and the nimble little Calling Crabs, Gelasimus tetragonon, Edw., G. annulipes, Edw., G. dussumierii, Edw., scanner over the moist sands, carrying aloft their enormous hand, sometimes larger than the rest of the body. They are of the E. and W. Indies. They bore holes for themselves in the black soil of the coasts. On some coasts of the East Indies the sands at ebb-tide swarm with them. They are
CRUSTACEA.

the food of the inshore sea fishes, and some of them are the best bait that can be used; and one species of Gelasimus is common in the casava fields of Brazil. Several small crabs are parasites, or take shelter within other animals. Cymothoe, a genus of the Indian Ocean, is too imperfectly organized to catch its own food, and the species take up their home in the mouth cavity of fishes of the genus Stromatea, where they snap up all that comes within their reach; Cymothoe stromatea is found inside the mouth of Stromatea nigra on the Coromandel coasts; another species has been found in the mouth of a chetodon, and inside that of a cyprinus of the Amur, and the Ceratootho exoceti has been found within the mouth of the flying fish.

Ostraocotheres tridacnae, Ruppell, is a little crab which lives within the great tridacna molluse, whose immense shell serves in European churches as a vessel for holy water. The crab takes shelter in the gap beneath it. Ostraocotheres tridacnae inhabits the Tridacna squamosa; the Conodytes melaegrineus lives in the shell of the pearl mussel; the Epiphrys giganteus lives on a fish of the Indian Archipelago; the Icthyoxenus Jellinghausi lodges in a fresh-water fish of the island of Java. Pinnotheres is a genus of small crabs which live within mussels, amongst others the Avicula margaritifera or pearl mussel, and in the holothurians of the Philippine Islands, and Pin. Fiscieri is of New Caledonia; one species lives within the Chama.

Again, species of Pagurus, about 30 in number, all lodge in deserted shells, and change their dwelling-places as they grow older. They are known as the Hermit Crabs. Darwin thinks (p. 544) that certain species always use certain kinds of shells. Their abdomen is too soft to be exposed. In the Keeling islands, the large claws of some of the hermit crabs are beautifully adapted, when drawn back, to form an operculum to the shell.

Crabs and crabs occupying deep waters in places to which light is seldom visible, are found without eyes. Three species of Amphipoda and one Isopoda, from Kailapai, New Canterbury, New Zealand, were found in this state.

The Birgus latro of the Keeling islands is famed for the skilful manner in which it tears off the husk and opens the coconut, in order to extract the medullary matter of the interior. It is a kind of intermediate link between the short and long tailed crabs, and bears a great resemblance to the Paguri. Darwin observed that they live on the coconuts that fall from the trees. The story of their climbing these palms and detaching the heavy nuts is mere fable. Its front pair of legs are terminated by very strong, heavy pincers, the last pair by others narrow and weak. To extract the nourishment, it tears off the husk, fibre by fibre, from that end in which the three eyes are situated, and then hardening upon one of them with its heavy claws until an opening is effected. It then, by its posterior pincers, extracts the white albuminous substance. It inhabits deep burrows, where it accumulates surprising quantities of picked fibre of coconut husks, on which it rests as on a bed. Its habits are diurnal, but every night it is said to pay a visit to the sea, perhaps to moisten its branchie. It is very good to eat, and the great mass of fat accumulated under the tail of the larger ones. sometimes yields, when melted, as much as a quart of limpet oil. They are esteemed great delicacies, and are fattened for the table.

Several small crabs are destructive to the growing grain crops of the tropics. The rice plant grown on the bhulls at the mouth of the Indus, is much cut down by a small black sea crab, called by the people Kookee. Without any apparent object, it cuts down the growing grain in large quantities, and often occasions much loss.

The Land Crabs are migratory, and often take long journeys. They live in the interstices of rocks, in the clefts of trees, and bore holes in the ground.

The Eriocheir Japonicus of Manchuria is remarkable for its hairy hand. A curious little crab of the Malacca Straits has been called by Mr. Bate, Sphaeropodia Collingwoodi, because of its taking in sand to eliminate its food, and ejecting the sand in the form of a pill. The species is unparalleled. The Phylluromas are styled Glass Crabs. The large Spider Crab of the Japanese islands, Inachus Kampferi, has been measured 1½ feet from tip to tip. It is of a bright yellow, with crimson patches.

The Ocypode ceratopthalmus of Ceylon burrows in the dry soil, jerking out the sand to a distance of seven feet. Of the Painted Crabs, the Crabes peintes and Crabes violets of the French, Grapsus stigmosus, Herbst, is distinguished by dark red marks on a yellow ground. They are found on the reef to the south of Colombo harbour. The Paddling Crabs, Neptunus pelagicus, Linna., and N. sanguiinolentus, Herbst, have their hind pair of legs terminated by flattened plates, to assist them in swimming.

The larve of the crab are termed Zoce. The crab has periodic moultings, during which it escapes from its shell a soft, harmless creature, incapable of exertion or resistance, and would become an easy prey to any of the devourers so numerous in the sea, were it not that so soon as the denudation is complete, a stout crab of the same species takes care of it to the best of its ability, until a new shelly case grows, and is enabled again to protect itself, and present a strong back to its foe. If the sentinel be removed, another will be found to have taken its place after the next tide, and this will be repeated many times in succession. While the crabs are young, the change of shell is supposed to take place frequently, and there is probably a time when the changes cease. Crabs and other crustacea are said to cast away their limbs when alarmed or frightened, as on the occasion of a thunderstorm, or on the firing of a cannon, and this is believed to be true. When a claw has sustained any injury, it is cast off by the animal, and a new one in due time takes its place. Most land crabs are carrion feeders; a few are vegetarians. Swimming crabs, Polybuns species, are very plentiful.

The place of the crabs among the crustacea is well defined.

Latreille, Desmarest, Leach, the two Milne-Edwards, De Haan, Dana, Heller, and Stimpson, have been among the most prominent systematic writers on the Crustacea; and of the naturalists of the present day, M. A. Milne-Edwards of Paris, Mr. Miens of the British Museum, M. de Man of Leyden, and Prof. Wood-Mason of Calcutta, have paid
CRUSTACEA.

especial attention to the Crustacea of the Indian and Malayan regions.

CLASS, CRUSTACEA.

Egeria arachnoidea, Edw., Coromandel coast.
E. Herbstii, Edw., Asiatic seas.
E. indica, Edw., Indian Ocean.
E. ovis, Edw., Indian seas.
D. hybridus, Edw., Coromandel coast.
D. muriata, Edw., E. Indies.
Pisa styx, Edw., Mauritius.
Choriurus aries, Edw., Coromandel.
C. aculeatop, Edw., Asiatic seas.
C. Dumerili, Edw., Vanicoro.
Paramithrax Peroni, Edw., Indian Ocean.
P. barbicornis, Edw., New Holland.
P. Guinazeli, Edw., New Zealand.
Miopipe cristata, Edw., Java coast.
M. phillyra, Edw., Indian Ocean, Mauritius.
Paramhippa platipes, Edw., Red Sea.
Pericera corrigener, Edw., Indian Ocean.
Stenopodes cervicornis, Edw., Mauritius.
Menathius monoceros, Edw., Red Sea, Indian Ocean, Mauritius.

Halimus aries, Edw., Indian Ocean.
H. auritus, Edw., Indian Ocean.
Tribe, Parthenopenus.
Eumolus niger, Edw., China coast.
Lambus longimanus, Edw., Pondicherry, Amboyna, Aden.
L. pelagicus, Red Sea.
L. echinatus, Edw., Pondicherry.
L. serratus, Edw., Indian Ocean.
L. prehensum, Edw., E. Indies.
L. careneatus, Edw., Pondicherry.
Parthenope hordia, Edw., Indian Ocean, Atlantic.
Cryptopodia fornicatea, Edw., Indian Ocean.

Fam. Cyclometopoe.

Tribe I. Cancerini Cryptopodes.
O’thra scruposa, Edw., Maurita, Archipaglo.
Cancer rosenus, Edw., Red Sea.
C. integrirrurus, Edw., Indian Ocean.
C. marginatus, Edw., Red Sea.
C. marginatus, Fabr., Andamans.
C. ocyroe, Edw., Asiatic seas.
C. mammilatus, Edw., Australia.
C. sculptus, Edw., Red Sea.
C. limbatis, Edw., Red Sea.
C. Savignyi, Edw., Red Sea, Indian Ocean.
C. calcaratus, Edw., New Holland.
Cyclopsus maculates, Edw., Indian Ocean.
C. convexus, Edw., Red Sea.
Zosymus latissimus, Edw., New Holland.
Z. pubescens, Edw., Mauritius.
Z. tonercus, Edw., Indian Ocean.
Z. saucis, Edw., Indian Ocean.
Xantho hirtissimus, Edw., Red Sea.
X. rufopunctatus, Edw., Mauritius.
X. asper, Edw., Red Sea.
X. Kircher, Edw., Sunda Islands.
X. Lamarecki, Edw., Mauritius.
X. Reynaudi, Edw., Indian Ocean.
X. Peroni, Edw., New Holland.
X. impressus, Edw., Mauritius.
X. lividus, Edw., Mauritius.
X. hirtipes, Edw., Red Sea.
X. punctatus, Edw., Mauritius.
X. incisus, Edw., Australia.
X. radiatus, Edw., Mauritius.
Chlorodes ungulatus, Edw., Australia.
C. aerolatus, Edw., New Holland.
C. nigri, Edw., Red Sea.
C. exaratus, Edw., Indian coats.
C. sanginesus, Edw., Mauritius.
C. endorus, Edw., New Zealand.
Ozias tuberculosus, Edw., Indian Ocean.
O. truncatus, Edw., Australia.
O. guttatus, Edw., New Holland.
O. frontalis, Edw., Pondicherry.
CRUSTACEA.

G. octodentatus, Edw., King Island.
G. Latreiilli, Edw., Mauritius.
G. retiiger, Edw., Asiatic seas.

G. variegatus, Edw., New Holland, Chili.
G. mexorum, Edw., Red Sea, Indian Ocean.
G. delicatus, Edw., Sandwich Islands.
Plagusia clavimana, Edw., New Holland, New Zealand.

Vancoro.

P. tomentosa, Edw., Cape of Good Hope, Chili.
P. depressus, Edw., Indian Ocean, China, N. Guinea.

Varuna littorea, Edw., Indian Ocean.

Fam. Oxyystomes.
Calappa lophos, Edw., Indian seas.
G. gallus, Edw., Mauritius.
G. crisata, Edw., Asiatic seas.
G. tuberculata, Edw., E. Archipelago.
G. fornicatea, Edw., Indian seas.
Orithya manilensis, Edw., China seas.

Leucosia urania, Edw., New Guinea.
L. eranilis, Edw., Indian coasts.

Myra fugax, Edw., Red Sea, Java.

Fam. Piridae.

G. quadrumaculata, Edw., Indian seas.
P. globulosa, Leach.

Arcania crinacea, Edw., Indian seas.
Ixa canaliculata, Edw., Mauritius.
Nursea Hardwickii, Edw., India.
N. granulata, Edw., Red Sea.


Dromia Rumphii, Edw., E. Indies.
D. fallax, Edw., Mauritius.
D. hirtissima, Edw., Cape of Good Hope.
D. caput mortuum, Edw., Indian Ocean.
D. unidentata, Edw., Red Sea.

Dynamene hispida, Edw., Mauritius.

Lomus hirta, Edw., Australia.

Fam. Pacolienses.

Ranina dentata, Edw., Indian seas, Mauritius.


Albunea symmata, Edw., Asiatic seas.
Iremipes testudinarius, Edw., New Holland.
Hippa Asiatica, Edw., Indian seas.
Pagurus cristas, Edw., New Zealand.
P. deornnus, Edw., Mauritius, Scyhelles.
P. puntulatus, Edw., Indian Ocean.
P. affinis, Edw., Ceylon.
P. sanguinolentus, Q. and G.
P. setifer, Edw., New Holland.

P. elibanarius, Edw., Asiatic seas.
P. crassimanus, Edw., South Seas.
P. tibicen, Edw., South Seas.
P. elegans, Q. and G., New Ireland.
P. aniculus, Edw., Mauritius.
P. gonagonus, Edw., China.
P. pilosa, Edw., New Zealand.
P. gamianus, Edw., Cape of Good Hope.
P. miles, Edw., coasts of India.
P. custos, Edw., coasts of India.
P. disphalus, Edw., Indian Ocean.
P. tenuipes, Edw., Indian seas.

Cenobita clypeata, Edw., Asiatic seas.
C. rugosa, Edw., Indian Ocean.
C. spinosa, Edw., Asiatic seas.
C. perlata, Edw., South Seas.

B. latro, Edw., Edwa, Manaus.
B. elongata, Edw., New Zealand.
B. Lamarkii, Edw., New Ireland.
B. dentata, Edw., Java.

B. Asiatica, Edw., Mauritius.
B. macrota, Edw., New Ireland.
B. sculpta, Edw., Java.
B. pisum, Edw., China.

Tribe, Scyllariens.

Scyllarus rugosus, Edw., Pondicherry.
S. squamosus, Edw., Mauritius.
Themis orientalis, Edw., Indian Ocean.
Thacus Peroni, Edw., Australian seas.
I. antarcticus, Edw., Asiatic seas.
P. palmaris Lalandii, Edw., Cape of Good Hope.
P. fasciatus, Edw., Indian seas.
P. ornatus, Edw., Indian seas.
P. sulcatus, Edw., Indian coasts.
P. penicillatus, Edw., Indian Ocean.
P. daeypus, Edw., Indian seas.

Fam. Thalassinidens.

Glaothoe Peroni, Edw., seas of Asia.

Tribe, Gasterobranchidae.

Callianidei typa, Q. and G., New Ireland.

Callianassa elongata, Edw., Marriannes.

Fam. Astacidae.

Homarus Capensis, Edw., Cape of Good Hope.


Alpheus brevirostris, Edw., New Holland.
A. venustus, Edw., Mauritius.
A. bidens, Edw., Asiatic seas.
A. charybdis, Edw., Asiatic seas.
A. villous, Edw., N. Holland.
A. frontalis, Edw., New Holland.
Tontonia macrophthalma, Edw., Asiatic seas.
P. armata, Edw., New Ireland.
P. enelee, Edw., Ceylon, Vancoro.

Tribe, Palomeniens.

Hippolyte veniculosus, Edw., Asiatic seas.
H. Quoyanus, Edw., New Guinea.
H. spinicornis, Edw., New Zealand.
H. spinicaudus, Edw., New Holland.
H. gibberosus, Edw., New Holland.
H. marmaratus, Edw., Oceanica.
Rychnocheta cetus, Edw., Indian Ocean.
Palenon natator, Edw., Indian Ocean, on Gulf weed.
P. longirostris, Edw., Ganges mouth.
P. carcinus, Edw., Ganges mouth.
P. ornatus, Edw., Amboyna, Waigou.
P. Lamarrell, Edw., Bengal coasts.
P. Tranquebariens, Edw., Tranquebar.
P. hirtimanus, Edw., N. Mauritius.

Tribe, Penecens.

Stenopus hispidus, Edw., Indian Ocean.
Penaeus canaliculatus, Edw., Celebes, Mauritius.
P. monoceros, Edw., India.
P. Indians, Edw., Coromandel.


ORDER, STOMATOPODES.

L. typus, Edw., Indian Ocean?

Phyllosoma communis, Edw., African and Indian seas.
P. stylifera, Edw., Indian Ocean.
P. aeminius, Edw., New Guinea seas.
P. clavicornis, Edw., African and Indian seas.
P. longicornis, Edw., New Guinea.
P. Freycinetii, Edw., New Guinea.
P. laticornis, Edw., Indian seas.
P. Meridia, Edw., Indian Ocean.

ORDER, STOMATOPODES.

Lucifer Reynaudi, Edw., Indian Ocean.

L. typus, Edw., Indian Ocean?

Phyllosoma communis, Edw., African and Indian seas.
P. stylifera, Edw., Indian Ocean.
P. aeminius, Edw., New Guinea seas.
P. clavicornis, Edw., African and Indian seas.
P. longicornis, Edw., New Guinea.
P. Freycinetii, Edw., New Guinea.
P. laticornis, Edw., Indian seas.
P. Meridia, Edw., Indian Ocean.

Phyllosoma brevicornis, Edw., African and Indian seas.
P. stylifera, Edw., Indian Ocean.

Philias serratus, Edw., Port Jackson, Malonies.

Amalopus commaruns, Edw., Mauritius.

Amphipod, Edw., Indian Ocean.
A. Reynaudi, Edw., Cape of Good Hope.
A. Gaimardii, Edw., New Holland.

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CRYPTOGAMIC PLANTS.

Dinemoura affinis, Edw., Indian seas.
D. ferox, Edw., New Zealand.
Pandurina pallidus, Edw., Asiatic seas.
P. dentatus, Edw., Edw., Tongataboo.
Phyllophora cornuta, Edw., Tongataboo.

ORDER, LENUMIDAE.

Fam. Chondracanthiens.
Tucca impressa, Edw., on a diadon.

Penelus Blainvillii, Edw., on Exococcus voltians.
Lernoneima Lesueurii, Edw., on Exococcus voltians.

ORDER, ARAENIDAE OR PYCHNOGONIDAE.
Nymphus gracile, Edw., ocean coasts.
Fallen chiraegus, Edw., Bay of Jarvis, New Holland.

Sub-clas, Xyphosures.
Limulus Moluccanus, Edw., Moluccas.
L. longispina, Edw., China, Japan.
L. rotundicans, Edw., Moluccas.

— Tennant’s Ceylon; Collingwood’s Tr. of a Naturalist; Eng. Cyc.; Anistle; Milne Edwards; Darwin; Hartwig; Bikmore.

CRUTTENDEN, G. S. J., an officer of the Indian Navy, author of a Report on the Micijartheza Tribe of Somali, inhabiting the district forming the N.E. point of Africa; also of a Memoir on the Western and Eastern Tribes inhabiting the Somali Coast of N.E. Africa; also of a Journal of an Excursion to Sansa, the capital of Yemen; Memoir on the Edo, or Tribes of the N.E. Coast, Somali Coast of Africa, Bombay, 1848. He was largely employed in surveying parts of the coasts of the south of Asia. He wrote a journal of his excursion into Dahar.—Bomb. Geo. Trans. 1844-46, 1847-49; E. I. Marine Surveys.

CRUZCOOL, an opening or strait separating Mascall Island from the Chittagong coast, north of the White Sandcliffs, which are in lat. 21° 37' to 21° 24' N.—Horzb.

CRYPSIRHINA VARIANS, a curious bronze-coloured mapgle, common to Siam and Java. C. varians is the Phrenotria temia, Horsfield, and seems to be of common occurrence in the Tenneria Provinces, where its presence was first remarked by the late Dr. Heer.—Wallace; Bryth.

CRYPTOCARYA, a genus of plants, all of them trees, of the natural order Lauraceae. C. amygdalida, Nees, of Patongg; C. floribunda, Nees, of Sylhet; C. Griffithiana; C. membraneus, Thw., of Saffragam, Ceylon, up to 2000 feet; C. Wightiana, Thw., of Ceylon; C. Stockski, D. C., Peninsula of India; C. Neighberriensia, D. C., Peninsula of India, are known species.—Voigt.


This very large, fine tree is not uncommon in the moist forests of the Western Ghats and in Ceylon, at elevations from 2000 up to 5000 feet; also in the Timneelly and Travancore ghats, Malabar and S. Canara. In Ceylon its timber is considered valuable for building purposes.—Thw.; R. Br.; Wall.; Beddome.

CRYPTOGAMIC PLANTS of the S. and E. of Asia have been little studied. They include acroges, byroges, thallogens, and protophytes; ferns, rushes, mosses, fungi, lichens, seaweeds, etc.; and from the lichen tribes and from the algae, fungi, mosses, and ferns, man derives nutriment and valuable products. Some form articles of commerce, particularly as food-plants, affording gelatinous and amlyaceous matter, and being useful in medicine and the arts. The flowerless cryptogamic plants include the
CRYPOPHELIUM.

seaweeds, Porphyra, sp., layer; Ulva, sp., green layer; Laminaria, sp., tongue; Alaria, sp., baffledlock; Iridea, sp., and Rhodymenia, sp., dulse.

Ceylon moss is Plocaria candida, and P. tenax is Chinese moss; Garcillaria hemichthecum is Coriscian moss, also the Laurencia obtusa. Australian moss is the Eucheuma speciosum; the edible seaweed of Valparaiso is Durvillaea utilis; Sphacelochoccus lichenoides is found on the British coasts. Irish moss is Chondrus crispus and Gigartina marina, and Cetraria Islandica is the Iceland moss. Several of the lichens furnish valuable dyestuffs, particularly species of Lecanora, Roccella, and Borreria anem. —Food, 105; Simonds.

CRYPOTHELIUM, a genus of plants belonging to the natural order Asclepiaceae. C. elegans, C. grandiflora, C. pauciflora, C. reticulata, and C. Buchananii occur in India.—W. Ic.; Voigt.

CRYPTOMERIA JAPONICA. D. Don.

Cupressus japonica, Thunb.

The suji, or Japan cedar, a beautiful and greatly admired tree of Japan and N. China, is a species of pine not unlike the araucaria of Norfolk Islands and Brazil. When growing luxuriantly, it is highly ornamental, rising from the ground as straight as a larch, and sending out numerous side branches almost horizontally from the main stem, which again drop towards the ground in a graceful and weeping manner. It is the finest of all the trees of Japan, rising to 60 and 100 feet high, and five feet in circumference at three feet from the ground. It is seen in the valleys, and to up 7000 feet on the mountains. The wood of the tree has a kind of twisted grain, and possesses great strength and durability. It is highly valued by the Chinese; and, from its beauty and straightness, is often used by the mandarins and priests for the long poles which are generally seen in front of their houses and temples. It is also well known and highly prized by the natives of Japan as an ornamental tree. It is a most conspicuous tree, evidently in high favour with the priests of Buddha, and well deserves to be so. It succeeds admirably in China, and has been introduced into England, where it is admired.—Fortune’s Wanderings, p. 128; Tea Districts, pp. 16, 212, 304; F. von Mueller.

CRYPTOSTEGIA GRANDIFLORA. R. B. Norium grandiflorum, Rox. | Palay, | Maleal, | Tam.

A climbing plant belonging to the family Asclepiadaceae. It is common in the south of India, and yields a fine silky fibre, capable of being spun into fine yarn, and of employment for many of the purposes to which flax is applicable, suited to the weaving of different qualities of cloths. It seems to be a good substitute for flax, as it is soft, plant, and susceptible of being split into the finest threads. The stalk contains a large percentage of fibre, besides yielding a milky juice, which solidifies into a gum-elastic of the nature of India rubber; but it has not as yet been collected for the purposes of commerce, and it is doubtful if a sufficient quantity could be obtained to render it an article of trade. The small samples obtained answer well for rubbing out pencil marks from paper. Mr. Underwood made a fair attempt at producing waterproof cloth by simply running the juice over the cloth.—M. E. F. R.

CRYPOTHELEA CONSORTIA, the wood moth.

CRYSTAL.

Cristal, | Fr., Sp. | Balur, | HIND., PERS.
Krystal, | Ger. | Cristello, | IT.
Koreh, | HEB.

The word for crystal alluded to in Genesis xxxvi. 40 as ice, and in Job vi. 16 as frost, and the Hind-Persic word Balur, seem to have been applied differently to ice and rock-crystal. Rock-crystal occurs abundantly in many parts of India, and that of the south of the Peninsula is known as yellow stone, from the place of its occurrence. It is said that rock-crystal, if made red-hot, and plunged red-hot into the tincture of cochineal, takes a ruby hue; if into a tincture of red sandal, it takes a deep red tint; into tincture of saffron, a yellow like the topaz; into a tincture of turkoses, a yellow like the topaz; into juice of nerpum, it takes a deep violet like the amethyst; and into a mixture of tincture of turkoses and saffron, it becomes an imitation of the emerald. Also by steeping the crystal in oil of turpentine, saturated with verdigris or spirits of wine, holding dragon’s blood or other coloured resins in solution, depth of tints are produced proportioned to the time of steeping. Crystals can be coloured if heated in a crucible with orpiment and arsenic. Crystals coloured red are false rubies, known in France as rubaces. Cups of rock-crystal were largely prized in ancient Rome; but even in Phiny’s time the price of agates, as he calls them, had begun to fail, and now-a-days the Cambay stones formation is so extensive, that the principal use of Cambay stones is as studs, paper-cutters, knife-handles, and nursery cups. —King, p. 178. See Cambay.

CSHITIA, Caesia. SANSK. The horizon; also the name of an arc referred to the horizon, used for finding the ascensional difference.—Warren, Kala Sangatoli.

CSOMA DE KOROS. Alexander Csonka de Koros was a highly learned Hungarian philologist, who died in 1842 on the Himalaya. A memoir of him appeared in the Bl. As. Trans. 1841. He bequeathed Rs. 5000 to the Asiatic Society of Bengal. He resided in Kunawar, and at Ladakh and Kanum, from 1828, for the sake of studying the language of the country. An account of Gerard’s interview with him appeared in the Gleanings in Science, 1829, i. p. 110. He wrote a Geographical Notice of Tibet in Bl. As. Trans. 1835, i. 121. The Buddhist religious works of Tibet, brought to notice by him, are the Tanjur, which consists in its different editions of 100, 102, and 105 folio volumes, and comprises 1053 distinct works. The Tanjur consists of 225 volumes folio, each weighing from 4 to 5 lbs. in the edition of Pekin; but an edition has also been published at Lhasa and other places; of these De Koros gave an analysis in the 20th volume of the Asiatic Researches. See Pali.

CETESIAS, b.c. 440-570, a Greek of Cnidus, of the Asclepiad tribe, a contemporary of Xenophon and Herodotus. He took service with the Greek mercenaries who joined Cyrus, son of Darius II., in his expedition against his brother Artaxerxes Mene mon, by whom he was taken prisoner at the battle of Cynaxa, b.c. 401, 41 miles from Babylon. He became physician to Artaxerxes Mene mon, king of Persia, at whose court he resided for 17 years. During his residence he was able to consult the public archives, and he compiled from them a history of the Persians and of their predecessors in the empire.
of Asia. He also wrote an account of India and its productions, but the absurd exaggerations and fables which this contains have caused all his other works to be viewed with suspicion. He is likewise accused of being led, by extreme jealousy of Herodotus, into direct mis-statements, that he might contradict that historian. Aristotle more than once declares him to be unworthy of credit; and modern critics have generally agreed to reject altogether, or to receive with great reserve, all his assertions. Yet Diodorus Siculus and several ancient authors appear to have followed and trusted him, and may be observed that whilst more travelled than Aesop and Togus, the works of Ctesiphon probably the only sources of his Indian marvels, written records and monuments may have furnished him with well-authenticated historical facts, to assist him in compiling the history of the country in which he resided, and of which he had a personal knowledge. Unfortunately, of his history very little remains, except the names of kings. Much relating to Assyria, contained in the works of others, was, however, undoubtedly copied from him. Ctesias and Isidore both mention a statue pillar of Semiramis at Baptae, but these and the Syriac inscriptions have disappeared. Ctesias mentions the use of swords as lightning conductors.—*Smith's Dictionary of Gr. and Rom.*

CUBERO. The Babylonian empire was succeeded by Cyrus, who is said to have taken the capital by turning the course of the Euphrates, and marching his troops along the bed of the river into the centre of the city. The walls and temple of Belus are said to have been demolished by Xerxes on his return from the Grecian expedition; but if so, they must have been rebuilt, as they were standing in the time of Alexander. After the building of Seleucia and Ctesiphon, Babylon became gradually deserted; and we learn from St. Jerome that the space within the walls was converted by the Parthian kings into a royal hunting park. From this period we cease to hear of Babylon as a city; but, notwithstanding that so many ages of barbarism and ignorance have passed away, tradition still continues to identify both its name and situation. The town of Hilla is said by the people of the country to be built on the site of Babel; and some gigantic ruins, still to be seen in its vicinity, are believed to be remains of that ancient metropolis. From her fallen towers have arisen not only all the present cities in her vicinity, but others which, like herself, are long ago gone down into the dust. Since the days of Alexander, we find four capitals at least built out of her remains,—Seleucia by the Greeks, Ctesiphon by the Parthians, Al Modain by the Persians, and Kufa by the Khalifs,—with towns, villages, and caravanseris without number. The ruins of Ctesiphon are to be seen on the eastern shore of the Tigris, 15 miles south of Baghdad; and immediately opposite to it are the ramparts and fosse of the Grecian city of Seleucia, which afterwards becoming identified with the former under the name of Coche, they assumed, when thus united, the epithet of Al Modain, or the cities. Ctesiphon was most admirably situated, on a sort of peninsula formed by a sudden flexure of the Tigris, which must have embraced the greatest part of the town. Its foundation, however, can hardly be ascribed to any particular person; as it would seem to have increased gradually, during a succession of many years, from a camp to a city. Pacoras, supposed to be Orodas, king of the Parthians, and contemporary with Anthony, is thought to be the first who surrounded it with walls, and made it the capital of the Parthian empire. It was sacked, together with Seleucia, by the generals of Marcus Aurelius, A.D. 165, and afterwards by the emperor Severus. It became the favourite winter residence of the powerful successors of Artaxerxes, from whom it was taken by Said, the general of the khaliif Omar, A.D. 657. The capital was taken by assault, and the multitude that resisted the attack is said to have leaped into the river to escape to the sabres of the Mahomedans, who shouted with religious transport, 'This is the white palace of Chosroes! this is the promise of the Apostle of God!' The sack of Ctesiphon was followed by its desertion and gradual decay. The Arabs disliked the air and situation of the place, and Omar was advised by his general to remove the seat of government to the western side of the Euphrates; and little now remains but part of the palace of Chosroes, called Tak-i-Kesra, the Arch of Chosroes. It is seen from afar on the plain, and presents a front of 300 feet in length by 160 in depth, having in its centre a vaulted hall 100 feet in height to the top of the arch, the span of which is 85 feet. The Ali Capi at Isfahan, and gates of the palace of Dehil, sink into insignificance beside the Tak-i-Kesra. The city walls, which appear to have been of very great thickness, may also be traced to a considerable distance on both banks of the river. The names of Seleucia and Ctesiphon are very frequently confounded by the early Christian writers; but the cities stood on opposite sides of the river Tigris, and were built at different periods. Mr. Jackson, when proceeding up the Tigris in 1797, passed by the ruins of Ctesiphon, which that river had considerably undermined. There were visible a great many earthen jars, some half-exposed, others ready to fall into the river. Captain Mignon dug into the sides and bases of many of the mounds at the Tak-i-Kesra, and found their foundations invariably composed of the fire-burnt brick.—*Layard, Nineveh, i. p. 242; Kinney's Geographical Memoir, pp. 255-254, 273, 274; Porter's Travels; J. B. Fraser's Travels.*


The cubeb pepper of commerce is stated to be the fruits of Piper cubeba and P. carica, both of them natives of Java, to which island their cultivation appears to be confined. Dumki mirchi and lada bacakor, meaning 'tailed pepper,' are derived from the appearance of the dried fruit, which has always the footstalk adhering to it. — *Irvine; Cranfield's Dict.* p. 117.

CUBERO. Don Pedro Sebastian Cubero, author of the Peregrinacion de la Mayor Parte del Mundo, published at Saragossa 1688. He set out about 1650 from Moscow, with the Russian ambassador, to the court of Persia. From Ormuz he sailed to Damany (Daman?), Surat, and Goa, where he found the capital of Portuguese Asia in a state of miserable decay, and its trade almost in the hands of the Dutch.
CUCUMIS MELO.

CUCUMIS MELO. Linn. Melon, musk melon.

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CUCUBALUS DRABA. Gartner. A plant of the alpine vegetation of Kodarnath.—Hofmeister.

CUCULIDE, the cucumber family of birds, is of the tribe Scansores. Their outer toe is versatile, usually turned back. They mostly live on insects, a few on fruit. Some hatch their own eggs in nests constructed by themselves, others deposit their eggs in the nests of other birds. This family is divided as under:

Himalaya regions. It is cultivated in Persia and Afghanistan, the Panjab, and all over India. From time immemorial Kashmir has been famous for the excellence and abundance of its melons, which form a staple article of the food of the inhabitants; and the melon of Multan and Jang are excellent. Dr. J. L. Stewart says that this fruit rapidly degenerates if sown in the plains. In Kabul it thrives, and is in perfection in October and November, when the first frost touches the plant. It is largely taken for sale to Peshawur.

CUCUMIS MOMORDICA. 

Phunti, | Beng. Karkari; Karkatai, Tam.
Phunt; Tut; | Hind. Pedda dosa kaia, Tel.
Kukra, | Panj. Mullu dosa kaia,

Cultivated throughout India; when young, is a good substitute for the common cucumber. Seeds occasionally ground into a meal. When the fruit is ripe, if eaten with a little sugar, it is little inferior to the melon, and reckoned very wholesome; natives use it in curries.—Roxb.

CUCUMIS PUBESCENS. Wild.

C. maderaspatanus, Roxb.

Kakri, Bun-gunuk, Hind. Single, China.
Rasu, Pers. Keiti, Nella kidins, Tel.

Grows wild in South India, in the Panjab, Hindoostan, Bengal, and the Peninsula. Its small fruit is eaten by the natives, though they do not cultivate the plant; on ripening it becomes aromatic.—Roxb.; Voigt; Stewart; Irvine.

Cucumis dudain, Queen Anne's Pocket Melon, is a native of Persia, and produces a fruit variegated with green and orange, and oblong unequal green spots; when full ripe it becomes yellow, and then whitish. It has a very fragrant vinous musky smell, and a whitish, floury, insipid pulp.

CUCUMIS SATIVUS. Linn. Cucumber.

Kusad, | Arab. Khyiar.
Fakari, | Dakh. Mutrula, Sookasa, Sansk.
Fakari, | Eg. Rata kacari, Singh.
Kadarko, | Hind. Pilu, Amba.
Antinam, Timman, Mal. Malu veleri, Tam.
Mullen velleri, | Maleal. Vellerakai,
Khiro, | Panj. Dosa kaia, Tel.

This is commonly grown and largely used over all India, but most Europeans find it difficult to digest. Cucumbers of the C. sativus and C. utilissimus are consumed in immense quantities by the Kares and Burmans, who seem to prefer them large and yellow, rather than pluck them when green and tender. The seeds of this and of C. utilissimus are considered cooling.

CUCUMIS TUBEROSUS. Heyne.

Adulay kai, | Tam. | Casara kaia, Tel.
Nellay piku, | |

This is a pot vegetable, eaten by the people in cry. It grows wild in cotton soils of North Tennesse. It is very prolific, and on waste lands, headlands, etc., in great abundance. A coolie load of tubers gives six large measures of fine flour, considered by the natives a most excellent breadstuff. One measure of the flour is considered equal to two measures of the Panium glossarium, which latter is the staple food of North Tennesse. The tubers are washed and peeled, then bruised on a rough stone, after which it is washed precisely like arrowroot, the washing extending over seven or eight days, when the starch is dried in the sun. The flour is almost as white as arrowroot; it is reduced to conje quite as easily, by pouring boiling water upon a spoonful or two which has been first moistened with cold water. The fruit, a small capsule used in sweetmeats, is known as the Adulay.—Roxb.; Rev. J. F. Keccott, in Agri. Hort. Soc. Proc. 1862.

CUCUMIS UTILISSIMUS. Roxb.

Kiza-ut-tani, | Arab. Rakari, Karkari, Hind.
Kanka, also Karkari, Beng. Khyarih-badang, Pers.
Tha-khwa, | Bum. Dosa, Nakka dosa, Tel.
Gurkel lange, | Ger.

Cultivated throughout India; and Dr. Stewart has seen it at 6000 feet, on the Ravi, in the hills. This gourd attains 2 or 2½ feet, and is stated to reach the extraordinary length of 5 feet. When ripe, if carefully gathered and suspended, it will keep good for several months, from which circumstance they are valuable for long voyages. It is pickled when half grown. The seeds, like those of the other cucurbitaceous fruits, contain much farinaceous matter, blended with a large portion of mild oil. The natives dry and grind them into a meal, which they employ as an article of diet; they also use them a mild oil from them, which is prepared from the seeds and to burn in their lamps. The seeds are highly nourishing, and well deserving of a more extensive culture than is bestowed on them at present. The powder of the roasted seeds mixed with sugar is said to be a powerful diuretic, and serviceable in promoting the passage of sand or gravel. In Roxburgh's time, in the Guntur, during the Cireen, these seeds formed a considerable branch of commerce.—Roxb.; Cat. Exs. 1862; Hong.

CUCURBITA, a genus of the Cucurbitaceous, which includes all pumpkins, gourds, squashes, and vegetable marrow, and of these there are innumerable varieties.

C. moschata, Duchesne, is the musk gourd.
C. melopepo, Linnaeus, the squash gourd, can be stored for months. It is supposed to be a variety of C. pepo.
C. pepo, Linnaeus, the pumpkin, is largely grown in particular localities. Its naturalization in desert tracts would be a boon.
C. aurantia. — ? Yin-kwa, Chin. A deep golden-coloured gourd of Cheh-kiang. It is rather more tender than the other species.
C. lobata. Tinda, Panj. In the Panjab this is a small round gourd when young, at which time it makes a most delicious vegetable for the table; the fruit is not bigger than a small turnip.—Powell; Eng. Cyc.; Smith.

CUCURBITACEAE. A natural order of climbing or creeping plants, the gourd tribe, chiefly natives of hot countries, ranged by Meisner under 35, and by Endlicher under 28 genera. Of these, there occur in Egypt, Abyssinia, and Arabia 8, in Astracan and Persia and the Levant 3, in China and Japan 6, and in the East Indies 100 species, of which 40 are natives of India,—arumcula, benincasa, bryonia, bryopis, citrullus, cocinea, cucumis, cucurbita, erythropical, heteropercum, gymnopetalum, karuia, lagarica, luffa, melothria, morridnea, mukia, pioigne, siccyos, trichosaenthes, Zehneria. Some of these species afford cathartics of remarkable power, others have useful edible fruits. The fruit varies much in size, form, and external characters, but is generally fleshy within, and its pulp is often so saturated with water that it cannot be dried. The roots of most of the order contain starch.
often associated with an acrid poisonous matter, which can be separated by washing the powdered root with water, in which the acrid matter dissolves, while the starch is left. The seeds of most of the order are of a mild sweet taste, give good emulsions with water, and yield a fixed oil by expression. Few of the plants of this order are indigenous in Europe. In tropical countries this fruit is a large or abundant portion of their food, which it often affords of the finest quality in the most arid deserts, or on barren swamps and islands. In Persia, China, and Kashmir, they are cultivated on the flats, on the floating collections of weeds common in these localities; in India they are very abundant, either in the wild or cultivated state. According to Dr. A. Hunter, the Cucurbitaceae abound in fibres of great length. The following are the chief dietetic species:—

**Cucurbita maxima.** The seeds yield oil by expression, and are considered cooling.

C. ovifera, L. Vegetable marrow.

**Beniness cerifera, Peth.**


C. Madarapatapessis, Roxb. Fl. Ind. iii. p. 723.

C. puteseens, wild, common near Saharanpur; becomes aromatic on ripening.

C. momordica, Phoot.

C. sativus, cucumber, Kheera. Fruit contains sugar; seeds yield a mild oil.

C. utilissimus, Kurkee.

C. pentandra, China.

L. momordica, Kalee-tori.

Moromdia chantamia, Kureala. Fruit slightly bitter.

Trichosanthes anguina, Chuchingh. T. dioka, Pulwal.

T. cucumina, Janglee-chuchinga.

**CUCURBITA MAXIMA.** Duch.

Cucurbita melopepo, Roxb. | Pampkin; Gourd.

C. coccata, China.

Shah, pha yung, BURM.

Pha yang kha, ...

Nam-kwa, Kuang-kwa, CHIN.

Red or squash gourd, Eng.

Mitha kaal, HIND.

Halwa kudda?

Cultivated throughout India, in Kashmir, up to 6000 or 9000 feet, and in Ladakh up to 10,500 feet. It is made to trail over houses and trees. It needs much water and good soil. The fruit is very large; when boiled, it tastes like a young carrot, and is used in various ways; its leaves are boiled as greens. This gourd is presented with great ceremony in China to married children who, on the evening of the festival of mid autumn, which happens on the 15th of the 8th month of the Chinese year. In India the tallow gourd is presented to a wedded pair.—Voigt; Stewart; Gen. Med. Top.

**CUCURBITA OUVIFERA.** Linn.

Vegetable marrow, Eng. | Simai-pusini kai, TAM.

This is the most wholesome of the Cucurbitaceae, and is largely grown by the market gardeners of India. It is said to be indigenous at Astracan; it is an excellent vegetable, of easy culture in good rich soil.—Jeffrey; Voigt.

**CUBBEAR.** is the Tsze-fen and Shih-ju of the Chinese. It is a powder procured from the Lichen Tartaricus, a plant found in Iceland, used in dyeing violet, purple, or crimson. Its colours are not durable when it is employed alone, and it is therefore used as a body to other expensive dyes, as indigo, cochineal, etc., making them more lively. It is used but little by the Chinese, and the demand in that market is not great.—Compendious Description. See Dyes.

**CUDDARLOR.** a town on the Coromandel coast, in lat. 11° 42' 45" N., long. 79° 48' 45" E.; population, 40,464. It is in the South Arcot district, and has the three parts of old Cuddalore, Munja Coopum or New Town, and Fort St. David, the last of which, in 1864, Nunbaji gave permission to build. In 1767 the fortifications were rebuilt; and after the capitulation of Madras to the Bourdonnais in 1766, Fort St. David became the seat of government. The French advanced against this fort in 1766, but were defeated by Mahfuz Khan. Duplex besieged it, but retreated; and he subsequently, in 1749, failed in a night attack on the town. Major Lawrence made it his headquarters. In 1758 Lally took Cuddalore town without opposition; and on the 24 June 1758 Fort St. David surrendered, and the fortifications were razed. In 1760 it was retaken by Colonel Coote, but in 1782 was again taken by the French under M. Bussy.—Findlay.

**CUDDAPALL.** a town in lat. 14° 28' 49" N., and long. 78° 51' 47" E., which gives its name to a revenue district of the Madras Presidency, lying between lat. 13° 25' and 16° 20' N., and long. 77° 55' and 79° 40' E.; area, 8567 square miles; population, 1,351,194. It has the districts of Kurnool and Guntur on the north, and Mysore and North Arcot on the south. The river Pennar enters the district at Tallapadattoor, and, after many windings, passes by Sidwhut within nine miles from Cuddapah town, and flows in an easterly course to the Bay of Bengal.

There are diamond mines about 7 miles northeast of the town of Cuddapah, on both banks of the Pennar. Iron ore is abundant in the hills. Cotton, wheat, and indigo are the chief crops. This district formed part of the territories of the Bijanagar dynasty. In A.D. 1589 it fell to the armies of the Kutub Shai dynasty of Golconda, who sacked the city, and broke the idol of the great temple. It was afterwards under the Adal Shahi rulers of Bijapur, later on taken by Hyder Ali about A.D. 1779, and its ruler, Halim Khan, carried captive. In 1800 it was ceded by the Nizam to the British. The chief towns are Sidwhut, Jummal Madagoo, Badwail, Palgoor, Adullu, Gildalore, and Jungam-rapug. In the district are 108,676 Mahommedans and 4973 Christians.

The non-Aryan migratory tribes are the Yanadi, a hill tribe of small stature, determined plunderers of the shepherd flocks, but are valuable as foresters.

The Yerkalas are wholly migratory and predatory; steal into houses at night, and wrench the jewels from the ears of the women and children.

The Chenchuwar, a physically fine race of men, but incorrigibly predatory and regardless of human life.

The Sugoli, a wandering, pilfering race, who have a picturesque costume.—Imp. Gaz.

**CUDDING** of Coorg, a breastwork.

**CULCUNI,** a Tamil accountant.

**CULITLAWAN BAIRK** is obtained from several species of cinnamonum trees.

**CULLEN, General,** of the Madras Artillery, long a resident at the court of the Jaffreys of Travancore; for half a century a contributor to physical science in India. He wrote on the Geological

CUMELLA EXCELSA. W. Ic.

Kattoo-bolde, SINGH. Malai konji maram, TAM. Kattoo heritya, Durio zeylanicus, Gard. A tall tree of the southern part of the Peninsula of India, and common in the central province of Ceylon, at an elevation of from 3000 to 5000 feet; trunk straight, from 60 to 80 feet high. Wood white, rather open-grained, apparently not very good, but the outside wood only was examined. Under the microscope, its longitudinal section is very peculiar.—Wight; Gibson; Thw.

CULLEN'S LIQUID, for preserving wood and iron, is a mixture of two measures (by bulk) of coal-tar to one measure of quicklime and one of powdered charcoal. Lime is freely dissolved in coal-tar, with which it forms a cement which takes readily to wood, brick, iron, or other building materials, however wet, and which sets with nearly the cohesion of mortar or hydraulic lime. With the addition of the charcoal, mixed in an exceedingly fine state, it is found that white ants, which attack and destroy creosoted wood, were effectually excluded, carbon, it appears, being especially poisonous to them. Six pieces of decodar, or Himalaya pine, were buried in a place particularly infested with white ants, three of the pieces being protected by Cullen's preparation, and the three others being left in their natural state. At the end of five months the blocks were dug up, when those which had been coated were found to be as sound as when put down, while those which had been left unprotected were found riddled with the perforations of the ants.

In the case of iron, creosote is believed to be a complete protection in ordinary soils, but in salt-petre soils is said to be of no use whatever. Six pieces of thin iron were buried, three being coated with Cullen's preparation, while the others were left as they were cut from the original plate; the coated iron was completely protected for the time tried, whereas the pieces put down in their ordinary state were found to have been much rusted.

CULLUKA, an ancient Hindu commentator on the book of Menu, the Hindu lawgiver.

CULTIVATORS of the soil in British India are known as the ryot and the zamindar, the former being an Arabic word, the latter from the Persian. The Tibetans style them Glupa. In India, the chief cultivating races are the Jat, Kapa, Khassa, Kunbi, Kurni, Mala, Wakkala, Vallalar, and the bulk of them are co-proprietors with the rulers. Menut says cultivated land is the property of him who cut away the wood, or who cleared and tilled it,—an ordinance binding on the whole Hindu race, and which no international wars or conquest could overturn. In Bengal, a man with a helping boy, with a plough and a pair of bullocks, will cultivate as much as three acres, or even more. Throughout India their crops are designated by the seasons at which they occur, as Bhaduwari, Kharif, Rabli, or Rajastan, i. p. 496. See Agriculture; Crops; Soil.

CUMBAH, in Hindu astronomy, the solar sign Aquarius. In explanation of the analogy between the vessels emblematic of the Isæ of the Nile and the Ganges, there is a festival sacred to the sage Agastya, who presides over the star Canopus, when the sun enters Virgo (Kanyas). The Camacumpa is then personified under the epithet Cumbha-yoni; and the votary is instructed to pour water into a sea-shell, in which, having placed white flowers and unground rice, turning his face to the south, he offers it with this invocation, 'Hail, Cumbha-yoni, born in the sight of Mitra and Varuna (the sun and sun divinities), bright as the blossom of the cusa (grass), who sprang from Agni (fire) and Maruta.'

CUMBLI, TAM., Tel., Gardena lucida, yields the Ruda-cumblis, a strong diuretic herb, for cleansing foul ulcers. It is used by some European practitioners in case of worms in children.

CUMBLI, HIND., also written Kamli, Cumul, and Camul, and also called Cameline, is from the Sanskrit Kamal, a blanket, and is a coarse woolen blanket worn by the peasantry of all India, and sold at Rs. 1½ to 100. Cumblis are woven in almost every district of India of the wool of the country, which is spun by hand. The yarn is sized with the juice of the common squill; the woof is beaten with a hand batten (in the way that sailors adopt in forming mats for protecting the rigging), no reed being used; a finer description of cumblis, of which the sepoys clacks were formerly made, is manufactured at Ellora in its neighbourhood. Mysore cumblis of superior quality, in black and white colours, are sold at from Rs. 25 to 100 each; ordinary sizes, Rs. 4 to 20 each. Bullary cumblis are well made, but are not of so high value as those of the Mysore district; they are 6 cubits long by 3. The cumblis is usually made in pieces of two or three feet broad, and five or six or more long, and generally very coarse, of a dark or black colour. Sometimes, however, they are manufactured larger and finer, and striped or spotted black and white. There may be some connection between the Sanskrit word Kamal and the Grecian Chlamys and the Latin Chlamys. It is barely possible, also, it may not be unconnected with the Arabic Kamis, from which we have the Italian Camicia, the Portuguese Camisa, and the French Chemise. The Chlamys was generally, like the Cumbl, made of wool, and in shape it was much the same, being half the breadth of its length. A similar connection may perhaps exist between the Persian and Hindi Suya, the Latin Sagum, and the modern Spanish Saya. Good cumblis are made in Ulwar, and in the neighbourhood of Meerapur in Meerut. The Sansala cumblis of Meerut sometimes sells as high as 25 rupees. It is made of the wool of lambskins, shorn about three days after their birth.—Elliot, Supp. Gloss.; Hindu Infanticide, p. 195.

CUMBUM, a town in lat. 15° 34' 18" N., and long. 79° 91' E., in the eastern part of the Kurnool district; has a tank of 15 miles circumference, formed by damming up the Gundla Kama river.

CUMIN. The black cumin of Scripture is the Nigella sativa, the aleuæ of Hippocrates and Dioscorides. The Helleborus niger, however, has also been named cumin.
CUMIN SEED.

CUMIN SEED, Cuminum cyminum.

Kanum; Khamn, ARAB. Cuminum; Comino, L., Sp. Zey. 2; Zeey. BURM. Comininho; Porr. Jirga, CAN. Durru, SINGH. Komanne, DAK. Siragum, TAM. Shah, Zira, DURK. Nut-siragum, TEL. Koomyn, DUR. Jilakara, TEL. Kumin, GER. Kemnun, TURK. Kuminon, GR.

Cumin seeds, the fruits of Cuminum cyminum, are of an ash-grey or light brown colour. Taste warm, but not so agreeable as anise. It is extensively cultivated in the East, but has long been introduced into the south of Europe, Sicily, and Malta. It is found in the Sutlej valley between Rampur and Sunnmam, at an elevation of 7000 to 9000 feet, and its seeds are exported to the plains. 16 cwt. of the fruit yield about 44 lbs. of the oil, which has a pale yellow colour, and is limpied, of a disagreeable smell and acid taste; sp. gr. 0:345. The seeds are used as a condiment in India, and the oil is used in medicine; it is a stimulant carminative. The seeds were formerly much employed as an external application in emphysema and cataplasma cumini, and still by Jews in the process of circumcission. The seed is particularly prized by the Mahomedans, who season their cakes with it.—Annie R. Roche; Roy Rover, Stewart Mason; O'SK.

CUMMUM, a town in the Hyderabad dominions, where seams of coal have been struck. CUMPAS. — A light, brown-coloured wood of Penang, a large tree, used only for planks. CUMRBAND, HIND. Waist-belt. Kannarbandha means literally, to gird up the loins. CUNALAH PALLAH. — A bamboo-coloured wood of Travancore, used for saddles.

CUNEIFORM CHARACTER, also called the arrow-headed, also the wedge-shaped character, was used for the Bactro-Med-Persian language of the dynasty of the Achemenides. It was first observed at Be-situm, a little village at the foot of rocky mountains, which are covered with bas-reliefs. Cuneiform or wedge-like writings have been discovered on the solitary monument of Cyrus, on the Marshab, on the ruins of Persepolis, on the rocks of Be-situm, near the frontiers of Media, and on the precinct of Van in Armenia. It is generally supposed that the cuneiform character was invented about 1000 B.C. according to the time of Darius; General Ferrier supposes that it was invented by the Iranians of ancient Persia, who are the authors of their characters. The first cuneiform character was Median or west Iranian, and is to be distinguished from the alluvial plain of Babylonia furnished with clay, and the use of such a writing material will easily account for the vertical direction in which the characters were made to run.

The inscriptions in the Nashi-i-Rustum is a list of the Persian nations subject to Darius; the Persians attribute them to the chisel of their famous sculptor Farahad. A description of them is to be found in Sir John Malcolm's Persia. Enormous marble capitals of columns are to be seen at Be-situm. There are two tablets, the one containing a mutilated Greek inscription, declaring it to be the work of Gotarzes; the other a Persian politian sculpture, adorned with nearly 1000 lines of cuneiform writing, exhibiting the religious vows of Darius Hystaspes after his return from the destruction of Babylon, on the revolt of its usurper, Nebuchadrezzar, the pretended son of Nebuch. Both Ctesias and Isidore mention a statue and pillar of Semiramis at Bactane, but the sculptures of Semiramis and the inscription in Syriac characters have wholly disappeared. Baghidstan is traditionally described as the pleasure-grounds of Semiramis. According to Sir H. Rawlinson, D'Anville first suggested the identity of Be-situm with the Baghistan of the Greeks, and there are good grounds, from the ancient notices of this place, for supposing him to be correct. Eymond, really confused the evidence is even more striking. To solve all difficulties may perhaps, he adds, be admitted that the sculpture did really exist in the lower part of the rock, scarped by the Assyrian queen; and that Khusrv Farvez, when he was preparing to make the scarped surface the back wall of his palace, and for that purpose began to excavate deeper in the mountain, destroyed the sculptures, and removed all further trace of them. With regard to the pillar of Semiramis, it is very curious that an oriental writer of the 15th century should describe the rock of Be-situm from his own observation, as though it were sculptured in the form of a minarch or minaret. Certainly nothing of the kind now remains. Their language is ancient Persian, before that of the Zend, which represents the Persian language previous to the time of Darius. General Ferrier says the existence of bricks with cuneiform characters among the rivers of Balkhi, had been remarked by profuseous travellers, and, he adds, is of much interest, as no other similar relics are known so far to the east. Sir Henry Rawlinson suggests that they may belong to the Kushan (a famous Scythian race), who held Balkh in remote antiquity, and whose bricks, stamped with cuneiform Scythic legends, are also found at Susa, and on the shores of the Persian Gulf. M. Ferrier found great numbers of baked bricks, nearly three feet long and four inches thick, scattered about the citadel of Furrah, an ancient town which was plundered by Chengiz Khan. That their origin was certainly anterior to that of the town, was plainly indicated by the inscriptions upon them, in the cuneiform character. The existence of bricks with cuneiform characters at Furrah is very important, and is not mentioned by any other traveller. The size of the bricks is also remarkable. The only place where bricks of so large a size have been found, is in the kitchen of Sardanapalus, at Calah or Nimrud. Bunsen says the first cuneiform character was Median or west Iranian, and is to be distinguished from the
language of the Zend books, which is east Iranian, or Old Iranian worn down.

Cuneiform inscriptions of Armenia, Azerbaijan, and Elymais, are in Scythic or Turanian dialects. The third column of the trilingual inscriptions of the Zagrus range is also Scythic.

A clay tablet has been found at Cappadocia, relating to the gift of certain silver articles to the sun-god. The character is a peculiar kind of the cuneiform; and tablets with the same character have been found by Mr. Rassam in 1880 at Kounjuk. From this it is supposed that Cappadocia also had a clay library. A collection of 5,000 cuneiform tablets were discovered by Mr. Rassam at Sippara, near Babylon. It is supposed that these tablets are the library mentioned by Berossus, which contained antediluvian records copied from earlier documents by King Sargon I, who lived 1800 years B.C.—Bunsen, iii. pp. 457, 570; Ed. Ferrier, Journa, pp. 207, 393; G. Rawlinson, ii. p. 345.

CUNG-QUA, a resting-place for travellers, or rather for officers of Government, in Lin-Choo. The Cung-qua corresponds very nearly to the Turkish khan and the Indian sarai, except that, being used only by persons of some consideration, it is in every respect far more neat and elegant. The house resembles a private dwelling of the better class.—American Expedition to Japan, p. 189.

CUNNINGHAM. Four brothers of this name, sons of Allan Cunningham, sought a career in India, two of whom rose to distinction.

Cunningham, J. D., an officer of the Bengal Engineers, an extensive contributor, chiefly on archaeological subjects, to the Journal of the Bengal Asiatic Society. A distinguished antiquary, statistic, and geographer. Resident at Bhopal; ob. 1851. Author of Description of Kunwar, in the Bl. As. Trans., xiii. part 1, 1844; On the Ruins of Putharee, ibid., 1848, xviii. part 1, 305; On the Lingam of Bhojpur, ibid., 154; Notes on the Antiquities within the Districts of the Bhopal Agency, etc., ibid., 1847, p. 783; History of the Scikhs, Lond. 1829; Cal. Rev. No. xxvii.

Cunningham, General A., of the Bengal Engineers, author of Discovery of Buddhist City of Sankassa, Lond. As. Trans. vii. p. 242; Journal of a Trip through Kulu and Lahul to the Chemuneri Lake, in Ladakh, Bl. As. Trans. 1848, xvii. 201; Memorandum detailing the Boundary between the Territories of Maharaja Gulab Singh and British India, etc., ibid. 295; Verification of the Itinerary of Hiwen Thang through Ariana and India, ibid. 476; Proposed Archaeological Investigation, ibid. 555; Description of Ancient Gems and Seals from Bactria, the Punjab, and India, ibid., 1841, 147; Essay on the Aryan Order of Architecture, as exhibited in the Temples of Kashmir, ibid., 1818, 241; Descriptions of, and Deductions from the Consideration of, some new Barbarian Coins, ibid., 1840, ix. pp. 867, 1217; Bhisham, ibid. 158, 1571; he was appointed Superintendent of the Archaeological Survey of India, and has printed annual reports; subsequently the Rev. James Burgess was appointed to the Survey of the Bombay Presidency.

Colonel Francis Cunningham, the youngest son, joined the Madras army, and almost immediately took part in the Afghan war, and was in Sale's brigade. He was one of the besieged garrison of Jalalabad.—Dr. Büst's Catalogue.

CUNNINGHAMIA LANCEOLATA. The lance-leafed pine. In parts of China is in great abundance; indeed, this species, and the more common Pinus Sinensis, are almost the only trees of any size which grow in some mountainous districts.—Fortune's Wanderings, p. 38.

CUNNINGHAMIA SINENSIS. R. Br. San-mah, Sha-mah, Chins. | China pine, . . . . Eng. Grows in China and Japan, at a distance from the sea-coast. Timber valued for making coffins, flooring, furniture, house-frames. It is less liable to the attacks of insects than the Pinus Sinensis, but in damp ground is less suited for piles, particularly if exposed alternately to air and damp. Its charcoal is used for gunpowder.—Smith.

CUON RUTHIANS. Jerdon. Wild dog.

Canis Dukhunensis, Sikes. C. familiaris, var., Elliot. | Cuon primus, Hodgson.


Sonak, Bankutta, . . . . Sidda-ki, Tel.

Rahmna, . . . . Reza kuta, Tel.

Sakki sarai, HYDERABAD. | Advai kuta, Tel.

The Cuon rutilans is common in Ceylon, and is found over all the Peninsular, jungles of the Dekhan, and S. Mahatra country, Malabar, Neilgherries, and Assam, Burma, and the Malay Peninsula. See Dog.

CUP. | Coup.

Coupe; Tasse; Gobelet, Fr. | Cappa; Tazza, It.

Becher; Schluck, Ger. | Bicke, Sc.

Piala, | Copa; Tazza, Sp.

Several of the drinking races of India and Asia use the cup or piala to welcome the coming guest. Colonel Tod tells us (p. 377) regarding the love of strong drink and indulgence in it to excess, so deeply rooted in the Scandinavian, Asi, and German races, in which they show their Greek origin, that the Rajput is not behind his brethren either of Scythia or Europe. Though prohibited by ordinances which govern the ordinary Hindu, the Rajput welcomes his guest with the nunwar piala, or cup of request, in which they draw ancient eunuchs. The heroes of Odin never relished a cup of mead more than the Rajput his madhava; and the bards of Scandinavia and Rajwara are alike eloquent in the praise of the bowl, on which the Bardhus every metaphor, and calls it ambrosial, immortal. The Bard, as he sips the ambrosia, in which sparks the ruby seed of the pomegranate, rehearses the glory of the Rajput race. Even in the heaven of Indra, the Hindus warrior’s paradise, akin to Valhalla, the Rajput has his cup, which is served by the Apsaras the twin sister of the celestial Hebe of Scania. ‘I shall quaff full goblets amongst the gods,’ says the dyaus, Geier warior, ‘Ide laurel of the sentiments which would be appreciated by a Rajput. Cups in use with the Tibetans are made of mule knots, produced on the maple by the Balanaphora. Those in use by the ultra-Gangetic races in Burma, and the Shan States, are lacquered bamboo; those of China and Japan are of porcelain.—Rajasthan.

Cupania is a genus of plants belonging to the natural order Sapindaceae. C. pentaphylla is figured in Wight's Icones; C. lavis grows in Bourbon and Mauritius; C. Madagascarensis grows in Madagascar. C. canescens is a tree of the Circars and Kandula, and common in the Upper Ghat jungles of the Bombay side. Wood of average quality, white; not equal to Sapindus rubiginosus, and does not bear exposure.—Dr. R. Devo., Giffon, Voigt, p. 44.

CUPPAS SAPIDA. Conbusis, Bilghia sapida, Kos.; a native of Guinea, cultivated in India for its wood. It is the Akke of Africa, and was introduced into the W. Indies by Brigham.—Voigt.

CUPID. An article of female jewellery worn on the head.

CUPID, the Cupidon of the French; Cupido, Liebesgott der Germans; Kama of the Hindus. Amongst the Hindu deities Kama takes the place of Cupid. Ananga is a poetical epithet of the Hindu Cupid,—literally, incorporeal, from a, private, and Anga, a body.—Rajasthan, i. 255.


CUPPAY MAYNIE. Singh. A plant, according to the natives, with which cats are so enchanted that they play with it as they would with a captured mouse, throwing it into the air, watching it till it fall, and crouching to see if it will move. This seems the billi-boa, the Acalypha indica, one of the cat-rolling plants, species of valerian, melissa, or nepeta.—Teenan, Ceylon.

CUPPUM. A fishing hamlet.

CUPRA, a human skull, the calvarium, in Hindi dialects pronounced cupar. The cup of the Scandinavian warrior was a human skull, that of Thor, the god of battle, in which they showed their thirst of blood, borrowed from the chief of the Hindu triad, Har, the god of battle, who leads his heroes in the red field of slaughter with the cupra in his hand, with which he gorges on the blood of the slain.—Tod.

CUPRESSUS, a genus of plants of the natural order Pinaceae, of which there are several species. C. Australis, Pers., is a tree of New Holland; C. fastigata, Wall., C. funebris, Fortune, of China and the Himalaya; C. glauca, Lam., the Goa cedar tree of the gardens of Bombay and the Dekhan, a name also applied to the C. Lustianica, C. sempervirens, Linn., C. horizontalis, the spreading cypress, a handsome species. The common cypress grows in the Himalaya, in Italy and the S.E. of E.M. Wood in Mexico and the southern parts of N. America. C. thuyoides is the white cedar of N. America, where its chips are used medicinally as a stomachic; and C. torulosa, Lamb., is the twisted cypress of the Himalaya, Bhutan, and Niti.—Voigt; Stewart; Fortune; Ridgell.

CUPRESSUS FUNEaris. Fortune. The funeral cypress; grows in the Himalaya and in China. It is a most beautiful tree, a weeping cypress. Fortune says that it rises about sixty feet in height, having a stem as straight as the Norfolk Island pine, and weeping branches like the willow of St. Helena. Its branches grow at first at right angles to the main stem, then describe a graceful curve upwards, and bend again at their points. From these main branches others long and slender hang down perpendicular, and give the whole tree a weeping and graceful form. Its stem is perfectly straight, like the Cryptomeria, and its leaves are formed like those of the arbor-vitae, only more slender and graceful.—Fortune's Tex. Dist.

CUPRESSUS GLAUCA. Lam. C. Lustianica? C. pendula?

The Sarav, or Goa cedar, is a tall, elegant, and graceful tree, well adapted for border walks in a garden, being always green, and a favourite with the natives of India. It grows easily, and is generally planted alternately with the arceas or betel-nut tree. Slips, if taken off before the commencement of the rains, and planted in a bed of soil from the sun, take root; each slip should be six inches apart, and if common care is used, one-fourth of the plants will strike and grow. After that they may be put out in nursery beds, at the distance of one foot from each other, until required for transplanting to where they are to remain. Its leaves have a singularly glorious colour.—Ridgell.

CUPRESSUS ORBUSA. Von Mueller. Retinospora obtusa, S. and Z., the Hinoki of Japan, forms a great part of the forests of Nipon; attains a height of 80 feet, with a stem 5 feet in circumference. The wood is white-veined and compact, and assumes when planed a silky lustre, used for temples.

Cupressus pisifera, Von Mueller, Chamaecyparis pisifera, S. and Z., is a very hardy tree of Japan, rising 30 feet high, stem 3 feet in diameter, of beautiful aspect and quick growth.—Von Mueller.


The cypress tree is a native of the warmer parts of Europe, though it has long been transferred to gardens for the sake of its deep-coloured evergreen branches and leaves. The gates of Constantinople, famous for having stood from the time of Constantine to that of Pope Eugene iv., a period of 1100 years, were of cypress wood. It is hard, elastic, and strong, resists worms, and its odour repels insects. The tree grows in the outer Himalaya up to 5000 feet, and attains a girth 6 to 8 feet, and a height of 40 to 45 feet; it also grows at Kabul, but Dr. Stewart says its wood is of no especial value there. Its fruits were formerly used in medicine, but are now obsolete. Oriental physicians used to send their patients labouring under lung diseases to breathe the air of Candia, where the cypress was abundant, in the persuasion that the emanations were particularly wholesome. The precise period or the age to which the tree lives has not been clearly ascertained. In some countries this tree is planted over the graves of the dead as an emblem of immortality.—O'Sh.; Irvine; Eng. Cyc.; Book of Trees; Stewart; Hoag; Voigt.

CUPRESSUS TURULOSA. D. Don.


Nawir, Nurt, Lwarr, Panj.

This tree grows on the Ravi and Beas, on the outer hills near the Sutlej, in Kulu, in Naini Tal up to 8000 feet; and Dr. Stewart had seen a tree 120 feet high, and 15 feet in girth. It grows also in Bhutan and Niti. In Naini Tal it is used for roofs. In its eastern localities, the tree is deemed sacred, and is not felled; and in Kulu images are made of its wood. It occurs in the N.W. Himla-
CURAEO.

CURUMA ANGUSTIFOLIA.

CURU. ARA. A sacrifice. See Kurub.

CURULIGO, a genus of plants of the nat. order Zingiberaceae, growing in the south and east of Asia. It is a tribe of many species furnish a febrifuge, which is called the East Indian arrowroot. C. angustifolia, Zed., grows in Travancore, the N. and S. of Konkans, Nagpur, and Benares, and is that commonly used for the East Indian arrowroot. C. caulina, Graham, of the Mahabaleshwar hills, furnishes the Mahabaleshwar arrowroot. C. pseudo-montana, Graham, yields Ratnagorher arrowroot, and is probably Roxburgh's C. montana, and Rayle's C. kushoor of Sirmore and Bissechar. C. decipiens, Dalzell, C. zedaria, Zed., and C. amada, Zed., grow on the western side of peninsular India, and all yield febrifuge. C. rubescens, of Bengal and Travancore, and C. leucorrhiza, are similarly used. The species known in the south of Asia are about forty in number,—eruginea, amada, angustifolia, aromatic, attenuata, caulis, caulina, cozom, cordata, elata, ferruginea, grandiflora, latifolia, leucorrhiza, longa, montana, Neligherrensis, ornatella, puriculta, petiolar, pseudo-montana, reclinata, Roscoea, rubescens, strabilla, viridiflora, xanthorrhiza, zedaria. The particles of East India arrowroot are very unequal in size, but on the average are larger than those of West India arrowroot.—Zed.; O'Sk.; Voigt; Birdwood; Drury.

CURUMA AMADA. Zedb. Mango ginger. Amada, ... BENG. Ara kanla kacharom, Tel. Tommon munga, MALAY. Shagrandika, ... A plant of Gujerat, Konkan, Bengal, and Java. The root is called mango ginger, from its peculiar smell while fresh. It is a gentle stimulant, but now only used as an article for seasoning food. Ara kanla, meaning 'six eyes,' and Shagrandika, 'six-jointed,' are also syns. of C. caesia, and probably refer more correctly to C. zedaria, or 'long zedoaria.'—Zed.; Voigt; O'Sk.

CURUMA ANGUSTIFOLIA. Zedb. i. p. 31. Tikkur, Tikor, ... HIND. Kuns, Kogha, MALAY. Kughail, ... MALAY. Kus-kus, TAN. Kus-kang, ...
Narrow-leaved turmeric, grows wild in all the hilly parts of the centre of the Peninsula, in Central India, in the forests, extending from the basin of the river Kistna on the south, and on the Malabar coast, and is very generally cultivated. Its tubers are found at the end of fleshy fibres, which meet together, forming a crown, and they yield part of the East Indian arrowroot of commerce. The method of preparing arrowroot is substantially the same, from whichever plant it is extracted. The commercial value of the East Indian farina is very much below that of the Manhantu arrowroot. It is less used as an article of diet, but is largely bought by the starch makers of London. The tubers should be planted in a good rich soil, about one foot apart, just before the rainy season, and taken up as soon as the leaves are dry. Rats, porcupines, and wild hogs are very destructive to it, both when first planted, and also when ripe. Such tubers as are required for seed should be kept in a dry place in sand.—Roxb.; O'Sh.; Simmonds; Eng. Cyc.; M. E. J. Reports; Ainslie; Rohde, MSS.

CURCUMA AROMATICA. Salisb.

Curcuma zedoria, Roxb. [Wild turmeric.]
Bun haldi,, BENG. [Jungli haldi, ] HIND.

Grows in China, the islands of the Eastern Archipelago, Malabar, and Bengal, and its root is used as a perfume, and also medicinally. It possesses tonic and aromatic properties.——Roxb.

CURCUMA LEUCORHIZA. Roxb. Tikur, HIND., BENG. Grows wild in the forest of Behar and at Bhagulpur. Arrowroot is made from its long straight roots, often a foot in length, and of a pale yellow inside, by rubbing them on a stone or beating them in a mortar, after which they are rubbed in water by the hand, and strained through a cloth; the fecula having subsided, the water is poured off, and the arrowroot dried for use.—Roxb.; Voigt; O'Sh.; Eng. Cyc.

CURCUMA LONGA. Roxb. Turmeric.

Amonum curcuma, Gmel.
Zirsad; Urukussaf, ARAB. [Manjella kua, ] MALEK.
Haldi,, BENG., DUK., H. [Zard chebhe, ] PEIS.
Arilna,, CAN. [Karkum, ]
Kupiuros indikos, GR. [Hardira; Poota, ] SANS.
Hacshul, G. [Sanna, ] T.C.
Koonkhet,, MALAY. [Pasupu; Pampi, ] TEL.

Turmeric is grown all over India and the Archipelago, frequently along the edge of fields of ginger, in the Punjab, Siwalik tract, and outer hills, from 2000 to 5000 feet, up to the Ravi at least, and occasionally beyond that. It has large whitish flowers, with a faint tinge of yellow, the tuft greenish white. In cultivating it, the ground must be rich, friable, and so high as not to be drowned in the rainy season, such as the Bengali ryots about Calcutta call danga. It is often planted on land where sugar-cane grew the preceding year, and is deemed a meliorating crop. The soil must be well ploughed and cleared of weeds, etc., and in April and May, according as the rains begin to fail, the soil is raised into ridges 9 or 10 inches high, and 18 or 20 broad, with intervening trenches 9 or 10 inches broad. The cuttings or sets, consisting of small portions of the fresh root, are planted on the top of the ridges, at about 9 to 12 inches apart. One acre requires about from 900 such sets, and yields in December and January about 2000 lbs. weight of the fresh root. The tubers are a deep orange inside, bitter, and aromatic. The colouring matter of the dried root is bright yellow, soluble in alcohol and water, and changed to a deep red by alkalies. It is employed by the woods-dyers for compound colours of yellow, as for cheap browns and olives; as a yellow dye it is employed only in silk. In 1880-82 only 70,783 cwt. were exported from India. White paper dyed by an alcoholic tincture of turmeric is a very sensitive test for alkalies. The root enters into many of the religious ceremonies of the Hindus. The entire, or the corners, of every new article of dress, whether of man or woman, are stained before wearing it with a paste made of the root and water. Mixed with lime, it forms the liquid used in the Arati ceremony for warding off the evil eye. Women use it largely as a cosmetic, and some smear all the body with it as a detergent. It is a mild aromatic and carminative, and is largely used as a condiment in curries; the paste is applied to foul ulcer. Clothes dyed with it are deemed a protection against fever; and the Javanese make an ointment of the pounded roots, and rub it all over their bodies as a preservative against fever. With it, in conjunction with lime-juice, the Hindus in the month of Vishnu prepare their yellow tiroochorun, with which they make the perpendicular mark on their foreheads.—Ainslie; Roxb.; O'Sh.; Boyle; Dr. Shortt.

CURCUMA RUBESCENS. Roxb. A native of Bengal, Chittagong, Burma, and Pegu. All the parts of the plant have a pleasant aromatic smell when bruised. The root is highly aromatic. Its chief use is for the preparation of tiker, a very fine fecula, like arrowroot, which in Travancore constitutes an important article of food.—O'Sh.

CURCUMA ZEDORIA. Roxb. [Zedoary.]
Zerambad; Zadwar, ARAB. [Katon inshi kua, ] MALEK.
Mahfreen,, JADWAR-khatal, ] PEIS.
Shush; Ban haldi, BENG. [Wal-kaha, ] SINGH.
Rochur, AINSLEY; T. Kautari maung, T.M.
Tha nu wen, BURM. [Kapurkheli, ]
Nirbasi,, CAN., DUKH. [Kichli gadda, ] TEL.
Kakura, Kachura, HIND. [Kusthuri pasupu, ]
Tomon,, MALAY. []

A native of Bengal, Chittagong, Java, and China. This is the true zedoary, all kinds of which resemble ginger in their medicinal qualities, but are inferior to it in strength and agreeableness of flavour. Its flowers are largish, of a deep yellow, and at the top a bright crimson tuft. This plant is supposed also to yield the long zedoary of the shops; the powdered root is mixed with the powder of Casaulpinia sepan to make the ‘abir’ or ‘shagoo,’ the red powder thrown about by Hindus in the holi festival; the root is also used medicinally.—Roxb.; Voigt; O'Sh.

CURDUCHA or Kurdistan, the ancient Carduchia of Xenophon, a country which, from its strength and position, commanded all the western part of Persia. It is inhabited by nomade tribes, who, though tributary to Turkey, and professing Mahomedanism, are virtually independent. Sir John Malcolm travelled through their country in 1810, and formed the opinion that they had remained unchanged in their appearance and character for more than thirty centuries.—Malcolm’s Persia, i. p. 105; Chatfield’s Hindustan.

CUREA. HIND. A village, from the Arabic Karyah, assembling together, a concourse. The word is preserved in Cureat Mitto, Cureat
CURIA MURIA ISLANDS.

Seekhur, Curcat Dost, and Curcat Mendloko, the names of parganas in the province of Benares.

CURIA MURIA ISLANDS, on the Malra coast of Arabia, were ceded to the British in 1854 by the Imam of Muscat. They are only valuable for deposits of guano.

CURIOSITIES, or Curios.


Under the general term Curios are included a great variety of articles. In China they consist chiefly of such things as please the fancy, and are for the most part procured for ornamental purposes.—vases, pots, jars, cups, images, statuettes, ornamental screens, plates, boxes of copper, iron, bronze, clay, silver, porcelain, stone, lacquer-ware, or wood of every shape, size, and variety of workmanship, rings, stands, and pedestals, lanterns, scrolls, etc.—Morrison's Compend. Descrip.; Williams' Middle Kingdom, ii. p. 400.

CURLW LE ISLAND, a name of Kalagouk, in the Gulf of Mactan, 30 miles south of Amherst. It is 8 miles long, Cavendish Island, at its extreme south end, is half a mile in length. The greatest breadth is 1 ¼ mile. On its highest point, about 500 feet above the sea, are remarkable trees, a point for navigators making the coast. Agulnaa lighthouse was built of stones from this island. The editor visited it in 1863, and reported it as wholly unsuitable for a sanatorium.

CURMA, in Hindoo mythology, the second incarnation of Vishnu in the shape of a tortoise.

CURMOLE. MALAY. A tree of the Canara forests, which grows to about 12 or 18 inches in diameter, and from 15 to 30 feet high. It is used by the natives for house-work, and is considered a useful and durable wood.—Edge, M. and C.

CURNUM. TAM. A village accountant.

CURRANTS.


The currants of commerce consist of the small dried grape, or berry, of species of vine, cultivated in the Morea, Ionian Islands, and some parts of Persia, etc. A currant, like the European red currant, called rasta, is largely eaten by the people of the Upper Panjab. Currants (zirishk), both acid and sweet, the former being the fruit of the berberry dried, and which resembles European currants, are brought from Kahirul and other hill places. The zirishk currants are of two kinds, somewhat alike in appearance,—one is sweet, and grows in Kahirul, etc., being a species of small-fruited vine (vitis); the other is acid, being the dried berberry. Sweet currants, basho, (Tibetan), from species of vitis, are imported from Balti. Bengal currants are the fruit of Carissa carandas.—Poulkner; M'C. Com. Diet.; Powell, Handbook. See Vitis.

CURRENCY NOTES in circulation throughout India have increased as under:—

1862-63, Rs. 4,41,94,255 1872-73, Rs. 12,86,49,367
1863-64, 5,23,25,000 1876-77, 11,64,16,538
1864-65, 6,88,20,116 1879-80, 12,79,76,300
1865-66, 7,75,57,963 1880-81, 13,65,46,020

CURRIE, SIR FREDERICK, Bart., twice Governor of Bombay, Chairman of the Board of East India Directors, Vice-President of the India Council. He was born the 3d of February 1799.

He entered the Bengal Civil Service in 1817. He became Secretary to the Government of India in 1842, and accompanied Lord Hardinge in his campaign across the Sutlej in 1845, and the following spring. He was created a baronet December 17, 1846, immediately after the battles of the Sutlej. In April 1854 he was nominated one of the Court of East India Directors, was chosen Chairman of the Company in 1858, and held that appointment until the cessation of the functions of that body, on the 1st of September 1858.

CURLY. 200 years before the Portuguese had appeared in the Indian seas, Ibn Battuta describes the natives of Ceylon as eating curry, which he calls in Arabic Conchon; in modern Arabic, Isan is the name. In the Rajavali, also, this article of diet is mentioned as in use in Ceylon in the 2d century of this era. Nevertheless, several writers have suggested that the word has been introduced from the Portuguese. The name is probably from the Tamil word Kadai or Karai, a bazaar; and Tamil children in the Peninsula sing a nursery song:

'Kai vies ammah kai viss,
Kadli ki palam kai viss.'

'Swing your hand, mother, swing your hand;
Let us go to the market, swing your hand.'

Curry in Urdu is called Saal, in Tamil Karri, in Telugu Koora, in Persian Nan-kliuris. Curry is daily used in every family on the Indian coast, wherever the Bengali, the Tamil, Telugu, and Malabar people have spread, and in greater or less quantity according to the means of the family, always with vegetables and with mutton or fowl, as they can afford. The ingredients are usually brought fresh from the market daily, but Europeans in India often grind and keep the dry materials in powder. There are very numerous receipts, but almost every household has one of its own, and up to the middle of the 19th century many houses prided themselves on their curries. The curry powders of India are articles of considerable commercial traffic; 32,500 cwt. of curry stuff was imported into Ceylon, chiefly from India, in 1851. The usual ingredients for curry stuffs are: aniseed, allspice, cardamon, cloves, mace, nutmeg, cinnamon, coriander, cumin seed, black pepper, mustard seed, chillies, turmeric, fenugreek, garlic, onions, ginger dry and green, poppy seed, long pepper, saffron, chironje nut, turmeric, almonds, coconut, nut, ghee, butter, salt, tamarind, lime-juice, mango. Coconut milk is much used on the coast in forming the gravy to many curries, especially fish and prawns, as well as the oil fresh expressed from the nut when grated. If the curry is to be dry, the onions must be fried brown in ghi or butter, and the ingredients ground to a paste with water mixed in the same, the meat and fowl added, stirring the whole until the gravy and butter are absorbed. For a gravy curry, cut the meat or fowl into slices, put the ghi into a stewpan over the fire with the sliced onions, and dress them; then add the meat with the ground ingredients, and some water or broth; mix well together, and let the whole simmer gently until the meat is properly done. Chundu is made with meat only of that has been previously dressed. It is to be minced up and added to chopped onions fried in ghi, with whole red chillies, and the other curry ingredients well mixed together; the
Cuscuta planiflora.

Cuscuta, also written Cashbura, the designation of the artisans who work in bell-metal; from Kausi, bell-metal, and Bharna, to fill. They are also employed in fusing precious metals and making ornaments which require to be formed in moulds. They comprise one of the subdivisions of the Sonar or goldsmiths, of which, in Hindustan, the others are, Mathcorea Myr, Khuttre, Kume-thika Lahoreea, Poores, Canojuja, Mauhare, Mahanun, Agurea, Birpoorea, Chhynewan, Mungarea. Of these, Mathcorea ranks the highest. The Cashbura is below them all. Amongst these tribes there is a secret language, which is adopted for the purpose of concealing their fraudulent acquisition of property.—Elliott, Supp.

Cuscuta. Hind. Poppy seed; properly, Khush-keush.

Cuscuta root.

Usir, | Guj. | Vetti vayru, . . . . Tam.
Khas, | Pers. | Cura varu, . . . . Tel.

Another herbarium, Retz, roots are used for making screens, tatties, punkahs, large fans, or covers for palanquins; and, when wetted, a very fragrant smell issues.

Cuscutaacea, an order of twinning, parasitical, leafless herbs; many species occur in the south and east of Asia,—aggregata, Arabicus, australis, capitata, carinata, Chinensis, corymbosa, grandiflora, hyalena, longiflora, macrantha, pedicellata, planiflora, reflexa. They twine on various trees, and are found up to 9000 feet in the Himalaya and Afghanistan. C. longiflora is the Nethari of Kaghani.

Cuscuta Europaea and C. Chinensis are the Tu sz-tze of the Chinese, dodder of the English. The seeds are small and round, of the size of black mustard-seed, and are given in bilorheas and leucorrhoea. The young shoots are used externally as washes.—Smith, Chin. Med. Med.

Cuscuta macrantha. Don.

Nila-thara, | of Jhule, | Aml, . . . . Chenab.

Grows up to 9000 feet, up to the Indus. It is found on Populus, Salix, Sphacia, Loniceru, Desmodium, Urtica, and Polygonum; and, like some of the other species, it exhalés at times a very strong scent. It is eaten by cattle and goats. Edgeworth mentions that the mountaineers believe that cows pluck sprigs of this and of C. anguina, Ela., to drop into water, where they become snakes, and so furnish food for themselves. Madden states that the natives promise boundless wealth to him who finds the root of it; while others, again, believe that the possession of its root will confer the gift of invisibility.—Dr. Roxburgh, J. L. Stewart, Joqnt. Cuscuta pedicellata. Led.

Kwi klapoj, . . . . Kangra.

This is found on the genera Morus, Leptopus, Elecanthus, Polygonum, Artemisia, etc., in Kashmir, etc., from 4000 to 5000 feet, and was got in Afghanistan by Bellew on tamarisk, Allahi, and Peganum.—Stewart.

Cuscuta planiflora. Ten. Found in fields of Kashmir iureme, at Googara, in Montgomery, and it is common in Lahoul and Ladakh up to 11,000 feet, growing on Carum, Artemisia, Cineria, and A. parviflora, Solanatha, and Perowskia.—Stewart.

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CUSHITA, a race of Arabs who first gave their name to a part of Arabia; they afterwards crossed the Red Sea, and settled in Ethiopia. In ancient times, the Cushite and Jottanite occupied Arabia Felix, when the Ammonite and Ishmaelite dwelt in A. deserta, and the Moabite, Edomite, Nabathean, Midianite, and Amalekite in A. petrea.

CUSTARD APPLE is the fruit of the Anona squamosa. Sour-sop is the Anona muricata. The custard apple is a favourite fruit, and its shrub grows in the Dekkan with little care. Its seed, called sherifah, disperses vermin. Flies are reported never to settle on the tree or its fruit, though ants will attack both. Bugs have a great antipathy to the leaves of the custard apple, and are said to quit a bed in which they are placed. — Tennant's Ceylon; O'Sha; Hooker, Hist. Journ. Customs.


A plant of British India, Panjab, Sub-Himalayas, Sylhet, Gujarat, and the Peninsula, growing on the tops of trees. It is used by alchemists, also in dyeing and in medicine. The whole leafless herb is gathered and dried; it is employed either in mixture or infusion as a laxative in fever, as an anthelmintic, and also as an alternative in cancer.

CUSH and Laya were the two elder sons of Rama, and from Cush descended the Cushwah princes of Nirwar and Amber. — Tod; Elliot.

CUSH, a descendant of Hasti of the Lunar race, had four sons; one of whom, Cusshahna, whose descendants are styled the Kuska or Kuska, founded Muhadya on the Ganges, afterwards changed to Caneyabjba or Canouj, which maintained its celebrity until the Mahomedan invasion of Shuhab-ul-Din (A.D. 1193), when this overgrown city was laid prostrate for ever. Feriha states it in the early ages to have been twenty-five coss (35 miles) in circumference, and that there were 30,000 shops for the sale of betel-nut only, and this in the 6th century, at which period the Raitor dynasty, which terminated with Jye-chand in the 12th, had been in possession from the end of the 5th century. Cusshamba founded a city, which he called after his own name, Cusambli, and its name was in existence in the 11th century. The other sons of Cush built two capitals, Dharmarunya and Vasumuttee, but of neither have we any correct knowledge. — Tod; Elliot.

CUSHITE, a tribe of Arabians peculiarly connected with the Yemen, wandering through Southern Arabia and Eritrea. They have been the subjects of many voyages, and are mentioned as being a people of the plains, living principally by the produce of their gardens and flocks. Their language is a dialect of Arabic.

CUSTARD APPLE, a tree of the genus Anona, found in the Deccan. The fruit is of a yellow color, and is said to be very delicious. The tree is also cultivated in other parts of India. — Hooker, Hist. Journ.

CUTCH, including the Rann, extends between lat. 22° 47' and 24° 40' N., and long. 68° 26' and 71° 45' E., and in 1871 had a population of 487,365. It is bounded to the north by the Great Rann, beyond which is the Thar or Little Desert; to the S.W. and S. by the Gulf of Cutch and the Indian Ocean; to the E. and S.E. by the district of Gujarat; and to the N.W. by the eastern branch of the Indus and Sind. Its extreme length is 180 miles, and breadth 50 miles. Its area is 6500 square miles, while that of the Rann and its islands is 9000 square miles. All between the Aravalli mountains and the Indus, from the Sutlej or Hysudras on the north to near the sea on the south, is a waste of sand, in which are cases of different size and fertility, the greatest of which is around Jeysalmir. Cutch intervenes as a narrow strip of land between the desert and the sea, and makes a sort of bridge from Gujarat to Sind.

South of the Indus, the land becomes sandy, gradually sloping to the sea, first as a plain covered with a series of billows of sand, then as the level Rann up to the mountains of Cutch, the extent being from 500 to 600 miles in length, and varying from 70 to 150 miles in breadth, on which a considerable population dwells. The Rann itself is 150 miles from east to west, and about 40 miles broad; but there is a prolongation of the Rann towards Ahmadabad, and a very narrow line to the Gulf of Cambay. It is almost level, and a little water, from the banking up of the sea by the Sirmur, converts it into a very shallow lake of a foot or two deep, and 40 to 60 miles broad; but in the dry season its saline sand and clay soil are hard like a slate billiard-table, and the mirage is so incessant as to deceive ordinary travellers. None but experienced guides can travel there.

The Put district, immediately north of the Rann, is less saline, and is cultivated. The district north of the Rann, extending from 500 miles up to the rivers Indus and Sutlej, is called the Tur or Thrur, on which are billows or hills of sand 400 to 500 feet high above the sea-level, and 200 to 300 feet above the plain. Sir B. Frere alludes to these as of volcanic origin. The other part of Cutch is an irregularly hilly tract, completely isolated by the Rann and the sea. On the southern coast the country is a dead flat, covered with rich soil, but the northern part has three distinct ranges of hills running from east to west. The central of these ranges consists of sandstone, limestone, and slate-clay, with beds of coal; the hills north of it have numerous fossils; and those on the south, and all the face of the country near them, are covered with volcanic matter.

In 1819 Cutch was devastated by an earthquake. A dyke was thrown up, 50 miles long, 10 broad, and 18 feet high, which has been named Allah Baud, the dyke of the Lord. Denodur, the largest and highest hill in Cutch, is situated near the shores of the Rann. It is an extinct volcano; its crater is still apparent, and in the north side is a large gap. It is said to have been active during the earthquake of 1819. On a level spot near the village of Wage ka Pudda are several small craters, circular spaces surrounded by basalt. And several other small basins have been blown out in the surrounding table-land, forming inverted cones about 15 or 20 feet in depth. Numerous fossils occur in the sedimentary rocks. The land at Mundavee, Moondrah, Dudraser, and other seaports, up to the Gulf of Cutch, has been gaining on the sea. Some of the creeks and inlets penetrate 6 or 7 miles from the coast, through a tract covered for miles in extent with shrimps. At low water these plants are exposed to the roots, but at high tides merely their upper branches are visible, so that the boats sail through a marine
forest, the sails and yards frequently brushing against the boughs of the trees, and the sailors have often to force their boats through the upper branches. The stems and branches are covered with crustae and mollusca, whilst numerous waterfowl occupy the higher branches.

The Cutche dialect of Hindi is used, but Gujaratti, Hindustani, and Persian are also known, though little used. On the death of Rao Lakhpat, his sixteen wives burnt themselves on his funeral pile, and their tombs, built in a beautiful group, stand close to the British Residency. The title of the ruler is Mirza Maha Rao, Sri Khengarji. The inhabitants of Wagal or Eastern Cutche have been notorious pirates. Satie and female infanticide were frequent. In 1868 the proportion of males to females was 1:04 to 1.

Its people are chiefly followers of the Hindu religion; and the ruling race are Jhariraj Rajputs, derived at a comparatively recent date from Tatta in Sind, from a common ancestor, Humrej, whose son, Rao Khengar, acquired Cutche before the middle of the 16th century.

A. Rajput Grasia, viz.:—

1. Jhoroja.
   a. Deda.
   b. Anur.
   c. Halla.
   d. Hothe.
2. Wagela.
3. Mahomedan Grasia, viz.:—
   a. Vene.
2. Nohar.
3. Abra.
4. Mygimmia, 3 tribes.
5. Nora.
6. Raoma.
7. Nangorchia.
8. Sunejcha.
10. Mohdi.

C. Hindus:—
1. Bhattiatham.
2. Banya.
3. Lomowa.
5. Charan.
7. Lang.
8. Megwal.

Cutchee and Labourers.
1. Ahir.
2. Rehari.
4. Lowanna.

Cutchees:—
1. Khojah.
2. Mehmun.

The Jhulla are Rajputs of Sindian origin; and there are tribes of Lowanna, Ahir, and Rehari. The Bhattiatham, of Sindian origin, are a fair, handsome race, skilful and industrious mechanics, and found in all the ports of Eastern Africa, Arabia, and Western India. The Ahir are a pastoral tribe in the Gulf of Cutche. The Khosa are a marauding tribe on the Thul desert between Hindustan and Sind. The ancient Cutch people were the Odemboor of Pliny.

There are also Brahman tribes, Sodash Rajputs, Mahrattas, Bhiis, Kols. The language of the hunters and tanners, the Dhed, is a dialect, but the language of Larak is purest. Iron ore occurs in various parts, but has been mined chiefly at Doodye, opposite the S.W. end of the Bunne, where it occurs in small lumps, spongiform and friable. Coal has been found in various places, and has been used. Alum is manufactured from shale near Muhur.—Tr. Bo. Lit. Soc. ii. p. 222; M'durdo's Cutch in 1815; Barnes' Bokhara; Grant, Geology; Sir Birtle Frere on the Run of Cutch.

CUTCHE, Catechu.


Catechu, cumin, gambier, and terra japonica, are commercial terms for the insipissated aqueous extracts from the wood of the Acaia catechu and from the leaves of the Uncaria gambir. A few years ago the terms were employed synonymously; but they are now, for the most part, used in trade somewhat distinctively, though not uniformly in the same sense. The catechu and gambir imported into Great Britain in 1881 was 33,011 tons.

CUTCHERRY. Anglo-Hind. An office of a revenue magistrate, a bureau, a court of justice.

CUTCH GANDAVA is the plains of Baluchistan. See Tor.

CUTCHWAHA. Prithi-raj was rao of Amber, a name now set aside by Jeypore. The twelve branches of this prince formed the existing subdivisions or classes of the modern Cutchwa, whose political consequence dates from Hunyund.—Todd's Rajathan, i. p. 299.

CUTLEY. Salem and Trichinopody afford evidence of the skill with which this description of manufacture can be carried on. At the Madras Exhibition of 1855, the daggers exhibited from the northern division exhibited in a high degree the proficiency of the operatives in that part of the Madras Presidency. Salem cutlery may compete with that of Europe.—M. E. J. R.

CUTTACK (Kataka, the fort), a British district in Orissai, lying between lat. 20° 1' 50" and 21° 10' 10" N., and long. 85° 35' 45" and 87° 3' 30" E., with an area of 3585 square miles, and a population in 1872 of 1,491,784. The Mahanadi river, aided by some of the large streams from the north, has formed a rich delta. From the town of Puri, containing the great temple of Jaganath, to the Dhamrah mouth, there is a deltaic tract fully 30 miles broad, and which comprises nearly the whole of the Cuttack district, great part of that of Puri, and a portion of that of Balasore. In addition to the low districts, Orissa has an enormous tract of hilly country of the interior, the population of which is partly Oorya and partly aboriginal. The people of Orissa have a language with a character peculiar to themselves. There are 18 estates known as the Cuttack Tributary Mahals, with an area of 15,000 square miles, viz. Angool, Autgar, Autmalik, Banki, Barumba, Boad, Dhenkanal, Duspella, Hindole, Keonjheur, Kundia-parra, Mohurbhunj, Nilghur, Nyagarh, Narsinpur, Ranpur, Talchir, Tigeria. Angool and Banki were annexed for the misconduct of the rajahs. The other sixteen tributary rajas administer civil and criminal justice, controlled by the Superintendent. The most powerful are the rajahs of Mohurbhunj and Keonjheur, both of whom rendered good service during the mutinies. Cuttack has been subjected to great vicissitudes. Frightful inundations occurred in 1823 and 1831; on one occasion causing a destruction of lives estimated at 10,000, and the entire population of 300 villages is said to have been destroyed. In 1867-68, in Cuttack, Puri, and Balasore, famine raged with great intensity, and continued longest. Manbhum, Singbhum, Midnapur, Bankura, Raniganj, Bardwan, Hoogly, Howrah, Nudde, also suffered. Mr. Ravenshaw estimated the loss in Orissa at not less than one-fourth of the population. The aboriginal tribes are Kaudh, Bhumij, Kol, and Savara, the last numbering 16,589, all of them very poor. Of the Hindus, the Khasa cultivators are 156,308, the Khandz militia 254,762, the Mastane 15,520, the Goala 11,728, and Rajputs 10,728.

CUTTEKARE. Giant's Tank in Ceylon.

CUTTEAMUNDOO is the juice of the plant
CUTTLE-FISH.

Akoor chewoodoo, or Enphorhia cattamundoor, Elliot; it is common in the Northern Cirears, and is also called Brama Chemooodoo. At the Madras Exhibition of 1855, Mr. Elliot exhibited seven articles, bassia, orr, tumbler, etc., made of cuttæmundoor gum, moulded with the hand, without any preparation. The fresh juice is used as a vesicant, and also as a cement for fastening knife handles, etc.—M. Ez. Jur. Rep.

CUTTLE-FISH or Squid, the Wu-tshih-yu and Meh-yu of the Chinese. The cuttle-fish inhabit all the great oceans, and abound in the warmer latitudes. They feed on crabs, squids, and mollusces, breaking down the carapace or shells of these animals with their beak-like jaws, and their strong muscular stomach completes the comminution. In 1882 one was stranded at Cook's Strait 75 feet long, 9 feet 2 inches circumference, its head 4 feet in diameter; its longest arms measured 25 feet, the smaller ones 12 feet long. The economal products are a deep pigment, known as Roman sepia, which in the cuttle-fish is contained in a bladder at the bottom of the abdominal sac; also the cuttle-fish sepium, or shell, or bone, called by the French Biscuit de mer. The cuttle-fish is particularly abundant on the coasts of China, and are there much used as food, as also are species of Octopus, Haliotis, Turbo, Hiphopnus, Tridacna. Adams says some monodonta taste quite peppery.

Cuttle-Fish Bone.


In Sepia officinalis, the soft parts are supported by a firm calcareous bone, the cuttle-fish bone of the shops; and in all the naked cephalopods (not including Ocythoe) now existing, some rudiment at least of a bone, horny or cartilaginous, support is to be found. Cuttle-fish bone is found on all the coasts, and is used for rubbing down paint, etc., by the painters; also for the purpose of cleaning and polishing the surface of silver and other metals. The Chinese formerly engraved these bones, or inlaid them as ornaments.—Smith; Eng. Cyc.; Rohde's MSS.; Ains.

CUTIONORA, the Cuttiara of Ptolomey, supposed to be either Calicut or Cochini, whence pepper was exported to Baracca.—Ind. in 15th Cent.

CUTTY. Tam. The term applied in Southern India to the iron bloom of native manufacture.

CUTWA, a town on the Bhagirathi river, Arrian's Katalupha. Indeed, Katwadeep and Agrawdweep and Nabadweep all refer to a period when they must have been regular dweep or islets, to have received such names. To the vaishnav sect, Cuttwa is a sacred place of pilgrimage; there, Chaitanya, flying from the roof of his parents, and leaving behind his wife, embraced the Dandi sectarianism, to shake off the obligations of society and the cares of a secular life. He was initiated into its rites by a Gosain, named Kesab Bharuty; and the hairs shaven from his head on the occasion are yet preserved in a little white temple.—Tr. of Hind. i. p. 49.

CUTWAL, a military police officer; the police officer of a military bazar. The word is properly Kot-wal, a fortress holder.

CUVERIE, the Hindu god of riches.

CUVIER, Baron Cuvier and M. Valenciennes' Histoire Naturelle des Poissons, published in Paris in 1828 and following years, contained much information as to Indian fishes.

CYAMOPSIS PSORALOIDES. D. C.


An erect annual; cultivated during the cold months in gardens for the little flat pods, which are used in curries as a substitute for French beans; grows from 2 to 3 feet high; the pods are seldom very tender, but are esteemed a good vegetable.—Mason; Jaffrey: R. Br.

CYATHIA, a genus of the tree-ferns, tropical plants. Many tree-ferns rise to a height of 20, 40, or even 60 feet in their native forests, supporting magnificent crowds of gigantic fronds, in some species 15 to 20 feet in length, C. spinulosa, Wall., occurs in Nepal, Khasaya, S. India, and Tenasserim, and in Ceylon C. sinuata, Hook., and several others. C. Siamesis, of Prone, yields a whitish gum. C. Rumphii, Miq., of S. India, Andamans, Burma, and Tenasserim; its wood yields a starch. The seeds of C. sphærica are ground into flour. The better known tree ferns are Cyathia aculeata, arborea, debulata, maricata, hemitelia, horrida, and Karsteniana, Alsophila armata of the W. Indies, A. Cooperi of Queensland, and A. excelsa of Norfolk Island; also Angiopteris prinosa and Blechnum Brasiliense. C. debulata grows abundantly in New Zealand on the declivities of the hills, under the shade afforded by the forests. The natives use the trunk of this fern as posts in the erection of their dwellings, and they are very durable—the medullary portion soon decaying, but the exterior lasting for several years. C. medullaris, the tree-fern of Norfolk Island, is about twenty feet in length, and presents a beautiful appearance.—Dr. Bennett, Australasia.

CYATHEA ARBOREA.


This fern rises in Ceylon 25 to 30 feet. Its stem makes beautiful walking-sticks. The section of this tree-fern displays well the structure of an acrogenous stem, hollow in the centre, marked on the outside by the scars of the fallen leaves, and showing the elongation of the axis by junction of the petioles.—Madras Hort. Garden; M. E. J. R.

CYTHOCALYX ZEYLANICUS. Champion.

Kakasal, . . . Singh; Espetta, . . . Singh.

The light lacquered Kandyan walking-sticks are said to be made from this Ceylon tree.—Percyson.

CYTHULA ORBICULATA, C. capitata, and C. tomentosa, sand-binding plants of the Peninsula.

CYAXARES was the name by which the Greeks designated Vakistar, king of the Medes. In alliance with the king of Armenia, and Neho, king of Egypt, b.c. 609, took and destroyed Nineveh, and its sovereign, Assur-ibl-li, set fire to his palace, and, with all his wives, burned himself.

CYBELE. See Osiris; Saraswati.

CYBIMUM GUTTATUM. Tom-Maln, Singh.

One of the scemboerd fishes, known to Europeans as the seer fish, is the finest table fish of Ceylon. Its flesh is white, but resembles that of the salmon.
in firmness and flavour. C. Commersonii, Looep., is another of the scir fish

CYCADACEAE. a natural order of plants, of which Lindley makes four genera and includes about fifty species. They have a simple cylindrical trunk, which increases by the development of a single terminal bud, and is covered by the scaly bases of the leaves. There are several known species of Zamia and Cycas, some of which grow in India, and in the islands of the Eastern Archipelago. They all abound in a mucilaginous naceous juice, and the soft centres of Cycas circinalis and C. revoluta are convertible into a kind of sago. The species of Euphorbiaceae are called Kaffir bread. The seeds of Dion edule yield starch in Mexico. A similar substance, under the name of sago, is obtained from species of Zamia in the Bahamas and other West India islands; in Japan, from Cycas revoluta; and in the Moluccas and Southern India, the Cycas circinalis yields a coarse kind of flour, and also yields a transparent gum. The plants are propagated by suckers. A trunk of the order has been found in the lower greensand, Kent, and at Portland. None are now native in Great Britain. C. Normani, Iow Mueller, is a Queensland species; and C. sphereica, Roxb., is a tree of the Moluccas. The fruit of Cycas angulata, R. Br., forms a food of the Australian aborigines during a portion of the year. They cut it into thin slices, which are first dried, afterwards soaked in water, and finally packed up in sheets of tea-tree bark. In this condition it undergoes a species of fermentation, the deleterious properties of the fruit are destroyed, and a mealy substance with a musty flavour remains, which the natives of Australia probably bake into cakes. They appear also to like the fruit of the Pandanus, of which large quantities were found by Dr. Leichhardt in their camps, soaking in water, contained in vessels formed of stringy bark. The tree grows 70 feet high.

CYCAS CIRCINALIS. Linne.
C. inermis, Lour., Olus callopaedes, Rumph.
Buzoor butu of BOMBAY. Madoo gass, SINGH.
Kak, Burm. Poku tundu, SUMAT.
Kak bong, ... MAMEL. Wara guda, ... Tel.
Toddla pana, MAMEL. Gaana Guva, ..."}

This very handsome tree in appearance resembles the palm tribe. It grows in Ceylon up to 1500 feet, is common on the Malabar coast from Callicheerry to the foot of the Ghat, and occurs northwards towards Bombay; it is also common in the Karen forests of Tenasserim, in Cochin-China, China, Sumatra, Java, and the Moluccas. It resembles a dwarf coconut tree; its blossoms are yellow. In Sumatra the cabbage and the young shoots are eaten. It yields a gum resembling tragacanth, also a kind of sago; and a flour called inadopidi is obtained by the Singhaleses, by pounding the fresh kernels. These are cut in slices, and well dried in the sun before they are fit for use, otherwise in Europe. When eaten they are intoxicating, and occasion vomiting and purging. — Mason's Tenasserim; O'Sh; Thw. Zeilan.; Marsden's Sumatra, p. 89; Rumphius, i. p. 22.

CYCAS PECTINATA, W., is a sago palm which grows in Sikkim, on the flats by the Ranjit streams. Its stem is ten feet high, with a beautiful crown of foliage.—Hooker, i. p. 151.

CYCAS REVOLUTA. Thunb. A native of China and Japan; a kind of starch, the Japanese sago, is obtained from the cellular substance. The whole plant yields a copious mucilage, which hardens into a transparent gum. It is the most northern member of the order of plants. — O'Sh.

CYCLAMEN, sp., sow broad. The poisonous, acrid Hai-yu of the Chinese is dedicated to their goddess Kwan-yin. — Smith.

Cyclamen Europaeum. W.

Bekhoor-miriam, ARAB. Utrenys, ... ARAB.
Punjeh-miriam, ... Usul-ul-utrenys, ... Shahjah-miriam, ... HAITHABORE, ... HIND.

CYCLAMEN PERICLUM. Mill. One of the Primulaeae, a bulbous flowering plant. — Voigt.

CYCLAS STURCIPENNI, a weevil of Ceylon, very destructive to agricultural produce.

CYCLE. Cycle, Course, ... Pr. Rivoluzione, Corso, ... IR. Zirkel, Cyclyus, ... Gene. Circle, Circlo, ... Sp. Punto.

Eastern races have chronological cycles. The Chinese astronomical cycle of 60 years, in use since the 61st year of Hoang-ti, is the most ancient form of a primitive and very simple equation of lunar and solar years. Its 76th recurrence fell in 1864. The Tai-kok-tai cycle of the Egyptians, of 30 years, led to the cycle of 60 years. There were Indian cycles of 5 years; the result of a rule equation; the Chaitree cycle of 600 years was of later date. The 12-yearly zodiacal cycle is in use amongst the Mongol, Manchu, and Igurian Tartars, and amongst the inhabitants of Tibet, the Japanese, and the Siamese. Amongst the Tatar populations, however, this is a cycle of 60 years. The cycle of the Chaitree was of 60 years, but they had one of 60 × 10 = 600, which grew out of the great patriarchal year. The oldest cycle known to the Greeks was one of 9 years, which gave way to the Metonic cycle of 19 years; but one of 60 years was in use amongst the Semitic and Iranian races of primeval Asia, as well as amongst the Chinese. Plutarch considers the 60 years' cycle as the original one known to all astronomers. The Apis cycle was of 25 years, and of these made up the patriarchal year of 1400 years, with 15 years, and the Phoenix cycle was 500 years. — Bunsen. See Chronology.

CYCLEA BURMANNII. Arnott.
Cocculus Burmannii, D.C. Menispermum peltatum, C. peltataus, D.C. Gurt., Lam.
Cissampelos discolor. Wald.

Pada valli, MAMEL. Wal tjedde, SINGH.

This trailing shrub grows in Ceylon, Malabar, the Konkan, and Coromandel; by native practitioners the bitter root is mixed with buttermilk and cumin seeds, and given in dysentery, hemorrhoids, and flatulency, and the juice of its leaves is applied to inflamed eyes. — Useful Plants.

CYCLOADRIPUS. The following species of this genus occur in S.E. Asia and Australasia:

C. punctatus, Edw., Indian Ocean.
C. Andonii, Edw., New Guinea.
C. quadratus, ... Ceylon.
C. edwardsi, Edw., New Zealand.
C. Gaimardii, Edw., New Holland.
C. octodentatus, Edw., King Island.
C. latrellii, Edw., Mauritius.
C. reniformis, Edw., Asiatic Seas.
C. pallipes, Edw., New Holland.

CYCLONE. Hurricane, White squall, Typhoon.

Tufan, ... ARAB. HIND. ... Travado, ... PORT. Ta-fung, ... CHIN. Tornado, ... SP.
Cyclone.

Cyclone is the term now applied to the furious tempests formerly called taffin, typhoon, or hurricane, because of their being uniformly found to be whirlwinds, and from the Arabic Tour, circumambulation. Cyclones are of frequent occurrence from 100 miles N. or S. of the equator, and between 1746 and 1881, 17 disastrous cyclones have been recorded. The first written notice is from the pen of Colonel Capper, a Madras officer, who describes them as whirlwinds of immense size, not less in diameter than 120 miles, and having their vortex near Madras or Pulicat. Other authors have followed since that date, 1801, offering theories and explanations of the phenomena.—Redfield and Espy in America; Dr. Thom, 86th Regiment; in Mauritius, Messrs. Bousquet, Hare, and Dove, Colonel Reid, Mr. Piddington of Calcutta, and many others. But, from the data furnished by their writings, it was left for Colonel Reid to form the law by which practical action has been given, and his position has been greatly extended and made easy by the intelligent labours of Mr. Piddington. The usual names, taffin, typhoon, hurricanes, typeets, being catalogued to lead to confusion, a new term was sought for storms coming under the new law, and the word cyclone was selected, derived from the Greek Kuklos, as neither affirming the circle to be a true one, though a circuit be complete, yet expressing sufficiently the tendency to circular motion in these tempests. Colonel Capper put forward the view that the storms of the Indian Ocean were rotatory. Mr. Redfield and Professor Dove further developed that theory; and Colonel Reid discovered the fact that the rotation of these storms in the N. hemisphere was N.W. to S.E., or opposite to the direction of motion of the hands of a watch with its face upwards, and that the reverse is the case in the S. hemisphere. Mr. Espy of Philadelphia ascertained that in cyclones there is an inward centrifugal force; and Professor Dove explained the opposite direction of rotation in the northern and southern hemispheres, by what he called the law of gyration.

The subsequent writers on cyclones and their laws, have been Professor Taylor, Sir John Herschel, Mr. Blanford of Calcutta, Mr. Meldrum of Mauritius, and Mr. Willson. Professor Taylor's theory was that cyclones originate from an upward expansion of the air, produced by local heat; that this is followed by an inward movement of air, and that the rotary motion of the earth produces spiral movement round a centre, over which a continuous upward movement of the air takes place. This theory was adopted by Sir John Herschel in his work on meteorology. Messrs. Meldrum and Willson are of opinion that they are primarily due to lateral and opposite currents of air. Mr. Blanford ascribes their cause to a local atmospheric depression arising from condensation of vapour, and so causing an inward movement of air to the place of origin. Mr. Elliot favours a modified form of Mr. Blanford's theory (Geog. Mag., June 1877). Mr. Blanford's theory is in accordance with the present views of the London Meteorological Office, viz., that the winds blow from all quarters into every central area of lowest barometrical pressure. The workers and their contributions to this subject have been numerous.

From 1839 to 1851, Henry Piddington of Calcutta contributed largely to the history of hurricanes; and it was he who discovered that in India to the north of the equator they are circular, moving from right to left, and are progressive, and he made out the tracks on which they move, and their rates. Captain Carseless and Dr. Thom, 86th Foot, gave an account of the great hurricane of April 1847, in which the Cleopatra, Captain Young, was lost.

Dr. George Buist collected accounts of hurricanes on the west coasts of India from 1647 to 1859, and wrote careful memoirs on the subject of cyclones. Lieutenant Ferguson published an account of the cyclone of 1862. Mr. Franklin, at Madras, published an account of the storms of 20th October and 25th November 1846, with diagrams. Lieutenants Mullins and Hemery described the cyclone at Nellore and Cuddapah of 2nd November 1847. An account of the Calcutta cyclone of 1864 was drawn up by Colonel Gastro and Mr. H. F. Blanford, with a list of recorded storms in the Bay of Bengal, from 1737 to 1864.

Of 73 cyclones in the Bay of Bengal, notices of which occur in old records, Mr. Piddington's works, or which Mr. H. F. Blanford himself recorded in recent years, he says the distribution in the several months were as follows:—January, 2; February, 0; March, 1; April, 5; May, 17; June, 4; July, 2; August, 2; September, 3; October, 20; November, 14; December, 3. All that occurred between November and the end of April had been restricted to the south of the bay; and the same is to be said of the greater part of the November storms. May and the first half of June, and October with the first week of November, are the only periods in which cyclones can be said to be prevalent in the north of the bay, though they occur occasionally in the intervening months, that is, during the south-west monsoon (p. 623).

Captain Taylor, R.N.B., Master Attendant at Madras, writing on the Bay of Bengal, says ships exposed to the cyclone experience, after fearful weather from one quarter, a short rest, during which the sun or stars are visible overhead, after which the storm comes on again from the opposite quarter. The wind observes in all cases the same relative bearing,—on the north side of the cyclone the wind is always east, on the east side the wind is always south, on the south side the wind is west, and on the west side the wind is north. And these storms always come up more or less from the south-east, and pass away to the north-west.

Madras city and its adjoining coast have suffered repeatedly from cyclones. They seem to travel up from the E.S.E., and progress rapidly in a W.N.W. direction, until they touch the land, and there they assume a westerly or W.S.W. course. Their diameters are about 150 miles, and they revolve in a direction contrary to the hands of a watch, for 20 to 80 days. On the 17th October, 1846, 23 days after the surrender of Madras to M. de la Bourdonnais, a cyclone burst on this town. The ships Duc d'Orleans, Phœnix, and Lys put to sea, but foundered, and in them upwards of 1200 men were lost; the Mermaid and Advice, prizes, shared the same fate; the Achille and two other vessels of war were dismantled; and of twenty other vessels of different nations in the Madras roads, all were either wrecked or lost at sea.

A cyclone occurred off Cuddalore on the night
of the 12th—13th April 1849. It blew from the N.N.W., and continued all the next day. H.B.M. ship Pembroke was wrecked on the Colerun shoal, a little off Porto Novo, and only 12 men were saved. The Namur flooded in shoal water not far from Devicottah, when 527 officers and men were drowned. Off Fort St. David, the E.I. Company's ships Lincoln and Winchelsea, and almost all the small vessels, were lost.

On the 31st October 1752, a violent hurricane was experienced.

On the 1st January 1761, a violent hurricane occurred at Pondicherry. At that time the British were besieged by sea and land. Of eight sail of the line, two frigates, a fire-ship, and a ship with stores, the Norfolk escaped. The Panther, America, Medway, and Falmouth were dismasted, but rode out the gale; the Newcastle, Queenborough, and Protector ran ashore; and the Duc d'Aquitaine, the Sunderland, and the Duke founder, and of the crew of 1100, all but 7 Europeans and 7 natives perished.

On the 21st October 1773, a violent hurricane visited Madras, when the ships that remained at anchor all perished.

On the 20th October 1782, a gale began from the N.W., and the following morning 100 small country vessels were stranded on the beach. H.M. ships Superb and Easter were dismasted, and got to Bombay with jury masts. At that time the ravages of Haider Ali had driven the people into Madras, and sickness followed the cyclone, during which Lord Macartney, the Governor, nobly exerted himself to mitigate their sufferings.

On the 27th October 1787, a heavy gale occurred, in which the barometer did not fall below 29-465, in which the barometer did not fall below 29-465, in which the barometer did not fall below 29-465, in which the barometer did not fall below 29-465, in which the barometer did not fall below 29-465, in which the barometer did not fall below 29-465.

On the 5th December 1803, H.B.M. ship Centurion, on her passage from Trincomalee to Madras, and the Albatross, were dismasted in a cyclone, which raged from midnight till 5 P.M.

On the 10th December 1807, a hurricane burst over Madras, and was accompanied by a storm-wave, which inundated the whole of Black Town.

On the 2d May 1811, in a violent hurricane at Madras, the Dover frigate and Chichester store-ships were lost, and 90 vessels went down at their anchors; only two vessels which put to sea were saved. During this cyclone the surf broke in 9 fathoms water, 4 miles from shore.

On the 24th October 1818, a cyclone commenced with the wind from N., and, after increasing in violence, suddenly lulled, but as suddenly blew from the S. Its vortex passed over the town. It travelled west. The barometer fell to 28-78.

On the 9th October 1820, a cyclone commenced at N.W., and veered to W. and S.W. The barometer fell to 28-50. It passed north of Madras, and travelled west.

On the 30th October 1836, a gale set in from the north. At 4 P.M. it blew violently from the N.N.W. and N. After a half-hour's lull, it blew at 7-30 P.M. with redoubled violence from the south, and at this time the barometer was 28-285. The vortex passed over the town.

In May 1843, another hurricane occurred, the brunt of which was felt out at sea, and several vessels were lost. Those that remained at anchor rode it out.

On the 25th November 1846, a hurricane occurred during which the pressure of the Observatory anemometer broke at a pressure of 40 pounds registered; and the force of one heavy gust was computed at 57 pounds per square foot. The large iron wind-vane of the Observatory was bent to a right angle, and one of the flat pipes on the Elphinstone Bridge was blown over.

Of these fifteen cyclones, one each occurred in January and in April, two each in May and December, and nine in October.

On the 1st November 1864, a cyclone, accompanied by a storm-wave, swept over Masulipatam, rising 12 and 13 feet above the ordinary high-water mark, and rushing inland for nine miles (in one instance for 17 miles) from the shore, submerged an area of 7200 square miles, and about 39,000 of the population were drowned.

A cyclone occurred at Madras on the 2d May 1872, when nine British and 20 native ships were driven on shore, and 19 lives were lost.

A cyclone occurred at Vizagapatam on the 7th October 1876, and another at Bakarganj.

1822, 6th June, in Bombay a great tidal wave; 100,000 people perished.

A cyclone occurred at Bombay in 1837. Another on the 1st and 2d November 1854. At midnight the wind rapidly increased in force from 15 pounds pressure on a square foot of surface till 3 A.M. of the 2d November, when it inclined a little more to the south, and increased in pressure to 35 pounds.

Amongst the calamities that have overtaken the Sunderbans, have been great inundations caused by cyclones. About the year 1854, the tract lying between the Horinghatta and the Ganges, known as the Bakarganj or Burrisal district, was swept by an inundation, succeeded immediately afterwards by an incursion of Pundag and Mugh pirates. In June 1622, this same tract was again inundated, 10,000 inhabitants perishing, and many houses and much property destroyed.

In the Gentleman's Magazine for 1737, mention is made of a storm and inundation at Calcutta, from which 300,000 lives were lost. In A.D. 1736 the Megna rose six feet above its usual level at Luckippur. A cyclone of 1831, over Calcutta, swept away 300 villages and 11,000 people. Occurrences of cyclones have been recorded at the mouth of the Megna on the 6th and 9th June 1822, on the 1st November 1867? on the 16th May 1869, and 1st November 1876.

In A.D. 1833, Sagar Island was submerged 10 feet; the whole of the population, between 3000 and 4000 souls, together with some of the European superintendents, perished; at Kedgeree, a building 18 feet high was completely submerged, and the Duke of York East India Man was thrown high and dry in the rice-fields near Fultah in the Hooghly. In A.D. 1818, the island of Sundee was submerged. A cyclone is mentioned as occurring in Calcutta in 1859, attended with a great loss of life. A cyclone of the night of the 5th October 1864 came from the sea, passed over Calcutta, and founderd and stranded steamers and ships of 2000 tons burden, and swept away every tree and building in a tract 300 miles long. This one, originating near the Andamans, travelled in a north-west direction, and struck the coast of Bengal at the Balasore roads and Hidgel. Thence it passed over Calcutta on the 5th October, over Kishnaghur and the Bogra district, and finally expended its strength in the Garo Hills. The wind destroyed muck, but it brought with it
CYCLOPES

a storm-wave 30 feet high, which flooded the country for a distance of 8 miles on both sides of the Hooghly river. In Calcutta, and in Howrah, on the right bank of the Hooghly, the partial or complete destruction of 196,481 houses and huts told a sadder tale than even the violent death of human beings. But widespread ruin swept over the fertile tracts of Midnapur, and over the Sunderbuns, which had been recovered from total inundation by the efforts of a quarter of a century, and the expenditure of millions of rupees. In many districts there, no less than three-fourths of the whole population, their cattle and other property, were engulfed in sudden destruction. Had the Hooghly been the Thames, and London—not so densely populated—Calcutta, a cry would have gone up which would have thrown the earthquake of Lisbon and similar catastrophes, famous in history, into the shade. In all, about 200 ships were lost, and 70,000 persons perished.

The inhabitants of the large fertile islands in the estuary of the Megna, Shabazpur, Hattiah, and SundEEP, full of rice grounds and cocaanut grooves, are not unfamiliar with the dangers of their marshy home, for since 1822 there have been at least seven cyclones; but the islands stand fairly high above the water, and it has been the storm which has caused most damage, though it generally gives notice of its approach long beforehand, by the unnatural hush in the air, and the livid colour of the sky, but on the night of the 31st October 1876 there was no warning. A violent north wind prevailed from 10 P.M. of the 31st October to 3 A.M. of the 1st November, and brought down the river water more rapidly than usual. The tidal wave was unusually high, and the north wind was followed by S.W. and west winds, which propelled the storm-wave into the converging water area of the estuary. It was full moon on the 31st October, and the usual tidal bore occurred at 11 P.M.; and before the water flowed off, one or two storm-waves followed from the S.W. about 3 A.M., and between 4 and 5 A.M., causing a second and third inundation, covering the islands with from 10 to 45 feet of water. The waters continued to rise till 4 A.M., when they began to subside. The inundation caused bad food and bad water. It was shown that 165,000 people were drowned, and subsequently 75,000 died of cholera. South of the equator, they occur in the months of November to May, and travel to the W.S.W.; and afterwards, but not always, to the southward and S.E., the wind invariably moving round a central space (which is usually characterized by a calm) from left to right, or with the hands of a watch; while the storm, which has a diameter of 1 to 1500 miles, moves onwards at the rate of 1 to 20 miles, but more frequently 4 to 7 miles an hour, for a period varying from a few hours to ten days, attended with torrents of rain, and its northern half often with lightning. Dr. Thom showed that, south of the equator, the storm-waves generated between the N.W. monsoon and S.E. trade winds. They occur only during the S.W. monsoon months, and their rise and progress are intimately connected with the S.E. trade wind and N.W. monsoon, two opposing winds. With the ships, the safest course is to lie to and watch the barometer and wind till the bearing of the centre be known with some certainty.—Geog. Mag., June 1877; Linton's

CYCLOSTEMON MACROPHYLLUS.


CYCLOPES are supposed by Poecke to be the Guela-pes from the Jumna or Guickla-des. This derivation would designate them as a pastoral race, from Go, SANSK., a cow; but their great irrigation works denote them an agricultural population. Such a race at some remote time occupied Baluchistan, and raised great irrigation structures similar to those in Greece, and in the Peninsula of India. At Bogdegi is a mound with Cyclopean substructures. Lieutenant Aytoun, in his Geological Report on a portion of the Belgaum Collectorate, given in Carter's Geological Papers on Western India, p. 392, mentions that certain gorges in the hills had been artificially bended, and present one or two points of slight resemblance between the Pelasi, the builders of the Cyclopean walls of Greece, Italy, etc., and the Ghorbasta builders of Baluchistan, suggesting that they might have been a kindred people, with kindred habits. The Pelasi came from Asia, not from Asia Minor, not from Syria, nor from Assyrin, not from Persia, but probably from that birthplace of emigration, the tract north and north-east of Persia.

The Ghorbasta builders probably came from the same tract, and were not Mekranese, nor Persians, nor Assyrian. The Pelasi existed only a few generations in Greece (about 250 years), before they were turned out by the Helotenes; they must therefore have brought with them, when they entered the country, their propensity for building massive walls, and commenced their work almost immediately on arrival. It was probably the same with the wall builders of Baluchistan; they only remained in the country long enough to allow them to extend northward as far as Kelat, when, meeting with the Mulla pass, they debouched into the plains. Their art was a fully developed one before they arrived there to carry it out. The Pelasi arrived in Greece about 1800 B.C. This date seems to accord roughly with the advent of the unknown Ghorbasta into Jhalawan. The Ghorbasta structures, however, when compared with the Cyclopean remains of Greece, are slight, most roughly executed and insignificant; yet they evince a like instinct and habit in two races which probably came originally from the same region.

The tank at Cumbum, the Husain-Saugar tank at Secunderabad, the Oossor lake or tank near Bangalore, are each about 7 miles in circumference. Their date is not known. The Mir Alam lake at Hyderabad, constructed during a famine to provide food, cost £1,600,000, and a steamer on it; and a great lake, formed in a famine by the damming up of the Goomti river, cost £1,500,000.—Dr. Cook in No. 6, Bombay Nat. Transactions.


This large tree is very common in the dense moist forests of the Animaliyas, 2000 to 4000 feet
CYNODON JAPONICA.

CYNODON DACTYLON.

elevation; and in Coorg at the waterfalls near Mercara, 4000 feet; and in other parts of the Western Ghats, Travancore, etc. It is found also in Ceylon at 5000 feet, and Java. Indian specimens (Var. B. ascalifolia) have the flowers sessile; the timber is very hard.—Thevetius; Beddome.

CYNODON JAPONICA. Pers.

Hai-hung, Hai-t'ang-li, Hai-t'ang pu, Chin.

The Cydonia genus of plants belongs to the natural order Pomeae. C. Japonica is a beautiful flowering tree, originally from Sin-lo on the Yellow Sea, now largely cultivated in China; and Szechuen produces fine sorts, one variety being called Ts'ai-hai-tang.

CYNODON VULGARIS. Pers. Quince.


This small, crooked, and much branched tree grows in the south of Europe, in Persia, Afghanistan, Kashmir, in the N.W. Himalaya, in Hindustan, and is cultivated from Kabul to Kashmir. Flowers few, of a white or rose colour. The fruit is of a yellow colour, downy, and remarkable for its fine odour. The seeds, called Bibi-dana, are in great use medicinally, being brought into India from Persia, Kabul, Kandahar, and Kashmir, and are highly valued as a demulcent tonic. The fruit contains some astringent matter. It is now made into a preserve, or used for flavouring the preserves of other fruits. There is a 'tursi' or bitter, and a 'shirin' or sweet quince.—Dr. Rygle; O'Sh.; Roxb.; Voigt; Stewart; Clegorn.

CYGNIAE, the swan family of birds. Cygnus olor is the mute swan, of which C. immutabilis is the wild race. Cygnus musica is the Cygnus ferus, or Hooper swan, and is found in N. Europe, Asia, and N. Africa. It is migratory, and one specimen was obtained in the valley of Nepal.

CYMBIDIUM, a genus of plants belonging to the Orchidaceae, all of them with beautiful flowers.

C. alatum, Roxb., of Sunderbuns and Chittagong, has pale sulphur flowers.

C. aloifolium, Setz., the Paras, the Epidendrum aloifolium, L., Ariosdes Borassei, etc. Flowers large and white, egged, on most of the hills of India; a beautiful plant when in flower, and blossoms in April.

C. aphylleum, Setz., the Limodorum aphylleum, Roxb., with yellow flowers; Coromandel coast.

C. giganteum, Wall., the Limodorum longifolium, Buch., grows on the Khasaya and Nepal hills.

C. pendulum, Setz., the C. crasifolium, Wall., and the Epidendrum pendulum, Roxb., grows in the Khasaya hills, and in the Peninsula of India.

C. triste, Willde, grows from Nepal and Ceylon to Japan and N. Caledonia, has small pale green flowers. It is the Epidendrum teres of Thunb., E. triste, Forst., and Linsia tertifolius, Gard. and Franch. and C. giganteum, Wall., and C. gigas, have the leaves in Nepal; and C. Gib. sonii, Wall., C. inconspicuum, Wall., C. Masteri, Wall., and C. striatum, Wall., grow on the Khasaya hills. Wight also gives C. erectum, C. tenuifolium, and C. tesseloides.

CYMBIRHNCHUS MACRORHYNCHUS, called by the Malays the rain bird, is the most beautiful of the Malacca birds, and is known to naturalists as the blue-billed gaper.—Wallace.

CYMOBOPONG LANGIER. Def.

Khawi; Panii, .. Panj.; Injani, .. Panj., Solars, .. Buir, .. of HABRIANA.

Root Sheaths.

Azkar; Mirchisangad, H.; LAMJAK kataran, .. Hind.

Dr. Stewart says (p. 253) this and C. iwaran-
cusa are not uncommon in many parts of the plains.

CYNANCHUM (from xwlo, a dog, and drvex, to strangle), a genus of plants belonging to the natural order Asclepiadaceae. The species are herbs or undershrubs, with opposite leaves and mostly twining stems. Dr. Wight gives C. alatum, callialata, pauciflorum. The Populus Euphratica, a species of Cynanchum, Choris bartata, and Cyperus aristatus, all ascend to 11,000 feet in Indiath. Peganum harmala attains 9000 feet. The leaves of C. argal of Upper Egypt in small doses are purgative, and they are much used in Egypt for adulterating sema. C. ovalifolium of Fenzag yields abundance of very fine caschatone.—O'Sh. p. 51; Eng. Cyc. p. 275.

CYNARA CARDUNCULUS. Linn. The cardoon; is similar to the garden artichoke, but grows much higher, though cultivated similarly to the artichoke.

CYNARA SCOLYMUS. Linn. Artichoke.

Kirshuf, Kharisuf, .. Arab; Kanjur, .. Hind., Pers.

The artichoke has very large flowers, of a violet blue colour, and is grown in many gardens of the Deccan.

CYNIPS, gall-producing insects, puncture and lay their eggs in large numbers in the fruits, seeds, and leaves of plants, and the excrecences are known as galls. A species on the Himalaya affects the oak.

CYNCEPHALUS. Cuc. A genus of quadrumanous mammals, known as baboons, meaning in the Greek dog-headed. Its most marked characters consist in the great prolongation of the face and jaws, and in the truncated form of the muzzle, which give the whole head a close resemblance to that of a large dog. In their native mountains, the ordinary food of the baboons is berries and bulbous roots; but in the vicinity of human habitations they make incursions into the cultivated fields and gardens, and destroy a still greater quantity of grain and fruits than they carry away with them. C. hamadryas, Linn., the derrias, is found in Africa and Arabia. It measures upwards of 4 feet when standing erect.

CYNOCNOTUM PAUCIFLORUM. Dec.

Cynanchum pauciflorum, R. Br.


Very common in the central province of Ceylon and India. The Singhalese eat the young leaves of this and of many other plants of this natural family, in their curries.—The. Zeyl. p. 195.

CYNODON DACTYLON. Pers.

Panicum dactylon, Linn., Agrostis linearis, Retz.

Durhka, .. Beng., Hind., Hurrum pilu, .. Tam.

Dobh, Dobha, .. Arugam pilu.

Harial, Durua, .. Durka, Garka kurnou, .. Tel.

Khalan, Khabar, .. Hind., Tella garki.

Barawa, .. Tr.-Ind.

The Harryllee grass of India and Europe is considered, in India, the best for cattle. The root creeps through the loose soil to a considerable extent, and has strong fibres at the nodes. The stem rarely exceeds six inches in height. Florets are all on one side of the spike-stalk, avenless, purplish, and ranged in two close alternate rows. All the stems which lie near the ground take root, and by this means, though an annual plant, it increases and spreads very wide. It yields abundance of seed, of which small birds are very fond.
OYPERACE.IE.

It is grown for hay; and it is good to allow the seed to ripen before the hay is cut, as it then propagates itself by seed, in addition to the runners. This grass is found in Great Britain, but its produce and nutritive properties are there comparatively insignificant, while in India it constitutes three-fourths of the pasture. Sir W. Jones observes (As. Res. iv. p. 242) that it is the sweetest and most nutritious pasture for cattle, and its usefulness, added to its beauty, induced the Hindus, in their earliest ages, to personify it as the mansion of a benevolent nymph. The A’charvana Veda thus celebrates it: ‘My Durva, which rose from the water of life, which has a hundred roots and a hundred stems, efface a hundred of my sins, and prolong my existence on earth a hundred years.’

It is the principal one of the Indian grasses, and is perhaps the most generally diffused, possessing much nourishing property in its long stems, no less than in its leaves. It endures the greatest elevation of temperature, as its roots penetrate far below the surface; and although, during the dry hot season, giving no sign of life, it puts forth its tender leaves on the first approach of the rains. It grows throughout the year, and lawns and pastures of moderate extent are made by planting pieces of the creeping stems. It is also much used for forming a covering for the banks of rivers, ramparts, and esplanades. The young and tender leaves are used in chatnis, and are considered very pleasant; the roots make a cooling drink. It is also one of the most abundant grasses on the Tamasserin coast, but it is much less conspicuous than many others.—Mason; Cleghorn; Jaffrey; Von Muelen.

CYNOGALE BENNETTI, a rare otter-like animal of Borneo. It has a very broad muzzle, clothed with long hairs.—Wall. I. 590.

CYNOGLOSSUM, a genus of the borage tribe of plants, growing in Bengal and Northern India. C. diffusum, canescens, Falconerianum, furcatum, marifolium, and racemosum, pretty little annuals, flowers mostly blue, purple, white and purplc; grow in any common soil.—Riddell; Roxb.

CYNOGLOSSUS LINGUA. B. Ham. The sole.

CYNOMETRA BIJUGA. Spanoggles. A timber tree of the Sunderbuns.

CYNOMETRA RAMIFLORA. Linn.


A tree which attains a height of 60 feet in Ceylon, Malabar, Java, the Moluccas, and Sumatra. A cubic foot when seasoned weighs 56 lbs., and it is said to last from 15 to 60 years; sp. gr. 0.86. It is used for bridges and buildings, and is the best suited of the Ceylon woods for under-ground purposes. Its roots, leaves, and an oil from the seeds are used medicinally. Chips of the wood infused in water give a dark purple dye.—Mr. Mendis, Useful Plants; Thewitts; Beddome.

CYNOMETRA TRAVANCORIA. Bezd. This is a straight tree of great height and very beautiful foliage, particularly when in young leaf. It grows on the Tinnevelly and Travancore mountains at 2000 to 3000 feet elevation.—Beddome.

CYNOMORIACE.E, Lindl., an order of leafless parasitic plants. Wallich says a species of the Cynornorium, a fungus-like genus, is parasitical on the roots of trees in the Tamasserin Provinces, and valuable as a styptic.—Mason.

CYPEREAE.

CYPONITHECUS NIGRESCENS, the black baboon monkey of Celebes.

CYPEREAE, the sedge tribe, a natural order of plants, found from the arctic to the antarctic circle, in marshes, ditches, and running streams, in meadows, on heaths, in groves and forests, on the sea-shore, and on mountain summits, wherever phenogamous plants can exist. In Griffiths’ Herbarium are 244 species of Indian Cypereae, collected from the Himalaya to Mergui. The most useful of the tribe are species of Cyperus, Euphorium, and Papyrus, q.v.

A. Cyperae.

Cyperus alopecuroides, Rotter., Himalaya. angustifolius, Bach., Bengal. 
aristatus, Rotter., Peninsula of India, Bengal. 
articulatus, Linn., Peninsula of India, Bengal. 
bulbosus, Vahl., Coromandel. 
canescens, Vahl., Peninsula of India. 
castenus, Wild., Peninsula of India, Bengal. 
compressus, Linn. W. and E. Indies, Benin., Bengal. 
tortuosus, Boxb., Ceylon. 
diformis, Linn., Greece, Egypt, S. Asia, the Deboos, 
distans, Linn., W. and E. Indies, P. of India, W. Africa. 
dubius, Rotter., P. of Ind., Ben., c’hoto gothohee. 
catulus, Bet., Peninsula of India, Bengal. 
haspan, Rotter., Peninsula of India. 
hexastachyus, Rotter., Arabia, East Indies. 
inundatus, Roxb., P. of Ind., Bengal, patee. 
iria, Linn., P. of Ind., Bengal, Nepal, China, Manilla. 
ivory, Bet., Bengal, Monga, Penam. 
pectiniformis, Rom., Coromandel. 
pertenuis, Roxb., Bengal, the nagur-month. 
pleuranthus, Nees, Coromandel. 
polystachyus, Rotter., Peninsula of India, Australia. 
pygmeus, Vahl., P. of Ind., Bengal, Ara, the jai-muti, 
racemosus, Bet., Peninsula, of India, Bengal, Penang. 
rroxburgii, Nees, Peninsula of India, Bengal. 
sanguinolentus, Vahl., Konkan, Bengal, Nepal. 
semimundus, Roxb., Bengal. 
tenellus, Rotter., Peninsula of India. 
trichoglossus, Linn., India. 
venustus, R. Brown, Pen. of Ind., Australia, Java. 
verticillatus, Roxb., Pen. of Ind., Bengal, Nepal. 
Papyrus delichesii, Nees, P. of Ind., Bengal, Chumatee- 
palea. 
chatus, Nees, Ceylon. 
panorei, Nees, P. of Ind., Bengal, mador katoe. 
tegitiformis, Arnott, Bengal. 
mariscus cyperinus, Vahl., Ascension, Mauritius, China, Bengal. 
dilatatus, Nees, Peninsula of India, Bengal. 
Kyllingia monoeophala, Linn., E. Indies, China, Nepal. 
Archipelago, Australia. 
triceps, L., Pen. of India and Malacca, Bengal. 
Courtoisia cyperoides, Nees, Peninsula of India. 

B. Hypolytreetce.

Anopserum monoeophalum, Nees, Bengal, gothoohee.

C. Scirpeae, Nees.

Abligaardia Rothbolliana, Nees, Pen. of India, Bengal. 
tristachya, Vahl., Peninsula of India. 
Fimbristylis scirpeus, Vahl., Pen. of India, Bengal. 
argentus, Vahl., Peninsula of India. 
ferrugines, Vahl., Bengal. 
pallescens, Nees, Bengal. 
Reynelines, Nees, Sunderbuns, Bengal; the talmooroo is a variety microstachya. 
Schoenoides, Vahl., P. of Ind., Bengal, keshuri-mulunga. 
Trichostylis autumnalis, var. Indica, Roxb., Bengal. 
the kuradiya-yuvance. 
complanata, Nees, Bengal. 
miliaeae, Nees, Bengal, the boro-yuvance. 
quinquangularis, Nees, Bengal. 
tenella, Nees, Peninsula of India, Bengal. 
tetragona, Nees, Bengal. 

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CYPERUS BULBOUS.

Isolepis articulata, Nees. Bengal.
barbata, R. Br., Peninsula of India.
incana, Willd., Bengal, New Holland.
prolongata, Nees. Bengal.
saccharata, R. Br., Europe, Bengal, Australia.
scorpioides, Willd., Bengal, Nepal, Australia.
whitei, R. Br., Bengal, Nepal, Australia.
affinis, Nees. Bengal.
Scripus junciformis, Nees. Bengal.
Kooyar, R. Br., Bengal.
Eledosorus capitatus, Nees. Rio Janeiro, Pen. of India.
Inisce, Nees. Bengal, New Holland.
Limnocharis acutangula, Nees. Peninsula of India.
Plantaginea, Nees. Ceylon, Peninsula of India.
tumida, Nees. Bengal, Peninsula of India.
D. Selericte, Nees.

Scleria lithosperma. Willd., Ceylon, Pen. of India.
tessellata, Willd., Ceylon, Pen. of India, Nepal.
E. Cariceae, Nees. Several species of Carex have been introduced into India.
Carex Indica, Willd., Nepal.
Ussizia Nepalensis, Nees. Himalaya.
Remira Wightiana, Willd., Peninsula of India.
Hemicarpia isolepis, Nees, Peninsula of India.
Ipecacarpha levigata, Nees. Peninsula of India.
tricarpa, Nees, Coromandel.
Hypurum supinum, Wall., both Pems. of India.
Fulgida ciliaris, Roxb., Coromandel.
pentagona, W. and A., Peninsula of India.
dichlotsylis Micheliana, Nee, Nepal, Europe, Asia Minor.

Cheiranthus limnochria, Nees. Coromandel.
Echinochloem discaneum, Decne., Peninsula of India.
Malacochroa pectinata, Nee, Peninsula of India.
Eriophorum arundineaceum, Wall., Pentang.
comosum, Wall., Nepal.
Rhynchospora Chineni, Nee, China, Nepal.
Morisia Wallichii, Nee, Nepal.
Haplostelis Meyenii, Nee, China, Ceylon.
Cephalochorde articulatus, Nee, Pen. of India.
Hypoporum pergracile, Nee, Sylhet.
Corbeia laxa, Nee, Nepal.
Trilepis Royeana, Nee, Himalaya.

CYPERUS BULBOUS, Vahl.
C. Jemeniacus, Roxb. | C. capitatus, Retz.
C. gernaniaca, Anisile.
Shilandi arisi, | TAM. Puridampa, | Tel.
Furigaddi, | Tel.

This plant grows on the Coromandel coast near the sea; its roots are used as flour in times of scarcity, and they are also eaten roasted or boiled. Dr. James Anderson, in an excursion to the southern part of the Peninsula of India, discovered that the Shilandi arisi, growing in sandy situations by the seaside, and requiring but little water, was the common food of the natives during a famine, and when other grains are scarce. It is nutritious, pleasant to the taste, and makes a pudding somewhat resembling that made of sago.

—Anisile, Useful Plants; Roxb.; O'Sh.

CYPERUS CORYMBOSA. Roxb. Rot ball, in India used for mats.

CYPERUS ESCULENTUS. Linn.
Sha-tsa'u, | CHIN. | Hsiang-tu teze, | CHIN.

In China the shoots are used to make bats and matting; its tubers are in much request for food. The roasted leaves have been used as a substitute for coffee, and yield a preparation resembling chocolate. The cultivation of the plant deserves attention for its considerable alimentary value. Yen Muelle; Smith.

CYPERUS HEXASTACHYUS. Roth.
Var. s. Communia. | Var. s. Pendalosus.

Sah, | ALAB.
Moothoo, BENG. | HIND.
Nagar mootha, moothi, | MAL.
King-saan-ling, | CHIN.

Kalandura, | SINGH. Mustakamun, | Tel.
Kore, Koray, | TAM. Varinvelamu, | Tel.
Kai varata мустка, Tel. | Sucha-tunga, | Tel.
Gundala, Gundra, | Tel. Tunga mutu, | Tel.
Bhada tunga gaddi, | Fumiu, | YUNNAN.

Var. a. C. rotundus, Linn., Roxb., grows in all Southern Asia, from Arabia to China, Java, and N. Holland. Its tuberous roots are sold in the bazaars at 2 annas the pound, and used by perfumers, under the name of nagor moothi, on account of their fragrance. Hogs are very fond of them. Cattle eat the grass. In the Ho-nan, Shen-si, Hu-peh, and Szee-chun provinces of China its fibres are woven into cloth. In India and China its fresh tubers are deemed medicinal. —Smith; Roxb.; Voigt; Fl. Am.; C. M. Top.; O'Sh.

CYPERUS INUNDATUS. Roxb.
C. precocis, Roxb. | C. baeca, Buch. Ham.
Pat., | BENG. Potupullu, | MAL.

Found in great abundance on the low banks of the Hoogly near Calcutta, and of rivers in the south of India, where the tide rises over it. It thrives most luxuriantly, and helps to protect the banks from the rapidity of running water. —Roxb.

CYPERUS PAPYRUS, of the Egyptians, is still called babier in Syria. It is about 15 feet high. The pithy-like tissue of the larger flowering-stems, cut into thin strips, united together by narrowly overlapping margins, and then crossed, under pressure, by a similar arrangement of strips at right angles, constituted the papyrus of antiquity. This paper is but little liable to decay. Pliny, for instance, relates that the books of laws of Numa Pomplius was found in Rome in a high state of preservation, after having been buried nearly six centuries in the earth. —O'Sh. p. 628.

CYPERUS PERTENNIS. Roxb.
Nagar moothi, Naga, BENG. | Kola tanga mutu, | Tel.

Roots aromatic; employed as a hair perfume. —Roxb.; Voigt.

CYPRÆIDEÆ, the Cowry family of shells, the Porcellaneum of the Germans, and Porcelain or porcelain shells of the French. Cyprea argus occurs at Ceylon, and a pair was once sold for four guineas. C. moneta is used in many parts of the East as a circulating medium, and for ornamenting the dress of several races, and the trappings of animals. 4 cowries = 1 ganda; 60 cowries = 1 pan.

CYPRESS.
Pien-pee, | CHIN. SAVY, | HIND. PERS.
Cypres, | FR. | Cypresso, | IT.
Cyprææ, | GER. | Cipres, | SP.
Tirzah, | HEB.

The Chinese cypress Tien-pee is the Cupressus thyoides. The cypress-wood of Cupressus sempervirens, L., is aromatic, compact, and almost imperishable. It is an overgreen forest tree, a native of the south-eastern parts of Europe, particularly of Italy, Mexico, and the southern parts of N. America. —Cleghorn, Panj. Rep. p. 63.

CYPRINIDÆ, a family of fishes of the order Physiostomi, the species of which are distinguished by their having the mouth small. The family is classed into fourteen groups, viz. Catasetomina, Cyprinaea, Rhodocentra, Lepitobarbia, Raarborina, Semiplatina, Xenocypridina, Leuciscina, Rhodeina, Danionina, Hypothalyma, Michthyina, Abramidina, Homolopterina, Cobitina, in which are 110 genera, and about 600 species. —Engl. Cyc. p. 219. See Fishes.

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CYPRUS.

CYPRUS, an island in the Mediterranean, near the coast of Syria; taken by the Turks from the Venetians in 1570. Its length is 140 miles, and its greatest breadth 60, pervaded by a chain of mountains, the highest of which is called Olympus. The soil is an excellent fertile clay. It was transferred to Great Britain in 1879.

CYRTOPHYLLUM FRAGRANTS. The Anan of the Burmese, grows in Moulmein. Is one of the Nux vomica tribe, and one of the hardest, most compact, and heaviest woods known.—Col. Cat. Ex. 1851.

CYRTUS INDICUS. Bloch. A fish of the Indian seas, of which large quantities are dried, and carried to the natives of India.—Contar.

CYRUS RIVER. The principal streams of the province of Fars are the Bendamir or Araxes, which receives the Kur-ab or Cyrus, as it falls into lake Bakhtegan; and the Nabon, whose course is from Firozabad southward to the Persian Gulf. In this country are also the higher parts of the two branches of the Tab.

CYRUS THE GREAT. A cylinder of this monarch, which was sent to Britain after Mr. Hormazd Rassam's return, was the most interesting historical record in the cuneiform character till then brought to light. It is in the Babylonian script, and was discovered among the ruins of the Birs Nimrud, the ancient Borsip. The cylinder is 9 inches long by 3½ inches in diameter, and must originally have been covered with 4½ long lines of text. The writing is very minute, and it is computed that the inscription would run to about 130 lines of the average length. Unfortunately the beginning was wholly lost, with the exception of a few scattered signs. It is found to relate to the very moment of that great historical event, the capture of Babylon by the founder of the Persian universal monarchy. Nabonidus has abanoned his capital, which has fallen into the hands of Cyrus, though he is still struggling against his fate in Babylonia. The Guti, and a people whose name is taken to be equivalent to Blackheads, are described as his subjects, and the god Merodach has delivered king Nabonidus into his hands. In a proclamation issued by Cyrus upon the taking of the city, the king repeats in the first person the principal allegations of the proclamation. It is partly mutilated, but the beginning, 'I am Cyrus,' with his genealogy in full, and his description of himself as 'king of Gyinds,' etc., can be pretty clearly made out. Cyrus is made to speak of his reparation of the temples of Babylon, and of the favours conferred upon him by Merodach, Bel, and Nebo, in answer to his prayers to them; of the homage paid him by distant nations, and of the gatherings of the people in the city to acclaim him king. Sir Henry Rawlinson said this new text settled for ever in favour of Herodotus, as against Ctesias (in Dio-
dorus), the genealogy of Cyrus. He was fifth in descent from Achemenex, next to whom came Teiseps, then Cyrus the grandfather, and Cambryes, the father of Cyrus the Great. The suc-
cession was direct, not indirect, as Professor Oppert has maintained. The inscription styles the native country of the Persians 'Assyria,' which Sir Henry Rawlinson seems to think was in the plains between the modern Shusser and the Persia of the classical writers. An important religious centre, named Calana in the inscription, he re-

ferred to the Calneh of Genesis and the Calno of Isaiah. Cyrus evinced sympathy with the Jews, as is shown by Isaiah xli. 2, xlv. 28, xlv. 1, and Ezra i. 2 to 4.

CYSTICERCUS or Soolex, from Kustis, a bladder, and Kerkos, a tail, is a hydatid or larval form of a cestid worm, called in its sexually matured state, Strobila, the C. tennia medico-cancella. When the flesh of an animal in which it is contained has been received into the human alimentary canal, the Cysticercus can be developed into a tape-worm.

D.

D, as sounded in the English language, has letters with corresponding powers in Arabic, Persian, Hindustani, Sanskrit, Hindi, Mahrati, Gujarati, Bengali, Urdu, Telugu, Karnataka, Tamil, and Male-

alam. In all these tongues, however, there is also a softer-sounding d. The English compound dh also, the Tamil tongue excepted, has corres-
ponding letters, simple, modified, or compounded, with both soft and hard sounds; d and r, in several of the Indian tongues, are, moreover, so pronounced as to be difficult for a European ear to catch their niceties; and d and r are therefore frequently confounded. D and r are not used by the Chinese, who use the liquid l for r.

Some nations of Europe, with a soft pronunciation of the letter j, require to prefix d to that letter for the correct pronunciation of such words as Jamal, a camel; thus Djamal. Vambery used dj for the Arabic chm. Dhs is changed by the Siamese to th.—Wilson; W. W. Hunter.

DAB. HIND. Poa cymoiroideus, the sacred grass of the Hindus; is generally applied only to the first shoots of the Koosh grass; it is called Dabasa in Rohilkand, and is used by Hindus in their religious services.

DAB. HIND. of Kohat. A moist soil.

DAB or Dabha. HIND., TAM., TEL. A small copper coin; money in general.

DABBATU-1-ARZ. ARAB. The second beast mentioned in the Revelation. Mahomedans believe it will issue from a mountain in Mecca, with the staff of Moses and the seal of Solomon. With the first it will strike the believer, and with the latter it will stamp the face of the infidel with the words, 'This is an infidel.'

DABGAR, a low caste of non-Aryans, who manufacture large leathern vessels for holding ghi or clarified butter (dabbar), and of vessels in which atta and ghi are deposited.—Sherrimg.

DABHA, a town in the Chanda district of the Central Provinces, lat. 19° 38' N., long. 49° 42' E. The people manufacture tasar silk handkerchiefs, coloured cloths, and silver snuff-boxes. The population is almost wholly Teling.—Im. Gaz.

DABHA, petty state of Mahikanta; estimated population in 1875, 1612. The ruler is a Mukwana Koli, a convert to Islamism. The religion of the Miah race of Dabha is a mixture of that faith and Hindusim; they give their daughters in marriage to Mahomedans of rank, and marry the daughters of Koli chiefs. They burn their dead.

DABHOI, the ancient Dharbhavati. A town in the territory of the Gaekwar of Baroda, 15 miles S.E. of Baroda; lat. 22° 10' N., long. 73° 28' E.;

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DAB-i-AKBAR.

DAB-I-AKBAR, AKBAR. In astronomy, the constellation of the Great Bear. Dab-i-Sghir, the Lesser Bear.

DAHSHILAM, an ancient Hindu raja, by whose orders the fables of Pilpay were composed.

DAHISTAN, the School of Literature, a learned work on the various religions of Asia. It is in the Persian language. It contains a dialogue between a Brahman, a Mahomedan, a Zoroastrian, a Jew, a Christian, and a Philosopher. The representative of each religion brings forth his arguments, which are successively condemned,—some on account of the vicious character of their founders, and all for the absurdity of their doctrines, and the want of proof of their alleged miracles. The Philosopher winds up the discourse by recommending a system which shall have no ground but reason and virtue. It was translated by Colonel Kennedy in Tr. Bombay Lit. Soc. ii. p. 247; also, though not very accurately, by Shea and Troyer, for the Oriental Translation Fund (Paris, 1843). The author, Mohsin Fani, belonged to the sect of Sipai among the Parsees, and wrote in India during the latter half of the 11th century of the Mahomedan era. His account of the Zoroastrian religion is exceedingly full and accurate; and he also gives a good description of the Hindu and Muslim systems, as well as of the Sufi and other philosophical sects.

DABKAI, a goldsmith who flattens gold wire into tinsel and spangles.

DABLING—Dubling, two villages in Bushahr State, Panjab; in lat. 31° 45' N., and long. 78° 30' E., and 9400 feet above the sea, on a belt of arable land near the left bank of the Sutlej. The cliffs on the opposite side of the river rise to a sheer elevation of 6000 or 7000 feet. The population have the Chinese Tartar type of physiognomy, and profess Buddhism. The path between the two places, a mile apart, is rendered practicable by means of wooden scaffolds fastened against the face of the precipice.—Imp. Gaz.

DABOU; a small weight of Musaliputam, equal to 11½ grains.

DABRAY JOGI, also called Dabray Bajawanla, and Bal Santa ka Jogi, a class of Hindu mendicants who sound the damb.

DABUL or Debul, a seaport town on the Malabar coast, eight miles south of Severndrug. This port was burned about 1508 by the Portuguese viceroy, Almeida. He came to India in 1505, the successor of Dias, Vasco da Gama, and Cabral. On his arrival, he concluded a defensive treaty with the king of Vijayanagar; but the Venetians, who up to that time had monopolized the trade with India, jealous of the growing power of the Portuguese, instigated the king of Egypt to oppose their progress. He accordingly sent a fleet under Mir Hukum, who, in conjunction with the fleet of Gujerat, bore down upon Lorenzo, son of Almeida, and defeated him in 1508, Lorenzo falling in the fight. Almeida, to avenge his son's death, burnt the port of Dabul, and defeated the enemy in the harbour of Din, and then concluded a treaty.

DACCA. There are two towns of this name, one Dacca Jalalpur and the other Dacca proper, between Dacca Jalalpur and the Megna river. The latter gives its name to the whole district, which is one uniform level of rich alluvial soil, annually inundated by the overflow of the great rivers. The villages are built upon mounds of earth artificially raised above the flood. During the rainy season, this tract presents the appearance of a continuous sheet of green paddly cultivation, through which boats sail to and fro. The chief means of communication at all times of the year is by water. The bordering rivers are the Ganges or Padma, the Jamuna or Brahmaputra, and the Megna. The city of Dacca is situated on the north bank of the Buriganga river, in lat. 23° 43' N., and long. 90° 25' 25" E. The town extends along the bank of the river for a distance of nearly 4 miles, and inland, towards the north, for about 1½ mile. The ruins of the capitals and palaces of the Bhuyia rajas lie scattered throughout Eastern Bengal, along the line of the Brahmaputra valley; and their memory is still cherished in the household tales of the Hindu peasantry. The Mahomedans first entered Bengal in 1205 a.d.; and two most celebrated of their viceroys are Mir Jumla, the general of Aurangzeb, who failed disastrously in his expedition to Assam, and the nephew of the Nur Jahan Begum, Shaista Khan, who broke the power of the Portuguese, and captured Chittagong to the Mogul empire. Dacca has numerous Hindu temples and many Mahomedan mosques for the large Musulman population, with churches and schools of the various Christian sects. The Roman Catholics are under the spiritual guidance of priests from Goa and elsewhere, with churches of their own and old Portuguese names. Formerly they used to intermarry with the natives, but of late years they seek alliances amongst their own people. Their complexions are very dark, and their custom semi-oriental; but they supply Calcutta with excellent domestics. The English, the French, and the Dutch had established factories about the middle of the 16th century, when the city was visited by the French traveller Tavernier. Cotton, jute, and saiflower may be considered staples of Dacca. The indigenous cotton has long been cultivated along the banks of the Megna from Dacca to its forks along the rivers, to the distance of about forty miles; on the banks of the Brahmaputra creek (the ancient channel of the river of the same name), and along the Luckia and Banar. It presents different shades of quality, the finest of which is named photi, and is the material of which the delicate Dacca muslins are woven. It is described by Roxburgh as differing from the common herbaceous cotton plant of Bengal in several particulars, but chiefly in having a longer, finer, and softer fibre than it. Three pieces of muslin, made to be presented to the Prince of Wales, measured each 20 yards by 1 yard, and weighed 3½ ounces. Next to fine muslins and embroidered fabrics, silver filagree work is that for which Dacca is most celebrated. This art is also practised in great perfection at Cuttack, and in Sunatara and China. The articles usually made at Dacca are ladies' ornaments, such as bracelets, earrings, brooches, chains, necklaces, etc., and the attar-dans and small boxes for natives. The design best adapted for displaying the delicate work of filagree is that of a leaf. The apparatus used in the art is exceedingly simple, consisting merely of a few small crucibles, a piece
of bamboo for a blow-pipe, small hammers for flattening the wire, and sets of forceps for intertwisting it. The drawing of silver and gold (i.e. silver wire covered with gold), used as thread in embroidery, is extensively carried on here. Bonures is also celebrated for this art. There are several varieties of silver and gold thread (bdla) made at Dacca, as kalabatoon for the embroidery of muslins and silks, goshoo for caps, and covering the handles of chauris; sulmah for turbans, alippers, and hookah-snakes; and bowel for gold lace and brocades. Some of it is drawn almost as fine as a hair. In the time of Aurungzeb a quantity of this article was made yearly for the court at Dehli. A hundred sticks covered with it, and plain gold and silver bdla to the amount of £2000 in value, appear among the items composing the mulboos khas muzr, which was annually sent to the emperor. Shawls, violets, shell ornaments, and boleos are largely manufactured. Amongst Mahomodians, the name of Dacca was Jahangirnagar.—Dr. Taylor.

DACELLO PULCHELLE, a kingfisher. Their feathers are much prized by the Chinese, who make them into fans.

DACOITY, a legal term of British India for a system of robbery by gangs of people of the country. It is derived from Daka, the verb being Daka parna, to plunder. In India, thugs and dacoits who had been tried and convicted as having belonged to a band of thugs murderers or dacoits, but who, having made a full confession of their crimes (in some individual cases amounting to the murders of as many as eighty persons), and having denounced their associates, received a conditional pardon. Originally, in the criminal code of India, Dacoity was applied to the armed bands who plundered, but it and the term Thuggees are now applied to several well-defined classes, and in times of scarcity many of the unemployed may join. Amongst the predatory races were the Budak of the Nepal Terai, also the Dasaah of Behar, who used to make frequent predatory excursions into Lower Bengal, the Bind of Ghazipur, the Nath, the Ahir, Boria, Kurmi, Gujar, and a host of low castes. In the Panjab, dacoity generally assumed the form of cattle-lifting. The Meena were active and energetic, and were concerned in most of the dacoities of Northern India. And in the S.W., the Santal with his club, long bamboo spear, and terrible battle-axe, often swept down on the plains of Birbhum, Hazaribagh, and adjacent districts, and the flare of their torches or light of the burning huts gave the first warning. The leaders of a dacoity band in Central India carried with them an axe with a highly polished edge, sacred to Bhawani.—People of India, vii.

DACRYDIUM, a genus of coniferous plants, growing in New Zealand, Tasmania, and New Caledonia. They are valuable timber trees, growing to a great height.

D. Colenso, Hooker, of N. Zealand, attains to 50 feet, yielding hard and incorruptible timber.

D. cupressinum, Solander, also of N. Zealand, the rima or red pine of the colonists, attains to 200 feet, with pendulous branches, yields a hard, valuable wood.

D. Frankii, Hooker, fls, the huon pine of Tasmania, has a height of 100 feet, circumference 20 feet; its wood highly esteemed for shipbuilding and artisans’ work.—J. Backhouse.

D. Kirkki, P. v. Mueller, the manao of N. Zealand, a pyramidal tree, attaining 80 feet in height, has a reddish-coloured timber.

D. Taxifolium, Solander, the kaka tree of New Zealand, grows in low marshy ground. Its foliage resembles the yew, and it grows to 140 or 180 feet in height.—Jum. Ed. Jour. 1825, xiii. p. 378; Ferdinand von Mueller.

DACTYLOPTERUS. Lacépède. A genus of fishes belonging to the order Acanthoptyrgii and family Loricati; Triglia volitans, Linnaeus, commonly called the flying gurnard and flying fish. Another species inhabits the Indian seas, and is the Dactylopterus orientalis of Cuvier.—Eng. Cyc.

DAD. Pers., Hind. Literally, a gift; a postfix and prefix much in use, as Khudadad, given by God, the Theodotus of the Greeks, and Dev-dutt of the Hindus.

DAD. Pers. Justice; petition; representation. Dad-khah, a plaintiff for justice. Dast-sitadun, taking vengeance. Dad-khah means one seeking justice. It was the title of the earlier viceroys of Central Asia, and is still used in Khokand and Eastern Turkestan. Dad-Mahal, lit. palace of justice.—Vambery, Bokhara, p. 317.

DADAP. Malay. A tree of the Archipelago, planted in the coffee grounds of Java to shelter the young coffee trees.—M’Nair.

DADAR, a town and valley in Cutch Gandava, lat. 29° 28' N., and long. 67° 34' E., 55 miles N.W. from Bagh, and 5 miles from the eastern entrance of the Bolan pass, on the river Bolan, surrounded by hills. In the first week of May, the thermometer ranges from 64° to 120°. It is separated from the great plain of Cutch Gandava by a line of jibal or low hills. Dadar is excessively hot, and a Persian couplet runs, ‘Ali Allah, dozakh ki sakhti, chon Dadar hasti?’ ‘O Lord, why do you make hell when you have Dadar?’

DADH or Dat. Malay. Ground prepared by burning for being planted; the weeds and grass are stove over it to be burned.

DADHALYA, a petty state in Mahikanta. The family are Scosdia Rajputs, who originally came from Udaijar (Oodeypore) in Rajputana.

DADUNGAWU, a tutelary spirit of the Java hillmen.

DADU PANDURANG, RAO BAHADUR, a learned native of Bombay, and religious reformer, who died 17th October 1882, aged 68. He mastered Mahrati, Gujarati, Urdu, Sanskrit, English, Persian, Telugi, Tamil, etc., and at an early age composed a complete Mahrati grammar, published a school atlas, a work entitled The Wiping of the Tears of the Widows, Grammar of the Persian, and another of the Sanskrit; the Kavakuti, The Cosmopolitan Arya, and the Hindu Gentleman’s Reflection. He was the founder of the Parmahams Sabha, which led to the formation of the Prarthana Samaj.

DADU PANTHI, a Vaishnava sect of Hindus, whose tenets are derived from Ramananda, after whom, Dadu, its founder, is said to be the fifth spiritual guide. Their worship is restricted to the Japa, or repetition of the name of Rama, as the deity negatively described in the Vedanta theology. They have no temples or images. Dadu was born at Ahmadabad about A.D. 1600, and is said to have been a cotton-cleaner there and at Ajmir. They carry a rosary, have no frontal mark nor mala, but wear a round or four-cornered hat. They are said to be numerous in Marwar.
and Ajmir. Their chief place is Naini, 40 miles from Jeypore. They are classed as (a) Virahta, who go bare-headed, and have but one garment and one water-pot; the (b) Naga, who carry arms and serve Hindu princes, making good soldiers; the (c) Bhilatsu Dhari, who follow the avocations of ordinary life. They burn their dead at dawn.—Wilson. See Dae; Vairagi.

DAEDEALUS SHOAL Callled by the Arabs Abdul-kheesan, in lat. 24° 45' 30" N., and long. 35° 50' 30" E. A submerged coral reef in the Red Sea. 1200 yards long and 450 yards broad, with six inches of water, on which, in 1862-3, a lighthouse was erected.—Findlay.

DAEE, a sect met with at Gajer, Makran, Kej, and Turbot. They resemble the Brahui in appearance, and wear the same dress. Portions of certain of the Brahui tribes are Daeed, such as the Sageta, Takee, Shudu, Laec, Marbrow, etc. They have a mullah or priest, and a book. They say that they originally came from the westward near Kej, where there is a town called Turbot. The sect abounds in Makran, and has extended east. At Turbot is a little hill of circular form, called by them Koh-i-murad, on the summit of which is their principal masjid, where they meet at stated times to perform their rites. Professor Wilson, in his Ariana Antiqua, p. 141, mentions the Daeed, amongst other Scythian tribes, as associated with the Massagetae; and in a map attached to Digby's translation of Chardin's Curtaia, their position is fixed a little south of the Jaxartes. This coincidence of association with the Sageta and Sakai, both then and now, is worth remarking.

DAEMIA EXTENSA. B. Brown. Cynanchum extensum, Jac. [C. bicolor, And. C. cordifolium, Retz. Asclepias echinata, Roeb. Chagal-banti; Ubrun, Ben. Vela parti; Utamani, T. M. Sagoani, ... HIND. Jutugas, ... TEL. This plant is used medicinally. Its fibre, known commercially as cotton fibre, is a promising substitute for flax. It is soft, white, silky, and strong, and can be procured in considerable quantities in Southern India.—M. E. Jur. Rep.

DAEN or Dawan. HIND. Tying a number of bullocks together for the purpose of treading out the grain from the car.—H. Elliot.

DAENDELS, HERMAN WILLIAM, born at Hattem in Gelderland, 21st October 1762; died at New Guinea, 1818. He was Governor-General of Dutch India, and formed the great military road of Java.—Max Havelar.

DAERD, a class of agricultural slaves in Kanara.

DAF. HIND. A hand-drum, a tambourine, the only lawful musical instrument for Musalmans.

Dafli, a small tambourine.

DAFFADAR. PERS. An officer in the native irregular cavalry; the title of a native military or police officer; a native non-commissioned officer of cavalry of the Indian army.

DAFILA. HIND. A tambourine. Daira, a large tambourine.

DAFTAR. HIND. A record, a register, an account; an office in which public records are kept. A volume, a book of gold or silver leaf. Daftar- dar or Daftari, a record keeper, a registrar, an accountant, a gold-beater.

DAG. HIND of Kohat. Land cultivated only once in three years.

DAGA, a boat used on the Indus.

DAGGER. The daggers in use in S.E. Asia are of many shapes, and all with individual names. One of a particular shape is the official weapon in modern Indian courts. A drawing of the dagger of ministry is given in the last volume of Duff's History of the Mahrattas. Those usual in British India being the jambiya, bichwa, pesh-kabz, kum-bjar, katar, etc.—Hind. Theatre. See Arms.

DAGH, a hill, a mountain. Alajah Dagh, or varanu, is a mountain, is near Ararat.

DAGHA. HIND. Deceit, fraud. Daghia-baz, a thief, a swindler.

DAGHDA, mother of Zoroaster, founder of the Parsee religion.

DAGHESTAN, a province in the Caucasus subjected by Russia after a war of 20 years. The men of Daghestan are intelligent, and were at one time, with the exception perhaps of the Circassians, the most warlike of the races of the Caucasus. Unlike the other inhabitants of the range, they are extremely industrious, and have even shown themselves capable of organized labour requiring considerable skill. During the war, Schamy was able to erect a cannon foundry in their country. Elburz is 18,526 feet; Great Ararat, 16,916; Little Ararat, 12,840 feet.

DAGOBA or Dhatagarbha. SANS. A Buddhist bone or relic receptacle. The term is from Da, Datu, or Dhatu, a relic; Garbhan, a shrine; and was in use by Indian Buddhists. At Ana-radhapura, in Ceylon, are several dagobas. They were built at from B.C. 307 to A.D. 276, and end in a terminal Tec, in the form of a cone supporting a pointed spine. They are the Tibetan Dungan, a relic monument which is still erected in Tibet over the body or the ashes of the lamas. The ancient edifices of Chichen, in Central America, bear a striking resemblance to the topes or dagobas of India. The dagoba is the descendant of the sepulchral tumulus of the Turanian races, whether found in Etruria, Lydia, or among the Scythians of the northern steppes. See Chatiya.

DAGON. BURM. A corruption of the Talain words Ta-kong. The Shocay Dagon is a Buddhist temple of Rangoon, which rises from the summit of a scarped hill to a great height.

DAGON, the fish-god of the Assyrians, possibly the source of the fish avatar of the Vaishnavas.

DAGOOKAN, a shrub of Jullundur. The wood is used as fuel, and the leaves are given to buffaloes as fodder.—Conr. Flêr. Dur.

DAGOOTHRA. BUR. A crooked timber in Tavoy and Mergui, floats in water, and used for building boats, for planks of houses, ladders, etc., but is liable to attacks of worms and dry-rot.—Captain Dance.

DAGSHAI, lat. 30° 53' 5" N., and long. 77° 5' 38" E., a military station 16 miles S.S.W. of Simla. The cantonment is 6025 feet above the sea, on a bare and treeless height.—G. T. S.

DAH. PERS. Ten. Dah'm, the tenth. In the Punjab, Dah-mah-di, farm servants hired for ten months. Daha, also Askra and Ashora, the first ten days of the Mahrarr, which Shah Mahomedan pass in sorrow. Sunni Mahomedans erect tabuts in reverence of Hasan and Husain, sons of Ali.

DAH. HIND. In the N.W. Himalaya, a clod-crusher, a flat beam of wood dragged over the fields to smooth clods. It is the Sogha of the plains.—Powell.
DAHR, a heavy weapon made use of by the Bhot and Burmese races, as a sword in war, and intended for felling trees or cutting up firewood; the friction on the handle is very great.

DAHIL. Hind. Coagulated milk; sour milk.

DAHIA. Hind. A Jat tribe in Delhi district.

DAHINA or Dakshana. Hind. The left.

DAHIR, the takhallus or literary name of Mirza Salamat Ali, who lived in Lucknow in the 19th century. He was at one time a papermaker. He was famed for his marxis or elegies, and was known as the Tuti-i-Hind, the parakeet of India. He died about a.d. 1875.

DAHIR, Desput, or lord of Dobeil, from Des, a country, and Fur, the head. He was a ruler over the country of the Indus (about a.d. 711, a.h. 92), whose capital was at Alor, near Bakkar; but he possessed Multan and all Sind, with perhaps the adjoining plain of the Indus, as far as Kalabagh. Hejaj, governor of Basra, sent a force against him under his nephew, Muhammad Kasim, who took Dewal, defeated and took prisoner a son of Dahir, advanced on Nerun, now Hyderabad, and took Schwam. He subsequently advanced on Alor, where he encountered Dahir, who was defeated and slain. His widow defended the city; but ultimately the women devoted themselves to the flames, which they lighted themselves. The Rajput garrison bathed for the sacrifice of themselves, and perished fighting. The city was taken by assault; all the men in arms were slaughtered in the storm, and the women and children reduced to bondage.—Elphinstone, p. 262. See Muhammad Kasim.

DAHLAN, a tribe of the Taga in the Upper Doab. Their numbers are estimated at 9,000. They are a kind of Kashmiri paper, lit. of ten handbreadths.

DAHNAJ. Arab. A stone described by Abu Zakd as resembling an emerald.

DAHYA. Hind. The Shum or Kumari or Daho system of cultivation carried on by hill tribes. The land is prepared by burning the grass and brushwood on it. The seed is then sown in the ashes.


DAIJA, literally lamp - holders; the term applied to the handmaids who invariably form a part of the Rajput Daija (Rajasthan, i. p. 628), dowry or portion, which the Hindu wife brings a husband in marriage. It is the Maritague of the civil law. Wilson, in a note to Mill's India (i. p. 447), says that 'amongst the Hindus the practice of purchasing a bride by a dowry is apparently of modern growth, and a violation of the law.' There are, however, passages in Menu on the subject which would imply the observance of both practices; and the same may perhaps have continued till the time of the Greek invasion, for Arrian (Indica, cxvii.) says the Indians neither took nor gave money in marriage; where Megasthenes (Strabo, lib. xv.) says their wives were purchased for a yoke of oxen. Amongst the agricultural tribes in the N.W. Provinces, the present practice is most usual for the bride's father to purchase the bride - woman, so that the man receives the dowry or Dai, which consists for the most part of money and household utensils. Thus, even when the daughter of Jye-chand was forcibly abducted by Priti - raj, her father sent to him the richest gems, the fruits of the victory of Beoji Pal, inestimable wealth, pearls, elephants, and dyes. This custom, the fruitful source of female infanticide, arises from the almost universal desire to obtain for the daughter the privilege of marrying into a higher family, which is only to be acquired by purchase. Sometimes, indeed, an imaginary purchase is made, similar to that which took place at certain Roman marriages, under the name of Coemptio, though of course not with a view of securing the peculiar kind of privileges which the Coemptio gave, but merely as a type of a custom of which the breach is thought preferable to the observance. This subject is noticed in Steele's Summary of the Law and Customs of Hindu Castes.—Elliott.

DAIMACHAS, an ambassador sent by Seleucus, or by his son Antiochus Soter, to Bimbasara, son of Chandragupta. He was regarded by Strabo as the most lying of all the Greek historians of India. See Vindusara.

DAIMIO or Daimiy, a hereditary prince of Japan territorial nobility, who, until the revolution in 1869, had extensive jurisdiction, with revenues estimated at 10,000 koku of rice. The words mean Great Name. The nobility are now designated Ku- wa- zo- ku. Each Daimio had a particular crest, which was marked upon all his effects, from his gateway to the lacquer made for his own use, like the European dinner or breakfast sets. Besides a private crest, each Daimio had a public one, to be put upon all china or lacquer made on his estate. When buying lacquer with both crests upon it, you know that it had been in use in the Daimio's family, and that either he had been in immediate want of money, and has therefore sold some of his household furniture, or that he has had as much use as was required out of the article. The Gorogio was the council of five Daimios, who were in fact the executive government, and with whom all the foreign ministers had their transactions.—Frere, Antipodes, pp. 419, 417.


DAINGNET, of whom there are 1955 in the Akyab district, are in feature somewhat like the Gurkhas of Nepal, and differ from the hill tribes of Akyab. They dress in white, wear their hair at the back of the head, and do not tattoo their bodies. They do not intermarry with other races, and dwell among the hills of the Yethaydong township, near Chittagong frontier, across which they are said to have come into Arakan. Their language is said to be connected with Nepali. A few speak that tongue; some can talk Bengali, and some have acquired Arakanese. The returns of 1872 show 3542 Daingnets resident at that time in the district of Akyab.

DAIR, a town north-west of Bussora, remarkable for a colossal tower of beautiful structure. Ibn-ul-Wardi in the Kassihia-ul-Ajaib says that strange sounds are occasionally heard to proceed from its interior. Great antiquity is attributed to this minaret by all the natives of the country.—Migman's Travels, p. 239.

DAIRA. Hind. The largest variety of tambourine, being from a foot and a half to two feet in diameter, played upon with a stick.

DAIRI, until 1869, amongst the Japanese, the
eclesiastical head of the government, who resided at Misko. See Kio; Kobo.

DAKSY, the little perennial plant called Bellis perennis by botanists. In India cultivated by the British as a souvenir of home.—Jaffrey.

DAITYA, a Hindu term used in various ways, but generally to designate a different and hostile race of ancient days. In the Mahabharta they are spoken of as aborigines, and others of them as having power on the sea coasts. In other places the term is made applicable to the Buddhists; and the mythological wars of the Daitya against the Devata are supposed to be the hostile operations against the Aryan race carried on by some of the races anciently in the Peninsula of India who opposed the advancing Aryans. In Hindu mythology the Daitya bear the same character as the Danava. When the Deva obtained the cup of Amritasar in churning, the Daitya rose in arms to seize it, but were defeated and driven back, according to the myth, to Patala or hell, but they subsequently acknowledged the supremacy to the holders of the discus and mace. The wars between the immigrant Aryan and the Daitya were thus changed in the course of years into miraculous battles between gods and demons.—Wheeler, Hist. of Ind.

DAITYA, in Hindu Mythology, the giant sons of Diti. Daityaevi, from Ari, an enemy. Daityaguru, from Guru, a teacher.

DAIVAKA or Daivajna, astrologer caste of Brahmans.

DAJIL, one of the three eastern sections of Baluchistan. It borders on the river Indus. The town of Dajil is in Cutch Gandava.

DAJJAL. ARAB.; HIND.; PEES. Antichrist. The Mahomedans believe in Antichrist, whom they term the false or lying Christ, al-Mashih-ul-Dajjal. He is to be one-eyed, and marked on the forehead with the letters K.F.R, signifying infidelity. They say that the Jews give him the name of Messiah bin Daood, and pretend he is to come in the last days, and to be lord both of land and sea, and that he will restore dominion to them. According to the traditions of Mahomed, he is to appear just between Al-Irak and Siyr, or, according to others, in the province of Khorasan. They add that he is to ride on an ass, and that he will be followed by 70,000 Jews of Isfahan, and continue on earth forty days, of which one will be equal in length to a year, another to a month, another to a week, and the rest will be common days; that he is to lay waste all places, but will not enter Mecca or Medina, which are to be guarded by angels, and that at length he will be slain by Jesus, who is to encounter him at the gate of Lud. It is said that Mahomed foretold Antichrists to the number of about thirty, but no one of greater note than the rest.—Lane.

DAJLA, the river Tigris.

DAK. HIND.; Ta'wil, Tam. The post, mail; to travel by dak, meaning as fast as the post, was performed in palanquins, or in carriages, or on horseback. Also the mail or postal arrangements of India, where railroads, carts, horses, and menrriers are employed to carry the mails.

DAKA. SIND. A water-wheel for irrigation.

DAKAR. HIND. Of CIS-Sutlej. Low-lying, stiff clay land.

DAKAUT, also Dakhautiya. HIND. Hindus born of or descended from a Brahman father and Goddess mother. They subsist on alms collected on a Saturday, and are astrologers, fortune-tellers, and the like.

DAKII. HIND. Vitia vinifera; grapes, especially the wild vine, also raisins. Kagh-dak'k designate the currants of Ribes rubrum, and Gidar dak'k, the fruits of Cissus carnosa, Sageretia oppositifolia, and Prunus padus. Dakha-kamalth, wine.

DAKHILAH. PEES. In accounts, an entry; also a receipt for money.

DAKHMII, ARAB. A coffin, a vault, a place for the dead; the tower of silence, the place of lodging the bodies of the Parsed dead, vernacularly Dokhma, or tower of silence.

DAKINI. HIND. A witch, a female goblin. In Hindu mythology also called Asra-pas, or blood-drinkers; a kind of female imp, attendant on Kali, and feeding on human flesh.

Dakin-rayi, a forest deity in Sangor island. After a battle in which Bugtea, a Rahoar chief, charged through Abiye Singh's army, the Rajput poets sang of his deed,—Is it the battle-cry of Kali, the hissing of Sehesag, the denunciation of Kalispur, or the war-shout of Hanowants? Is it the incantation of Nur-sing, or the darting beam of Surya? or the death-glance of the Dakini? or that from the central orb of Trineeta?—Raijathan, ii. p. 111: Dowson.

DAKOTA, also Dakocha, also Dakant, in the Mah ratified country, a tribe who follow fortune-telling; alphabet-makers. They claim descent from a Brahman father by a cowherd mother.

DAK-PA, also called Bruk-pa, a Bhot race.

DAKRA, a poisonous root of Nepal, made up with grain into balls, and so employed to poison elephants.

DAKSHA, author of a law treatise; is mentioned in the Mahabharata. He lived as a hermit on Mount Vrindana.—Ward, iv. p. 27.

DAKSHA, in Hindu mythology, was an avatar of Brahma upon earth in a human shape. There are several accounts, but the myth relating to him indicates a contest between the followers of Siva and Vishnu. Wilson says Daksha was the son of Brahma and mother of the moon; or the death-gaze of Daksha? or that from the central orb of Trineeta?—Raijathan, ii. p. 111; Dowson.

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Having undertaken to celebrate a solemn sacrifice, he invited all the gods except Siva, which so offended Sati, that she threw herself into the sacrificial fire. To avenge her fate, Siva created Virabhadra and other formidable beings, and sent them to the scene of action, where they disturbed the rites, beat and mutilated the assistants, and even maltreated the gods, till Siva was appeased, and arrested their excesses. Daksha, who had been decapitated in the scuffle, was restored to life, but the head of a ram was substituted for his own. Sati was born again as the daughter of the mountain Himalaya, and was again married to Siva. From this second birth she called Parvati, the mountain dweller, or Brinn, the mountain-brindled. The disturbance of Daksha's sacrifice is a favourite legend with the Hindus.—Coleman, Hind. Myth. p. 6; Hind. Theat. ii. p. 263.

DAKSHA SAVARNI, in Hinduism, one of the 14 patriarchs who preside successively over the 14 Manvantaras of the Calpa.

DAKSHINA, SANSK. A present to a Brahman on the conclusion of any ritualistic ceremony.
DALBERGIA.

DALBERGIA OOIJAINENSIS.

DALBERGIA. SANSK. The right hand; vernacularly Dakhin or Deccan, as the right hand; hence the country to the south, when a Hindu looks towards the rising sun, the south point of the compass, Southern India. Dalberga-Patha, the Sanskrit name for the Dakhan. The Periplus names it Dachinabades. Dalberga—Yana, the sun's southern declination.—Prin. Ind. Ant. See Dakhan.

DALBERGIA CHAIYIN. SANSK. One who follows the observances (achara) of the right-hand tribe or caste; practisers of the purer forms of the Hindu ritual, as opposed to the Varnachari or left-hand caste.—Wilson, Gloss.

DAL. HIND. Any split pulse, hence Tur-ka-dal, Cajanus indicus; Mung-ka-dal, Phaseolus radiatus, Ph. mungo; Channa-dal, Cicer arietinum. The various dal are mostly used as food by all the richer classes of natives, and many Europeans also like it, generally mixed with rice. Europeans often pronounce the name as if written Dol. The dal of Cajanus indicus is considered the best.

DAL. The lake or Dal of Kashmir, lies to the north of the chief town, stretching from the base of two hills to the more lofty mountain range which bounds the valley on the north. It is 5 miles long and 2 miles broad, but is only open in its northern half, the end nearest the town being occupied by large islands, with narrow channels between them, in some of which there is a good deal of current. Its waters are discharged into the Jhelum by a considerable stream, which, flowing from its south-east corner, runs to the westward in a course nearly parallel to the southern margin of the lake for nearly a mile, where it bounds a rocky south to enter the Jhelum in the middle of the capital of Kashmir.

DAL. BENG., HIND. A coterie, a club, an association. A bow, a basket of leather or twigs. Dali, a present.

DALCA or Dahal, the largest island in the Red Sea, near the coast of Abyssinia, well known for a pearl fishery, in long. 40° 10' E., and lat. 15° 44' N.

DALADA. SINGH. The sacred tooth of Buddha kept at Kandy in Ceylon. The original was destroyed by the Portuguese in a.D. 1560. That was probably the tooth of a man; but the object now shown is a piece of discoloured yellow almost two inches long, less than one inch in diameter, and resembles the tooth of a crocodile rather than that of a man. The name is from Dhata-Dhata. It is greatly revered by the Singhalese Buddhists. Its history is given in the Dalada-Mawaana.—Temnant.

DALAI LAMA. See Delai Lama; Tibet.

DALAL. A tribe of Jats in the Rohitak Zillah.

DALAN. PEES. A hall with an open front, used by Mahomedans of rank as a reception room. It is the verandah, or roofed but otherwise open space in front of a room.—Ouseley's Travels, ii. p. 11.

DHAL BALU GEERA. CAN. A tree of Canara and Sunda, on the elevated plateau between Gungwally and Black River; does not reach a great size. Wood very strong and tough, and sought after for agricultural implements.—Dr. Gibson.

DHAL BEHERA. URIYA. The chief or head of the Goala and other castes.

DALBERGIA, a genus of plants belonging to the natural order Fabaceae. Dr. Wight describes D. frondosa, latifolia, reniformis, scadens, marginata, rimos, stipulata, Ujijainsis, robusta, and tamarindifolia. Dr. McClelland mentions that in Tenasserim there are four kinds of Dalberga, all blackwoods, Yindike, Bum., all yielding a heavy timber which will not float, similar to sissoo. These trees are very plentiful in the Tharawaddy and Hlane districts, also in the lower parts of the Toungoo district. The timber seldom attains a very large size, and is generally found of a girth of three or four feet. D. cultrate, Graham, a tree of British Burma, furnishes a useful oil. D. alata, —? Tsouk-yoa, Bum., a tree of Moulmein, used for tool handles. D. osata, —? Tsouk yo, Bum., a tree of Moulmein. A tough wood, much used for tool handles.—Cat. Cat. Ex. 1862.

DALBERGIA FRONDOSA. Roxb. D. arbores, Heene. Erna pachchari; Pedda sopara, Tel. In Ceylon, not uncommon in the central provinces, and elsewhere up to an elevation of 3000 feet. Grows in Godawari, and in the Circars; also in Pegu, where it attains a girth of four feet and upwards; is taller and straighter than the sissoo, and furnishes a strong, useful timber.—Fl. Andh.; Beddome; M. C. Chapple; Tbr.


This tree occurs throughout India. It grows to an immense size, the trunk sometimes measuring 20 feet in circumference. It has a very dark, heavy, and strong wood, sustaining a weight of 516 lbs. Everywhere in Southern India this valuable wood has risen much in price, and in 1858 an experimental sowing was made at Nellumbor. The wood is extensively used for cabinet work, knees of vessels, agricultural implements, combs, etc. The wood of the centre of the trunk and large branches is greenish or greenish black, often mottled, or with light-coloured veins running in various directions. It is close-grained, admiring of the finest polish, and is employed in the Madras Gun-carriage Manufactory, for light field beams, cheeks, axles, cases, braces, perches, poles, splinter-bars, waggons, perches and framing, light field spades and felloses. For gun-carriages it is so valuable, that large plantations have been formed in waste places of the North-Western Provinces of Hindustan. In Malabar it is the magnificent tree from which the well-known Malabar blackwood is obtained, and planks 4 feet broad are often procurable, after all the external white wood has been removed. It is one of the most valuable woods of the Madras Presidency.—Dr. Roseburgh, Wight, Gibson, and Clegghorn; Voigt; Beddome.


DALBERGIA OOIJAINENSIS. Roxb. | Tunnus; Tewus, Mahr. | Nemmi chettu, Tel. | Ah mukanna, ... Tel. | Tella motuku, ... Manda motuku, ... Mubi, Tel.

A tree 30 feet high, 7 or 8 feet in girth, grows in the warm valleys of the Himalayas, the Kheri
jungle, Dehra Doon, Kamaon, Panjab, Simnore, in Oudh and the Godavery forests. Found both in the Konkan and inland Bombay forests; especially common in some parts of Kolwan, Kandesh, and the Satpura Hills. Its wood is of great strength and toughness, of a clear dark brown colour; heavy, tough, and durable; is used for waves of wheels, legs of bedsteads, handles of axes; especially applicable for cart-building, ploughs, etc.; seldom reaches a size sufficient to give a plank of 9 inches. The wood of that which grows on the Godavery is valuable, but the tree is rather rare there.—Voigt; Fl. Audh.; Thompson; Useful Plants; Dr. Gibson; Captain Beddome.

DALBERGIA PANICULATA. Roxb.

This tree grows in Montcen, Assam, Oudh, in the Northern Circars, in the Godavery forests, Coimbatore, at Courtallum, in the Mawul districts, and above the Ghats. In Coimbatore it attains a considerable size, and the timber is said to be strong, and fit for many purposes. It is rather common in most of the Bombay forests, both of the coast and inland. The wood there is light yellow, strong, compact, and fit for many purposes in house-building, agriculture, etc. But Captain Beddome tells us of Porilla sopara (Godavery), Tella patara (Circars), Tel., Dalbergia paniculata, that the wood is perfectly useless; it is arranged in rings with softer substance in between the layers. Voigt tells us that it is white and firm, but less useful than some of the other species. The character of the wood would thus seem to vary according to locality.—Drs. Wight, Gibson, Voigt, Beddome.

DALBERGIA ROBUSTA. Roxb.
D. Krowe, Roxb. | D. latifolia, Gibson.

This tree grows in Nepal, Assam, and Pegu, where it is very abundant, attains a girth of 4 feet and upwards, and is taller and straighter than sissoo.—Voigt; McClelland, p. 10.

DALBERGIA SISSOODES. Grah.

It is a smaller tree than D. latifolia. Both yield a black wood, and in Madras are indiscriminately called rosewood. The wood contains much oil, which unites it for receiving paint. Mr. Rohde says that this is one of our best woods for plain furniture, though at Madras it is said to cast about a good deal. Logs are almost invariably fauly in the centre. As a tough, strong wood, it will be found useful, whether curved or straight. Dr. Gibson does not recognise this as a species distinct from D. latifolia.—Drs. Gibson, Wight, Cleghorn; Mr. Rohde.

DALBERGIA SISSOO. Roxb.
Pterecarpus sissoo, Roxb.
Tali, . Panj.

This tree grows in Bengal, Nagpur, Gujerat, in the hills about Nagotnah, and Kunheri jungles. It is the most valuable hard wood in the Panjab, and grows at 2000 to 4500 feet in the Himalayas. In Nagpur, logs of it are procurable from 10 to 15 feet long, and 2½ to 3 feet in girth, at 6 annas the cubic foot. It is said to attain a great size in Chaula, and is employed in ornamental work, domes of gharries, etc. It was introduced into the Madras Presidency from Bengal, at the recommendation of Dr. Wallich. Its rapid growth recommends it for avenues, for the tree attains perfection in 20 years; it is propagated and reared with facility, and early attains a good working condition of timber. The wood is greyish brown, with darker coloured veins, very strong, but said to be not very durable. It is used in Bengal for gun-carriages, and furnishes shipbuilders with their crooked timbers and knees, being remarkably strong, but not so durable as could be wished. In the Dekhan the wood is used principally, from its strength and natural bend, for native hackeries; when it can be procured long and straight, it makes good shafts for buggies. The wood of the Ajmir tree is very dark and beautifully veined, like rosewood. Flowering time, the beginning of the hot season; the wood rips up about the close of the year.—Voigt; Captain Macdonald; Mr. Rohde's MSS.; Irvine; Riddell; Roxburgh; Thompson; Cleghorn; Captain Sankey.

DALCHINI. Ptns. Cinnamon; the Cassia lignea of the species of Cinnamonum trees.
DAL-DAL, the name of Mahomed's mule; also of the horse of Ali, son-in-law of Mahomed.
DAL-DAL or Dahi. HIND. Bog, quagmire, quicksand.

DALECHAMPIA. Of this genus of plants Wight gives Capenais, Indica, and velutina. D. arborea is Galedupe Indica. D. bidentata, Blume (D. Indica, Wight; D. velutina, Wight), grows at Gonagama, on the lower Badulla road from Kandy, but is not common.—Thc. Zeyl. p. 270.

DALECHAMPIA POMIFERA. Douk-ya-mad, Burm. Met with on the banks of streams in the Pegu valley, particularly in the Ponnah Choung. The trees are from 3 to 4 feet in girth. Wood red or dark brown, and adapted for cabinet-making.—Dr. McClelland.

DALI. HIND. Arable land.

DALHOUISIE. James Andrew Brown Ramsay, tenth Earl and first Marquis of Dalhousie, was born on the 22d April 1812. He was a third son by the heiress of the Brouns of Colstown in Haddingtonshire. He was educated at Harrow, and subsequently at Christchurch, Oxford, where he was fourth class in classics (1833), and graduated M.A. in 1838. By the deaths of his two elder brothers he became Lord Ramsay in 1832. He was employed in the Ministry of Great Britain, and was Governor-General of India from the 12th January 1848 to the 29th February 1856. The period of his administration was marked by great changes, and posterity has styled him the Great Proconsul. He was naturally prompt and impertious; he was prompt to vindicate his authority, and he had quite a special faculty for making his displeasure dreaded. He never failed to reward good service, though even his friends regarded him with a certain awe; and it used to be said of him, that 'although his height was not imposing, he looked every inch a king.'

On reaching Calcutta, Lord Dalhousie proclaimed his policy: 'We are lords paramount of India, and our policy is to acquire as direct a dominion over the territories in possession of the native princes, as we already hold over the other half of India,'
Soon after his arrival, British officers were murdered at Multan, and Mulraj its governor was in revolt; the Sikhs were defeated, and the Punjab annexed to the British dominions. In 1852, the Government was involved in hostilities with Burma, where British traders had been insulted by the officers of the king of Ava, and in a few weeks the entire coast of Burma was occupied, and before the close of the year the province of Pegu was annexed. From that time to the end of his administration, the Indian Empire enjoyed comparative peace.

During his time a Legislative Council was organized, prison discipline was improved, a system of uniform and cheap postage was introduced, a portion of the Peninsula intersected by railway, and all the large towns brought into immediate connection by means of the electric telegraph, laid down by Dr. (Sir William) O'Shaunnessy, 4000 miles having been constructed and placed in working order between November 1853 and February 1856. The introduction of cotton, tea, and flax, the breeding of sheep, and the improvement of agricultural implements, all received his attention. The development of the resources of the country in iron, coal, and other minerals was a matter on which he bestowed peculiar care; and measures were also taken for the preservation of the forests, and for making their produce available. A new and uniform survey of the districts was commenced, and the limits of feudatory states accurately defined. Irrigation on a large scale was attended to in Sind, Madras, and Bombay; the navigation of the Ganges, Indus, Nerbudda, and Brahmaputra was improved; grand trunk roads were carried to Delhi, through the Punjab, and to Patna, and others made in Pegu and Sind. A road was also constructed to the frontiers of Tibet, commencing from the plains of the Sutlej, and another put in progress from Arakan over the Yoma ridge to Pegu. The most stupendous work, however, was the Ganges canal, carried out by the skill of Sir Proby T. Cautley. The department of public works was reformed throughout, and colleges founded to train young men specially in civil engineering. Schools and colleges were established and placed under Government inspection. Strenuous efforts were made for the eradication of sati, thuggee, and infanticide. The condition of the British soldier was greatly improved. Provision was also made for both Protestant and Roman Catholic worship on more equal terms, and extensive changes were made in matters of criminal and civil justice. The government of each Presidency, each lieutenant-governor, and the chief officer of every province, were required to send in to the Governor-General an annual address on the state of affairs in their respective territories. This was the event of the chief interest that occurred within their several jurisdictions, in order to test the progress made by the nation at large. In his last minute, he said: 'No prudent man, who has any knowledge of Eastern affairs, would ever venture to predict the maintenance of continued peace within our Eastern possessions. Experience—frequent, hard, and recent experience—has taught us that wars from without, a rebellion from within, may at any time be raised against us, in quarters where they were the least to be expected, and by the most feeble and unlikely instruments. No man, therefore, can ever prudently hold forth assurance of continued peace in India.' For his success in the Punjab, Lord Dalhousie was raised to a marquessate in 1849; and on his return to Britain in May 1856, the East India Company settled on him a pension of £5000 a year. He had previously been appointed to the wardenship of the Cinque Ports on the death of the Duke of Wellington. He died on the 19th December 1860.

DALHOUSSIE, municipal town, cantonment, and hill sanatorium in the Gurdaspur district of the Punjab, in lat. 32° 31' 45" N., long. 76° 0' 15" E. It occupies the summits and upper slopes of three mountain peaks of the main Himalayan range, east of the Ravi river. The hills consist of rugged granite, and the houses are perched in a few gentler slopes among the declivities.—Imp. Gaz.

DAL. HIND. From Dalial, a branch, a tray, on which complimentary presents of food, fruits, or vegetables are placed.

DALIMA. HIND. A class of Tuga in Muradabad.

DALIMBA, a hard, granular, coarse stone of Cuttack, worked into utensils of various kinds.

DAL-KOHLU, a sugar-cane press, in Ambala and Cis-Sutlej.

DAL-LA, or Giant's Peak, in Bhutan, N. of Tanong, in lat. 27° 50' N., and long. 92° 34' E. The top of the peak is 22,495 feet above the sea, as trigonometrically measured from Gohatti. This peak is the prominent feature in the Himalaya panorama of Central Assam.—Schlag.

DALLAL. HIND. A procurer, a horse-courier, an agent, a broker, a go-between. Dallalah, a courtisan. The Delilah of the Bible, a female go-between.

DALMA, a range of hills in Mahrumh, occupied by the Kharris and Paharias. Dalma, its highest hill, is 3107 feet above the sea.

DALMAN, a town on the right bank of the Ganges, 16 miles south of Rai Bareli. It is said to have been founded about the 4th century A.D., by a brother of the raja of Kanouj. It was long in the possession of the Bhar, and the surrounding country was the scene of a protracted struggle maintained by that tribe against the Mahomedans. About 1400 A.D. the Bhar were almost annihilated by Sultan Ibrahim Shaki.—Imp. Gaz.

DALME-KATTEA. SINGH. Wood-moth, Eumeta Cramerii.

DALOSINGHA, a tree of Ganjam and Gumsur. Ploughshares are sometimes made of it.—Captain Macaulay.

DALRYMPLE, ALEXANDER, Hydrographer to the East India Company. He died 1807. He was an active writer.

DALULUAN or Dalulam, the bark of the Broussonetia serrifera, prepared for writing on.

DALYELL, N.A., and A. Gibson, joint authors of Dalyell's Bombay Flora. Mr. Dalyell contributed several memoirs on botanical subjects, and on the influence of trees on climate.

DAM. ARAB. Also Dama, a prayer. 'May it be perpetual.' Dam danatihii, dam zillihii, 'May his prosperity continue.'

DAM, a copper coin of India, now obsolete. In Akbar's time 40 dam of copper were equivalent in account to one rupee, and the dam of copper is itself defined at 5 tank, or 1 tola 8 mashes and 7 rati in weight, which at 186 grains per tola is equal to 325-3625 grains. There seems to have been
DAMASCUS.

been 9'29 chitals in each dam, and in the Sheer Shahi rupee 371'8 chitals, instead of the old 320 divisional coins of that name and value, which went to the lighter silver piece of former days. In the Ayin-i-Akbari, and in most revenue accounts, the dam is considered the 40th part of a rupee, but to the common people it is known as the 50th of a taka; 25 therefore go to a pya, and 12' to an adhela. In the time of Alangir, 4'6' dam, and later, 80 and 90 dam, went to a rupee.


DA-MA, spelled Mra-ma or Myamna, is that portion of the Burmese race who occupied the country above Province.—Maxon, p. 62.

DAMALCHERRY, a pass about 30 miles N. of Ambur, leading from Mysore to the Karnatic. On the 20th May 1740, Nawab Ali Dost fell here in action against the Mahattas. —Orme.

DAMAN is a Portuguese settlement just 100 miles north of Bombay. It has a population of about 50,000, and an area of 82 square miles. The Portuguese, soon after its capture in the 16th century, converted a mosque into a church, and have since built eight other places of worship, besides docks and yards for shipbuilding. The settlement has two forts, and is ruled by a governor with civil and military functions, under the viceroy at Goa. There are some fine teak trees and other timber in the neighbourhood; and in former days Daman was noted for dyed piece-goods, and a flourishing trade in opium with China. The town on the right bank of the river Daman was sacked by the Portuguese in 1581, rebuilt by the natives, and retaken in 1588 by the Portuguese.

DAMAN-i-KOH is the name given to the low hills that form the basis of the higher ranges of the Himalaya, and in which such hill states as Kotahah and others are situated. It means the skirt of the hills, and is applied also to the skirt of the Santal Pargana, and also to the tract between the Suliman mountains and the west bank of the Indus, comprising portions of Dehra Ghazi Khan, Dehra Ismail Khan, and Kohat districts, between lat. 28° 40' and 35° 20' N., and long. 69° 30' and 71° 20' E.

DAMARA. Wilson's History of Kashmir describes this as an ancient people, as a fierce, intractable race, murderers of King Chakram Varna, and who opposed Lalata Ditya in his advance to the borders of Uttaram-kuru.

DAMARA canes supposed to be a small hand-drum or rattle, usually seen in the hands of Siva or his avatars. This definition of the emblem is, however, doubtful; it has the appearance of an hour-glass, and rattlets of this form are sold in all the bazaars of India, and used by religious devotees and others to attract attention. —Cole, Myth. Hind. p. 377.

DAMASCUS city is about 2 miles in length, is surrounded by a fortified enclosure, dating back to the time of Selim I., and which was built on the site of the old walls raised by the Arabs in 650. Damascus was the usual residence of the Khalifs of the Ommiah dynasty. During the convulsions which at last overthrew the Khalifs, it had many changes of rulers, and was destroyed by Timur, A.D. 1400. It has eighteen gates, one of them being called Bab-i-Paulous, or the Gate of St. Paul. Damascus contains many places of worship; the largest and finest being that dedicated to St. John the Baptist. It was thoroughly repaired by the Khalif Walid in the year 86 of the Hijira; its doors are of bronze, and beautifully wrought. A Mahomedan tradition says that at the end of the world St. John the Baptist will descend into this building, while Jesus Christ will come to the temple of Omar at Jerusalem, and Mahomed, the prophet of God, to the temple at Mecca. In the great bazar to receive the caravans, from 1200 to 1500 camels may assemble. Damascus was the general rendezvous of from 40,000 to 50,000 pilgrims, who assembled there from all points of Ottoman Europe and Asia. Many came from Persia and Turkستان, in order to go with the caravan to Mecca; but most of the pilgrims now go by the Suez canal. Damascus was formerly celebrated for its manufacture of sword-blades, brass work, and peculiar heavy silks of shot colours. The population of Damascus amounts to 180,000 — 130,000 Mahomedans, 30,000 Christians, Greeks or Latins, and 20,000 Jews. The schismatic Greeks have a church of their own, but the Catholic Greeks have not, and perform their religious duties in the three Latin monasteries, viz. the Holy Monastery, that of the Lazzarists, the successors of the Jesuit missionaries, and that of the Capuchins. The Armenians and the Syrians have each a particular sanctuary, and the Jews have three synagogues. Damascus is the residence of a first-class mullah, and of the Greek Patriarch of Antioch, who has forty-two archbishops and bishops under him. The Pasha of Damascus bears the title of Prince of the Pilgrimage, because he was formerly charged to accompany the caravan to Mecca. The plain of Damascus is covered with magnificent gardens, planted with orange and lemon trees, cedars, fig and apricot trees, and shrubs of all kinds. The Baradi, the ancient Chrysorrhoea, a pure and limpid river, divides itself into seven branches, and waters the town and its fine gardens. The nearest seaports are Beyrount and Saïda.

DAMASCUS, a commercial and art term, applied to a variegated structure and appearance on iron and steel gun-barrels, daggers, sword-blades, where, as in the Kotel twisted gun-barrel trade, the barrel is made of twisted bars, and nothing can be imagined more elegant. Damascus swords press on their surface a variegated and antique of watered steel. The blade was formed by mixture in nearly equal proportions of the celebrated wootz and soft iron, which, being welded together and repeatedly doubled, gives the desired appearance. Daggers and sword-blades thus formed are common among the retainers of the hill zamindars in the Northern Circars of the Peninsula of India, the handles of which, formed of iron, are frequently damascened in silver. Atkinson (Oriental Western Siberia, p. 120) says that Colonel Andsoff at Zlatavnst had succeeded in manufacturing valuable Damascus blades, weapons combining edge and elasticity. The water was a succession seemingly of small bundles of almost parallel lines, occupying the whole breadth of the blade, the ends of the bundles crossing and mingling at the point of
DAMASK.

DAMASK.

DAMASKERK, DUT. Kamtschatkana, RUS. Venise, F. Safitiki, DAMASTEN TAFELZENG, GER. Tela adamasca, Sr. Teladamascana, IT.

This is a fabric woven in a loom, with figures of flowers or other objects. The art is said to have been brought from Damascus, hence the name.

DAMASONIUM INDICUM. Wilde, Parmi kulla, BEN. Nír venekil, Tel. Ottel-ambel, CAN.

A pretty flowering annual, a native of sweet waters in India and Archipelago; flowers in the rainy season. The petals are of delicate white, and the long calyx has its corners ornamented with fringes, gathered into a kind of flounce or flint lace.

DAMATHE, B. M. The book containing the Burmese code of laws.

DAMAYANTI, daughter of Bhima, raja of Vidarbha, was famed for her radiant charms and exceeding grace. She chose Nala, raja of Nishad, at her Swayamvara, by throwing a wreath of flowers around his neck, and two children were born to them. Their story has been told by the poet. Nala took to gambling, and lost all but his wife, and was driven with her to the forest, where he urged her to return to her father's house, and, on her refusing this, he deserted her while asleep. She subsequently went to her father, and, falling to discover her husband's retreat, she declared she would hold another Swayamvara. To this the king of Oudh came, in a chariot driven by Nala, on which Damayante recognised her husband, and they were happily reunited.

DAMBULA or Dambulla, a celebrated rock Buddhist temple near Matelle, in Ceylon. The temple has been hollowed out of a hill of stone, and, from its antiquity, its decorations, and its magnificence, is by far the richest in that island. It is supposed to have been founded B.C. 246 by Dewanampiya Tissa, the ally of Asoka, and friend and patron of Mahendra, who introduced Buddhism into Ceylon. The roof of the vault is covered with fresco paintings. Some of the statues of Buddha are upwards of 40 feet in length; but there is an admixture of Buddhist and Brahmanical emblems, as the Makara, a monstrous idol, with the trunk of an elephant, the feet of a lion, the teeth of a crocodile, and the ears of a pig, is a prominent figure. It was first endowed 86 b.c.

DAMBUT TAGH, mountains of the province of Iran, yielding the topaz, beryl, schorl, and gold.

DAM-DUM, a venomous fly in the Phangan pass, the bite of which causes severe irritation.

DAMIETTA, a town in Egypt supposed to have given its name to the damity fabric. It was long ago suggested that the word dimity is the Greek Dimitos, so called because woven— with a double thread in the woof. Professor Skeat has lent his authority to this etymology.

DAM-I-MADAR, called also Dhummul, is a popular ceremony with the agricultural and lower classes in India. It consists in jumping into a fire, and tearing out with the exclamation of 'Dam-i-Madar, Dam-i-Madar!' that is, 'By the breath of Madar, by the breath of Madar.' It is devoutly believed that not a hair of these devotees gets singed, and that those who have practiced the ceremony are secure against the venom of snakes and scorpions. Badi-ud-Din Shah Madar, in honour of whom this ceremony annually takes place, was, according to the Mirat-i-Madaria, a converted Jew. He is said to have been born at Aleppo in 1050 A.D. and to have come to India in the reign of Sultan Ibrahim Sharki, and, having taken up his abode between Cawnpur and Farrukhabad, and expelled therefrom an evil genius called Mukun Deo, who infested the place, he gave the name of Mukunpur to his residence, and was buried there in 1483 A.D., at the good old age of nearly four hundred years. The tomb, which is a handsome structure, was raised over him by Sultan Ibrahim. He is believed still to be alive, and hence is frequently styled Zinda Shah Madar. The prophet Mahomed gave him the power of being born again, or retention of breath, and hence arose his longevity, as the number of his respirations was diminished at pleasure. There is a class of fakirs called Madaria, after his name. They generally wear black cloth, and are much addicted to the use of intoxicating drugs. A fair is held at the tomb during the first 17 days of Jamadiul-Awal. — Elliot, Supp. Gloss. See Madaria.

DAMIT, a tutelary spirit of the Javanese.

DAMMAJI GAUKWAR, styled Shamscher Bahadur, the first of the Gaekwar family, who founded the dynasty in A.D. 1720. He was an officer under Khandi Rao Holkar. The Gaekwar made a treaty with the British in 1802. See Mahatta Governments in India.

DAMMAPADAN, a work in Pali, containing moral precepts. — Hardy, Eastern Monachism.

DAMMARA, a genus of trees found in Australasia, New Hebrides, New Caledonia, New Zealand, the Fiji islands, Java, Borneo, and Amboyna. Their names are,—Dammara obtusa, Lindley, of the New Hebrides and Queen Charlotte's group; D. australis, Lambert; D. orientalis, Lamb.; D. Niticensis, Fiji; D. macrophylla, Lindley, of New Hebrides; D. Moorii, Lindley, of New Caledonia; D. robusta, Moore, of the Burnett and Mary rivers of N. Australia; D. ovata, Moore, of the Isle of Pines. — Roxb.; F. v. Mueller; Bennett.

DAMMARA AUSTRALIS, Lambert, is the Agathis australis, the kaawi tree of New Zealand, first noticed by Captain Cook. Its wood contains a considerable quantity of resin, and appears to shrink little. The mean girth of the tree is from 3 to 6 feet, and it is from 90 to 200 feet high. It is a close, even, and fine-grained wood of a very uniform texture; its colour is a light-yellowish brown, the lustrous silky, the annual rings marked by a line of deeper tints of the same colour. It is used for masts and yards of ships, and seems admirably adapted for internal joiners' work. The bark thick, yielding tears of resin in great profusion. Enormous masses of a similar resin, many pounds in weight, are found in the soil in many places far from where these trees now grow, and are presumed to have the same origin. It is used in varnish-making. The perfectly straight trunk is clear of branches up to 80 or
DAMMARA LAMBERTI.  
Planta dammara, Lam.  
A tree of Ambonya; it yields dammer.—*Roxb.*  
DAMME or Damma, in the Arfakura Sea, is a high large island, 70 miles N.N.W. from Sermatam; the island is 15 miles long north and south, and at its N.E. extremity has a volcano, with hot springs.—*Horsburgh.*  
DAMMER.  
Pamay, Lan-t’ang, Chin. | Dumulla, . . . SINGOL  
Ral, Rala, | HIND. Coogilium, | TAM.  
Damar, | MALAY. Googilium, | TEL.  
Yakshalupha, | SANSK. Taia-gotsa, | URITA.  
Dammer is a general name for the resins of several different trees, being applied to the Indian copal or gum anime of the Vateria indica; to the New Zealand copal from the Dammara australis; to the hard brittle resin of the Dammara Ambonya; the brown resin of the Vatica robusta; to the black resin or pitch of the Vatica tumbugia; and to the resins of species of Canarium, as Canarium pinnate (Lan-t’ang, Chix.), which yields the resin for the Chinese dammer. Agathis loranthishola, Salish, grows on the lofty mountains of Ambonya, and, according to Dr. Wallis, in Tavoy. It is a very large tree, used in building. White dammer, a product of this tree, occurs in fragments of variable size, marked with reddish streaks, transparent, amber-like, brittle, with brilliant fracture, very inflammable, inodorous, and tasteless. It hangs from the branches, and resembles stalactites, the pieces being sometimes as large as the hand, and 4 to 8 inches long; some pieces are like anime resin. Dammer is found adhering to the branches, or in masses at the foot of the trees which yield it, or floating in rivers, drifted to them by the floods of the rainy season. It is produced in such abundance, and gathered with so little labour, that its market price seldom exceeds four or five shillings a hundredweight. The natives of the country apply it to most of the uses to which we put tar, pitch, and resin.  
Damar kuching, MULAY, Damar jang, and Damar batu, are gum products of the Malay Peninsula and of the Archipelago. Damar mata kuching, when mixed with the mimisk kayu, or wood-oil, makes a durable varnish. Damar puteh is white dammer, and Damar selo is another dammer.  
The dammers of the Madras Presidency are obtained from trees of the genera Vateria, Canarium, and Vatica. The two former, viz. Vateria and Canarium, yield by far the largest part, if not the whole, of the dammers produced on the western coast of the Peninsula of India, whilst the Vatica genus yields the greater part of that collected in the northern and eastern districts.  
The Black Dammer of the Western Coast is from Canarium strictum, the Carpo coonglimum of Ainslee, the Dammara nigra legitima of Rumphius, and the Canari of the Malacca. This occurs in large stalactitic-shaped masses, of a bright shining black colour when viewed from a distance, but translucent and of a deep reddish-brown when held in thin lamina between the eye and the light. It is perfectly homogeneous, and has a vitreous fracture. Its shape appears to be due to the fact of the balsam having exuded in a very fluid state, and trickled down the trunk of the tree, where it gradually hardens by exposure to the sun, the fresh resin continuing to flow over that already hardened, giving rise to the stalactitic appearance of the large lumps of resin, the outside of which much resembles the guttering of wax caused by placing a lighted candle over a drain. It is insoluble in cold, but partially soluble in boiling alcohol on the addition of camphor; when powdered, it is readily soluble in oil of turpentine. Powdered and burnt on the fire, it emits a more resinous smell, and burns with more smoke, than white dammer. The size of the lumps of this resin, together with its colour and the peculiarity of shape already mentioned, suffice to distinguish it from other Indian resins.  
The White Dammer of the Western Coast is the Piney resin of the Vateria indica and allied species of Limneus and Wight, Choloroxylon dauphina of Buchanam and Ainslee, the Doopada resin of Mysore, and the Piney of the Malabar people. It has two varieties:—  
Var. 1. Compact Piney resin, or first sort white dammer, or Indian copal, occurs in large lumps of all shapes, and varying in colour on the outside from a bright orange to a dull yellow, characterised by evident marks of having adhered to the bark of the tree. It has a shining vitreous fracture, is very hard, and bears a great resemblance to amber. Its colour internally is of all shades, from a light green to a light yellow, the green tint predominating in the generality of specimens. It is more soluble in alcohol than black dammer, and burns with less smoke and a more agreeable odour. It is easily distinguishable from all other Indian resins by its superior hardness, its colour, and amber-like appearance.  
Var. 2. Cellular Piney resin, or second sort white dammer, occurs either in small lumps or in large masses, generally of a shining appearance and balsamic smell. Has a very cellular structure, which is attributable partly to the mode of collection, and partly to the age of the tree. Notehes being cut in the trunk of the trees sloping inwards and downwards, the resin collects in the cavity, some, it is evident, being collected and dried in the bark of the tree, it is of all shades, from light green to light yellow or white, and is usually translucent. Specimens are sometimes seen in which, from the desiccation having been improperly conducted, the resin is more opaque, of a dull green colour, and full of air-bubbles, presenting the appearance of having undergone a partial fermentation. This resin may be recognised by its cellular appearance and balsamic smell; but the balsamic smell, which is due to the volatile oil it contains, is gradually lost by long keeping or constant exposure to the air. On splitting open old and decayed trees, portions of a dark-coloured resin are often found, having the solid consistency of the first variety, but the inferior quality of the second.  
The finest specimens of Piney resin are obtained by making incisions in the tree, and are in pale green transluscent pieces of considerable size. The resin that exudes naturally usually contains much impurity. In most of its properties it resembles copal, but it possesses qualities which give it some advantages over the latter. Like copal, it is but slightly soluble in alcohol; but, as

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Borax is pointed out in the case of copal, it can be brought into solution by the addition of camphor to the spirit. It is easily soluble in chloroform, and thus might find a small application as a substitute for amber in photographers' varnish. It differs most advantageously from copal, by being at once soluble in turpentine, and drying also without the necessity of the preliminary destructive fusion required by that resin, a process which tends greatly to impair the colour of the varnish. The solution of the Piney resin in turpentine is clearer and milky, but by the addition of powdered charcoal, and subsequently filtering, it yields a solution transparent and colourless as water, and yields a varnish which dries with a purity and whiteness not to be surpassed. The solution in turpentine readily mixes with the drying oils. It is on these properties of the resin that its chance of becoming an article of trade will depend. In price it cannot compete with copal, when supply to the European market is regular and abundant. The ordinary price of the best copal in the English market is but 2s. 10s. per cwt. Piney resin yields, on destructive distillation, 82 per cent. of an oil of agreeable odour, but not differing essentially from that obtained from much cheaper resins.

East Indian dammer, which is well known among varnish-makers, though frequently confounded with this, is the product of a very different tree, and is not produced in the Madras Presidency.

Dammars of the Northern and Eastern Districts.
Sal tree dammer, Vatica robusta and other species, occurs in sticks much resembling in shape the black dammer, but differing widely in colour and consistency. In colour it varies from a light yellow to a dark brown, the two colours being very frequently blended in the same lump, and giving it the appearance of having a regular grain. It is friable, and differs from the white dammer of the western coast in its inferior hardness, its opacity, and its peculiar form, and from the black dammer in its colour. There are extensive tracts of Vatica jungles in the Ganges and Umba districts. The Khand and Uriya races, living in and near these jungles, wound trees in several places; the resin issues, and is collected when sufficiently solid. The dammer collected from the decayed parts of the tree is of a dark charcoal. The tree is called Guggilam in Telugu, and Tala gosto in Uriya. The Khand and Uriya races make the leaves into the plates from which they eat their food, and also roll up tobacco in them to smoke like a cheroot. In time of famine, the above tribes live on a soup made from the fruit of this tree.

Vatica tumbugga is also a limited extent on the west coast, but yields little if any of the dammer collected there. It exudes an amber-coloured resin.

The White Dammer of Singapore is the product of Dammara orientalis. The Australian dammer, or kauri or cowry gum, or Australian copal, is obtained from the Dammara alismat.

In Borneo, also, dammer is produced by many kinds of trees quite different from Marsden's Dammara orientalis. The white dammer is used for the same purposes as gum-copal. Dammar mata kuching, or the cat's eye dammer, is the least common and most valuable, being beautifully transparent. The Dammar daging, or flesh-like dammer, takes its name from its veined appearance, which causes it to resemble some kinds of agate. In Sumatra some of the trees producing dammer, yield valuable timber. The Dammar lait tree, not mentioned by Rumphius, is employed at Penang for the frame timbers of ships, beams, and knees. Dammer is also the name of a gummy substance found floating on the sea off the E. African coast, which the people believe to be excreta of whales. Captain Burton supposes it to be unripe gum washed seaward during the rains.—Powell; Beddome, Pl. Sylis, p. 84; Burton; Hawkes; Mad. Ez. J. Rep.; Dr. Wallich.

DAMNI, also Daoni, Hind. An article of dress of Mahomedan women.

DAMODAR, a river of Bengal, which rises in the Chutia Nagpur watershed, and, after a S.E. course of about 350 miles, falls into the Hoogly just above the James and Mary Sands' shoal, which it has helped to deposit at the junction. Together with its tributaries, it forms the great system of drainage of the country stretching northwest from Calcutta to the fringe of the plateau of Central India. The Damodar river, tributary to the Hoogly, rises in lat. 23° 55' N., and long. 84° 53' E., and runs S.E. to Bardwan, S. to Diamond harbour. Its length is 350 miles. It runs through a rich country, which suffered in the middle of the 19th century with a terrible fever epidemic, that spread in 1868 into Birbhum. The Damoodah valley is rich in coal, which is very largely extracted. Damoodah is subject to sudden rises during the periodic rains, and has often burst its banks and devastated all around. One of the most severe inundations was in 1823, when this river overflowed the country for many miles, and many people perished. In that inundation a good-sized pinnae sailed through the Sookasagar and Chinsura, and Chandernagur were laid waste by water. The Santal race venerate the Damoodah.

DAMOH, a district lying between lat. 22° 10' and 23° 30' N., and long. 79° 5' and 80° E. It is on the table-land of the Vindhyian mountains, and in its extreme length measures about 90 miles north to south, breadth 50 miles. The population is about 269,642,—aboriginal tribes, 32,528; Hindus, 237,204; Mahomedans, 8064; Buddhists and Jains, 5418; Gonds, 30,209 in 1872, the remainder consisting chiefly of Kurku; Brahmins, 21,378; the mass of the Hindu population consisting of Lodhi (33,342), Kurmi (20,664), and other inferior castes. The first known government was that of the Chandal Rajputs, whose seat of government was at Mahobar, in the Bantulkhand. After the depredations of the Chandals the country seems to have fallen into various hands at different times; but the most definite of the local traditions point to a period of Gond supremacy exercised from Kathola in Bundelkhand, the seat of a long since extinct Gond principality, and subsequently, as regards the southern portions of the district, from Chauragarh in Nerbadda valley, one of the capitals of the Mandla dynasty.
DANCING

DAMOLA. Hind. A tola (180 grs.) of gold dust, a kauch. 

DAMON and PYTHIAS, the two followers of Anaxagoras, are supposed by Major Cunningham to be the Sanskrit Dhamma, virtue or practical morality, and Buddha, wisdom. Even the word Pythagoras seems derived from πυθαγος; or, Buddha, and ἰασω, to exprop or announce. He is said to have married Theano (Sanskrit Dhyanas, devout contemplation), and by her had a daughter, whom he named Dano (Sanskrit Dhamma, virtue or practical morality), and who became a most learned Pythagorean.

DAMONU. Uriya. Grewia tiliaefolia, used for fishing-rods; abundant at Palmochad.

DAMPIER STRAIT, called Gamen or Geny by the Dutch, is formed by Battanta island on the south and that of Waygiiou on the north side, and is about 72 miles long from Cape Mabo to Point Pigot. It affords a good channel for vessels passing from the Moluccas to the Pacific, and is very generally selected. —Horsburgh; Journal of the Ind. Arch. June 1862, p. 308.

DAMI, a small copper coin, formerly current in the Karnatic; all copper coin; any small money. In N. India, a nominal coin equal to 3/4 or 3-1-4, or between 2 and 3 3/4, and so that a dami varies between 8 to 12 kauns.

DAMI MASJID, a pretty little mosque, near the fort of Ahmadnagar.

DAMUL-AKHWAIN. 

1) DAMOLA. 

2) DAMONU. 

3) DAMRI, DAMWAST. 

DAMRI, DAMUl-AKHWAIN.

DAN, DANAI, DANAIS, DAMAUL-AKHWAIN.

DAN, a tribe in the Rajputana district. —Wilson.

DAN. Hind. An-Dan-Khan comprehends the sum of sovereign rights in Rajastan, being allegiance, commercial duties, mines, etc.

DAN, two Persian words, one from Dastian, to hold or have, the other from Dastan, to know. These two derivatives form several compound words, as Attar-dan, a scent-bottle, a perfume-holder; Kalm-dan, pen-holder; and, from Dastan, Na-dan, ignorant. Dan, SANSK., a gift; Dan-pan, charity, from Da, to give.

DANA. Hind. Wise. Dana, wisdom. Dowlat-i-Hind, o danai Faring, is a Persian phrase, meaning, Give me Indi for wealth, but Europe for knowledge.

DANA. Hind. Any grain or seed; a grain weight. Bibi-dana, Cydonia vulgaris; Hadadana, Euphorbias hypericifolia. E. thymifolia; Kala-dana, Pharbitis til; Ram-dana, Amaranthus mangostanus; Shahkar-dana, Colebrookia oppositifolia.

DANAGA. KAHN. A cowherd, a shepherd.

DANAISS TYTIA, a butterfly with semi-transparent bluish wings, and a border of rich reddish-brown. This is exactly reproduced in Papilio agestor and in Diadema nana; and all three insects not unfrequently come together in collections made at Darjiling.

DANAKIL tribes occupy the low-lying waterless region between Abyssinia and the sea, trackless and unencultivated.

DANAVA, an inhabitant of the Hindu mythological Mount Meru, described by the Aryan immigrants as enemies of the gods; probably the early inhabitants of the countries with whom the advancing Aryans came in contact. See Avatar; Meru. Danava is also described as a tribe on the CAli, or children of Danu-Bel; their leader was named Danavendra; their origin unknown.

DANCALI, a country in the north-east part of Abyssinia, extending 300 miles along the coast of the Red Sea. The soil is unproductive; and its chief riches consist in fossil, salt, and honey.

DANCING has been practised from the most ancient times by many races. David, king of Jerusalem, danced naked in a religious rite. Later than the Sorecs, regarded the dancing as a part of religion. Most of the uncivilised non-Aryan races of British India have dances, as the Bihil, the Juanga, the Khadd, the Kol. In Southern India, also, the Jakkulwar and Jattivilalaraw are dancers. Of the races in S.W. Bengal, the Jadur, Jumbir, Terriaha, Kharlia, Karna Basa, Dawa, and Bani have war dances. The Kol of Nagpur have several dances, which are all more or less connected with some religious ceremony. Among the Santal, also, the dance is known, and the whole of their religious observances are generally performed and attended to by the votaries whilst in a state of intoxication,—a custom which reminds us of the worship of Bacchus among the Greeks and Romans.

Dancing is not practised in India by any Aryan race of Hindus nor by Mahomedans; but Persians, Afghans, Mahomedans of India, and Hindus of all sects, gladly witness the performances of professional dancing. Many of the non-Aryan or aboriginal races of India, however, particularly those who have not greatly advanced in civilisation, have their national dances; and the Uraon and Ho of Central India are passionately fond of it. The Kodiga race of Coorg have a national dance. The Mahomedan dancers are all women, in bands called taifa, and are public. The Hindu dancers are also all women, but do not associate with others than Hindus, most of them being attached to the temples. Many of the dances of wilder races are solemn attitudinizing, moving in a ring, and locking up close to each other, often holding sticks.

The natives of Australia in their corroboree run in Indian file or sideways, and as they stamp the ground they grunt.

DANCING DARVESTH, a name given to the Mewleviye, also to the Rafa order of the darvish of Turkey and Egypt. See Darvesh; Ecsawiya.

DANCING GIRLS.

DANCING GIRLS.

DANCING GIRLS.
their toes, the movements and position combine something of the Waltz and Spanish cuchucha,— they advance, retire, whirl around, drop down and rise again with ease and rapidity, whilst the several movements are kept in order with the twirling and twisting of their hands, features, body, etc. Some portions of the step resemble the hoppipe and jig; whilst they hop and skip from one leg to another, keeping time, now turning, now whirling, now capering, and now dropping, performing a coquetish pantomime with their antics, then affecting coyness, and dancing away from the assembly, by suddenly turning away as if careless of their allurements, but returning to the attack with greater vigour and increased blazonishments. It is indeed surprising to witness their feats of strength and bodily powers of endurance, for, notwithstanding their frail make and delicate appearance, the amount of fatigue they endure, dancing as they do from childhood to early hours of the morning, is astonishing. Their dancing is perfection; and the bodily fatigue they must undergo, from the attitudes and positions they combine in their dances, must be great. In what is called the sterria cuchoo, athletic feats are performed,—resting their hands on the ground, and flinging their feet in the air with great rapidity, and thus twirling round and round, successively, performing various somersaults; lying full length on the ground with their hands and feet resting, contorting, twisting, and twisting their bodies in various ways; or, whilst resting on the hands and legs, with their backs to the ground and their chest and abdomen turned upwards, drawing the hands and feet as close together as possible; whilst their bodies are thus arched they, with their mouths, will pick up rupees from the ground. In this arched position, beating time with their hands and feet, they work round and round in a circle. During their performance they join their attendants in the songs that are sung, and regulate the various movements of their bodies to the expression given vent to in the song.

Modiye diciratha.—In this dance the word 'modi' is a term used to designate a craft or encumbrance practised by a conjurer, who places or hides money or other valuables in a certain place, and often in the presence of his opponent, with the view of testing his ability, and challenges him to remove it, which the opponent endeavours to do by playing on a pipe termed 'maked;' and if he be not equally skilled, he is struck to the ground in a mysterious manner, sick and ill, frequently bleeding from the nose and mouth profusely. The dance is in imitation of this, by the girl playing on a 'maked,' dancing at the same time, and throwing herself on the ground; the right leg is stretched out at full length, forming a perfect angle with her body out on one side; on the other, the left leg, doubled under the knee, is stretched out in like manner on the opposite side, producing a singular appearance, and as if there were no joint in the hips.

Colu antena, or the stick dance, is formed by a number of girls of the same age, size, and dress, numbering from twelve to twenty-four or more, each having two sticks, one in each hand, about eighteen inches long, well turned, and painted with circular stripes of yellow, green, and red. Either to the roof, or across a piece of wood raised in support for the purpose, a stout skein of thread in different colours is suspended, and having as many strands as there are girls; the free ends of the strands are tied to the ends of the painted sticks each holds; the dance begins with the usual song and accompaniment of music, when each girl, striking her stick, dances a kind of jig and hops from place to place, exchanging places with each other. This is done with such order and regularity, that the several strands are plaited with the utmost evenness into a stout cord or tape of many colours, according to the design. At a sign from the conductor, the same is undone with equal order and regularity, the girls dancing and exchanging places with each other without a single mistake or false step, either in the plaiting or unplaiting of the strands of thread. The readiness, grace, and ease with which the several movements are effected, are worthy of admiration. At some places, on festive occasions, during the peregrinations of the Hindu idol around the town in procession, these girls perform the stick dance on a platform, which is carried and precedes the idol. More frequently these and other dances are performed on foot in front, and at some distance from the procession, which stands still at a certain distance to allow of its being properly carried out.

Mahomedan dancing women attitudinize with their feet and hands, and move their eyes and change the expression of their face to indicate various emotions.

DANDAKARANYA.

DANDAKARANYA, or the forest of Dandaka, is celebrated in Indian story. Varaha Mihira, the great astronomer, mentions Dandaka along with other places in the south of India as follows:—Kerala, Karnataka, Kanchipura, Konkana, Chittapattana (now Madras), etc. In this list Dandaka is distinct from Konkana, or the Upper Kistna, and may, General Cunningham suggests, therefore perhaps be identified with the lower valley of the Kistna, of which Dandakakata was the capital.

Gen. Cunningham (Anc. Geog. of India, p. 544) seems to have been led to this surmise from M. Vivian Graham-Martin having stated his suspicion that the name of Dandaka is connected with Dandakakata. But there were in ancient times great forest tracts stretching across the Peninsula of India from east to west, portions of which still remain, and several parts of them seem to have been so designated. That described in the Ramayana was a forest near the Godavery river, in which Rama was residing when Ravan carried off Sita.
It has also with much probability been supposed to have been a forest anciently covering the south of the Peninsula, now the territory of the Marava and Koliari, whose features are often like those of the baboon, hence the origin of Valmiki's monkey army. The forest tract in the Syhadri mountains, in the Deklan, and the plateau of Chutia Nagpur, have also been pointed to as parts of Dandakanya.—Cunningham's Anc. Geog.

DANDA KASANWAL. Hindi. Sticks used for wringing out skeins of silk from the dye vat.

DANDASA. Hindi. Astringent banks of Juglas regia and other trees.

DANDASULU. Tel. Village watchers.

DANDAWAT, Dandam. SANSK. From Danda, a walking-stick. A Hindu form of salutation, bow, obeisance, prostration, performed amongst Hindus to each other, and is daily seen from a Hindu of inferior caste to a Brahman or higher caste. It consists in joining the hands with the tips of the fingers pointed upwards, and raising the hands so joined to the forehead. It seems the same as the Anjali (SANSK), Hindu form of respectful obeisance. The head is slightly bowed, the palms of the hands are brought together, and raised laterally to the middle of the forehead, so that the tips of the thumbs only are in contact with it.—Hind. Theat. ii. p. 108. See Ashtanga danda.

DANDA-ZANI, Hindi, literally stick-beating, a mode of torture said to have been practised by the subordinate officers in the private domains of the raja of Benares.

DANDELION. Pu-kung-ying. Chin. The Chinese plant is said to be Leontodon taraxacum, also L. Chinense. It grows to the north of the Meikong hills.

DANDH, or 'Kolab,' in Sind, a tract of low land flooded by the inundation, partially or totally dry during the cold season, and at all times a hotbed of miseries.—Burton, Scinde, p. 377.

DANDHU PUNT. In the north of India, Baji Rao, the ex-Peshwa, who had been dehroned in 1918, lived on till 1853 in the enjoyment of his annual pension. His adopted son, Dandhu Punt, styled the Nana Sahib, inherited his accumulated savings, but could obtain no further recognition. When the Bengal native soldiery mutinied and the people rebelled, his cruelties at Cawnpur to helpless women and children has made him execrated. He fled, and is supposed to have died in the Tenri.—Imp. Gaz. iv. See Nana Rao.

DANDI. Hindi. A Hindu sect who worship Siva, and represent the fourth, Asrama or mendicant, life, into which the Hindu is to enter, after passing through the previous stages of student, householder, and hermit. He shaves his hair and beard, wears only a cloth round his loins, and subsists on food obtained ready dressed from the houses of Brahmanas, once a day only. Any Hindu of the first three classes, of student, householder, and hermit, may become a Sanyasi or Dandi. Indeed, in these days, a Hindu of any caste may adopt the life and emblems of this order. These constitute the Dandi, simply so termed, and are regarded as distinct from the primitive members of the order, to whom the appellation of Das-nami is also applied, and who admit none but Brahmanas into their fraternity. But the Brahman can pass from any one of the first orders to the last at once. He becomes a Sanyasi, abandoning all sensual affection. The Dandi is distinguished by carrying a small dand or wand with several knots on it, and piece of cloth dyed with red ochre, in which the Brahmanical cord is supposed to be enclosed and attached to it. The Dandi are followers of Sankaracharya, and are a numerous order of religious mendicants, many of whom have been eminent as writers on various subjects, especially on the Vedanta philosophy. They are divided into ten classes, hence their other name Das-nami, each of which is distinguished by a peculiar name, as Tirtha, Asrama, Vana, Aranya, Sarwati, Puri, Bharati, Gir or Giri, Purvata, and Sagara, which is added to the proper name of the individual, as Purushottama Gir, or Bodhendra Sarwati, etc. They are hence known collectively as the Das-nami, or ten-name Gossains. Of these, only three and a half tribes, the Tirtha, Asrama, Sarwati, and part of Bharati are now considered pure Dandi of Sankaracharya; the other six and a half members of the Das-nami are called Atit. They have abandoned the yajamans, and the Gharai, seek money, and ornaments, prepare their own food, and admit members from any order of Hindus. They are often collected in maths as well as the Dandi; but they mix freely in the business of the world, carry on trade, and often accumulate property, and they frequently officiate as priests at the shrines of some of the deities. Some of them ever marry, and are thus styled Sam-yogi. The Dandi are to the Saiva sect what the followers of Ramanuja are to those of the Vaishnava faith. Sankara's Dandi are sufficiently numerous in and about Benares.—Wilson. See Danda; Hindu.

DANDI, author of the Dasa-Kamara-Charita, or the Adventures of the Ten Princes, is supposed to have lived about the end of the 11th century. The scene is laid in Pashapuri, a city of Magadh, then ruled by Raja Hansa, whose queen's name was Vasumati. It is a pleasing story in harmonious verse, arranged into two parts. The first, containing five chapters, ends with the marriage of the prince with the princess, and the second comprises the adventures of the same prince and his companions. Unscrupulous deception, ready invention, extreme credulity and superstition, and disregard of human life, are strongly illustrated.

DANDI. Hindi. In the Simla Himalaya, a hammock-shaped conveyance for travellers, slung on a pole, with straps for the feet and back, and carried by two bearers. It is a light litter suited for hill travelling.


DA-NEE. BURM. Nipa fruiticans.

DANG, a hill or precipice, the summit of a mountain, as Lal-dang. In Delhi, and generally in Upper India, the word is used to signify the high bank of a river. It is provincially corrupted into Dhang and Diayung; the forest or jungle tracts in the Syhadri range are so called. A wild, a thicket, a place overrun with bushes, a tract of timber, along, near to, or below the Ganges, or other mountains, but interspersed with hills so as to leave no extent of level ground. Dangi, Hindi., a forester. Danga is the designation of the tract of country situated within the limits of the Political Agency of Kandish, bounded N.W. by the petty state of Warsaw in the Rewa Kanta Agency.—Elliott; Imp. Gaz.
DANGA-GURGUR. Beng. Coix gigantea.

DANGA-GURGUR. In Persia, a custom exists of dividing fields, villages, whole districts, and even the water for irrigating the fields, into six parts, which are further subdivided into two unequal parts, the one containing four parts, Char-dangheh, and the other two parts, Do-dangheh.

DANGAI. Hind. Rebellion, riot, uprising.

DANGAR, in the Bombay Presidency, rice grown in the kharif or monsoon months. It is sown in small beds, and transplanted in July and August into beds which have been highly manured, flooded, and repeatedly ploughed. The crop ripens in October, yielding 20 to 40 seers the bigha.—Gloss.

DANGAREE, a coarse cotton cloth in use in India for common towels.

DANGAST. Hind. A class of Rajputs in Ghizipur.

DANGI. Mahr. A forester; an inhabitant of a low, hilly, and jungle tract. Also a tribe of Rajputs inhabiting the woody districts of Eastern Malwa, who are generally given to the Bandelas.

DANIEL. Mr. Layard says his tomb was preserved amongst the ruins of Susa, or in a valley of the Bakhtiyari mountains. Daniel-i-Akbar, a name of Susan or Sushan on the Kavan river. See Kuristan. The Arabs made no opposition to Baron de Bode entering the chapel in which the coffin of Daniel is said to be deposited, on learning that Christians as well as Mahomedans acknowledge him to have been a prophet.—De Bode's Travels, ii. p. 190; Layard, Nineveh, i. p. 252. See Susa.

DANK. Hind. Jewellers' foli.

DANT. Hind. A tooth. Dant-tinka, an ancient form of depressing anger, alluded to in the inscription on the lat of Firoz Shah at Delhi. The supplicant takes a straw or bit of grass in the mouth and stands on one leg. It is meant to imply that the supplicant is as the offended person's cow.—H. Elliot.

DANTA PURA, the modern Puri. A tooth (dant) of Buddha was sent there after his death and cremation. After lying there 800 years, it was, A.D. 311, sent to Ceylon, where, as is said, it still remains.

DANTI. Hind. A sickle, perhaps a corruption of Durante.—Elliot.

DANTIWARA, a village in the Bastar state. It derives its importance from a celebrated temple to Dauteswari or Kali, the household goddess of the rajah of Bastar for many generations. It is said that Meriah sacrifice used to be practised here in former years; and in front of the shrine is the stone pillar or block to which the animals now substituted are tied up before being killed.

DANJ or Dhanu or Dhnao, a rude Burmese tribe near Myamurr.

DANUK, a low tribe in Behar and the Upper Provinces of India, fowlers, hunters, also pastoral slaves.—Wils.

DANUSHIA, the unerring bow, the 11th article produced by churning the ocean. See Karma.

DANYA. Maleal. Coriander seed.

DAOUDI, believers in the divinity of king David among the Bakhtiyari in Persia. The Georgians in Bokhara, though for centuries resident there, inwardly are Christians, outwardly Mahomedans.—Wolff's Bokhara, i. p. 54.

DAOUDPUTRA, a Mahomedan tribe who claim descent from the khilaf Abbas, but supposed to be from Daoud, the first of the family who acquired a name. They are said to be Bahch changed by a long residence in Sind. They moved from Bahawulpur and seized land on the Sutlej, reducing the remains of the ancient Lune and Jhelum, and introducing the Sind system of canals of irrigation; and both banks of the river below Pakpatan bear witness to their original industry and love of agriculture. Daoudputra is applied both to the country and to its possessors, the children of David. Daoud Khan is said to have been a native of Shikarpur, west of the Indus, who drew upon himself the arms of Kandahar. Unable to cope with his opponent, he abandoned his native place, passed his family and effects across the Indus, and followed them into the desert. The royal forces pursued, and, coming up with him at Sootialoh, Daoud destroyed his families, who impeded his flight, and faced his foes. They, appalled at this desperate act, deemed it unwise to attack him, and retreated. Daoud Khan, with his adherents, then settled in the Kutch, or flats of Sind, and gradually extended his authority into the thul. He was succeeded by Mubarak Khan, who deprived the Bhatti of the district called Khadal, and settled in their chief town, Derrawal, founded by Rawul Deoraj in the eighth century. Derrawal was at that time inhabited by a branch of the Bhatti, broken off at a very early period, its chief holding the title of Rawul, and whose family since their expulsion have resided at Gurialah, belonging to Bikanir. The Daoudputra are to be met with in various parts of Sind.—Tod's Rajasthan, ii. p. 321. See Bahawulpur; Jut.

DAPHILA, Dophila, or Dufilla, a tribe in a tract of country on the N.E. frontier of India. It lies north of Durang and Lakhipur districts, in the province of Assam. They call themselves Bangni, a word signifying 'man' in their own language.

In the cold season of 1874-75, an armed expedition was marched into the hills to recover captives.

DAPHNE, a genus of plants of which several species grow in India. They are of the natural order Thymalaceae. A daphne grows in the Kashmirian mountains allied to D. gnidium and D. oleoides. It is essentially different from D. cannabina, which, in Nepal, a paper is manufactured according to the Chinese manner. Acid and dangerous properties appear to be common to them all; some species are remarkable for the toughness of their fibre, and for the economical purposes to which they are applied. From D. cannabina is prepared the best kind of writing paper in China, according to Loureiro; but in Nepalese daphne paper is very brittle and bad.

At the Great Exhibition of 1851, a huge sheet of Nepalese paper was exhibited by Colonel Sykes. The lance-leafed tree D. lagetta, now Lagetta lindenii, of the West Indies, is remarkable for the beautiful net-like appearance of its several easily separable layers of bark, whence it has received its English name. A plant common in English gardens, and used in medicine on account of its acridity, is the D. mezereum of botanists.—Bengal Disp. p. 531; Homberger, p. 268; Eng. Cyc.

Niggi, Jeku, Hind. Mahadeo ka phuli, Hind. A small evergreen perennial shrub, somewhat like a laurel, which bears poisonous berries. It
grows in Nepal, Sikkim, in Kamaon at 5000 to 9000 feet, the N.W. Himalaya generally at from 3500 to 8000 feet. It is with this shrub that the Nepali paper is made; and in Kamaon, etc., large quantities are manufactured from the purple-flowered variety. The bark is boiled in a metallic pot with oak ashes, which are highly alkaline. The softened bark is then pounded with a mallet in a stone mortar, till reduced to a pulp like dough. This pulp is churned with water into a very thin paste, so that it lose all trace of fibre, and will diffuse and settle smoothly. In this state it is poured into a coarse sieve placed over a frame, with a cloth bottom floating on water. The sieve stops the coarse pieces, allows the fine emulsion to pass through, and then by agitation this is smoothly deposited over the cloth. Removing the frame, the water filters away, and the pulp dries rapidly by placing the frame before a fire.

The paper is subsequently polished by friction with a shell or piece of hard wood. Sheets have been made many yards square. It may be purchased at Kathmandu at 17 annas each for 3 seers. Bricks of the pulp are sold from 8 to 10 annas for 3 seers. The greater part of the paper is made by the Himalayan Bhotia, east of the Kali river. The manufacture seems to have been introduced from China about the 14th century. This unsize paper is much overrated. But it is tough when kept dry; can be used like cloth for wrapping up dry substances; and it can be used after having been saturated with water, provided it be carefully dried within a reasonable time after it has been wetted. The dried bark may be substituted for D. mezereum. The bark of mezereum is almost always inert from age. In Chamba, the flowers appear to be hung up as offerings in temples. — J. L. Stewart; O'Sh. p. 531; Beng. Phar. p. 279; Cleghorn, P. R.


The berries are brisk but unsafe cathartics. Fresh bark is counter-irritant and external stimulant; the dried bark is a stimulant alternative in syphilitic, rheumatic, and scrofulous maladies. It is frequently combined with sarasarillas, as in the Lisbon diet drink. — O'Sh. p. 530.

DAPHNE OLEOIDES. Schreb. D. mezonata, Royle. — Kutti lal, Kanthan, Jhail Katal of — Hazara. — Gandlena, Gundalun, Rav. — This paper shrub grows in Kunawar and in the Panjab, and is used medicinally, and said to be used in papermaking. It is in great abundance from a little above Kawai to Kathgan. The pretty red berries are not unfrequently eaten, but are said to be apt to cause sickness. — J. L. Stewart; Cleghorn.

DAPHNIDIIUM CUBEBA. Smith. Laurus cubeba. — Pib-ching-kia, Chin. — A plant of Cochin-China and the S. of China. The bark and berries are said to be used to cure fish. D. elongatum, Nees, and D. pulcherrimum, Nees, are trees of Darjiling hills. — Kurz; Smith.


A good-sized glabrous tree, very common on the mountains on the west side of the Madras Presidency, and in Ceylon at elevations from 4000 feet upwards; also indigenous in Hong-Kong, Lo-p-Choo, Corea, and in Japan. The wood makes excellent fuel. Its foliage makes it highly ornamental for shrubberies, etc. — Bitholome, Fl. India.


DARABGIRD. — Darab, Dar-ul-baka, hence can Cleghorn.

DARAB, Dar-us-sultanat, in to. The syphilitic, after Phar. the it

Dar-ul-baka, the permanent abode, i.e. the world; Dar-ul-ubla, the permanent abode, i.e. eternity; Amil-dar, a hospital; Dar-ul-khilafa, the khalif's residence; Dar-us-sultanat, the residence of a king, a capital; Dar-ul-barb, a country under a non-Mahomedan government, the seat of constant hostility or war, non-Mahomedans at all times being legitimate objects of attack.

Dar-ul-karar, a rhetorical addition to Kandahar. The words mean the abode of quiet, or city of stability. Throughout the East, Mahomedans often employ this kind of alliteration. After Choki, a chair, they will add choki-oki; to Bachah, a child, is added bach-kach; Hyderabul is farhmdlah baniald, of happy foundation.

Dar-ul-karar, or city of permanence, is allegorically applied to towns of the future world, as opposed to this, the Dunyai-i-ram, the transitory world.

Dar-ul-khilafat, at Bagdad, the city built by Al Mansur, the second khalif of the Abbas dynasty, and which his successors enlarged and furnished in the most costly manner. A piece of the Hajjar-us-siah, or black stone of Mecca, was let into the threshold of the principal gateway, and a large curtain, made of the hangings of the temple, was suspended from a window of the gateway, to about the height of a man from the ground. Every person entering had to rub his eyes with the curtain, and to crawl over the black stone to avoid touching it with his feet.

DAR. Pers. A door, a gate; hence Dar-wain, a door-keeper, Dar-waza, a door, a gateway. Most cities in India have their gates named from the chief town to which they lead. Thus the Delhi gate, the Mecca gate.

DAR. Hind. A weight used in the tinsel-maker's apparatus.

DAR, a town near the valley of Kabil, with many sepulchral tops.

DARAH. Punkt. A glein, a defile.

DARA or Durrah. Mahi. A body of the Pindari.

DARA, a king of Persia, son of king Darah, overcome by Alexander the Great.

DARAB, king of Persia, son of Kai Balman or Ardeshir Dara, Artaxerxes Longimanus.

DARABGIRD, one of the five ancient divisions, circles, or departments of ancient Pars. Darabgird was built by Darius 1. It is 150 miles S.E. of Shiraz; is finely situated, and surrounded with orange and lemon and date groves; tobacco and other products are largely cultivated. The people have numerous flocks and herds. — MacGregor, p. 116.

DARANA. HIND. A scarecrow; from Darna. Darari-DANDA. HIND. A rolling-pin and convee receptacle used by native needle-makers for flattening wire.

DARBAND, a town of Daghistan, since 1813 in Russian territory. It has the citadel Naraini Kala, supposed to have been built by Alexander. The Caucasian wall extended from Darband. It was 21 feet high and 7 feet wide, and was intended as a defence against the Scythians from the north. It was first captured in 1722 by Peter the Great. Near it is the Kogre-Kafe mountain; at its foot, the village of Dashkossine and the cave of the Dives, the dwelling-place of the giants of the Scripture.

Dashkossine. DARENGRI. DARD, Pers. A general reception by a ruler in British India, or by any officer of rank; a court, a royal court, a levee. Also the Sikh temple at Amritsar.


DARD, an Urdu poet of Delhi, whose name was Khaja Mir. He lived in the 18th century; his poems were of a plaintive and pathetic character, as the Nala-i-Dard, Ab-i-Sard, Soz-i-Dil, Shama-i-Mahfil.

DARD, a race lying along the Indus, to the westward of Ladakh, and to the N. and N.E. of the Snowy Range, who speak three distinct dialects. They use the Persian character in writing Dardu, the three dialects of which are called Shina, Khajuna, and Arniya. The Shina dialect is spoken by the people of Astor, Gilgit, and lower down in Chelas, Darel, Rohi, and Elah, on both banks of the Indus. The Khajuna, by the people of Hunza and Nangy; and the Arniya in Yasan and Chitral. The Dard group of languages includes the Arniya, Astor, Gilgit, Kalashmender, and Khajuna. The Kashmir people have their own peculiar language. In Gilgit, Astor, and Baltistan, the castes are Rani, Shin, Yaskun, Kremin, and Dum or Dom. The Kremin is a mixed race. The Shin or Shina and Yaskun were the dominant race. In the N.W. Himalaya, the lowest castes are the Dogra and Dom. Astor has an area of 1600 square miles, on the left bank of the Indus. Gilgit, in Tibetan Gilygyid, has an area of 2560 square miles, on the right bank of the Indus. The Dard or Duri, the people who now occupy the country called Dardu, are supposed by Vigne to be the Daficce (Δαρίδες) of Herodotus. Darada, a country in the Hindu Kush, bordering on Kashmir, is mentioned by Piny. The people are the Dard, and are mentioned in the Vishnu Purana. The Kashmiri has decided affinity with the Dard tongue. The Balai people of Little Tibet say that Nulik, Iskardo, Khopelu, Purik, Nagy, Gilggit, and Astor are distinct Tibet. Pappo is a drug from Ladakh, seemingly composed of dough, which the Dards add to an infusion of corn to make the bread called mo. Wine is largely made by the Dards. Men and women amongst the Dards eat together. When men drink plain milk together, it is as an oath of eternal friendship. At the conclusion of the mullah's reading the marriage service, the bride and bridegroom partake of a spoonful of boiled milk. Dards are fond of changhan bazi, or hockey on horseback, also called polo. The game is called tope in Astor; at Gilgit it is called bulls. The Dard legends and beast tales have been described by Dr. Lethes, — Jodjoon; Latham; Vigne.

DARBANELLIES, two castes of Turkey. One, called Sestos, is in Roumania; the other, Abydos, in Natalia. Long. 26° 26' E., lat. 40° 10' N.

DARGA, a round shield used by the fair red-haired Touroreng race in Northern Africa.

DARENHI. HIND. An astringent leaf used in Kashmir in dyeing.

DARFUR or Darfoo, a kingdom of Africa, on the borders of Nubia and Nigritia. The people are barbarous, and consist of native tribes, of a deep black complexion, with wooly hair.

DARGAH. HIND. Pers. A tomb or shrine, of which there are in India several of fame. Near Mangalore, at the village of Cuddry (two miles off), is Shaikh Furreed ka Dargah. It consists of a hole in the centre of the side of a perpendicular laterite rock, which is fabulously said to lead all the way to Hyderabad, 450 miles. The opening is square, about six feet above the mosque, and is composed of a light of sandstone rudely constructed, and just large enough to allow of a person to crawl in. The cavern is very dark, and no one knows the exact size of it. Adjoining is a chasm with an opening left for people to creep in by. Tradition states that about A.D. 1788, there was a pir named Shaikh Furreed, who made chilla (i.e. neither speaking, eating, or drinking for forty days, but worshipping God and living retired from the world). He resided at Cuddry for twelve years, during which time he used to observe chillas, remaining for forty days together in the cavern, seeing and speaking to nobody, eating and drinking nothing; after the forty days were over, he was wont to come out for four or five days, but partake of no other food but the leaves of a plant (since named after him), Furreed-boothee, which grows wild in the surrounding jungles, and has a sweetish taste; he drank water, spoke to those who assembled in an adjoining stone building, and then retired again to this cavern to perform another forty days' chilla, and so on. At the end of twelve years he disappeared, and this being the road to Mecca, it is said that he set out for that town by the subterraneous route, and has never been heard of since. Mahomedans resort hither occasionally, and on Fridays cook victuals, and, having offered fathia over them while burning incense, in his name distribute them among the fakirs resident there, as well as those who have accompanied them. If a dargah be situated in a place where no food can be dressed (from want of materials or otherwise), they take sweetmeats with them, which they substitute in its stead. This dargah is in the charge of a fakir, who receives the offerings that are made by visitors, and which are placed at the entrance of the cave; when he dies, the four principal makkhanwans (pirs), residing at the four principal makkha (or houses of pirs), spiritual guides (so called) at Mangalore, and six or ten of their murid (or disciples), select a successor; on such occasions numerous fakirs are likewise present. In Tipu Sultan's time, the individual in charge of this dargah received rupees
DARJILING. Darius Hystaspes, whose name has been said to be derived from Hyysa, to neigh, and Aspa, a horse. His Persian name was Guishasp. His admiral, Seylax, reported so favourably of the wealth of India, that Darius invaded India, and annexed the provinces bordering on the Indus. His Indian possessions were the most valuable of his twenty satrapies, and are supposed to have included the Punjab; but there is no testimony to this beyond the authority of Herodotus (lib. iii. p. 100), and the doubtful voyage of Seylax down the Indus. Bunsen gives the following dates of the reigns of the kings Darius:—Darius, son of Hystaspes, B.C. 521 to 486; Darius Nothus, B.C. 423 to 405; Darius II., surnamed Codomannus, B.C. 335 to 332. The edicts of Darius Hystaspes are preserved in the Achaemenian inscriptions at Behistan, first translated by Sir Henry Rawlinson. Bactria is enumerated as one of his provinces in the inscription which he caused to be carved on the rock of Behistun.—Ed. of The Hist. of Pers., p. 45.


DARJILING, in lat. 27° 2’ 48” N., and long. 88° 18’ 36” E., in Sikkim, is a large station and sanatorium, 412 miles from Calcutta. The top of the Observatory hill is 7168 feet above the sea. Darjiling ridge, however, varies in height from 6500 to 7500 feet above the level of the sea. The mean rainfall is 130 inches, and mean temperature, 50°. To the N.W. towards Nepal, the snowy peaks of Kumba and Junnoo (respectively 24,005 feet and 23,312 feet) rise over the shoulder of Singalelah; whilst eastward the snowy mountains appear to form an unbroken range, trending north-east to the great mass of Donka (28,176 feet), and Thence south-east by the fingered peaks of Tunkola and the silver cone of Chola (17,320 feet), gradually sinking into the Bhutan mountains at Gipmoochi, 14,605 feet above sea-level. Darjiling was acquired by the British in 1855 as a sanatorium, a tract of country 138 square miles in extent being ceded by the raja of Sikkim, in return for an allowance of £300 per annum, afterwards raised to £600. Its population has increased from a few scattered tribes to upwards of 100,000, chiefly Murmi and Nepalese (32,338), Rajbansi Koch (23,121), the original Lepcha (3952), Dhimal and Mech (1766), along with Sharpa Bhattia, Limbu, Sanwar, and Chepang, and Brahman, Rajputs, and Oraon. The Bhutia, Lepcha, and Murmi are Buddhists, and speak the Tibetan language. They are strong and active, and inlinestrongly to the Mongolian race. The Limbu, Sanwar, and Chepang are of a small Mongolian type, strongest in the Limbu, and their language is referable to either the Tibetan or Indian standard. The Mechi, Dhimal, and Garo are lowland tribes, with a Mongolian physiognomy, but are neither Hindus, Buddhists, nor Mahomedans. The Tharao and Dhunwar are Buddhists or Mahomedans, with fair and barely Mongolian features. The Bahir, Kelant, Amatti, Malaria, Dhanook, and Dom are not Mongolian, but a dark race speaking Hindi or Bengali. The Koch or Rajbansi inhabit the Terai of Nepal and Sikkim, and have spread into British territory.

The mountainous country, at from 1500 to 4000 feet above the sea, is inhabited by the Limbu, a martial, beardless Mongolian race. From 4000 to
6000 feet, the hills are occupied by the Lepcha, the Bhutia, and Murmi. During the summer months, the summit of the great Singalodha spur separating Darjiling from Nepal is occupied by the Garong, a pastoral race from Nepal, who graze their flocks at heights from 9000 to 14,500 feet, their great flocks being guarded by huge savage black dogs. The Lepcha Buddhists are aborigines; they are a fair, bearded, Mongolian race, omnivorous, amiable, and cheerful. They have a written language in a character of their own.

The Limbu are Hindu, Buddhist, and polytheist by turns, as circumstances or convenience require.

The Bhutia are from Bhutan, east of the Tista river. Many of them have beards and moustaches. They have a written language in the Tibetan character. They are Buddhist Mongolians. They are agricultural and pastoral.

The mountain slopes are so steep, that the spurs or little shelves are the only sites for habitation between the very rare flats on the river banks and the mountain ridges, above 6000 feet, beyond which elevation cultivation is rarely if ever carried by the natives of Sikkim. The varieties of grain are different, but as many as eight or ten kinds are grown without irrigation by the Lepcha, and the produce is described as very good, 80-fold. Much of this success is due to the great dampness of the climate; were it not for this, the culture of the grain would probably be abandoned by the Lepcha, who never remain for more than three seasons in one spot. The geological structure of the mountains of Sikkim is very uniform, the rocks being principally varieties of micaceous shale and gneiss. The soil is generally formed by the disintegration of these rocks, and is covered in some places with vegetable mould. At Darjiling the Minchu spring water is a carbonated and sulphuretted chalybeate, containing its iron in the peculiar state in which it is found in the Bath waters.—B. H. Hodgson, Esq., C.S.; Indi. Ann. Med. Science, p. 264; Hooker, Hin. Journ.; Dr. Thomson in Eth. Soc. Journ.

DARMA, a pass leading into Garbwal. Its occupants are said to be the descendants of a body of Mongols, whom Timur left behind him in Kamaon. They practise divination, taking their omens from the warm liver of a sacrificed sheep. They eat the yak and the cow. They inter their dead for a time, and then, in the month Kartik, they exhume and burn them.—Cunningham's Ladakh; Latham's Ethnology.

DARMA. Beng. Amphidnax karka, Lind. The darma grass matting is much used in Bengal to make walls of native huts and fences.

DARNING, or Rafu-gari, is a branch of the sewing art, which, though in Europe applied to the most homely purposes, requires the greatest skill in the East, where a defect in a costly shawl is to be made good, or a coarse thread to be picked out of a muslin of a rent, of which a twelfth has been accidentally introduced. So skilful are some of the rafu-gari, that they can extract a thread twenty yards long from a piece of the finest muslin, and replace it with one of the finest quality. They are principally employed in repairing the muslins and calicoes that are injured during bleaching; in removing knots, and joining broken threads; also in forming the gold and silver headings on cloths. — Taylor; Royle, Arts of India.

DAROGHA. Hind. A superintendent.

DAROO or Darn. Hind. A general term for ardent spirits, and equivalent to the Araq of the Arab and Persian. Daroo distilled from the mahwa flower is produced in great quantities in all the jungles of the Upper Godavery, and in several parts of the Bombay Presidency; but in the S.E. of Asia, rice, gur, or unclarified sugar, the fermented palm wines, are the substances commonly utilized. Daroo also means gunpowder; likewise also medicines.

DAROOD. Hind. Properly Darud. Pers. Blessing or benediction. Darudi, a person who reads prayers or the Koran at tombs.

DARORAH. Hind. Gang robbery with violence.

DARRAH. Hind. A valley, a glen, a defile.

DARRANG, a district in Upper Assam, in a narrow strip of land, 126 miles long, between the lower ranges of the Himalaya and the Brahmaputra, which is navigable for steamers all the year round. The Aham are a wild tribe of Shan origin from the Burmese hills, who first entered the valley about the 16th century. They organized their conquered territory with minute precision, and held their own until the advent of the British. In Darrang they number only 3490. The Towang Bhutia are entirely independent of the state of Bhutan. They trade with Tibet, and are quiet and friendly. The Aka or Hrusso are a small tribe who used formerly to commit frequent raids on British territory. They now receive passa or black-mail to the amount of £67 a year. Farther east are the Daphla, whose native mountains extend along the neighbouring district of Lakhimpur. In the year 1872, the village of Amlola, occupied by Daphla settlers, was attacked by a strong party of hill Daphla, and 44 persons were carried off to the mountains.

In Darrang, as in the rest of the upper valley of the Brahmaputra, the great majority of the population are of aboriginal descent. The aborigines of the census report are mainly composed of Lachari, who number 62,214 out of the total 76,094; Bahna, 10,302; Daphla within the district boundaries are 134 in number; Koel, 46,788; Dom, 8023; and the Aham, 3490. Of Hindu proper, by far the most numerous caste is the Kolita (16,998), the ancient priesthood of Assam, who are now admitted to Hinduism as pure Sudras. The weaving castes are also strongly represented, with an aggregate of 18,550 members.—Imp. Gaz.

DARSAKA. Sansk. Demonstration; a system of doctrine or philosophy, of which six schools are recognised by the Hindus:—

1. The Sankhya philosophy of Kapila was dualistic, teaching the distinction of soul and matter.

2. The Yoga or Patañjali system taught the practice of abstraction, or Yoga.

3. The Nyaya, as taught by Gautama or Aksha-pada; and

4. The Vaiśeṣika, founded by Kanada or Kanabakhsha.

5. The Purva Mīmāṃsā philosophy, by Jaimini, treating of the purport of the ceremonies of the Vedas. It is commonly called the Mīmāṃsā.

6. The Uttera Mīmāṃsā or Vedanta, by Veda
DARUD.

Vyas or Badarayana, inculcating the unity of spirit and matter.

The principal doctrines of the Uttara Minansa are that God is the omniscient and omnipotent cause of the existence, continuance, and dissolution of the universe. It is supposed to have been founded three or four centuries before Christ. The Nyaya and Vaiseshika recognise a supreme being. The Yoga is theistic, and Sankhya atheistical. All have the same final object, the emancipation of the soul from future birth and existence, and its absorption into the supreme soul of the universe.

The Sankhya system was taught by Kapila. Its principal doctrine is that rest from transmigration is to be obtained by true knowledge, and that true knowledge consists in regarding man and the world as altogether worthless and perishable. Kapila added little, or nothing, about the eternal reality behind these transitory things, and this important portion of the scheme was completed by Patanjali, forming the second or Yoga system of philosophy. Patanjali's four chapters are appended in the best manuscripts to the Sutras (or leaves) of Kapila, and form together the work called Sankhyapravachana.

The third philosophic system is the Nyaya of Gautama, which again was supplemented by the Vaiseshika, or fourth system of Kanada. These two darsanas both occupy themselves with elaborative investigations into the mental constitution of man and the laws of logic, as means for the attainment of true knowledge. Lastly, the fifth and sixth systems are called the Purva Minansa and the Uttara Minansa. The first originated by Jaimini, and the second by the eminent sage Vyas. It is this last system, the Uttara Minansa of Vyas, to which the title of Vedanta is applied; the word meaning, 'the ultimate aim of the Vedas.' All the other systems of philosophy recognise the Vedas as sacred; but the two Minanas treat them as absolute revelation, and are in fact commentaries and interpretations of their earlier and later portions.

The Vedanta simply teaches that the universe emanates in successive developments from Brahma or Paramatma, the supreme soul; that man's soul is identical in origin with the supreme soul; and that liberation from transmigration will be obtained so soon as man knows his soul to be one with the supreme soul. The Vedanta system represents the religion of Hindu philosophy, or rather the religion of philosophers. To suppose that men who accepted the Sankhya or Nyaya systems would therefore take no interest in the Vedanta, would be somewhat like supposing that if a man studied Aristotle he would necessarily despise the Psalms. The great Hindu theologian, Sankaracharya, author of the poem Atma-Bodha, was an enthusiastic Vedantist.

v. Darsana with lay Hindus generally means performance of religious duties, visiting temples, seeing or reverencing idols.

DARUDI, from Darud, a door, and Vihan, to beg, is the Persian term synonymous with the Arabic and Indian fakir, a Mahomedan religious mendicant. Originally there were twelve orders, viz. Rafi, Sadi, Saharvardi, Shihani, Mulavi, Kadiri, Nakshi, Chishti, Jalwati, Khaltwati, Bedawi, and Dassuki. There have been many branches added, amongst whom may be mentioned the Bawa, Chishti, Kalandar, Madaria, Rasul-Shahi. The system of religious devotees originated amongst Mahomedans,—according to one tradition, with Oways bin Aamir. He had never seen Mahomed, but he so loved and revered him, that he caused two of his front teeth to be extracted, because Mahomed had lost two of his front teeth in the disastrous battle of Ohod, and the example given by Oways was followed by the khilafah Abubakr and Ali, and the associations of recluses created by them. But most of the existing orders of darwesh which are scattered over Mahomedan countries, trace back their origin to Jalal-ul-Din, Rumi, the author of the Mahnavi-i-Sharif, who founded the Mulavi order. In European Turkey, the darwesh have formed somewhat prominent communities, and about sixty different orders, each named after its founder, are supposed to exist there. The Bataashi or Bektashi of Constantinople are said to be quite atheistic, not attached to the principles of the Koran, nor firm believers in Mahomed as a prophet. They are generally of the sect of Ali, therefore Sufi or Mahomedan spiritualists. They have a takiah on the bank of the Tigria at Baghdad, on the west side of the town. The Rafai darwesh, so common in Turkey, inflict on themselves great self-torture. They are also known as the Ecsawiya, q.v. Some of the wandering Indian fakirs travel so far west as Hungary, to visit the shrine of a santon, Gul-baba, and travel east to Tenasserim and Burma. One whom the editor met near Hingolé, in the Dekhan, was a native of the Panjab, but had been to Ceylon, Mergui, Tavoy, Rangoon, and Moulmein. In British India many fakirs are low profligate men, held in great disesteem by all classes of the community, and some of them are utterly degraded in habits and mode of life. The bulk of them are Be-Sharra, literally without law, i.e. do not act up to the precepts of Mahomed, but are latitudinarians; a few are Be-Sharra, or with law, following Mahomedanism. The latter are styled Salik; the Be-Sharra are the Majuba. Azad, Rasul-Shahi, Imam Shaki, Kalandar, are of both sects.

No character in the Moslem world is so proper for disguise as that of the darvahes. It is assumed by all ranks, ages, and creeds,—by the nobleman who has been disgraced at court, and by the peasant who is too idle to till the ground; by

DARVESH.

The consequence applied to Siva, on whose solicitation Parvati produced from herself the form of Kali, having in her hands a trident and a skull. On beholding her, the affrighted gods ran away. Kali alone attacked Darnika and her hosts, and destroyed them.—Cole. Myth. Hind. p. 378.

DARUN - AJ - AKARII. ARAB. Doroniceum scorpoides, a kind of fern, the root and leaves of which reached Ajnir from Arabia via Bombay. Considered as a tonic. Four to six massas are a dose. One tola costs two rupees. — Gen. Med. Top.

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DARWAZ.

Dives who is weary of life, and by Lazarus who begs bread from door to door.

The Madaria order are named after Badi-ud-Din, Shah Madar, called also Zandah Shah Madar, who is buried at Makanpur (ob. 1433 a.d.).

The Nakhshbandi darvesh illustrate their theology with pictures.

Meleviyeh, dancing darvesh, are a solemn and, for the most part, learned body of men, revolve like teetotums till they have added their brain.

Guishaniyeh, the Howlers of the guide-books, toss their heads backwards and forwards, and howl the name of Allah till they fall back foaming at the mouth in an epileptic fit.

The Rafaiyeh cut themselves with knives, eat live coals, chew glass, and perform other mad freaks for the same purpose, namely, to lose the idea of self and attain a fancied reabsorption in the Deity. How far the same motives may have actuated the prophets of Samuel’s time, when Saul (as casual spectators at a darvesh celebration often do now) stripped himself naked and joined the wild prophetic dance (1 Samuel xix. 24), must be left to biblical scholars to decide.—*Burton’s Meccca*, i. p. 21; *Osborn’s Islam*, p. 92; *Herklot*, *Qawoon-i-Islam*; *H. Elliot*.

DARWAZ, a chieftaincy in the valley of the Oxus. It is north of Badakhshan, and is ruled by an independent Tajik chief. He claims a Grecian descent, like the Mir of Badakhshan, and the chiefs of Chitrail, Gilgit, Iskardzo, and others. The Oxus sands here are washed for gold.—*MacGregor*, p. 224.

DARWAZAI. HIND. Door; the gate of a town or fortress. All great Mahomedan cities name their gateways generally as leading to other cities, such as Mecca—darwazah, Dehlidarwaza. Darwazah-i-Irak, the western gateway of the town of Herat. See Dar.

DARWAZYE, one of the Hazara states, the chief of which is of the Tournouze.

DARYAN or Dryon, a strait about 120 miles long, from Pulo-Varela to the Carimons, and is bounded on the west side by the coast of Sumatra, False Durian, Sabon, and the contiguous islands; on the east side by the islands off the south and west sides of Lingin, Great and Little Durian, and the adjacent islands. Throughout these straits the tides are very irregular.—*Horsburgh*.

DAS. HIND. Ten. Dasaha, Mahil, the period of the ten days’ impurity on the death of a relative. Dasoond, the tenth part. Dasaa-Marma, the ten commandments of Valabhairacharya. Dasagiriva, or the ‘Ten-necked,’ a name of Ravana. Dasahara, or ‘Ten-removing,’ a name of Ganga.

DAS, Dissa, Doss, forms part of the names of many Hindus of N. India and Bengal, and is of frequent occurrence amongst the Kayasth tribes. Dasa means servant, slave, the servant or slave of a deity, and corresponds to the Abdi and Ghulam of the Mahomedans. The Arab Abdullah and the Hindu Iswana Das alike mean the servant of the Lord. Narayan Doss, Bhagavan Das, Krishen Doss, for instance, signify the slave of Narayan, Bhagavan, or Krishna. Randas is, in like manner, the slave of Rama. Deva Dasa are Hindu temple women, slaves of the temple deity. In the days of Akbar it was borne by Rajputs, as Raja Bhagwan Das, of the Kachwaha tribe. It is now seldom used by Rajputs except for illegitimate offspring.

DASA, an order of Vaishnava devotees. DASAHARA or Dashara. SANSK. The tenth of Jeth Shukhl Paksha, which is the birthday of Ganga. Also is the tenth of Asin Shukhl Paksha, Asoj or Ashwin shud, on which, after the worship and religious ceremonies performed during nine nights, the Hindus throw the images of Devi into the river. The day is celebrated with great pomp by the Mahattas and Hindus of Mysore and on all Maharashtras. The festival occurs about the first days of October. It is supposed to relate to the antumnal equinox or the breaking up of the S.W. monsoon, when the weather becomes suitable for military operations. In Bengal it is a popular festival in honour of Durga, celebrated in the month Aswin (September—October), for nine days. The tenth day of Asoj is commemoratory of the date on which the deified Rama commenced his expedition to Lanka for the recovery of Sita from Ravana. The nine days preceding the Dashara are the Naorati, or ‘nine-nights,’ during which a Brahman is engaged to read the praises of Durga, and on the tenth perform the homa or firesacrifice, in which rice and ghee are poured into the fire. Bania women keep up a dance called garbar. As Arjuna and his brothers worshipped the shunne tree, the AacIan suna, and hung up their arms upon it, so the Hindus go forth to worship that tree on the festival of the Dashara. They address the tree under the name of Aparajita, the invincible goddess, sprinkle it with five ambrosial liquids, the pancharmit, a mixture of milk, curds, sugar, clarified butter, and honey, wash it with water, and hang garments upon it. They light lamps and burn incense before the symbol of Aparajita, make chandlos upon the tree, sprinkle it with rose-coloured water, and set offerings of food before it.

In this festival Hindu soldiers have converted the animals and instruments of modern warfare into emblems of their Bellona. Thus the horse is invoked to carry his master, first to victory, and then to repose. The flagstaff is the ensign of Indra; the sword is celebrated under several names; the bow and arrows are also praised; and even fire-arms have their proper pre-eminenre by adaptation. The Hindu artilleryman at all times regards the gun to which he is attached as an object of superstitious reverence, and usually bestows on it the name of some deity. During the Durga festival, the cannon belonging to the army were planted, praised, invoked, and pro- pitiated by several species of offerings. On the morning of the tenth day, the Peshwa, with all his chiefs and soldiers, used to move out to the camp in the vicinity of the city, each being ranged under his particular banner, mounted on his best horse, dressed in his finest clothes, and with his arms highly polished. Horses, elephants, and camels were all arranged in their gayest trappings, and every corps spread its gaudiest flags and banners. The whole population of the capital, either as actors or spectators, joined in this grand procession, which moved towards the sacred tree, the object of adoration. After the offerings and prayers, the Peshwa plucked some leaves of the tree, on which all the cannon and musketry commenced firing. The Peshwa then plucked from a field, purchased for the occasion, a stalk of jawari or bairi, on which the whole
DAFJAR.

A descendant of Hottough.

JANAKA. soverign of Ikshvaku.

Rama, chief of the Saurastra, was given to Lakshmana, and the two other brothers were married to Mandavi and Srutakriti, the daughters of Kausalya, who was given to Dushyanta.

Janaka, whose chief queen, Kausalya, bore Rama; Kuiksey gave birth to Bharata, and Su-matra bore Lakshmana and Saruguna. The time that Sita was married to Rama, Urmila, the other daughter of Janaka, was given to Lakshmana, and the two other brothers were married to Mandavi and Srutakriti, the daughters of Kausalya, who was given to Dushyanta.

DASAKJACHIL. HIND. An ancient missile weapon of India.

DASARATHA, king of Ayodhya, of the Solar race, a potent sovereign in ancient India, and father of Rama. His kingdom consisted of the eastern countries, Sindh, Saurashtra, Savira; southern countries, Anga, Banga, Magadha, Kosala, and Kasi. He was a descendant of Ikshwaku. Buchanan supposes him to have lived in the 15th century before the Christian era. According to Wilson, the sons of Dasaratha were Rama, Lakshmana, Bharata, and Saruguna. His chief queen, Kausalya, bore Rama; Kuiksey gave birth to Bharata, and Su-mitra bore Lakshmana and Saruguna.

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Dasht-i-Tik, part of Dasht Goran.

Dasht-Khor, in Key, is fertilized by the river Khor, which disembogues near Juni, W. of Ras Pishkan. The occupants are Kurdish (Khadu?), Kir, Hot, Birdi, Bar, and Shahzada.

DASHTISTAN means a level country, from Dasht, a plain; but it is particularly applied to the low country extending along part of the shores of the Persian Gulf.

DASHYANTA was eldest son of Aullia, and father of the emperor Bharata by Sakuntala.

DASI. HIND. A female servant.

DAS-NAMA, a Hindu sect, worshipers of Siva, also called Dandi. Sankaaracharya was their founder. They take this name from the words Das, ten, and Namah, a class, because there were ten orders amongst them. See Dandi.

DASOOND, or tenth, in Mewar, as in Europe, was the stated sum to be levied in periods of emergency or danger.

DAS PADSHAH-KI GRANTH. This and the Al-i-Granthi form the religious writings of the Sikh sect. See Sikh.

DASARATAMA, a name of Rama Chandra.

DAS PERS. The band, Dastawez, a signature or a voucher. Dast Boste, lit. hand-kissing. Dasta, a kailifron, or small hand hookah. Dastana, a glove, also a flat brush for spreading newly-made paper. Dast Panna, a pair of tongs carried by fakirs.

DASTAGIR-WALAY, an appellation given by the Gyr-Mahdi Mahomedans to all other sects.

DASTAR or Pagri, the name given in India to the turband, worn on the head by Mahomedans of Turkey and India, and by Hindus. The word turband is unknown to Mahomedans of India. It is from Sarband, head-dress.
DASTAR-KHAN.

DASTAR-KHAN, a table-cloth, or rather a floor-cloth, being spread on the ground; but it is also used to denote the custom, whenever a guest enters a house, of laying a table, from which, under all circumstances, he must eat something. The man who attends to the duty is called Dastarkhan-ji. In Central Asia leather tableCloths have, in modern times, been replaced by bright-coloured Russian calico, or, amongst the richer classes, by silk with long fringes. — *Vambery, Bokhara*, pp. 201, 382.

DASTUR, a high priest of the Zoroastrians.

DASTUR. Hind. Custom, hence Dasturi, a customary fee, perquisites formerly paid by a dealer to servants when their master makes purchases.

DASTUR-ul-AMAL, a revenue work prepared in the time of Akbar. A body of instructions and tables for the use of revenue officers under the native Government of India.—*Wde.*

DASYA, in the Sanskrit writings, a race or races who, along with the M'helea, opposed the advancing Aryan race. It is probable that they were the prior occupants of the new countries, and were all reduced to subjection or slavery, the word being either from Dao, a country, or from Dasa, a slave. The Altareya Brahmana says most of the Dasya are sprung from Visvanitra, and Sanskrit writers applied the term Dasya to all the aborigines from the Naga of North-Eastern Bengal, throughout all India, to the indigenous races of Ceylon. They are usually supposed to have comprised the Bhil, Kol, Santal, Naga, and other races, who, when the Aryans entered India, were occupying the entire country between the Himalaya and Vindhyas. They seem to have been worshippers of trees and serpents, and to have been the first to have adopted Buddhism. Ferguson (p. 13) supposes them to have been of Tibetan origin. They were overcome and ruled over by the Aryans. They built square tower-like temples, with a perpendicular base, but a curvilinear outline above.

DASYAULUS. *Thwaites.* Several species of this genus of middle-sized trees occur in Ceylon, viz. *D. fulvus*, at Hewssee in the Pasoon Corle; *D. microphyllus*, in the south, but rare; *D. Moonii*, at Calutta near Ratnapura; and *D. nervifolia*, Gang-mee, Sinoen., common on the banks of rivers and streams in the warmer parts of the island. The last is the Russia nervifolia of Moon's Cat. It is grown for shade in the cinnamon gardens, and its timber is used for common purposes.—*Wde.*

DATA, a mode of address among fakirs.

DATE PALMS are met with in almost every part of the south of Asia. In the Peninsula of India the wild date, Phoenix sylvestris, shoots up in every dip of ground, and it is common in portions of the Dacca, Mymensing, and Sunderbun districts. When not stunted in its growth by the extraction of its sap, it is a very handsome tree, rising to 30 or 40 feet in height, with a dense crown of leaves spreading in a hemispherical form on its summit. The leaves are from 10 to 15 feet long, and composed of numerous leaflets or pinnules about 18 inches long; the fruit is only about one-fourth the size of the Arabian variety. The cultivators of the true date palm, Phoenix dactylifera, in Arabia, fertilize the clusters of blossoms in the female trees, by taking the stamens of the flowers of the male plant and placing them in the centre of each cluster of blossoms. In some parts of Arabia, however, the male trees are planted to windward, and the pollen, wafted by the wind, fertilizes the blossoms in all the trees in the gardens. The culture of the date is of great antiquity. It was emblematic of the Jewish nation. Jericho was the city of palm trees. The date palm was familiar to the Egyptians B.C. 2378. It is first seen in Babylonian monuments B.C. 1500, and first appears on the Assyrian monuments B.C. 858. A recent writer has supposed the date to be the conical figure on the top of the thyrus of Bacchus. This fruit, according to Pliny, was consecrated to the worship of almost every heathen divinity; and the date palm is the sculptural emblem of all that is dignified, beautiful, and good. It is entered largely into the ornamentation of temples. In India, the Phoenix sylvestris is used solely for the palm juice extracted from it. The process of tapping and extracting the juice goes on all the year round, but in Bengal it is continuous from the 1st November to the 15th of February. Some days previously, the lower leaves of the crown are stripped off all round, and a few extra leaves from the side of the tree intended to be tapped. On the part thus denuded a triangular incision is made with a knife, about an inch deep, so as to penetrate through the cortex and divide the sap vesicles, one point of the triangle downwards, into which is inserted a piece of grooved bamboo, in order to direct the sap into an earthen pot suspended underneath it by a string. The pots are suspended in the evening, and, when sugar has to be made, are removed very early the following morning, ere the sun has sufficient heat to warm the juice, which would cause it immediately to ferment, and destroy its quality of crystallizing into sugar. The cutting being made in the afternoon in Bengal, next morning the pot is found to contain, from a full-grown tree, 10 seers of juice, the second morning 4 seers, and the third morning 2 seers of juice; the quantity exuding afterwards is so small, that no pot is suspended for the next four days. The boiling apparatus consists of a hole of about 3 feet in diameter, sunk about 2 feet in the ground, over which are supported by mud arches four thin earthen pans of a semi-globalur shape, and 4 inches in diameter; the hole itself is the furnace, and has two apertures on opposite sides for feeding in the fuel and for the escape of the smoke. The fire is lit so soon as the juice is collected and poured into the four pans, which are kept constantly supplied with fresh juice as the water evaporates, until the whole produce of the morning is boiled down to the required density. As the contents of each pan become sufficiently boiled, they are ladled out into other earthen pots or jars of various sizes, from 5 to 20 seers of contents, according to the local custom, and in these the boiled extract cools, crystallizes into a hard compound of granulated sugar and molasses, and is brought to market for sale as goor. By subsequent processes the goor is deprived more or less of its molasses and impurities. A Persian poem celebrates the Arabian date palm, Phoenix dactylifera, and its 900 uses.

DATE PLUM, Yuen-tsu-nu, Chin. Fruit of Diospyros kaki.

DATES of Phoenix dactylifera.


DATIA.

The best dates are the fruit of the Phoenix dactylifera, dried in the sun. They have a shrivelled appearance, and a pleasant subacid taste. The date trees on the coast of Oman form a continuous grove to Khorfakan, a distance of 150 miles, and the Arabs have a saying that a traveller may proceed the whole distance without ever losing their shade. Dates form the principal product from Oman, large quantities being taken to India. The Mahomedan and Hindu population are very partial to them. The best are brought from Basrah and Bahrein, those from Oman being classed next in excellence. Some are simply dried, and then strung on lines; others, which is the usual plan, are packed in baskets. The Phoenix dactylifera is invaluable to the desert tribes of Northern Africa and the Sahara, whose most important wants it supplies. The fruit is the common food of themselves and their cattle, while their huts and houses are chiefly constructed of date-wood. Makran dates are famed, and are largely exported. Multan, Dehgra Ghazi Khan, and Muzaffargarh produce large quantities in dates from the Phoenix sylvestris, but of an inferior kind to those of Arabia; they are, however, preserved, either by being dried, or else by being boiled in oil and water, and then dried; when about to ripen, a piece of matting is put over the cluster to prevent the ravages of birds, etc.—Wellsted's Travels, i. 188. Fraser's Journey, 74; Burton's Mecca; Powell's Punjab.

DATIA, chief town of Datia state, Bundelkhand, lying on the road from Agra to Sagal (Saugar), 125 miles south-east of the former, and 148 miles north-east of the latter, lat. 25° 40' N., long. 78° 30' E.; estimated population, 40,000, almost exclusively Hindus.

DATISCA CANNABINA. Linn. Ilk'bir, Hind. Grows in Kashmir, Kanawar, Nepal, and the Himalaya; its bark and the woody portions of the root are much esteemed in the Punjab for dyeing silk of a yellow colour. It is also an ingredient in producing a pleasing pale 'pista' green. It is exclusively a bill product. It is used as an expeptorant in catarra. The bark also contains a bitter principle like quassia. Root exported to Amritsar as a dyestuff.—Stewart; Cleghorn; Cat. Cat. Ex. 1862. See Dyce.

DATTA. SANS. From Da, to give; abbreviated into Dat or Dut, a gift, a donation, a son given in adoption, a girl betrothed. Datta or Dutt is a subdivision of the writer caste of Bengal, and borne as a name, as Jai Krishn Dutt. The Datta came to Bengal along with the Kulin race.

DATTA JAYANTI, a Hindu festival held in honour of a deity named Datta.

DATU. MALAY. A governor under a sultan.

DATUNI, the root of the Croton tiglium; it is a very powerful purge, much used in prescriptions.

DATURA ALBA. Rumph.
D. metel, Roxb., Rheede.

Jouz-maz, ARAB; Safed dhatura, HIND.
Pa-daing-phoe, BURN; Humata, Humata, MALE.
Nau-yang-lwa, CHIN; Velle umati, TAM.
Man-to-lo-lwa, TEL; Tella umati, TEL.

Sala dhatura, HIND.

The Datura genus of plants is common in India, both wild and cultivated; the colours of the flowers are white, yellow, purple, and blue. D. pontica is reputed to have contributed to the poisonous quality of the honey that was eaten by Xenophon's soldiers. Bishop Heber notices Datura alba in his Walk in Bengal:

'While to the cooler air confest
The broad datura bares her breast.
Of fragrant scent and virgin white,
A pearl around the locks of night.'

Its beautiful long white flowers in Rohtak are used as an offering to the shrines of certain deities. Its value as a curative in asthma is known both to Europeans and natives, who smoke the seed in their hookahs when so afflicted. The white and purple species are alike used by thieves to stupefy victims, but the white is considered the most efficient. The victims are usually discovered in a state of insensibility, and breathing hard and heavily; if removed, care should be taken not to expose them to the heat of the sun, which is fatal. The action of the poison is quicker in the hot weather than in the cold; much, of course, depends on the individual constitution of the victim. But usually in hot weather it begins to act in five minutes, and coma supervenes within the hour; in cold weather it begins to act in a quarter of an hour or twenty minutes. The seeds are given with sweetmeats, and the effects have been known to continue for two days, and still recovery take place; cold effusion and strong stimulant emetics constitute the most effective treatment. The vision often continues obscured long after the general recovery takes place. This state is best remedied by blisters to the temples or nape of the neck, and by cold effusion. If given while the stomach is empty, a much smaller dose may induce all the preceding symptoms and prove fatal. This is well known to the Indian poisoners, who suit the time of administration according to the purpose they mean to serve.—Powell; Stewart.

DATURA FASTUOSA. Roxb.
Kala dhatura, ENG. Kachu-bong, MALAY.
Purple thorn apple, ENG. Nella umata, MALEH.
Methel seed, ENG. Gaaz-giah, PERS.
Downy thorn apple, ENG. Anolanta, SINGH.
Dhatura, ENG. Vayu umata, TAM.
Rotikubung, MALAY. Nalla ummeta, TEL.

This is very common over both of the Peninsulas of India. It is used in asthma. Both the single and double flowered varieties of this species may be often seen near Burman houses, and children not knowing its poisonous character sometimes eat the fruit, with very serious effects. Its large tulip-shaped white flower is sacred to Mahadeva.—O'Sh.; Roxb.; Gen. Med. Top. p. 133; Cat. Exh. 1862; Mason; J. L. Stewart.

DATURA STRAMONIUM. Linn.
Fuh-kia-rh, Fung-kia-rh, CHIN.; Thorn apple, ENG.
A native of waste places all over Europe. Its narcotic properties have been proved by Lindberger and others to correspond exactly with those of the belladonna and hyoscyamus. The alcholic extract of the seeds is a perfect substitute for belladonna for many of the purposes described under that head.—O'Sh. p. 469.

DATYA, in Hindu mythology, were Brahmans slain by the gods, but were resuscitated by Sukra, their guru, and attacked the gods in Swarga, from which the gods fled in various disguises—Indra as a peacock, Yamuna as a cow, Kuvera a lizard, Agni a pigeon, Nairat a parrot, Varuna a partridge, Vayu a dove, etc. Indra thus lost his heaven; but he afterwards slew Vitr, the
DAVARAJPATNAM.

Datya, and committed the crime of Brahmanicide, for which he had again to leave heaven and depart. This myth seems to be an account of one of the ancient wars between the Aryan Brahmans and a race with whom they came in contact, or a relation of the suppression of the Vedic naturalism.—Cale. Myth. Hind. p. 376.

DAUSUS CAROTA. Linn. Carrot.

Ottoman imperial from Jadhao announced young Mahomedan long. They reckoned as their gods.‘

DAULAT, Arab. Fortune, empire, any monarchy. Daulat-ul-Aliyah-ul-Usmainyiah, the Ottoman Government.

DAULATABAD, a town and fortress in the Hyderabad dominions, in lat. 19° 57' N., and long. 75° 18' E., 10 miles N.W. from Aurangabad. The fortress, also known by the name of Deogiri, has from remote antiquity been a stronghold of the rulers of the Dekhan. At the time of the Mahomedan invasion of the Dekhan in 1294, Deogiri had been in the hands of the Jadhao dynasty since the beginning of the 12th century, and was then the capital of Maharanath. Ahmad-Din suddenly galloped into the town, and announced himself as the advanced guard of the imperial army; the city surrendered, but the Jadhao dynasty was not finally extinguished till A.D. 1812. It received the name of Daulatabad from the emperor Muhammad, son of Tughalaq Shah, who tried to make it the capital of the empire in place of Dehi. See Deogiri.

DAULI, in Cuttack, has two separate local edicts, the remaining edicts corresponding with those at Girnar, in Gujarat. They are in the old Lat character, in Old Pall of the 3d or 4th century b.c., probably b.c. 306? Devanampiya, the young prince of Ujjain, is named ‘the beloved of the gods.’ The king is probably the father of Asoka, who was regent at Ujjain. Both edicts appoint two tupeh or colleges for meditation and the propitiation of Heaven. These edicts repeatedly speak of this world and the world hereafter; and the people are expressly commanded to propitiate Heaven, and to confess and believe in God, who is the worthy object of obedience, or more literally, Him, the Eternal, ye shall propitiate by prayer.

DAUP-YAT, in Amberst, a timber employed for rafters. It is a beautiful, yellowish-white, compact wood, but has a tendency to split. The leaves are used as a dye.—Captain Dance.

DAUR, Hind. A large earthen vessel used by grain-parchers.

DAURAN, amongst the Balute or village officers of the Dekhan, one of the inferior alutes.

DAURANI, a tribe, or nation, inhabiting the tract of country, about 400 miles long, through which runs the road between Herat and Kandahar. Its breadth in the N.W. is about 80 miles, and in the S.E. 150 miles. Their country is bounded on the north by the Paropamisan range, inhabited by Airmaks and Hazaras; on the west and S.W. is Seistan and desert of sand, the desert separating it from Baluchistan; on the south are Shorawak and the hills of Kajhah Amran, which separate it from the Tarin and the Kakars, and on the east they join the Ghilzai. The chain of Kajhah Amran, though not a mountain of the first rank, is high enough to bear snow for three months, and to be cold all the year. It is chiefly inhabited by shepherds, who belong to the Achakzai clan of the Daurnu. They were formerly called the Abdali, till Ahmad Shah, in consequence of a dream of the famous saint at Chumkani, changed it to Daurnu, and took himself the title of Shah Dur-i-Daurnu. Some accounts describe the mountains of Toba as their most ancient abode. More numerous traditions represent them as having descended into the plains of Khurasan from the mountains of Ghor, which belong to the Paropamisan group, but leave it uncertain whether that tract was their original seat, and by what causes their emigration was occasioned. This tribe is divided into two great branches, Zoruc and Panjja; but these divisions are now only of use to distinguish the descent of the different clans. That of Zoruc is reckoned by far the most honourable. From those branches spring nine clans, of which four belong to Zoruc, and five to Panjja:—Zoruc—Popalzai, Alkuzai, Barakzai, Aitkhazai. Panjja—Nurzai, Aidai, Ishakzai, Khugiani.

The whole population of the country number about 600,000, of whom the Daurnu are about one-third. They are largely pastoral. The better sort have their lands cultivated by hired labourers, Buzgar, or slaves, but often put their hand to necessary work. The poorer Daurnu are often Buzar, but seldom labourers, these being chiefly Tajak and Afghun Hamsaya. The pastoral tribes dwell in kisli and black tents, 20 to 25 feet long, and 10 or 12 broad, price about 4£.

DAURI-GOSAVI, Mahir. A Gosain sect who beat the daaru, a small drum.

DAVALLIA, an elegant fern of Moulmein; fructifications in roundish separate spots near the margin. D. parallelis and D. pilosa are of Bengal.

DAVARAJPATNAM, a table-land bounding the Nilgherry to the north.
DAVERSOLABETTA, a peak in lat. 11° 27' N., long. 76° 43' E., in the Neighlighers, two miles north of Ootacamund; 8380 feet above the sea.

DAVID, Fort St. David, a ruined fort, in lat. 11° 44' 20" N., and long. 75° 49' 30" E., 11 miles north of Chidalore, of which it may be said that it is the only seat of the Madras College. Governor was appointed governor of it in 1756. In 1758 the French dismantled the fort, but sufficiently restored it in 1783 to withstand an attack by General Stuart.—Imp. Gaz.

DAVIS, CAPTAIN JOHN, in 1558 made the first of his three voyages to the north-west, and discovered the Strait which bears his name. On the eastern side of this wide sea, improperly termed a strait, he discovered and named what has remained his apppellative, Cape Desolation; and on the western shore, Mount Raleigh, Cape Walsingham, Exeter Sound, and some other places still bear the names he gave them. In his second voyage, in 1586, he examined the coast on the west side of the strait between Cumberland Island and lat. 66° 3' N. In 1587, not discouraged by his want of success, he made a third voyage, and affirmed that he reached lat. 73° N. He examined the coast which he had seen before, gave names to some other places, but made no advance to solve the problem of the north-west passage. The discoveries which he made in his three voyages proved of great commercial importance, since to him more than any preceding or subsequent navigator has the whole fishery been indebted.

He was chief pilot in a Dutch mercantile voyage to the Malay principality of Acheen, the north part of Sumatra, and he wrote the story of this adventure. The two brothers Houtman were chief commanding officers of the Lion and Lioness; but one of them was slain, with a large number of his men, by a sudden and insidious attack from the Malays while feasting on board ship, and the other was taken captive. Both ships were then safely brought back to Holland by Davis, who survived to encounter a similar tragic fate in 1605. He was fifty-five years of age when he thus met with his death, and was on his third voyage to the Straits of Malacca. His second, from February 1601 to September 1603, was in the capacity of pilot-major to the Red Dragon, one of the English East India Company's first squadron of vessels, under Captain Sir James Lancaster. The last voyage, which proved fatal to Davis, was made by him as pilot of the Tiger, a vessel fitted out by Sir Edward Michelborne, who personally commanded, as it appears, without regard to the East India Company's exclusive privileges. Michelborne wrote the report given by Purchas. A gang of Japanese pirates, whose vessel lay alongside the Tiger in a harbour off Patna, not far from Singapore, were imprudently permitted to come aboard for hospitality. Michelborne says that Davis neglected to keep proper guard, or to remove their weapons; however that may have been, they attempted to seize the English ship, and in the fighting Davis and other men were killed.—Sir John Ross, N. W. Passage.

DAVIS, SIR JOHN FRANCIS, author of a General Description of the Empire of China and its Inhabitants; Sketches of China.

DAWA. Hind. Medicine. Dawa-i-Atishak, gentian root. Dawa-i-Mubarak, Clerodendrum siphonanthus. Dawa-i-Pechial, Ophelia elegans. DAWAN. Hind. Threshing the corn by bullocks, attaching six or eight in a row, and driving them round a central pivot over the corn strewn on the floor.

DAWAR, known in old times as the Bilad-ud-dawar, and by the modern inhabitants as Zamind-i-dawar. A large province, contiguous to Rukh-khan, Bast, and Ghor, and the opening of the latter to Seistan. Elphinstone says, on the right bank of the river Helmand lies the rich country of Zamindawar, which has the Paropamisus mountains on the north, and some hills connected with that range are found within its limits. This fine country extends for forty or fifty miles to the west of the Helmand.—Elph. C'bud, p. 122; Reinhard, Mem sur l'Irude, p. 173.

DAWAT, invitation, also exorcism, practised by Mahomedans in India to command the presence of genii and demons; for the protection from evil, casting out of devils, to create eminities, friendships, or love between people, to destroy or injure enemies, detect crimes. These are effected by philters, faeletals or lamp-charms, smoke-charms, amulets.—Herkl.

DAWN.


The first grey luminosity is known as the Subb'i-Kazib, or false dawn, the true dawn being Subb'i-Sadiq. Where false dawns are visible, about two hours before dawn of day, the horizon becomes quite light, and is succeeded by impenetrable darkness. It is chiefly visible about August. An African traveller on the skirts of the Sahara, says he has seen it equally bright, though not equally beautiful, with the Subb'i-Kazib of Persia. It is, in fact, nothing but the zodiacal light, respecting the nature and cause of which crude conjectures only have hitherto been put forward.

'Tis dawn!—at least that earliest dawn
Whose glimpses are again withdrawn,
As if the morn had waked, and then
Shut close her lids of light again.'

The dawn of the Rig Veda is personified as a lovely maiden, under the names,—Arjuni, for whom the Greeks have Argyronyla; Brisaya, Brisisa; Dahanu, Daphne; Usas, Es; Sarama, Helen; Saranya, Erinys.

Pausia, a wicked monster, is said to have tempted Sarama to be unfaithful to India, and among the Greeks Paris tempted Helen.

DAY. Mn., a servant of the English East India Company, who founded Madras in 1639.

DAY. Deputy Surgeon-General Francis Day, a Madras medical officer, who wrote on the fishes of India, Malabar, Cochin, and the British Islands. As Inspector-General of Fishes in India, he examined the rivers and seas from Persian Makran in the west, along two thousand miles of coast eastwards to Singapore; and from 1865 to the present time (1889), in reports to Government, which have all been printed, and in numerous articles to scientific journals, he has contributed to his favourite science an amount of information which no man of science working single-handed has, perhaps, ever before accom-
plished. The more prominent results of his great labours are given in the following volumes:

In 1865, he published his Fishes of Malabar,
1873, Reports on the Sea and the Fresh-water Fish and Fisheries of India and Burma.
1875-1879, Fishes of India.
1876, Fishes of Neillgherry Hills; Some Wyndham Fishes.
1876, Some Fishes of Madras and some India.

In 1865, Fishes of India; 1899, do. of Orissa, Calcutta, 1870, Do. of Andaman, Nicobar, W. India, etc. 1850-1883, Fishes of Great Britain and Ireland.

DAY.

1. Yom, ARAB. Giorno, FR. Divous, CAN. Dia, SP. Jour,
2. Tam, Tag, Ger. Dinam, Herz,
3. Saxon, Roz, Din., HIND, PERS. Ghyun, TURK.
4. a Sp. Tamil.

The remoter times, amongst the Chaldeans, Egyptians, Arabians, Hindus, Greeks, and the nations of northern Europe, there has been a hebdomadary division of the month. In general, the days are commenced by the day of the sun, followed by the moon, and the five planets, Mars, Mercury, Jupiter, Venus, and Saturn.

The following origin of the ancient names has been suggested in connection with astronomical science. The planetary arrangement of Ptolemy was thus:—1. Saturn; 2. Jupiter; 3. Mars; 4. the Sun; 5. Venus; 6. Mercury; 7. the Moon. Each of these planets was supposed to preside successively over each hour of the 24 of each day, in the order above given. In this way Saturn would preside over the first hour of the first day, Jupiter over the second hour, Mars over the third, the Sun over the fourth, and so on. Thus the Sun, presiding over the fourth, eleventh, and eighteenth hours of the first day, would preside over the first hour of the second day; and, carrying on the series, the Moon would preside over the first hour of the third day, Mars over the first hour of the fourth day, Mercury over the first hour of the fifth day, Jupiter over the first hour of the sixth day, and Venus over the first hour of the seventh day. Hence the names of the days yet used in the learned professions throughout Europe.

Four of the present English names of the days of the week are derived from the Saxon. Tiw, Woden, Thor, and Friya were deities of the pagan Saxons. Thor was the god of thunder, as well as the ancient Jove, and Friya a goddess, the wife of Woden.

The Hindus, however, reckon by the light and dark halves of the moon, which they designate kista (or Krishna), paksham, and sakla paksham, though they, too, have a weekly arrangement. In the Rajput names of the day, Sooraj-war, or Adit-war, is Sunday, and the days of the week are from the other planets. Mangala is one of the oldest names of the Hindu Mars, Kumara, to whom the Woden's-day of the North-men, the Mardi of the French, and the Dies Marsi of the Romans, are alike sacred. Mangala also means happy, the reverse of the origin of Mongol, said to mean sad. Vris'hput-pati is he who rides on the bull, the steed or vahan of the Rajput god of war; and Sucra is a cyclop, regent of the planet Venus.

The manner of reckoning the days by the ancient Jews, and which subsists amongst that people at the present time, is to commence the day at a certain hour of the evening, and to finish it on the next evening at the same hour. Thus their Sabbath begins on the afternoon of Friday, and is completed on the afternoon of Saturday. The Roman Catholic Church also commences its festivals in the evening; and this custom is retained in Britain in some of the popular observances, such as the eve of St. John and Christmas eve.

The civil day of Great Britain now commences at 12 o'clock midnight, and lasts till the same hour of the following night. The astronomical day begins at noon, and is counted up to 24 hours, terminating at the succeeding noon. This mode of reckoning the day is that used in the Nautical Almanac, and it sometimes leads to mistakes with persons not familiar with this manner of computation; a little consideration will obviate the difficulty. Thus January 10, fifteen hours, in astronomical time, is January 11, 3 in the morning civil time. In France and most of the states of Europe, as with the British, the hours are counted up to 12 from midnight till noon, and from noon till midnight. In parts of Italy and of Germany, the day is held to commence about sunset, and the hours are counted on till the next sunset. This mode is very inconvenient to travellers, as the noon of the 'Italian hours' at the summer solstice is 16 o'clock, and 19 o'clock at the winter solstice.

The division of the day among Mahomedans is chiefly subservient to the stated time of performing their devotions, and is not generally very accurate. They begin their account at sunset, reckoning twelve hours from thence to sunrise, whether the night be long or short; from sunrise to sunset they also reckon twelve hours, and consequently a night hour is longer in the winter.

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DAYA.

than an hour of the 'day, and in summer the hours of the day are longer than those of the night. At the equinoxes alone, all the hours are of equal length, and then they coincide with those adopted by the British, French, and Germans, in commencement and duration, differing of course six hours in enumeration, so that six o'clock of Britain is their twelve, seven is their one, etc. At other periods of the year, also, their six o'clock coincides with British twelve, but every other hour differs more or less from those of Britain. The time of sunrise, and consequently the length of the day, being known, the length of each hour will be easily found by division, and the period of any given hour determined. Thus, if the sun rise at 7 o'clock, the length of the day will be ten hours (of 60 minutes each), and that of each hour 50 minutes. One o'clock, Mahomedan reckoning, will then be at 50 minutes after 7; 2 o'clock, 40 minutes after 8; and 3 o'clock will be half past 9; and so on of the others. When the sun sets at 6 o'clock, the first three hours of the day will be completed severally at ten minutes after 6, twenty minutes after 7, and half past 8. In every case 6 o'clock arrives exactly at midnight, which in India is called Do pahar, or the second watch. Mahomedans in India also reckon part of a day for the whole; thus, what they mean by three days, is the day on which an event happens and the two following. The Mahomedans reckon the sidereal day in their time, from sunset to sunset, differing thus from the European civil day, midnight to midnight, or solar day, midnight to midnight.

Though the Gothic and Scandinavian nations have, in the cases of Tuesday, Wednesday, Thursday, and Friday, given the names of Scandinavian deities, Tuisco, Woden, Thor, Friya, to four days of the week, most of the northern nations have preserved the Latin names, as in French—Mardi, Mercredi, Jeudi, Vendredi; Spanish—Martes, Miércoles, Jueves, Viernes; Italian—Martedì, Mercoledì, Giovedì, Venerdì, while for Saturday they have taken the sabbatical word. — Tod's "Rajasthan," i. pp. 232, 595; "Boerings's Siam."

DAYA. SANSK. Gift, donation, inheritance.

DAYA BHAGA, a treaty by Jumuta Vahana on the law of inheritance current in Bengal. The Daya-Krama-Sangraha is by Sri Krishna Tarakankara, and that by Raghunandana Bhatta Charya is called Daya-Tatwa.—Dowson.

DAYAK is the name given to all the wild tribes of Sumatra and Celebes, but is particularly applied to those of Borneo, where they are most numerous; some are wild savages, but others have fixed habitations, large lagoon-like luts containing many families. They are ignorant of any written character. In their wars they clothe in prepared skins, their arms are the sword and spear, and blow-pipe. The Kayan Dayak are idol-worshippers, keep their dead for some days, and inter in a coffin made of the hollow trunk of a tree:—See Dyak.

DAYAL BIRD. Coryphas sulpharis. See Robin.

DAYAMUR, a magnificent peak in the Bara Lahd or Western Himalaya, visible from Ramgar in the Panjab.

DEAD. The remains of the several races in South-Eastern Asia are variously disposed of. One of the most ancient of the races, the Parsee or Guebre, the followers of Zerustush or Zoroaster, expose their dead on a platform in a circular tower. The Buddhist Tibetans allow the dead to be dragged in an unseemly manner to a distance, and then exposed. The dead of the Buddhist Burmese of rank, particularly of the religious Phoungye monk, is laid in honey for a year, and then conveyed with much seeming rejoicing to the burning place, and burned amidst fireworks. The Chinese revere the dead, and make pilgrimages to their ancestors' graves. Their dead are placed in coffins made of great logs of wood, and lodged in chambers above ground in the manner of the ancient Jews. Some of these logs are costly, and it is usual for the rich Chinese to keep their coffins ready for their own use. The Saiva Hindu, the Jangum or Lingadari, the Pariah and non-Aryan races, and the five artisan classes of India, all inter their dead with their faces to the north. The Lingadari artisan dead are seated in the grave facing the north, and in some places are carried to the grave seated on a chair. The Vaishnava Hindu who leave no sons or other heirs build their funerary pyre; and it was not unusual amongst the burning classes of the Rajputs and Hindus of the Mahratta country and Northern India, for their widows to immolate themselves alongside the bodies of their deceased husbands. Amongst the Balinese, the widow and slaves of the deceased great are burned along with the deceased. But with the Vaishnava Hindus, unmarried persons, or such as have died of smallpox or cholera, are buried. The Mahomedan dead are all buried, and visits are paid to their graves. Dr. Livingstone describes the practice of the Balonda of S. Africa to be, to abandon the spot where a favourite wife has died.—Livingstone, Travels. See Burial Ceremonies.

DEADLY NIGHTSHADE, Atropa belladonna, L., a powerful narcotic poison employed in medicine. It is a herbaceous plant of Europe, with solitary squirre-like flowers, and violet-black berries on short stalks, springing from the bases of the rather large ovate leaves.

DEAD SEA, called now Bahr-ul-Lat, or the Sea of Lot, into which the river Jordan disemboques. It is the largest lake in Palestine, being 40 miles long, with an average breadth of 9 miles. It occupies the valley of Siddim, in which were the cities of Sodom, Gomorrah, Admar, Zeboim, and Zoar, which sank by some conversion of nature. It is called the Sea of the Plain, Deut. iii. 17, the Salt Sea in Deut. iii. 17, Josh. xv. 5, from the extremely salt and bitter taste of its waters, which hold 2 lbs. of salt in a gallon; and the East Sea in Ezek. xlvii. 18, Joel ii. 20, from its position with respect to the Judean mountains. Josephus and the Roman writers call it the Lake Asphalitites, from the abundance of bitumen found in it. The more familiar name, the Dead Sea, is in allusion to the ancient tradition, erroneous but generally received, that no animal could exist in its salt and hydrophilic waters. Its surface is 1312 feet below that of the Mediterranean, and in places the water is 1320 feet deep. Hot springs abound near the mouth of the river Jordan. It is 4000 feet below Jerusalem; but the general slope of the intervening district is so regular, that from the spires of the city and the Mount of Olives one can look down directly upon its waters. — Taylor, Saracen, p. 63; Maury's Phys. Geog. p. 186; Robertson's Tr. p. 68.

DEAD SEA APPLES. See Hymenoptera.
DEATH'S HEAD MOTH.

DEATH'S HEAD MOTH, Acherontia satanat. DEB. BENG., URITA. A cognomen appropriate to Brahmins, as Chandradeb.

DEBAI, or Dewal. SIND. An ancient city, celebrated as theemporium of the Indus during the middle ages. It has been supposed to have been the city of Brahmanas, but site now unknown; supposed by Burnes and Burton to be the modern Tatta, which is styled Debal or Dewal (temple) by the Arabs and Persians. Mr. Elphinstone and M. Reinaud point to Kurachee, and Dr. Burnes and Mr. Crow indicate a site between Kurachee and Tatta. Mr. Thomas also gives Kurachee as the ancient Debal. The temple was probably on the promontory now occupied by Fort Manora, and was occupied by a pirate tribe called Tangamura.

—Eliot's Hist. of India.

DEBAR, a celebrated artificial lake in Mewar, 20 miles S.E. of Udaipur (Oodeypore) town, Mewar, 10 or 12 miles N.W. from Chhoand, where Pratap destroyed the army which Akbar had sent under the command of Farid Khan. Debar was formed by Jye Singh in A.D. 1681, raising a dam across the stream escaping from the Debar pool, and he named it Jye-Samudra, the Sea of Victory. It is 8 or 10 miles long, about a mile broad, and 900 feet above the sea. Its northern shore is dotted with picturesque fishing hamlets, and its surface with small wooded islands, adding greatly to the beauty of perhaps one of the largest artificial sheets of water in the world.

DE BARROS, JOAO, and Diego De Conto, two Portuguese writers, who, in concert, gave a history of the Portuguese in Asia. Jaoa de Barros held at Lisbon the office of Custodian of the Records of India. He was a contemporary of Albuquerque. He published three decades, his fourth being posthumous, but in these he celebrated the achievements of Albuquerque, to whom he stood in the same relation as Orme, the British historian, does to the British conqueror Clive. His companion writer was Diego de Conto, and their book was entitled De Asia dos Feitos que as Portugueses fizeram no descubrimiento e conquista das terras e mares do Oriente, Lisbon, 1778. De Barros was born in A.D. 1496, and died in 1570. The first decade of his work was published in 1552, the second in 1553, the third in 1563, and the fourth after his death, in 1777-8.

Tennent; Bikmore.

DEBAR RUMI, thin crimson silk.

DEB PATAN, a village in Gonda district, Oudh, with temples. Lat. 27° 32' 8" N., long. 82° 26' 30" E. Stated to be probably one of the oldest seats of the Saiva form of Hinduism in Northern India. A large religious trading fair, lasting for about ten days, and attended by about 100,000 persons, is held here each year. —Imp. Gaz.

DEBKI, BENG., a dance of the Arabs resembling in some respects that of the Albanians, and those who perform in it are scarcely less vehement in their gestures, or less extravagant in their excitement, than those wild mountaineers. They form a circle, holding one another by the hand, and, moving slowly round at first, go through a shuffling step with their feet, twisting their bodies into various attitudes. As the music quickens, their movements are more active; they stamp with their feet, shout their war-cry, and jump as they hurry round the musicians. The motions of the women are not without grace; but, as they wrap themselves in their coarse cloths before they join in the dance, their forms, which the simple Arab shirt so well displays, are entirely concealed.—Layard, Nineveh, p. 119; Baron de Bode's Travels.

DE BODE. Baron C. A. de Bode, a traveller in the lands of Southern Persia, Luristan, and Arabistan.

DE BOIGNE. Benoit de Boigne, born 8th March 1751, at Chambers. He was the son of a furrier, and he joined the Irish Brigade in 1768 as an ensign. After a short service, he entered the Russian army, but, quitting that, after several misfortunes, he landed at Madras in 1777. He entered the 6th M.N.I. as an ensign, which he soon after quitted. In 1784 he took service with Madhaji Sindia, and shared in the battles of 1787, 1788. He then left, but again entered Sindia's service.

DEB-RAJA, the temporal ruler of the Bhot, from Deo, the deity.

DEBRA TABOR, a town in Ambara in Abyssinia, formerly a small village. It was afterwards a place of considerable size, and the residence of the emperor Theodore.

DEBRÈGAESIA EDULIS. Weidell. The Janatis-itsigo or Teon-itsigo of Japan, is a bush with edible berries, and a fibre valuable for textile fabrics. D. dichotoma occurs in Java, and D. hypoleuca, D. velutina, and D. wallachiana ascend the Himalayas for several thousand feet. —F. von Mueller.

DE BRITO. Philip de Brito y Nicote, surnamed Chango, i.e. Good Man, a Portuguese adventurer, who, about A.D. 1600, aided Shimi Shah, king of Arakan. He got possession of Syrian, and became virtually sovereign of Pegu, and conquered the neighbouring kingdom of Tenmghoo, reducing its king to vassalage. At last, meeting with reverses, he was betrayed to the king of Ava, A.D. 1613, who imprisoned him on a hill over-looking Syriam, for a fortnight, after two days of great agony. His wife, a Goanese lady, Donna Louise de Salinha, with other captives, was carried to Ava, and their descendants are still distinguishable.

DEBROOGHUR, the chief station of Lakhipmur in Assam. From Debrooghur as far as Gowhtee in Lower Assam, there are immense tracts of land on both sides of the Berhamputter, suitable for tea cultivation.

DEBURAH. Hen. In the Hebrew Scriptures are several Hebrew words which in the English version have been translated Fly, viz. Oreb, Zebub, Deburreah, Tair, Sarabin, Bak, Cimmim. The Orov or Orob, Hen., a swarm or assemblage, is translated in Psalm cv. 31, swarms of flies; but Exodus vii. 31, also Psalm lxxxv. 45, is supposed to allude to the mosquito. The Hebrew Zonen or Ecclesiastes x. 1 and Isaiah viii. 18 is not known. Flies are undoubtedly very troublesome at some seasons in tropical Asia, but an infusion of quassia sweetened with sugar, on a plate, destroys them. See Fly.

DECAISNEA, sp., a very remarkable plant, which Dr. Hooker saw in flower in the Lachen valley, and called Loodoma by the Bhutia, and Nomorchi by the Lepcha. It grew on the ridge near Tumloong and the Ryot valley at 7000 feet; it bears a yellow fruit like short cucumbers, full
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DECOAN.
of a soft,
It

swtitit,

uiilky pulp,

belongs to the

new

f^eiius,

DEO.

and

lar^^u black seedii.
Stauutouia, of which

two lliiaalayaa kinds produce similar but less
agreeable edibk' fruits, the Kole-pot of the Lepcba.
MessrK. Cambessedes and Decaisne issued a
volume on soinu of the plants of Jacquetnont's

DECCAN.

See Dokhan.

DECIUS. Ephesus,

the chief town of Ionia, in
Asia Minor, 46 miles south of Smyrna, was famous
for its temple of Diana ; and amongst the Mahomedans of the East, its Btory of the seven sleepers
is cuntiuucd, through the Koran.
The legend is
that when the emperor Decius persecuted the
Christians, seven noble youths concealed themselves in a cjivern, which was then blocked up
with stones. They immediately fell into a deep
slumber, which lasted for 187 years. At last the
slaves of Adolius removed some of the stones for
building materials, on which the seven sleepers
were aroused, and despatched Jamblichus, one of
their nmnber, to the city, to procure food, on which
the altered appearance of Ephesus, the age of the
coin he present<?d to the baker, and his long beard,
led to a discovery of the marvellous occurrence.
The bishop of Ephesus, the clergy and magistrates,
visited the cavern, and, after conversing with the
somnambulists, they quietly expired. James, a
Syrian bishop of the fifth century, devotes a homily
to its praise
and the story of the seven sleepers
is found in the Roman, Abyssinian, and Russian
calendars.
Mahomed introduced the tale in his
Koran, as the Companions of the Cave, and says
God caused them to turn over occasionally from
right to left to preserve their health.
Afilner's
Seven Churches, p. 171 Salens Koran, p. 219.
DECOITS are gangs associated for the purpose
of plunder, who assemble by night, fall on an
unsuspecting village, and kill those who offer
resistance.
Elph. India, p. 377. See Daka.
DE CONTO. Diego de Conto, an officer of
the Portuguese, who served in India, and died at
Goa, 1600. He brought down from 1539, to his
own time, the history of the Portuguese in India,
commenced by De Barros.
The joint history
consists of 24 vols. 8vo.
Sec De Barros.
DEDH, a race in Cutch, who are tanners, and
who B2)eak a dialect of the Cutchi. The word
seems a modification of Dher.
Hind. Alluvial soil,
or Dewara.
or an island formed in the bed of a river.
;

;

DEEARA

Elliot.

DEEG,

a town and fortress in Bhartpur (Bhurt-

pur) state, Central India, lat. 27° 28' N., and long.
77' 22' E., lies
a lonely marshy tract amid
numerous jhils or siiallow lakes, fed by the stream
of the Manas Nai.
Here, on the 13th November
1804, a British force under General Eraser defeated
the army of Holkar, and the Jat of Deeg having
fired upon the conquerors, siege was laid to the

m

and it was carried by storm on
was dismantled after the capture of

town

in December,

the 23d.

It

DEER.
Fr.

Daiin,
Hirscli,
Ail,

Hirp,

A

ClER.

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Heb.
Hiap.

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I

Cervi

It.

Ciervo,

Sp.

Tam.

Man,
I

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Karaja,

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TuttK.

general term used by the British in India to
designate several bovine animals, distinguishing
them as the barking-deer, hog-deer, rib-faced-

deer, sambur, and spotted deer.
There are, however, frequent mingUngs of naineB, aa thor^ are a
variety of scientific and venutcuUr sjnonyniB.

M

These animals are all eagerly pursued
game.
Giana of Tibet, Nepal, and lal foretts, is th« C«nriu
Wallichii of Cuvior.
Bara Singha or Bumya of Bengal, eastern and northern
Rkirts of India, in the nucennu duvauodU of
Cuvier.
Sangnai or Sangrai, of 3Iuniiiore and Mulay I'eninBula, is the Panolia acuticomis and V. Eldii of
Gray ; tbo Ccrvus or Kuaa frontallg of ArC'lelland,
and the C'crvuH Kldii of tlio Cal. Jour. Nat. Iliat,
Sambur of the Mahrattaa, Sarabara, B.\NSK., an inhabitant of the Dekhan, Southern Maliratta ooantry, of Sumatra, Borneo, and Banka, is tli« Busa
equina of Cuvier and Gray, the Ccnou equntu
of Cuvier, the Ccrvua or KuBa bimiela^liitB of
Elliot, Rusa etani or Rusa kumbang of tlio mhabi(.ints of

Sumatra.

Sambur of Hodgson, a dweller in the forests of Northern
India, is the Rusa hippelaphus of Cuvier and iin^,
the Cervus bijipelaphus of Gray.
Jarai or Jcrrow of the great forests of India and of
Ceylon, is the Rusa Aristotclis of Cuvier and Gray,
the Cervus Aristotelis of Cuvier.
Tlie Spotted deer, Chitra, Sansk., and Ohital, HlHO.,
of continental India and Southern Habratta
country and of the Malayan Peninsula, is the Axis
maculata of Gray, the Cervus axis of Krxieben and
Elliot.

The Hog deer of continental India and Assam, which
is called by the vernacular names Para, Kluur,
Lagbuna, and Sugoria, is the Hyelapbus poroinus
of Sundeval, the Cervus porcinus of Zimmerman,
and the Axis (Cervus) niger of Dr. Buchanan.
The Muntjak of the Sundanese, Kidang of the Javanese,
the Kijang of the Malays of Sumatra, found in
Banka, Borneo, Java, and Sumatra, is the Oervnlos
vaginalis of Bodd. and Gray, Cervus muntjac. of
Zimmerman.
The Barking deer of Europeans, the Rib-fjued deer of
Pennant, dwells in the plains of In£a. It is the
Baiker or Bekra of the Mahrattas according t©
Sykes and Elliot, the Ratwa and Kaher of tht
Indian continent of Hodgson, Cervus muntjac. of
Sykes, Stylocerus ratwa of Hodgson.
Paddy-field deer of Ceylon is Axis oryjus of Kelaart.
Ravine deer or Bennet's deer, better known to Indian
sportsmen as the Chinckara (Antilopc Bennettii),
is somewhat common on the Salt Range and most
parts of the Panjab, but does not affect the Himalayas.

are exported from New York,
Antelope skins
Orleans, Canada, and India.
from the Cape of Good Hope are of good qualify.
Deer-skins are all shamoyed, or dr^sed in oil,
chiefly for riding-breeches, and shamoyed leather
of sheep, goat, and deer skins was formerly a
lucrative branch of the leather trade of Oreat
This kind of leather is employed for
Britain.
breeches, white or dyed, worn by persons who ride
much on horseback. In wet weather leathfiri}
garments fit close to tlie skin, and are long
drying, so that the wearers are liable to colds,
Jerdou r
rheumatism, and other complaints.
Adams. See Antdope Bovida? Cervidaj.
DEESA, a town and military station in Gujerat,
on the bank of the Bauas, lat. 24° 14' SO'' N.,
about 350 feet above the sea; its rainfall is 12
and 14 inches, and the thermometer ranges from
60° to 110°.
It is surrounded by a desert of
sand.
It is one of the hottest and most unhealthy
stations in India, the thenuometor(Fahrenlifiifc) frequently ranging, during the months of March,
April, ^lay, and June, as high as 110 degrees.
Deesa town is siu-rounded by a curtain with

Deer-skins

New

w

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bastions.

903

DEG.

Hind.

Steel filings, used in firework-


making. A large copper caldron or globular vessel, a cooking pot. Deg-cha, a small pot.

DEHEL, pronounced Dehnegi. The supreme god in Fiji, and known in the other groups as Tangaroa or Ta'a-rona, Tanga being his proper name, Rang an adjective signifying the far-renowned, perhaps also the most high. To him is attributed the creation and government of the world; and there are no images of him, nor of any of the minor gods, collectively termed Kalou. His sway was everywhere acknowledged by the natives, and no attempts were ever made to elevate any local gods above him. Bare-Kalon is the temple.—*Galton's Vacation Tourists*, p. 266.

DEHGA CHUR. Bassa Islands formed by deposit of the alluvial soil brought down by the Ganges, Brahmaputra, and Moga rivers. So soon as they emerge from the water and cease to be overflowed by the tide, contracts are made for the land at a nominal rent. When bushes and grass appear, wild men, speaking a barbarous patois, come down to pasture large herds of cattle on the young herbage, putting up sheds for the beasts, but themselves bivouacking in the open. They pay grazing rent to the contractor of the island, and rent for cutting fuel. As the land becomes settled, contractors are ready to cultivate, and at length settle on it. They dig large tanks for fresh water, and raise high mounds for the foundations of their homesteads in the low country, which is intersected by numerous water-courses, and plant them round with betel, coconut, and date palms, plantains, and other plants.—*Geo. Mag.* June 1877.

DEH. Peers. A village; hence Dehgan, a villager, a cultivator. Dehi, pertaining to a village. Dehat, villages. Dehkan, a villager or cultivator.—*Wilu*.

DE HAVILLAND. Colonel Thomas Flott de Havilland, eldest son of Sir Peter de Havilland of Guernsey, born 1776. He received a cadetship for the Madras Infantry at the age of sixteen, but on the formation of the corps of Engineers he obtained a lieutenant's commission. He was present at the taking of Seringapatam as field engineer, was taken prisoner by the French at sea, but was soon released, and remained with his corps till 1812; then returned to Guernsey, and built Jersey barracks. Having returned to Madras, he planned and constructed the Mount road, built St. George's Church, now the Cathedral; also St. Andrew's Church, or the Scotch Kirk, which was long considered the perfection of architecture in Madras, and of which the steeple is still the tallest piece of masonry and its dome the finest in that city. He constructed the North Bench road as a bulwark against the encroachments of the sea, which then threatened to submerge the whole of Black Town.

DEHGAN or Deggan, a supposed Aryan tribe, once spread over Afghanistan, but latterly in the Kunair valley. Elphinstone says they are distinct from the Hindis, and must not be confounded with the Tajiks, whom the Afghans sometimes call Deggan, by corruption from Dehkan, a husbandman. The Deggans speak the language which is mentioned under the name of Lughmanee in the Commentaries of Baker, the Ain-i-Akbari, and other books. The language seems to be composed of Sanskrit and modern Persian, with some words of Pushtu, and a very large mixture of some unknown root. The greater part of the words, however, are Sanskrit.

DEHILI. A city of Hindustan, built on the right bank of the Jumna, in lat. 28° 39' N., and long. 77° 18' E., and 800 feet above the sea. It gives its name to a revenue district under the Lieutenant-Governor of the Panjab. The whole country, for some 10 or 12 miles around the modern Dehili, is covered with the debris of ruined cities, which extend over an estimated area of 45 sq. miles. About fifteen centuries before the Christian era, the town of Indraprastha was in existence on the Jumna, in the vicinity of the site occupied by the modern Dehili. For the site of the first pass or boundary viz. Panipat, Soanpat, Indrapat, Tilpat, and Baghpata, which Dhirotarashtra gave to the Pandu. Now, however, Purana Killa and the Negumbod ghat on the Jumna are the only places which can be pointed to as probably connected with the ancient Indraprastha, and the ghat seems to have been a sacred place of pilgrimage even before the Pandu family settled there. The people still call Purana Killa, Indrapat, though Humayun-new-named it Din-Panah, and Sher Shah styled it Sherghar. Thirty princes of the line of Yudishtira succeeded him on the throne, but only their names are known; and the last of them was Kashemaka, who was murdered by his minister Viserva, whose line of fourteen princes held sway for five hundred years. The last of the Mauryas was slain by the rajah Kema-youn, styled Sasaditya, or chief of the Saka, who subsequently fell before Vikramaditya, and Avanti or Ujjan became the capital. Dehili was then in existence, because Vikramaditya was described as possessing it.—Dilli-pat-kahayo became king of Dehili. Ancient Dehili was 5 miles distant from Indraprastha, on a rocky hill to the S.W., and 11 miles from the modern Dehili. It is surmised that on the removal of the capital to Ujjan, the cities in that locality lay waste and desolate for eight centuries. Fa Hian, A.D. 400, and after him Hiwen Thang, who travelled in the 8th century (A.D. 750), make no mention of Dehili, nor is it mentioned in the time of Mahmud, who sacked and plundered both Muttura and Thanesar. In A.D. 1052, however, Anangpal rebuilt it.

In A.D. 1191, Prihij-raj utterly routed Maha-
med Gori at Tiruri, 14 miles from Thanesar, and compelled him to recross the Indus. But in 1193 Mahmud re-entered Hindustan with a mixed Turk, Tartar, and Afghan army, defeated the Hindu princes, murdered the king of Dehili, took Ajmir, and returned to Ghazni. From that time until the early years of the 19th century, ending in the mutiny of the Bengal army and the rebellion of the northern people in 1857, Dehili continued in the possession of successive rulers of different races,—Turk, Moghul, Persian, Afghan,—but all following Mahomedanism.

For nearly a hundred years, however, the nominal ruler had been merely titular. The emperor Shah Alam entered Dehili a prisoner with the Mahrattas on 22d December 1771. He con-
menced a mere state prisoner in their hands till 1803, when he was released by Lord Lake. All the territories and resources assigned for his use were continued to him, and a pecuniary provision was granted in addition, fixed at Rs. 60,000, but afterwards increased to Rs. 1,00,000 a month. Shah Alam died on
DEHLI.

the 19th November 1806, and was succeeded by Akbar Shah, who was succeeded in 1837 by his eldest son, Bahadur Shah. He was restricted to the neighbourhood of Dehli, he was not allowed to confer titles or to issue a currency, but he had the control of civil and criminal justice within the palace. When the mutiny of 1857 broke out, the mutineers in Dehli took possession of the town, fort, and stores, and applied to the king. Bahadur Shah's conduct was vacillating, but he subsequently identified himself with the rebel cause. After the fall of Dehli on the 29th September 1857, he was captured, and tried on the charges of—1st. Aiding and abetting the mutiny of British troops; 2d. Encouraging and assisting divers persons in waging war against the British Government; 3d. Assuming the sovereignty of India; 4th. Causing and being accessory to the murder of Christians. He was convicted on each charge on the 9th December 1858, and sent to Rangoon, where he died in 1862; and thus, after nearly five centuries of sovereign power, the Timurides ceased to reign. The prospect of sovereignty was short-lived. The Dehli massacre of Europeans occurred on the 11th May 1857. Dehli was assaulted on the 14th September 1857. From the 14th to the 17th of September, the Church, the Cutcherry, the College, the Kotwali, the Magazine, and the Dehli Bank House were one after the other carried and recovered. On the 18th, the line of communication between the Magazine and the Kâbul gate was completed. On the 19th, the Burn bastion, near the Lahore gate, was taken possession of by a surprise. This bastion is so called from Colonel Burn, who with a handful of men made a most memorable defence of Dehli in 1804, against an overwhelming army of Holkar, and the cannonade of 180 guns. Sir D. Ochterlony, then Resident, wrote of this defence, that it cannot but reflect the greatest honour on the discipline, courage, and fortitude of British troops in the eyes of all Hindustan, to observe that with a small force they sustained a siege of nine days, repelled an assault, and defended a city 10 miles in circumference, which had ever before been given up at the first appearance of an enemy at its gates. The 20th of September was the day of the final recapture of Dehli. On that day the imperial palace was entered and found deserted. The main picket of the British forces was at the house of Hindu Rao, on the top of the ridge that is to the north-west of the city. The chief efforts of the rebels were directed against this post of the besiegers. From the 8th of June 1857, until the fall of Dehli, it had to sustain twenty-six attacks. On the 14th of September, the attacking force for the taking of the city was divided into four columns, with a reserve. The party fixed upon to blow open the Kashmir gate consisted of Lieutenants Salkeld and Home, Sergeants Carmichael, Burgess, and Smith, bugler Hawthorne, who accompanied the party to sound the advance when the gate was blown in, and eight native sappers under Havildar Madhu, to carry the bags of powder.

Muhammad of Ghor found Dehli occupied by the Tomara clan, Ajmir by the Chauhans, and Kanauj by the Rajtars. These Rajput states formed the natural breakwaters against invaders from the north-west. But their feats are said to have left to the king of Dehli and Ajmir, then united under one Chauhan overlord, only 64 of his 108 warrior chiefs; and when, in 1193, the Afghans again swept down on the Panjab, Prithi-raj, of Dehli and Ajmir, was defeated and slain. His heroic princess burned herself on his funeral pile. Muhammad of Ghor having occupied Dehli, pressed on to Ajmir, and in 1194 overthrew the rival Hindu monarch of Kanauj, whose body was identified on the field of battle by his false teeth. The brave Râhtor Rajput's of Kanauj, with other of the Rajput clans in Northern India, quitted their homes in large bodies rather than submit to the stranger. They migrated to the regions bordering on the eastern desert of the Indus, and there founded the military kingdoms which bear their name, Rajputana, to this day. Since then Dehli was burned by Timur, 1398; occupied by Baber, 1526; sacked by Nadir, 1739; taken by Maharrattas, 1758; taken by British, 12th September 1803; and again recovered by British, 20th September 1857.

Dehli town in 1868 had a population of 154,417. Dehli district population, in an area of 1274 square miles, comprised Hindus, 438,886; Mahomedans, 130,645; Sikhs, 560; and others, 38,739, the total population being 608,850. Jats number 107,856, of remarkably industrious habits, agricultural skill, and promptitude in the payment of revenue. North of Dehli the greater part of the land is in their possession, though they often share their villages with Brahman coparceners. Gujars (22,164) are pastoral and semi-nomade, in the hilly plateau of the south. They are addicted to cattle-lifting and thieving. The other tribes comprise 14,109 Ahirs, 10,677 Rajputs, 10,776 Puthans, and 8892 Sayyas. Akbar and Jahangir usually resided at Agra, Lahore, or Ajmir; and Dehli again languished in disfavour, till the reign of Shah Jahan. This emperor rebuilt the city in its present form, surrounding it with the existing fortifications, and adding the title of Shah-jahanabad, from his own name. He also built the Jama Masjid, and reopened the Western Jumna Canal. Dehli is still enclosed on three sides by the lofty wall of solid stone, constructed by the emperor Shah Jahan, and subsequently strengthened by the British, at the beginning of the 19th century, with a ditch and glacis. The eastern side, where the city extends to the river bank, has no wall, but the high bank is faced with masonry. There are many architectural remains. In Purana Killa is the Keelar Kona mosque, which was commenced by Humayun, and finished by Sher Shah. It has five horseshoe arches, decorated with blue tiles and mosaic. Some of them have been noticed under architecture.

The Palace of Shah Jahan—now the fort—measures 1600 feet east and west by 3200 north and south, exclusive of the gateways. Diwan-i-Khas, or Private Audience Hall (the most ornamented of all Shah Jahan's buildings), overhangs the river; nothing can exceed the delicacy of its inlaid work or the poetry of its design. A little to the south of the Chandni Chauk is the Jama Masjid, standing out boldly from a small rocky rising ground. It was built by Shah Jahan between the fourth and tenth years of his reign, and is one of the finest buildings of its kind in India.
The Kahl Masjid, supposed to have been built by one of the early Afghan sovereigns, and the mosque of Ioshan-ud-Daula, merit notice.

To the west, beyond the walls, is a little chapel in honour of a Muslim saint, Nizam-ud-Din, near whose shrine members of the late imperial family, up to the time of the mutiny, were buried, each in his own little enclosure, surrounded by very elegant lattice-work of white marble.

Iron Pillar.—The earliest authentic information regarding the city is derived from the iron pillar of Raja Dhava, set up in the 3d or 4th century B.C. (519). It consists of a solid shaft of metal, 16 inches in diameter, and about 50 feet in length, but less than half its height appears above the ground. A Sanskrit inscription, deeply cut on its western face, records the story of its origin. Mr. James Prinsep, the first decipherer of the legend, found that it commemorated the prowess of Raja Dhava, who obtained with his own arm an undivided sovereignty on the earth for a long period; while the letters appear to be 'the typical cuts inflicted on his enemies by his sword, writing his immortal fame.' It is the arm of fame (Kirti Bhusha) of Raja Dhava. There is another inscription on it, which has given rise to a tradition that attributes the erection of the pillar to Anang Pal, founder of the Tuar dynasty in the 5th century A.D. Anang Pal II. made Dehli the Tuar metropolis, surrounding it with a massive line of fortifications, whose ruins are still believed to exist in the great circle of a masonry lying around the Kutub Minar. The date of this restoration has been preserved by a second inscription cut into the more ancient pillar of Raja Dhava: In Sambat 1109 (1052 A.D.), 'Anang Pal peopled Dehli.' Just a century later, under the reign of a third Anang Pal, last of the Tuar line, Dehli fell before Visaldeva or Bisaldeo, Chauhan ruler of Ajmir. The conqueror permitted the vanquished raja to retain possession as a vassal; and from a marriage between the two houses sprang the celebrated Prithi-raj, the last champion of Hindu independence in Upper India, who thus succeeded to the joint realms of the Tuars and the Chauhans. Prithi-raj further strengthened the defences of the city by an exterior wall, which ran round the fortifications of Anang Pal, and of which remains may still be traced for a considerable distance. In 1191, Shahab-ud-Din made his first invasion of Upper India. As above mentioned, the Rajput ruler Prithi-raj successfully defended his kingdom for the time; but two years later the Mahomedan invaders returned, utterly overthrew the Hindus in a great battle, and put their prince to death in cold blood. Kutub-ud-Din, the Sultan's viceroy, attacked and took Dehli, which became thenceforward the Mahomedan capital. On the death of Shahab-ud-Din in 1206, the viceroy became an independent sovereign, and founder of the Slave dynasty, to whom old Delhi owes most of its greatest ruins.

Kutub-ud-Din's Mosque, according to the inscription on its entrance archway, commenced immediately after the capture of the city in 1193. It was completed in three years, and enlarged during the reign of Altamash, son-in-law of the founder. Eleven magnificent arches close its western façade, Mahomedan in outline and design, but carried out in detail by Hindu workmen, as the intricate lasework which covers every portion of the arcade sufficiently bears witness. Ibn Batuta, who saw the mosque about 150 years after its erection, describes it as unequalled either for beauty or extent.

The Kutub Minar, another celebrated monument of the great Slave king, stands in the S.E. corner of the outer courtyard. It rises to a height of 238 feet 1 inch, tapering gracefully from a diameter of 47 feet at the base to nearly 9 feet at the summit. The shaft consists of five stories, enclosing a spiral stair-case, and is crowned by a now broken cupola, which fell during an earthquake in 1803. The original purpose of the minaret was doubtless as a mausoleum's tower, whence the Assan summons to prayer might be heard throughout the whole city. The site chosen for the mosque was that already occupied by Raja Dhava's pillar, which forms the central monument of the inner courtyard. Around, in every direction, spreads a heap of splendid ruins, the most striking of which is the unfinished minaret of Ala-ud-Din, commenced in 1311. The Slave dynasty retained the sovereignty till 1288, when Jalal-ud-Din founded a new line.

Firoz Shah Tughlaq removed the site of Delhi to a new town, Firozabad, which appears to have occupied the ground between the tomb of Humayun and the ridge. Amid the ruins of this prince's palace, just outside the modern south gate, stands one of Asoka's pillars, erected in the 3d century B.C. This monolith, 42 feet in height, known as Firoz Shah's lathi or club, contains a Pali inscription, which was deciphered by Mr. James Prinsep. It is supposed to have been brought from Shrughna, in A.D. 1556, by Firoz Shah on a truck to Khirzabad, and thence, by water to Dehli, then called Firozabad, and set up in the courtyard of the palace of Firoz. Its head is now bare; but so late as A.D. 1611, when William Finch was there, it had a golden pinnacle, which gave it the name of Minar-i-Zamin, or golden minaret. It is a single shaft of pale-pink sandstone, and, like all Asoka's pillars, is 42 feet 7 inches high, of which the upper 35 feet are very highly polished.

In 1526, Baber, the sixth in descent from Timur, was the founder of the dynasty which lasted till 1567. He marched into India with a small force, overthrew Ibrahim Lodi, the last Afghan ruler, at Panipat, and entered Dehli in May of the same year. His son for a time was driven from India, but in 1555 Humayun regained his throne. He died within six months of his restoration. His tomb forms one of the most striking architectural monuments in the neighbourhood. Its white marble dome is a conspicuous object for miles around. It cost fifteen lakhs of rupees, and was erected by his widow, Hamida Banu, who is also interred near.

Bhoot Khan近距离。—In Prithi-raj's capital were twenty-seven Hindu temples, of which several hundreds of richly-carved pillars still remain, to attest both the taste and the wealth of the last Hindu rulers of Delhi. The Bhoot Khan is a colonnaded courtyard, the materials of which were obtained from the demolition of the Hindu temples.

The Alai Durawaz, built by Ala-ud-Din, A.H. 710, A.D. 1310, is a beautiful specimen of Pathan architecture.

Roushan Charagh, built by Firoz Shah as a shrine to the memory of a famous saint, is at the S.W. corner of Siri or Shabpur.
DEHRA.

The fortifications of Tughlaqabad form a stupendous structure.

The Shalimar gardens were made by the emperor Shah Jahan at a cost of a krur of rupees. The Zinat Masjid, called also the Kunna Masjid, was built by Zinat-un-Nissa, the spinster daughter of Aurangzeb.—Imp. Gaz. See Architecture.

DEHLA, a small town in the N.W. Provinces of British India, in lat. 30° 19' 29" N., long. 78° 5' 57" E., 2300 feet above the sea, with 7316 inhabitants. It is the principal station of the Dehra Doon revenue district, of 1091 sq. miles, with 116,945 inhabitants. The district consists of the double valley of Dehra proper, and the outlying mountain tract of Jaunsar Bawar. To the S. are the Siwalk Hills, a mass of Himalayan debris. It is cut off from the Doab of the Ganges and Jamna by the Siwalk Hills. It has been largely occupied with tea plantations, and many Europeans reside in the town of Dehra. Dehra seems a corruption of Darrah or Tarai, a valley, or, amongst the Maharrat, Therrhi, as Bhuna therrhi, seen therrhi. The Ganges, passing between this district and Garhwal, pours rapidly over beds of boulder, through several channels, encircling jungle-clad islets, and debouches at length upon the plains of Hardwar. The Jamna sweeps round the whole south-western boundary, and reaches the level uplands near Baidhah Mahal, in Saharanpur district, an ancient hunting seat of the Dehil emperors. The Brahmanas (10,279) and Rajputs (33,125) are each divided into the mountain and the lowland clans. The hillland Brahmanas will eat any kind of meat except beef.

The Mehra race inhabit the remoter portions of the eastern Doon, inferior both in physique and intelligence, and timidly averse to intercourse with strangers. The Dorn or Bhuma have dingy black skins and woolly hair; they form the servile class, only just emancipated from actual slavery under the rule.

DEHLA GHAZI KHAN, a town and a district in the Dehraghat division of the Panjab. The town is on a low alluvial tract, 4 miles from the right or west bank of the Indus, in lat. 30° 3' 47" N., and long. 70° 49' 8" E. It commands important routes and the navigation of the Indus. It leads to the commercial towns of Multan and Bahawulpur, which adjoin it, and is about equidistant from Amritsar and the opulent town of Shikarpur in Sind. The district has an area of 4740 square miles, and in 1868 had 308,840 inhabitants, viz. 38,467 Hindus, 264,527 Mahomedans, and 1124 Sikhs. The plain tribes are the Kootkani, Lund, and Dreshuk, all of them well conducted. Their lands are classed as Pachad, or lands irrigated by hill streams, and Sind, or lands within the influence of the river. The latter class has enormously increased. The soil is a tenacious clay, fertile if well irrigated, but almost entirely sterile if without water. The canals have been greatly extended, partly by the chiefs of the Baluch clans, and partly by the Government. The geographical boundary between the Pathan and Baluch races in the hills nearly corresponds with the northern limit of the district, and it naturally follows that the Baluchis are more numerous in Dehra Ghazi Khan than in any other portion of the Panjab. Each clan owes allegiance to a feudatory chief or tundar.

DEHLA ISMAIL KHAN, a town and a revenue district in the Dehraghat division of the Panjab, the town being built on the right or west bank of the Indus, in lat. 31° 50' N., and long. 70° 55' 44" E. In 1868 the town had 24,906 inhabitants, a third part Hindus. The population of the district in 1868 was 394,864 souls,—338,387 Musalmans, 48,756 Hindus, 1587 Sikhs, and 6134 others. Amongst the Hindus, the Arora numbered 42,087; they comprise the principal trading classes, a few wealthy families being found in the larger towns, the majority being petty dealers in corn or money throughout the country villages. Dehra Ismail Khan is the market town of the Lohani merchants. It is subject to alteration from the inundations of the river, which on one occasion swept away the entire town. It is nearer to the great commercial city of Amritsar than any of the other places on the Indus, and lies on the road between it and Kabul. It is one of the eligible commercial sites on the Indus. It yields iron, coal, and sulphar.

—Bengal As. Trans. vii. 259; P. of E. of India (Cabl and Afghanistan); Imp. Gaz.

DEHRJAT, a revenue division of the Panjab, lying between lat. 28° 27' and 33° 15' N., and long. 69° 35' and 72° 2' E.; area, 15,007 square miles, and population 991,251 in 1868. It comprises the districts of Dehra Ghazi Khan, Dehra Ismail Khan, and Bunnun. It is on the right bank of the Indus, below the Salt Range, and to the point where that river is joined by the waters of the Panjab. It comprises about two-thirds of the narrow strip of land which lies between the Indus and the Sulman mountains, and extends from the hills and valleys of the Kohat district to the Sind frontier. The lower part bears the local name of Sind from bordering on the Indus, and the upper that of Daman, or skirt, from its bordering on the Sulman mountains. The country is flat and in many places fertile, but to the westward of the river there are no wells. A fringe of cultivation and jungle extends along the bank of the great river, and terraces, as you advance into the interior, in a flat desert country, where a precarious supply of water from the hills affords a poor cultivation in the vicinity of the thinly scattered villages. The Tank chief is a Pathan of good family. The nawab of Dehra Ismail Khan belongs to the formerly Sadozai race. South of Dehra Ismail Khan lies the large tract of Dehra Ghazi Khan, which extends as far west as the mountains and along the Indus to Sind. Its principal chiefs usually behaved well, even at times when their brethren of the hills were in a state of hostility against British subjects. The plain tribes are the Nutkan, Lund, and Dreshuk; all of them well conducted; they had a certain number of fighting men, but they were long victimized by the Bozdar and Gureghan.

The Dehra Ghazi Khan district has the Dreshuk and Maziari. Adjoining the frontier of Dehra Ghazi Khan district are the Khurtran, Kasa, Laghari, Gureghan, Murri, and Bugti. Dehra Ismail Khan district, Bunnunesh, Murwali, Butani chiefs of Tank, chiefs of Kohlae, chiefs of Dehra Ismail Khan, Notkani, Lund.

Adjoining frontier of Dehra Ismail Khan district are Sioeonani, Osterani, Kusranii, Bozdar.

Adjoining frontier of Kohat district, Buozati, Sipah, Orakzai, Zymoosith Afghans, Turi.

Adjoining frontier of Kohat and Dehra Ismail Khan district, Waziri.

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The tribes, from north to south, of the Dehrajat frontier come in the following order:—

Pathan tribes—Balouchi—Kusrani. 
Utmanzai, \[\ldots\] Boddar. 
Mahrud, \[\ldots\] Laglihari. 
Usternah.

—Papers, East India (Calcut and Afghanistan), 1859; Elphinston's Cambal; The Deراجat, or Hist. of the Panjab; Aitchson's Treaties.

DEHWAL, in Central Oudh, a village official who performs some duties for the cultivators. He also sets up the holi, a stem of the castor-oil plant, and five pieces of cow-dung fuel, on the Baktan Panchani.

DEHWAL, Pers. A village, a farmer. The Tajak race on the northern borders of Afghanistan are called Dehgan. The Dehwar residing with the Babi, at Kalat, are supposed to be descendants of Tajak from Bakh. They are an agricultural, hard-working, poor people, who dwell in villages, and do not migrate. Their language is nearly pure Persian.—Dr. Cooke in Bo. Med. Trans., 1860.

DEHWAL, also written Dewar and Dechwar, in Northern India, the village deity, the deity under whose care the village is placed; the genius loci, to whom, at each harvest, a portion of grain is set apart. The corresponding term in the north-west is Thanapati, the lord of the place; in Bundelkhand, Gran deota or Gran-deva. In Saugor the deity is styled Miroya, from the fact of his being the guardian of boundaries. The Dehwar is also very commonly, and even where these local names prevail, styled Bhoomia, from Bhoom, land. The occupation of the Dehwar is very much like that of the Roman Lareus rurales, 'qui compita servavit,' Et vigilant nostra semper in urbe Larese.

The Dehwar deities have various local names, such as Kutesuree, Burnaiuch, Humwut, Bhoon Sen, Chunwar, Cashenath, Munsa Ram, Humdour, Rutnou, Huree Ram, Jakhrhound Esoor, Kall Sen, Bisharce; oftentimes they are the spirits of good men, of Brahmins or village heroes, but who, when they become objects of worship, come to be generally considered very malicious devils; and oftimes they are nothing but mere epithets of the Dii majores. In some places their images are of male, in others of female, figures. In many places the villagers, for fear of misrepresenting their Gramma deota, erect a stone without form or feature, like the si Deo si Deo of the Romans, which ambiguous expression was addresssed to their tutelary gods, to obviate all chance of mistake. The worship of these village gods is fixed to no stated day. In some places it occurs on the 14th of every month; in others, on the full moon of Cheet; at others, on the full moon of Katik, and so on. The unslipped stone or log of wood is a common form of the village deity of the Peninsula, but Hanuman is a frequent form between the Nerbadda and the Khas rivers; and to the south is the Aai, the Amun or Ama, or some defined hero, or a shapeless stone from the bed of a river. These Dehwar or Gramma deota are ante-Brahmanical; and with respect to the gods of the south of India there are many circumstances of their worship which are not of Hindu origin.—Elliot, quoting Bombay Literary Trans-
spurs from the western range attain to 6000 and 8000 feet above the level of the sea. The Western Ghats, on the side next the sea, at places sink precipitously to the level belt below. The Eastern Ghats do not fall so abruptly; but both ranges are covered with thick forests, through which a few passes lead from the coasts into the interior of the country, which is upraised by the mountains into table-lands from 1200 to 3000 feet above the sea, the general declivity of the land being from west to east. The Bombay and Madras armies are distributed over the Dekhan and branch out to adjoining provinces. Thus the Bombay Presidency has its troops in Gujerat, Cutch, and Sind on the north-west of the Peninsula; and the Madras troops hold British Burra, Mysore, Travanore, and Cochin. Though Dekhan signifies the south, as Poorub does the east, when applied to Bengal and its dependencies, at the present day the term is generally restricted to the Hyderabad and Dowlatabad provinces lying between Berar and the Kistna, and from the Syhadri or Western Ghats eastwards to Telingana. The Hindus and British in Northern India, however, make the Dekhan more extensive, and regard it as including all the southern table-land, supported as it were by a triangle formed by the Satpura or sub-Vindhya on the N., the Syaduri or Western Ghats on the west, and the Eastern Ghats on the east, the Satpura range constituting the base of the triangle. The length from the Satpura range to Salem, and breadth from Mahableshwar to Siruga, are about 80 miles. At Nagpur, its southern extremity, it is said to be 200 miles in breadth, and its length is estimated as far as Ghatempur. It is generally supposed that the Dekhan may be said to extend nearly 250 miles further in a N.E. direction, or about 950 miles in all. Its highest parts are those nearest the Western Ghats, and in the centre of Mysore. Mahableshwar, in lat. 18° N., and long. 76° 30' E., is 4700 feet; the source of Kistna, 4500 feet; source of Godavery, 3000 feet; Poona, 1823 feet; source of Manjena, 3019 feet; and the rivers rising in ravines between spurs of the Western Ghats, wind their way through Eastern Ghats across the Dekhan, the slope being in that direction. The plains of Nagpur, 1000 feet, slope to S.E., drained by Wain-Ganga, which falls into the Godavery. Hyderabad is 1800 feet; Secunderabad, in lat. 17° 26' N., lat. 78° 33' E., is 1837 feet. Beider, in lat. 17° 58' N., long. 77° 36' E., is 2550 feet. From the Wain-Ganga the surface rises towards N.E., where Ryipur, lat 21° 13' N., long. 81° 40' E., is 1747 feet; source of the Mul, 2111 feet. UmbDITION.-Mineral, in Mysore, 4806 feet, slope from hence on all sides, to Bangalore, 3000 feet; to plains of Carnatic-Chitooor, 1100 feet; to plains of Gooty, 1182 feet; and those of Bellary, 1600 feet; Gooty plains, 1182 feet; Cuddapah town, 507 feet; and E. part of Cuddapah district, 450 feet.

A great outburst of greenstone or trap rock covers all Berar from the Nerbadda to Bombay, and southwards through Nirmul to Naldurg; between Naldurg and Beider, and for 100 miles north and south of Beider, are great hills of laterite. The area covered by trap in the Peninsula of India can be little less than 200,000 square miles. Except the hollow of the Lonar lake, there is no trace of any crater in this volcanic region: 20 miles to the east of Nirmul, and a few miles south of the mountains, hornblende slate occurs, resting on granite and quartz rock. The countries through which the Ghatpar and the Malparha run, and the lower course of the Kistna, Bihma, and Tumbudra, and all about Kallalgi, Kurnool, and Cuddapah, are formed of strata of limestone and clay-slate. The granitic platform of the Dekhan, which intervenes between the Kistna and the Godavery, is intersected by numerous greenstone dykes, sometimes porphyritic, having for the greater part a direction from E. to W. The inhabitants of this great table-land region are relations both of Gondi, Mahtrati, Telugu, and Cunaresi, and of Gondi, Mahtrati, and Cunaresi, and from Gondi, Mahtrati, and Cunaresi, and for that reason, the Godavery is formed of strata of limestone and clay-slate. The granitic platform of the Dekhan, which intervenes between the Kistna and the Godavery, is intersected by numerous greenstone dykes, sometimes porphyritic, having for the greater part a direction from E. to W. The inhabitants of this great table-land region are relations both of Gondi, Mahtrati, Telugu, and Cunaresi, and from Gondi, Mahtrati, and Cunaresi, and for that reason, the Godavery is formed of strata of limestone and clay-slate. The granitic platform of the Dekhan, which intervenes between the Kistna and the Godavery, is intersected by numerous greenstone dykes, sometimes porphyritic, having for the greater part a direction from E. to W. The inhabitants of this great table-land region are relations both of Gondi, Mahtrati, Telugu, and Cunaresi, and from Gondi, Mahtrati, and Cunaresi, and for that reason, the Godavery is formed of strata of limestone and clay-slate.
the most devoutly worshipped relic of their religion which is possessed by the Buddhist nations of the East. Long before the Christian era, it was adored by the Buddhist sovereigns of Orissa, and was originally deposited in the great temple of Jagannath, then a Buddhist foundation. Its first deposition in Ceylon was in the 4th century A.D. The Buddhists of Ceylon have a tradition that whoever can succeed in retaining it must of necessity become the sovereign of the country. The Chinese traveller, Fa Hian, mentions amongst the precious relics worshipped in the 5th century by the Buddhists of Ladakh, a vase in which Buddha had spat, and one of his teeth; another tooth was similarly cherished by the king of Naka, in Afghanistan, eastward of Ghazni. In an adjoining monastery the monks preserved the cuttings of his hair and nails. Fa Hian also describes a shadow of Buddha, which was shown to him at Naka, but admits his inability to describe the process of its preservation.—Tennent's Ceylon, p. 239. See Buddha.

DELAI LAMA. Lives in the Boudhha La monastery outside of Lhasa, and is believed to be the living incarnation of the deity. But there are four or five subordinate incarnations in different parts of Tibet and Mongolia, objects of worship in the places where they reside, and by particular sects of Buddhists. In the centre of the Boudhha La is a building of four storeys, crowned by a dome covered entirely with sheets of gold.—Perry's, p. 312.

DE L'HOSTE, CAPTAIN, an officer of the Bombay army, author of Memoirs on Scinde; On the Nerbudda River; Journal of a March from Ahmadabad to Sukkur, Upper Scinde; Notes on the Meteorology of the Phooma Ghaut.—Dr. Baw's Cat.; Rom. Geo. Trans. i. p. 22.

DELMAR HEBECEARPA, a creeper of Penang and Java. D. Sarmontosa,ليم., a shrub with small white flowers in panicles; grows in the southern parts of Ceylon up to an elevation of 1000 feet.—Thuc. p. 21; Riddell; Voigt.

DELM, also called Buya, a family who over-threw the Samani. They were from the district of Mardeneram, in which their founder was a fisherman. They seized the western part of Persia, seized on Baghdad and the person of the khilif, and ruled (a.d. 932-1055, A.H. 321-448) for 100 years over an extensive territory in his name. The Amir Azan, Delmi, built the dam called Band-i-Amir, the Bendamir of Europeans.—Elph. p. 272. See Bendamir.

DELPHINIDÆ, a family of mammals of the order Cetacea, or the whale tribe, which live in the ocean. Amongst them are the whales, the largest of creatures now existing; also the dolphins, the porpoises, and the dugong. They have fin-like anterior extremities, the posterior extremities being absent, or rather their place supplied by a large horizontal caudal fin or tail. They have no hair on their skin, have no outer ear, and the bones of the neck are so compressed as to cavel the animal without the appearance of a neck. Some of them eat plants, or are phytophagous; some are zoophagous, or animal-eaters. Seven species of cetacean have been described from the Bay of Bengal, six of the family Delphinidæ, the seventh belonging to the sperm whales, Physeteridae, and called Physeter (Euphysetes) simus. The family Delphinidæ, or porpoises, has 5 genera and 14 species, viz. Delphinus, 8 species; Steno, 2 species; Neomeris, 1 species; Platanista, 2 species; and Globiocephalus, 1 species. The family Baleenidæ, or whales, has 4 genera and 7 species, viz. Balaenoptera, 1 species; Balaen, 4 species; Physeter, 1 species; and Phocoena, 1 species. Sub-order Sireniæ, herbivorous Cetacea, has 1 genus, Halicore, and 3 species.

DELPHINE. Neomeris phocoenoides, Gray, Delphinus melas, Term. A dolphin of the Indian Ocean.

Phocoena communis, Ph. Rondeletii, Willoughby, Delphinus phocoena, Linn. Common porpoise.

Platanista gangetica, Schlegel, Sakam Kusira, Japan. Found off the coast of Japan.

G. Sieboldii, Naiso gata, Japan. A native of the coasts of Japan.

G. macrocephalus, black fish of the South Sea whales, inhabits the S. Seas.

Delphinapterus Peronii, right whale porpoise of whalemen. Is found on the Brazil bank, off the coasts of New Guinea, and the higher southern latitudes. It lives in large shoals, and its flesh is esteemed a delicacy. It is black, but the back, the pectoral fins, and under part of the body are white.

Delphinus.—Seafaring people call the species of this genus bottle-nose, bottle-head, flounder-head, gunnel, or rough-bill, and give to the species, irrespective of whether they are whale-eaters or not, the generic name of Delphinus, and give the name of dolphin to the Coryphena, a scoteroid fish which changes colour when dying. There are several species of Delphinus recognised.

D. delphis. The dolphin attains a length of 9 to 10 feet. Greek legends make it the friend and companion of man.

D. clausus, measures 25 feet in length, and is 12 or 13 feet round. It is the most voracious of all the Delphinæ.

D. Heavisidii, hastated dolphin, the South Sea and Cape of Good Hope.

D. obscurus, the dusky dolphin, inhabits the Southern Ocean and Cape of Good Hope.

D. abula, inhabits Madagascar.

D. cutropus, Pacific Ocean and Chili.

D. Nove Zelandiae, the New Zealand dolphin, New Zealand and Cape Gable.

D. Forsteri, Forster's dolphin, Pacific Ocean between New Zealand and Norfolk Island.

D. Sco, inhabits Madagascar.

D. longirostris, Cape dolphin, about the Cape of Good Hope and the Southern Ocean.

Steno Melanurus, Delphinus phocoena, Dusumier, Cat. Delphin; Delphinus melas, Lichtenreut. Cetacea. Parambun Laut, MALAY; Dolphin ventre roux de Paris Museum. Inhabits the Malabar coast and coasts of Penang. It is numerous, and rather lively in its movements, but is rarely captured, except by chance in the state-nets. It eats small fishes, Clupea and Gymnophis incolumis, Cuvier.

S. frontatus, inhabits the Indian Ocean and the Pacific.

Platanista Gangetica, Gray, Delphinus Shawensis, Bl.; Delphinus, Röth., Platanista of Pliny; Delphinus du Gange, F. Cuvier.; Sou-sou of India; Sussa of Buffon. Inhabits the Indian seas, the Ganges, and Irrawadi.

Haiicore Dugong, Trichechus dugong, Gould.; Dugongus dugong, McC.; Haicore Indian dugong, Exs.; Le dugong des Indes, Fr. Inhabits the shallow of the Indian Ocean and about Ceylon, where the water is not more than two or three fathoms deep. It does not appear to frequent the land or the fresh water. Its flesh is delicate. The dugong is noticed as occurring in Ceylon by the early Arab sailors, by Megasthenes (Fragm. lxxv.) and Alìan, and subsequently by the Portuguese. It is this creature which has given rise to the tales about mermaids, which have till the present day occupied the world, and doubtless had their origin in the tales of the Arab sailors. They are phytophagous, or plant-eaters.

H. Indicus, Orca, the Malay dugong, inhabits the narrow seas of the Eastern Archipelego.
DELPHINIUM.

H. tabernaculi, Kappell, the dagon of the Red Sea, has a feeble voice, and feeds on algae. It is about ten feet long. In February and March, bloody balles occur by the males. Its flesh, teeth, and skins are utilized.

H. australis, manate of Dampier, white-tailed manate of Pennant. It is a native of the west coast of Australia.

H. indica, F. Cuvier; Trachelium dagon, Erxleben; Halicore eetecus, Heger; Halicore dagon, Cuvier apud Bajella; Halicore tabernaculun, Kappell; Dugungus Marinus, Tiedemann apud Schinz.

Dugong of Bvlon. [Parapramn laut, Malay.]


Under these synonyms Dr. Theodore Cantor makes all the above, which he says inhabits the Red Sea, the seas of the Malay Peninsula, Singapore, Sumatra, the Philippine Islands, Maloucas, Sunda Islands, and New Holland. — Cat. Man. Mus.; E. I. C. Hartwig; English Cyclopedia, p. 913; Mr. Blyth in BENG. AS. SOC. Journ.; Tennant's Ceylon; Dr. Theodore Canton in BENG. AS. SOC. Journal of 11th December 1846.

DELPHINIUM, a genus of plants of the natural order Ranunculaceae, of which several species, D. ajacis, D. Brunonianum, D. consolida, D. glacieale, and D. Oliverianum, occur in India and the south of Asia.

Delphinium ajacis, Linn.

Larkspur, . . . Engr. [Na-fnrman, Na-fnrman, Hind.]

Is cultivated in gardens in India during the cold season. The properties of the seeds agree with those of the stavesacre kind.—O'Sh.

Delphinium Brunonianum, Cleg.

Musk plant, . . . Engr. [Na-fnrman, Nerpri, Panj.]

Grows in the Sutlej valley between Rampur and Singnamp, at an elevation of 14,000 feet. Smells powerfully of musk.—Cleghorn's Panj. Rep.

Delphinium glacieale, Hooker, of E. Nepal, is one of the most alpine plants in the world, growing at an elevation of 17,000 feet. It is abundant in the valley of the Chomiocho near Tungni, in Tibet, and exhales a rank smell of musk.—Hook.

Delphinium paniculorum, O'Sh.

Judwar, Hind, of Bombay, [Nirbiss of Himalaya.]

A tuberous root in Sirmoor, without poisonous properties. The best comes from Lahore.—O'Sh.

Delphinium staphisagria, L., the stavesacre or loosewort, a biennial plant, native of the Levant, Tenerife, and Asia Minor. The powder taken internally acts as a violent cathartic and emetic. It is made into an ointment used for destroying vermin in the hair. The seeds intoxicate fish.—O'Sh. p. 168.

DELPHIOS, a town in Greece where was an ancient oracle and place of worship. In a cave of the earth called Delphi, the word Delphi being synonymous with Yoni. See Delphi; Yavan.

DELCUDE.

Tutan, . . . ARAB., TCHE. [Diluvio, . . . IT., SP. Uberschwemmung, GER.]

The deluge of the Old Testament was known to the Chaldeans, the Aryan Hindus, the Parsees, the Hebrews, Christians, and Mahomedans. The last three religionsists have their account of it in the 6th to the 9th chapter of Genesis, in which it is related how the Almighty, in consequence of the wickedness of mankind, brought a flood of rain for forty days on the earth, and destroyed all but Noah, his wife, his sons, and their wives, with pairs of all animals.

The Chaldeo-Babylonian narrative of the event is recorded in the great epic poem of the town of Uruk, three copies of which were made for the royal library, in the 8th century B.C., by order of Assur-lani-pal, king of Assyria, from a very ancient copy of it in the sacerdotal library of the town of Uruk, seemingly of the time of Abraham.

The narrative follows with great exactness the same course as that of Genesis, which, in chapters vi. vii. viii. and ix., gives two different narratives. The cataclysm there noticed corresponds with the rising and overflow of the Tigris and Euphrates, from the middle of March to the end of May, and 26 days later the Jehovah makes Noah leave the ark.

Berosus, who had access to Babylonian records, says a god appeared to Xisuthros in a dream, prophesied a flood, and bequeathed to the city for ever sacred records in the City of the Sun at Sippurn. The flood came, Xisuthros released birds to ascertain the state of the country, the occupants disembarked, and recovered the interred records.

The account which the Hindus have of the deluge is described in the Satapatha Brahmana of the Rig Veda, also with variations in the Mahabharata, in the Bhagavata Purana, in the Agni Purana, and in the Matsya Purana. The first of these does not indicate who was the person saved; the Mahabharata indicates Brahman, and the Puranas, Vishnu. The first of the Hindu accounts of this is found in the Satapatha Brahmana.

In it the 7th Meni Vaivasvata one morning caught a fish, which told him of the coming flood, and, on the advice of the fish, he built a ship, which he attached to the horn of the fish, sailed over the northern mountain, and attached it to a tree till the waters subsided, who found all living things destroyed.

The essence of the extract from the Agni Purana is this:—When ocean quitted his bounds and caused universal destruction by Brahman's command, Vaivasvata Meni (Noah), who dwelt near the Himalaya mountains, was giving water to the gods in the Kritula river, when a small fish fell into his hand. A voice commanded him to preserve it. The fish expanded to an enormous size. Meni, with his sons and their wives, and the sages, with the seed of every living thing, entered into a vessel, which was fastened to a horn on the head of the fish, and thus they were preserved. In this fable the grand northern chain is given as that to which the abode of the great patriarch of mankind approximated.

In the Puranas it is not Meni Vaivasvata, the 7th Meni, whom the divine fish saves from the deluge, but Satyavata, the king of the Dasya, the man who loves justice and truth. The Bhagavata Purana says, In seven days said Vishnu to Satyavata, 'tomorrow the worlds shall be submerged.' The West Indians, now represented by the Parsees, had a knowledge of a deluge, in which Yima, the father of the human race, was warned by Ahuramazda to hedge in a square garden (yarn), and cause the gerns of men, beasts, and plants to enter it, in order to escape annihilation.

The Greeks had two legends as to deluges, one connected with Ogyges, king of Boeotia, the other the Thessalian legend of Deucalion, who, by the advice of Prometheus, built a coffin, which, floated at the mercy of the waves, and after ten days stranded on Mount Parransus. The former seems connected with a rise of the lake Cupas; the latter seems to relate to the whole earth.
The great inundation recorded in the historic books of China, as having occurred B.C. 2357, in the reign of the emperor Yao, seems to have been occasioned by a rise of the Hoang-ho, a local event long subsequent to the fully historic periods of Egypt and Babylon. The date of the completion of the works undertaken by the minister Yu, to repair the damage done by this flood, lies between B.C. 2278 and 2062.

DEMAVAND, in lat. 35° 50' N., long. 52° E., a lofty peak on the Elburz range, between Irak Ajuni and Mazandaran. A high road leads from Teheran by the town of Demavand to Ask, the capital of the district of Lurijan. The hot baths of Demavand are situated in this locality, at Garn-sair, near Garn-ab. They are two in number: one, the tepid bath, is situated within 100 yards of the town of Ask, on the right bank of the river. It rises in an oval basin, measuring about 20 feet by 20, and about 3 feet in depth, formed by deposit from the spring, which gushes up with great force in the centre of the basin, together with a considerable amount of gas. The water contains sulphur, iron, soda, and magnesia. The other spring, which is situated about two miles further down the valley, and on the mountain of Demavand, is so intensely hot (148°), that the water has to be conducted through canals for some distance before it is collected in an artificial basin, in which the patients bathe. This water contains magnesia, iron, and sulphur in much larger proportions. Near Ask there is also a spring of cold water, strongly impregnated with iron. From Ask a road leads down to the town of Amill, but it is extremely dangerous, lives being lost annually from mules and their riders falling over the precipice, along the face of which it runs. Demavand bears N. 69° E. of Teheran, about 40 miles distant, and its pale lofty summit forms a magnificent pyramid as it shoots up from the high range of Elburz. The cone of Demavand is doubtless of volcanic origin, and consists of a number of ridges, which run from the summit to the base, leaving between them deep ravines filled in general with snow and ice, beneath which lies a mass of debris fallen from the upper part of the mountain. The height of the mountain is 21,520 feet. The cone terminates in a crater about 85 yards in diameter, which is nearly surrounded by jagged rocks. — Chesney, p. 15; MacGregor.

DEMETRIUS. Greek kings, successors of Alexander, rulers in Syria; there were three of this name:—Demetrias I., surnamed Soter, B.C. 162; Demetrias II., surnamed Nicator, B.C. 147; Demetrias III., surnamed Eucerus, B.C. 94.

DEMACRITUS, of Abdera, B.C. 360. Praised by the Mahomedans as a sage, but as his doctrine of atoms was contrary to their religious views, he was deified and worshipped as a deity, in addition to the worship of Shari, or the demon-god of the Aryan races. Amongst the evils genii of all India is a being or beings called Rakshasa, of giant bulk, terrible teeth, who feast on dead bodies; and the Rakshasa is recognised by Aryan and non-Aryan. The bhooth acknowledged all over India, more resembles the ghost of Europe. The Rev. Dr. Caldwell, in his work on the devil-worship of the Shanar, has shown how continuously the people of India are making new deities or demons. On the left bank of the stream, at the village of Assaye, at which Sinha's artillery was posted during that battle, is a tree beneath which is the tomb of an officer who fell during the battle, and his spirit is punctually worshipped by all the people of the neighbourhood. Sir Battle Frere found an order in existence at Government House, Dapoorie, handed down by each non-commissioned officer, for the native sentry on guard, to present arms if a cat or dog, jackal or goat, entered or left the house or crossed near his beat during certain hours of the night, because it was a ghost of a former governor, who was still remembered as one of the best and kindest of rulers. The raja of Wanparty, one of that Reddi race who have founded small principalities along the banks of the Kistna river, died in 1868 at Hyderabad. He had led a turbulent life, and retained to the last much of the spirit of his youth. At the close of that year an outbreak of cholera occurred in that neighbourhood, which the people attributed to the spirit of Wanparty, and they made a clay image of him, riding on an elephant, and placed near him the clay image of a Brinjari, and worshipped all with the Mahabali sacrifice. In India, the Jan, the Gin of the Arabian Nights, is only known amongst the Mahomedans. In Sind, the Jan resembles the Pweeca, or Pack of Britain; the Jan of the Baluch hills is wayward and often morose, but not necessarily malignant. He is described as dwarfish, with large eyes, and covered with long hairs, and often changes to the form of a camel, goat, or other animal. On meeting a Jan, it is essential not to be alarmed, to use civil language. The Jan can become the servant of man, and work hard. The deep-rooted belief in devils and in demoniacal possession was proved by the mortuary statistics of India, the year 1866, from which it appears that in 3463 cases, the relatives of the deceased would assign no other causes of death than witchcrafts, evil spirits, and devils.

In Ceylon is a class of demigods, who, under the name of Yakshyo, are supposed to inhabit the waters, and dwell on the sides of Mount Meru, and who are distinguished not only for gentleness and benevolence, but even by a veneration for Buddha, who, in one of his earlier transmigrations, was himself born under the form of a Yakshyo. The Yakka, malevolent spirits of Ceylon, are the authors of indefinite evil; and the Singhalese have a demon or Same for each form of disease, who is supposed to be its direct agent and influenter, and who is
accordingly invoked for its removal; and others, who delight in the miseries of mankind, are to be propitiated before the arrival of any event over which their pernicious influence might otherwise prevail. Hence, on every domestic occurrence, as well as in every domestic calamity, the services of the Kattadia or devil-priests are sought, and their ceremonies performed, generally with observances so barbarous as to be the most revolting evidence still extant of the uncivilised habits of the Singhalese. Especially in cases of sickness and danger the assistance of the evil-omened is more or less relied on. An altar, decorated with garlands, is erected within sight of the patient, and on this an animal, frequently a cock, is to be sacrificed for his recovery. Another kind of demon-worship in Ceylon is a debased form of Hinduism, where the priest or Kapa is the performer.

Mr. Forbes, in the Ras Mala (p. 378), says the bhoot and pret of Gujarat are believed to reside in the place where funeral piles are erected, in trees which are not used for sacrificial purposes, such as the tamarind and the acacia, in desert places, at the spot where a death has occurred, or at cross-roads,—for which reason people set at these places food for the use of the bhoot. He is most at a loss for water to drink. The pipe of his throat is, it is said, the size of the eye of a needle, and he is continually thirsty enough to drink twelve gallons of water. The watchmen of Wuroon Dee, however, are stationed wherever there is water, to prevent the bhoot from drinking, and the thirst is therefore as continual as it is intense. The bhoot feed upon all kinds of refuse. The goblin of the best class,—he, that is to say, whose funeral ceremonies have been duly performed, but who has been debarred from liberation by his own intense affection for earthly objects—is called a ‘Poorwuj Dee,’ and resides in his own house or in a sacred fig-tree. The Poorwuj Dee, like the Etruscan Lur, or the Grecian hero, is regarded as hovering about his former abode, averting dangers from the inhabitants, and bestowing blessings upon them. He frequently appears in the character of a serpent, and is then treated with great respect by the inmates of the house near which he resides. It is a common belief in Gujarat that serpents are always to be found wherever a hoard is buried, and that these are the bhoot of the deceased owners, who have remained upon earth from affection to their wealth. The Arabian Jin also frequents cross-roads; and the fairies of the Scottish lowlands carry bows made of the ribs of a man buried where three lairds’ lands meet, as in A Midsummer Night’s Dream (Act iii. sec. 2).

‘Damn’d spirits all,
That in cross-ways and floods have burial.’

‘Desert places’ in Gujarat correspond exactly with the ‘dry places’ (κατανεκρό τόπος), assigned to the evil spirits in Matthew xii. 43, Luke xi. 24. The custom of placing food for spirits is very general throughout the world. In the dialogue of Dives and Pauper, printed by Richard Pynson in 1493, among the superstitions then in use at the beginning of the year, the following is mentioned: ‘Alas that take heed to dynamal days, or use eye-observances in the new moon, or in the new yeare, as setting of mete or dryneke by nighte on the benche to fede alhole or gobelyn.’ The powers which the bhoot and pret exercise are the following: They take possession of a corpse, and speak through its mouth; they exhibit themselves in the form which they possessed when living; they enter into a living man, and cause him to speak as they please; sometimes they afflict him with fever or various other diseases; sometimes they assume the forms of animals, and frighten people by suddenly vanishing in a flash of fire; sometimes, remaining invisible, they speak in whispers. A bhoot has been known to come to fictitious with a man, and guide him thus away from home and set him down in a distant place. It is even said that women are sometimes found with child by bhoots.

The Jain Sthaviras teach a different doctrine in regard to spirits from that which is taught by the Puranas. They assert that there are eight kinds of Vyuntur Dee, and eight of Wan-Vyuntur Dee, who reside below the earth. Each of these has two Indra, or sovereigns, ruling respectively the northern and southern regions, and who are in colour black, white, or blue. The Vyuntur and Wan-Vyuntur Dee appear upon earth, where they possess the bodies of men, exhibit themselves in various shapes, and perform many strange feats, whence their common name of Kootohulee (or surprising) Dee. Below them reside the Bhunwunttee Dee, who also sometimes appear on earth. Below these, again, are the Narkina or infernal spirits. Above this earth, in the atmosphere, five kinds of ‘Deo of splendour’ reside, the sun, moon, stars, and others. Above them, in twelve Dee Loka, the Deo who ride in chariots dwell; these, sometimes drawn by their own desire, or compelled by charms, appear in the world, but they do harm to no one. Above them are nine classes of Grivek, and five of Unootar Vimany. They are of great power, and never visit the earth. Men who have lived a life of austerity and righteousness are born again in these classes of upper or lower Dee, but the sinner is not born in them. Of old, a man who had performed the rite of ‘Uthun’ by fasting for three days, acquired the power of calling the Deo to him; but now, it is said, these Dee never visit the earth at any one’s call.

In Gujarat, where people wish to prevent the removal of a jangal tree, they post a titrant upon it with vermilion, or, if that be inconvenient, throw down a number of stones at the root of the tree. Whoever, after this, passes by, is sure to add a stone or two to the heap, believing the place to be the residence of a bhoot. If stones are not easily procurable, a bit of old rag is thrown so as to adhere to the tree, and every one who passes by follows the example once set. They call the spot the ‘Rag-uncle’s.’ In places where trees are scarce, these ‘uncles’ are very common, and people are much annoyed with the dread of touching them. The name ‘uncle’ is given to the bhoot by women as a term of respect. Men are less superstitious. Similarly, whenever in any place there is a hilllock or mound upon which a few stones have been piled one above the other, every passer-by considers himself bound to add a stone to the heap, considering that the spot is the residence of some Dee, and that if any one raise a little temple there his house will flourish. Such monuments are also set up in places where a person has been slain or wounded. Cairns of
DENAR.

this kind are frequently connected with the dead.—

'On many a cairn's grey pyramid,
Where urns of mighty chiefs lie hid.'

—Rasamala, India Annals, ii. pp. 379, 387;
Brand's India Annals, ii. p. 378. See Amma ;
Dehwar; Devils; Devil-Worship.

DENAR, a coin of Turkish Armenia. It is the
denarius of the Romans. Dirhem is the drachma,
and Fals (in the singular) is the follis of the
Romans (Ouseley's Travels, ii. p. 490). The
denarius was reduced by Augustus Caesar from
90 to 60 grains, and by Constantine to 40 grains.
—Prinner; J. B. A. S. Sept. 1832.

DENDENG. MALAY. Jerked beef; animal
muscular fibre, preserved by drying in the sun,
neatly the only mode of curing flesh in the Archi-
pelago. Dendeng is made of the flesh of deer,
oxen, and buffaloes, and by the Chinese of that
of the wild hog. It is a considerable article of
native trade.—Crawfurd's Dict. p. 120.

DENDROCALAMUS, a genus of air-plants of the
natural order Orchidaceae, which occur in south-
eastern Asia and Australia.

album. | densiflorum. | macrostachyum.
aggregatum. | demudans. | Paxtonii.
alpstre. | siliforae. | pendulum.
auratum. | formosum. | pleiod.
bicameratum. | flaum. | pulchellum.
Cambridgeiun. | Gibsonii. | purpureum.
candum. | graminifolium. | ramosissimum.
calculus. | heterocarpum. | secundum.
coruncus. | heyneanum. | suposum.
cravatun. | humilis. | sulcatum.
crumenatum. | Jenkinsi. | teretiflorum.
chrysanthum. | longiborne. |

The most interesting of the air-plants of the
Tenerasian coast is a dendrobium, the flowers of
which are white, with a yellow lip, three or four
inches in diameter, and exquisitely fragrant.
The plant blooms in March, but it flowers to the
close of October, and may be seen whitening
under the emerald foliage of the groves nearly
six months of the year. The Burmese call the
silver flower.

Dendrobium Cerina.
Shih-huh, . . . CHIN. | Hwang-ts'au, . . . CHIN.

This Chinese species of dendrobium grows on
stones.—Smith; Mason.

DENDROCALAMUS GIANTEAUS, Munro, of
Malacca and adjacent islands; one of the
mightiest of all bamboos. —V. Mueller.

DENDROCALAMUS HAMILTONI, Nees,
ascent the Himalayas from 2000 to 6000 feet,
and rises 60 feet high. Its young shoots are edible.
—Brandis; Kurz; V. Mueller.

DENDROCALAMUS STRICATUS. Nees.

Male bamboo, . . . ENC. | Sadhanapu vedar. | TR.

The male bamboo has nearly solid stems, and is
much in use for spear-shafts, building purposes,
and many other uses. It is absent from Ceylon,
except in a cultivated state. It is very general
throughout the Madras Presidency, on the dry
slopes of the mountains up to 3000 feet elevation.
It is common in Bombay, Bengal, and Burma,
and extends to Singapore and Java. It flowers
frequently, Colonel Beddome believes every year,
and does not die down after flowering.—Beddome.

DENDROCALAMUS TULDA. Nees.
Bambusa tulda, Roxb. | Pkae banh, HIND. | Tulda banh, . . . BENG. | Bashine banh, . . .

The common bamboo of Bengal. Its tender
shoots are used as pickles.

DENDROCYENA, a genus of water-fowl,
known in India to sport as the whistling
duck. They are common to the northern and
southern hemispheres. See Aves; Birds.

DENDRIOPHIDE, a family of harmless snakes,
consisting of the following genera:—

Gonyosoma oxycephalum, Boie, Assam, Assam,
Pegu, Mergui.
G. gramineum, Gunth., Khassya.
G. rematum, Gray, Khassya.
Dendrophis pictus, Gunth., Bengal, Assam, Assam,
Arabia, Pegu, Malacca.
Rhodoleurom, Schl., Ambouya.
Chrysopeolus ornata, Shaw, Shang-hal, Malacca.

The Dendrophyis genus is common, known as
snake-trees, the name being from the Greek,
Dendron, a tree, and Ophis, a serpent. They
are also called whip-snakes.

DENG, the common passage and ferry boat
on the river Ganges. It is a comfortless rickety-
looking boat, and dangerous to travel in. Caught
by the bote even in the middle of the river, if
crowded, the dengis are swamped. The puntis
is a light and fast boat, longer, broader, and
bolder than the dengi, and more comfortable.

DENGUE, a febrile and ague epidemic
rheumatism. This disease, when it first ap-
peared in the British West India Islands, was
called the dandy fever, from the stiffness and con-
straint which it gave to the limbs and body. The
Spaniards of the neighbouring islands mistook the
term for their word Dengue, denoting prudery,
which might also well express stiffness, and hence
the term Dengue became at last the name of the
disease.

DENKENACOTTA, the finest forest in the
Seringapatam collectorate of the Madras Presidency. It
contains sandal-wood and clove-wood.—Crawfurd.

DENMARK, a kingdom in the north of Europe.
Tranquebar was the first possession of the Danes in
India. It was purchased by them from a raja of
Tanjore. They also held Serampore in Bengal, and
Porto Novo on the Coromandel coast; Eddo and
Kolchery on the Malabar coast, and other
forts and factories. On the 22d February 1845,
for £125,000 sterling, Denmark ceded, by treaty,
all its Indian possessions at Balasore, Tranquebar,
and Frederick's Nagore, or Serampore.

DENWAR, a name given by Mr. Hodgson to a
border tribe between Nepal and the Bhot country.
See Chepang; Haiyu.

DEO. DEO, Dev, Deva, Dewa. SANSK. A god, a
devity; hence Dewali or Dewal, a house of idols;
a temple, a pagoda. It is the Zeus of the Greeks
and Deus of the Romans, and is possibly the
original of the name of Siva, often called Shanker,
Sheo, Shev, or Shub; Devi is a goddess. Deo is
also used to designate a demon, an idol, genii,
giant, a spirit, shade, or ghost, and a holobgin.
The village tutelary deity or Dewar of Hindu-
stan, the Granvadeva of S. Indus, has a portion
of grain set apart at each harvest. It is commonly
represented by a shapeless stone, but has distinct
names, as Bhum-seen, Kateswari, Hanwar, HariRam.
In his concluding letter on Comparative Philo.
DEO.

DEO, seat of the Deo rajas, one of the most ancient families of Behar, in the Aurangabad subdivision, Gayas district. They trace their descent from the Ranas of Udipur (Oodeleypore). Four generations of unserving loyalty to the East India Company and the Queen Empress have been rewarded by liberal grants of land and villages; and Sir Jai Prakash Singh, K.C.S.I., received the title of Mahanand Deo, and is a Knight Commander of the Star of India for his services in 1857. It is the seat of a famous temple, at which thousands of people congregate twice a year, to hold the Chhat festival in honour of the sun-god.—Imp. Gaz.

DEOBAND, from Deo-ban, a sacred grove; a small town in Saharanpur district, N.W. Provinces, of the same name. Half a mile from the town is a small lake, the Devi-kund, whose banks are covered with temples, ghats, and sati monuments, which are much frequented. Deoband is of Hindu origin, with a legendary history of 3000 years. The Pandava are said to have passed their first exile within its precincts. The fortress was one of the earliest to fall before the Musalmian saint, Sklar-Masud Ghazi. A religious assembly takes place yearly in a neighbouring wood.—Imp. Gaz.

DEODAR. Hind. The Cedrus deodara, London, is a valuable timber tree in the forests of the N.W. Himalaya under the Panjab Government, and in the Feudatory States of Jammut and Kashmir, in the Laiwa and Uj divisions, on the banks of the Chenab, with the Bhutna, the Marrn Wardan, the Jhelum below Baramula, also the Kishenganga. The cones of the deodar are identical with those of the cedar of Lebanon; the deodar has generally longer and more pale bluish leaves and weeping branches, but these characters seem to be unusually developed in English gardens, for several persons, well acquainted with the deodar at Simla, when asked to point it out in the Kew Gardens, have indicated the cedar of Lebanon; and when shown the deodar, declare that they never saw that plant in the Himalaya. Decdar is also applied to the Chickrasia tabularis and Juniperus excelsa; and in Kulu and on the Bas, deodara is applied to the Cupressus torulosa and the Sethia indica.—Hooker's Himal. Jour., p. 41.

DEO-DHANGA, or holy hill, is a peak in lat. 87° E., upwards of 29,000 feet high? Deo-dhanga and Mount Everest, 29,002, are about 100 miles N.E. of Khatmandu; both are midway between Gosaintham and Kangshem.—Beng. As. Soc. Jour., 1866.

DEO-GHANTA. Hind. Sacred metal bells.

DEOGHUR, or Byijnath, is a small town in the zilla of Birbhum, famous for its temples, visited every year by thousands of pilgrims from the North-West Provinces of India. It is situated in the great table-land which extends from near

Bardwan to Durna Ghat, in Behar. Granite, syenite, and gneiss, traversed by greenstone dykes, are the prevailing rocks around. Velthi is a lead ore, partly pure, partly in the state of galena or sulphuret, traversed the principal copper vein at right angles. Both have been analyzed, and found of remarkable richness. The nearest coal is forty miles off; the nearest point on the river where the ore could be shipped for Calcutta is sixty, the road being tolerable all the way. The copper might in all likelihood be separated from the malachite by stamping and washing.

DEOGIRI, now called Dowlatabad, is about 12 miles from Aurangabad, in the Dekhan; is a scarped rock of considerable height, with a roadway leading up through the rock. Its position is commanding, and from the most ancient times was a stronghold of the rulers in that part of India. The name seems to have been sometimes written Deoghur. Ala ud-Din, nephew and general of Jalal-ud-Din, in A.D. 1294 swept across Nepal and took Deogiri, and besides money and jewels, obtained the possession of Ellipour and its dependencies, and the raja was further to pay tribute annually. Ala-ud-Din, on his return, was met by his uncle, Sultan Jalal-ud-Din Khilji, whom he assassinated, 1295, as he was panned on the cheek, and then ascended the throne. Subsequently he invaded and conquered Gujerat, and took its beautiful hill, Kamala Devi, into his household. About A.D. 1300 he repulsed an invasion of the Moghuls under Katallah Khan. In A.D. 1303 he captured the fort of Chittore, but was immediately recalled to check an invasion of the Moghuls, whom he repulsed a third and fourth time in 1305 and 1306. In 1306 he sent Malik Kafur, his general, a cunning, and who had been the slave of a merchant at Cambay, to chastise the raja of Deogiri, which Kafur effected, and also subdued the Maharrattas. In A.D. 1309 Malik Kafur captured Warangal, then the capital of Telangana. In 1310 he reduced Bela, raja of the Karnatic, with whom the Bela dynasty ended. He overran the whole of the eastern provinces as far as Ramissaram, opposite Ceylon, where he erected a mosque to commemorate his victories; and in A.D. 1311 he returned to Dehi, laden with plunder. In 1312 he despatched Kafur a second time to punish Ram Deva, king of Deogiri, and son of the former Ram Deo, who was put to death, and the kingdom annexed. He next carried his arms over all the Maharratta territory and the Karnatic, and soon after died.—Briggs's Nizam.

See Dowlatabad.

DEO-KORA, the household god of the Garo race. It is a small bell-metal dish with embossed figures, hung up in the house and worshipped, and sacrifice offered. See Deo-Ghanta.

DEOLEE, in Rajputana, in lat. 25° 54' N., and long. 74° 53' E., is the headquarters of the Hararot and Tonk political agency, comprising the states of Bundi, Kotah, Tonk, Jhallawar, and Shajpura. It is 57 miles S.E. from Nasseerabad.

DEO MUNNI? sacred beads of Assam.

DEOOLA are temples sacred to Jaganath; they rise from the foundation in a gradual slope like a sugar-loaf, with an iron image of Garuda on the pinnacle. These temples, made of brick, are ascended by a flight of steps, and contain only one room. The word is Deo-alaya, the House of God.
DEO-PANI. DEET.

DEO-PANI, a stream which falls into the Brahma Kund.

DEO PATTAN, a district in the S.W. of India, in which was the temple of Somanath taken by Mahmud of Ghazni in 1024.

DEOPRAYAG, a village in the Garhwal district of the N.W. Provinces, in lat. 30° S N., and long. 78° E., at the confluence of the Alaknanda and the Bhagirathi, and 2266 feet above sea-level. The united stream takes the name of the Ganges, and the point of junction forms one of the five sacred halting-places in the pilgrimage which Hindus make to Hardmatal. The village is perched 100 feet above the water's edge, on the scarped side of a mountain, which rises behind it to a height of 800 feet. The great temple of Rama Chandra, built of massive uncemented masonry, stands upon a terrace in the upper part of the town, and consists of an irregular pyramid, capped by a white cupola with a golden ball and spire. Religious abstentions take place at three basins, excavated in the rock at the point of junction of the holy streams.

DEORA is the tribe of the Sarohi princes, chiefs of Abu and Sarohi. It is a branch of the Chauhan Rajputs, whose cradle is said to be on the summit of Abu, whence they spread over the regions skirting the Aravalli to Ajmir, establishing many minor principalities, as Nadol, Jhalor, and others, long before the Rajtor of Jodipur had set foot in Maroo, but were yet enjoying all the pomp of royalty in the splendid city of Kanauj. Sarohi, Abu, and Chandravati then appertained to the Pramara race; nor was it until the thirteenth century that the uncle of Kana Deo, prince of Jhalore, treacherously obtained possession of the former with its dependencies, by the slaughter of the Pramara race. The city, now the residence of the Deora princes, is comparatively of modern date, the ancient Sarohi lying behind a second range of mountains. The Rajtor and Deora are the bravest of the Rajput races. Achiglarh, or the immoveable castle, is the name of the fortress of the Deora.—Tod's Tr. p. 61; Rajasthan, ii. pp. 59, 57; Annals of Mewar, p. 384.

DEORHI. HIND. A threshold, a household; the household of a person of rank, generally of a Mahomedan noble, answering to the Bab of the Constantinople palace, or the Porte, also to the foot of the throne.

DEORI, priests of the Aka race. Deoti, the sacrificial priest of the Kooch. Deota, a deity.

DEOTSA, a small plateau or table-land adjoining that of Balti. It and the Balti table-land form a territory 60 miles long and 36 broad, and are part of the territory of Balti. It is high above the rest Balti, or birch region, and tenanted only by the marmot, with a few dwarf willows and herbaceous species as its plants. It is a thinly-inhabited steppe, 13,000 feet above the sea-level, between Skardo and Kashmir, belonging to Baltistan.—Vine.

DE PAYVA. See Pedro da Covilam.

DERA BULLU, a small territory, in the Koun Iam valley, in Turkestan; the valley of the Yarkand river, near this, is 16,883 feet above the sea, in lat. 35° 49' N., and long. 77° 31' E.

DERAH or Darah, HIND., answers to Chur in Lower Bengal, and signifies the long rich alluvial flats which generally line the banks of such rivers as the Gunduk, the Ganges, and the Kossi, and increase, diminish, or completely melt away, owing to the action of the stream in the rainy season.

DEREH. HIND. Bhera, MAUR. A wood of the Nagpur forests, of great strength; the average logs are from $\frac{3}{4}$ to $\frac{10}{4}$ feet long, and from 2 to 3 feet in girth. It has a winding, and, as it were, a mellow grain, from which, as well as the extraordinary toughness of its fibres, butchers invariably use it for chopping blocks.—Captain Sankey.

DERI, a dialect of the Persian language, which is used by the Zoroastrians in Persia; it is not the Zend. It is also described as an ancient dialect of Persian spoken at Balkh, but also as the modern Persian tongue. It is derived from the Parsee, which displaced the rougher Pelehvî, though PELEHIV is still used in the sacred writings at Sherwan.

DES, Desa. SANSK. In Rohilkhand, the Des is the cleared villages on the borders of the Terai; in the Himalayan regions it means the plains of Hindustan. With the Mahtrattas, it means the country between the Syhadri and Balaghat hills and the Godavery river; it also means any plain, open, or champagne country. In the Dekhan it is used to signify a champagne country. Of the words derived from it and its other applications, Des is a native country, Desmukh and Despande are Maharrata revenue officers; Desai, a superintendent of a district—Desatha, Desath or Dashaath, a Maharrata Brahman—Par-desi, a foreigner.

DESSERTS. DESERTS.

DESERTS of Asia,.biasan of the Persians, and Chul of Turkestan. A chain of deserts extend from the Canary Islands in the Atlantic Ocean to the Yellow Sea, crossing Africa and Arabia, through parts of Central Persia, Seistan, Korsan, Afghan-istan, and Baluchistan, onwards to the east of the Indus, into Rajputana; and the link, broken by the Himalaya, is found in the great sand sea of the Gobi. This area is mostly uninhabitable, from the absence of water and the intense heat, but has occasional cases of rich vegetation, where water springs occur, or where the Nile, the Tigris, the Euphrates, the Indus, and their affluents enrich the country. To the westward, the seas of sand of the Arabian and African wastes are seldom raised above, often sink below, the level of the sea. To the eastward of the rich tract in Persia Kerman, Seistan, Chinese Tartary, and Mongolia the desert consists of series of plateaux, having from 3000 to nearly 10,000 feet of elevation.

The Eastern Desert of Egypt, near Jabl Ghar, has an ancient green, red, and purple porphyry quarries at Jabl Dukkan (Mons Porphyratis); and breccia quarries occur at Wadi Keuch, which were worked in the time of the first Osiris, supposed to have been the Pharoh who ruled over Egypt in the time of Joseph.

The Desert of Arabia extends from where the borders of Syria touch the Euphrates in the north to near the coast of Hadramaut in the south. It is continued between Syria and the Euphrates between Hejaz and Jabul Shammar and the Najd provinces, and between Yemen and Oman, and again on the east, between the provinces of Najd and Al Hasa on the Persian Gulf.

There are oases in this desert, and in the winter and after rains are scattered patches of grass, and the Bedouin find pasture on the borders; but is
DESERTS.

The hot season the sun pours down its heat in unopposed fierceness. That part miscellaneous the Syrian desert by Europeans, was the Arabia Deserta of Ptolemy, and is now known as Al Hammad. That in the neighbourhood of Damascus is called Batyiah us Sham.

The Desert of Syria lies between Mesopotamia and the coast region of Syria and its southern part, Palestine. It is a great chalk plateau, about 1800 feet above the sea, bounded on the west side by a great depression.

Desert of Khurasan.—Between the Caspian and the Oxus is a desert tract of firm gravel, broken into undulations, and covered with a rich pasture of aromatic herbs, and water is found in some of the hollows on its surface. It is known as the desert of Khiva or Khurasan, also as the Regan, and from June to September is liable to destructive hot winds, in which beast perish, even the hardy camel persisting miserably. The Balschi call this wind Julo, the flame, also Bad-i-Simoom, or the poison wind. There is great heat of skin, quickly ending in death. The approach of the wind is ushered in by an oppressive calm in the air, and a degree of heat that affects the eyes; the precaution then adopted by travellers is to cover themselves over, and lie prostrate on the earth. Pottinger says (Travels, p. 136) that any cloth, however thin, will obviate the deleterious effects of the Bad-i-Simoom on the human body.

The Great Salt Desert of Central Persia is called the Daria-i-Kavir. It stretches north and south across the eastern part of that country from Nishabor in the north, to Kirman on the south, and sinks to its lowest level opposite to the Seistan basin. It may be below the sea-level, and is certainly not far above it. It is the principal of the Kavir or Kafch salt swamps of Persia. Where the alluvial soil of the plain beneath is exposed to sufficient moisture, either by the overflow of rivers, by surface drainage from the hills, or by the want of sufficient slope to carry off desert rainfall, a saline efflorescence is produced, which, forming a thin whitish crust on the surface, retains the moisture beneath for a considerable time, and thus creates in winter and spring a treacherous and impassable bog. About lat. 34° N., it is 6 miles wide.

The Great Desert of Khurasan commences east of Koom, and stretches almost due east to the north of Khoor. From near this it turns to the south, and gradually lessens in width. At its broadest, S. of Damghan, it is about 150 miles broad, but generally where the roads cross it its breadth is from 80 to 100 miles. It is a barrier more difficult than any mountains in N. Persia and Khurasan (MacGregor, Khorasan), a desert than without one blade of grass, one leaf of any kind, or living thing of any sort. Its dark soil is covered with a thick saline efflorescence, which glitters painfully on the eyes, and is felt crunching under the feet. Here and there are darker moist patches. The Kavir is honeycombed with holes about 9 inches deep, and the size of a man’s head.

The Desert of Kizil-Koom (red sand) extends over an area of 35,000 square miles.

The desert called Reg-i-Sistan or Reg-i-Baluchistan, on the S.W. part of Afghanistan, extends from the highlands of Kalat to the boundary or Sarhad mountains south of Seistan. It extends from the Mushi range in the south, to the plain of Kandahar on the north, where it ends in a belt, ten or fifteen miles wide, of high desert cliffs, called Chol or dry land. The nomades pasture their cattle there in winter, as it produces a rich pasture at that season of the year.

The Great Indian Desert, on the eastern side of the Indus, lies between Sind and Rajputana. It is a sandy tract, but is covered with shrubs, and in places small trees grow. The population is thin, but villages are found throughout; and immense herds of camels, cattle, sheep, and goats are pastured. It is entirely destitute of streams of water, with but few hills of rock, and a large portion of the surface consists of sandhills of considerable height, called Thar or Thurr, or Thul. When rain fails, crops of bajra (Penicillaria) are raised; and when they fail, the population live principally on the milk of cattle and on imported grain. Throughout the sandy tracts of this desert the vegetation consists of the Calligonum polygonoides (Phog, Hind.; Tob, Sind.), Areus javanica (Bhui, Hind.; Bahuss, Sind.), Anabasis multiforma (Lana, Hind.), and Mart, a coarse grass growing in tufts, abounding on the sandhills, and spreading for miles on the plains. Phog and Bhui, also Oranthera viminea (Kip, Hind.), are peculiar to the sandhills. Between the sandhills, Calotropis procera, Salvadoria Persica, Acacia rupestris (or Kejri), Capparis aphylla, Zizyphus jujuba, and a few other plants, are commonly found. After rain, numerous herbs spring up, and a grass called Brut (? Cenches bubiforus), the spiny seeds of which attach themselves to one’s clothes like burrs. Divested of their spiny covering, they are made into a kind of bread. Birds are numerous; hyenas, wolves, jackals, the desert fox, Vulpes leucopus, V. Boulengeri, also Lynx Felis cascaric; and the desert jerboa rat, Gerbillus huricane, in incredible numbers, perhaps a burrow in every square yard.

A traveller proceeding from the ‘Khachee’ or flats of Sind to the east, sees the line of the desert distinctly marked, with its elevated teebah or sand ridges, under which flows the Sankra, which is generally dry, except at periodical inundations. These sandhills are of considerable elevation, and may be considered the limit of the inundation of the ‘Sweet-river,’ the Meetha Muran, a Seythic or Tartar name for river, and by which alone the Indus is known from the Punjab to the ocean. The teebah or sandhills occupy a large tract in Eastern Sind, extending the whole length of the province along the edge of the Indus alluvium. They are in ridges which run E. and W. or N.E. and S.W. Sir B. Frere says some of them are 400 or 500 feet high.

The Rumm, Ran, or Rimm is a salt marsh, 150 miles broad, into which the Loni or Looni or salt river enters, and then runs on to the sea. The Looni rises in the Arvali. In Marwar it separates the fertile land from the desert, afterwards runs through the Chauhan territory, dividing it into the eastern part, called Raj-Bah or Sooi-Bah, and the western part, called Parkar or beyond the Khar or Looni. The Kagger rises in the Siwalik Hills, flows under Bhatnair walls, and once emptied itself between Jeyulsmir and Rori Bukkur. The rainfall is 18 inches at Nagar Parkar, 11.8 inches at Omerkot, but much less near Jeyulsmir and the centre of the desert.
DESERTS.

The Desert of India is known on its borders as Maroost'hali, the region of death, from Mr., Sansk., to die, and S'hali, arid or dry land, but it is also known as the desert of Rajputana. Maroost'hali is bounded on the north by the flat skirting the Gara; on the south by the Rumm, and Koliwara; on the east by the Aravalli; and on the west by the valley of Sind. It covers an area of 77,600 square miles. But for the Aravalli, which runs N.E. and S.W., dividing Rajputana into two equal parts, Central India would be submerged in sand; nay, lofty and continuous as is this chain, extending almost from the sea to Dehli, wherever there are passages or depressions, there floating sand-clouds are wafted through or over, and form a little th'ul even in the bosom of fertility. Whoever has crossed the Bunas near Tonk, where the sand for some miles resembles waves of the sea, will comprehend this remark. This desert has small scattered spots of fertility, with great arid portions called thar, thur, or th'ul, denoting tracts particularly sterile, therefore the converse of the oasis of the Greeks, and each with a distinct name, as the th'ul of Kawur, the th'ul of Goga, and others. A tradition exists to the effect that in remote ages it was ruled by Powar or Pramara Rajput princes from nine fortresses, viz. Poogul, Mundore, Maru, Abu, Kheralu, Parkar, Chotun, Omerkot, Arora, and Lodorva. From Bhalotra on the Looni, throughout the whole of Dhat and Oomra-i-Soomra, the western portion of Jeyusulmir, and a broad strip between the southern limits of Daodputra and Bikanir, there is real solitude and desolation. But from the Satlej to the Rumm, a space of 500 miles of longitudinal distance, and varying in breadth from 50 to 100 miles, numerous oases are found, where the shepherds from the valley of the Indus and the Thul pasture their flocks. The springs of water in these places have various appellations, ter, par, rar, dur, all expressive of the element, round which assemble the Rajur, Sods, Mangnial, and Sahrai, inhabiting the desert. The whole of Bikanir and that part of Shekhvatt north of the Aravalli are comprised in the desert. Jeyusulmir is nearly in the centre of what may be termed entire desert, is in fact an oasis, but the largest oasis of the desert, everywhere insulated by immense masses of th'ul, some of which are 40 miles in breadth. The rock on which the castle is built has three peaks or tri-cuts. Westward from this, from 400 or 500 miles, with 100 or 200 miles in breadth, are little scattered oases, on which the shepherds of the tribals pasturage.

The whole of the Bikanir principality, with the exception of a few isolated spots or oases scattered here and there, consists more or less of sand. From the eastern to the western boundary, in the line of greatest breadth, it is one continuous plain of sand, though the teeba or sandhills commence in the centre of the country, the principal chain originating in the tracts bordering the eastern valley of the Indus, and terminating its elevations about the heart of Bikanir. On the N.E. quarter, from Rajgurh to Nohur and Raotsir, the soil is good, being black earth, slightly mixed with sand, and having water near enough to the surface for irrigation; it produces wheat, gram, and even rice in considerable quantities. The same soil exists from Bhatnair to the banks of the Gara. The whole of the Mohilla tract is a fertile oasis, the teeba just terminating their extreme offsets on its northern limit; being flooded in the periodical rains, wheat is abundantly produced. In 1881, the population of Bikanir was 509,021.

The deterioration of the Bikanir region, within three centuries since the Rajput supplanted the Jit, almost warrants our belief of the assertion that these deserts were once fertile and populous. The princes of Bikanir used to take the field at the head of 10,000 of their kindred retainers. The commercial towns of Churu, Rajpur, and Rimne, as entrepôts, supplied the country with the productions of Sind and the provinces to the westward, or of those of Gangetic India. The same cause affected Jeyusulmir, Bikanir, and the more eastern principalities. The Maldote of Jeyusulmir, and the Larkhani of Jeypore, were as notorious as the Beedlouw of Bikanir; and to these may be added the Sahrai, Khossa, and Rajjur, in the more western desert, who in their habits and principles Tod described as demoralized as the Barbouins of Arabia. The line of greatest breadth of Bikanir extends from Poogul to Rajpur, and measures about 180 miles, while the length from north to south between Bhatnair and Mahajin is about 160 miles; the area may not exceed 22,000 miles. Formerly they reckoned 2700 towns, villages, and hamlets scattered over this space, one-half of which are no longer in existence. The tract to the N.W. of Jaetpur in Colonel Tod's time was perfectly desolate, and nearly so from that point to Bhatnair; to the N.E. the population was but scanty, which observation also applied to the parts from the meridian of Bikanir to the Jeyusulmir frontier; while internally from these points it is more uniform, and equals the northern parts of Marwar. Three-fourths of the people are Jit; the rest are their conquerors, descendants of Beeka, including the Sarsote Brahmanas, Charans, Bardas, and a few of the delaced classes, whose numbers are not one-tenth of the Rajputs. In Colonel Tod's time the Jit were the most wealthy as well as the most numerous portion of the community. Many of the old Bhumia landlords, representatives of their ancient communal heads, were men of substance. Sarsote, properly Saraswati, Brahmanas are found in considerable numbers throughout this tract. They aver that they were masters of the country prior to the Jit colonists. They are a peaceable, industrious race, and without a single prejudice of the order. They eat meat, smoke tobacco, cultivate the soil, and trade even in the sacred kine. The Charans are the sacred order of Marwar. They the wandering herdsmen and the heroic lays of the Bard more than the homily of the Brahman. The Charan are throughout reverence by the Rahtor, and hold lands, literally, on the tenure of an old song.

The Jhalawar or Jhalore tract is one of the most important divisions of Marwar. In 1881 its population was 340,488. It is separated from Sewanchi by the Sookri and Khari, which, with many smaller streams, flow through them from the Aravalii and Abu, aiding to fertilize its 360 towns and villages, forming a part of the fiscal domains of Marwar. The important fortress of Jhalore, guarding the southern frontier of Marwar, stands on the extremity of the range extending north to Sewanchi. Sewanchi is the tract between...
DESECTS.

The looni and Sookri. Macholah and Morson are the two principal dependencies of Jhalore. Beemun and Sancheore are the two principal divisions to the south, each containing 80 villages. Bhadrajoin, a fief of Jhalore, has a Joda chief and Meena population.

The Thul of Goa is very thinly inhabited; it has many sandhills, thul-ka-teebah. The Thul of Tiruoe lies between Goa Deo and Jeyulsuir.

The Thul of Khawar is between Jeyulsuir and Barmar, in the most remote angle of Marwar. Barmar thul, also called the Mulli-nath-katul, is occupied by cattle-breeders.

The Khedar, or land of Kher, and Nagar Goooroh, on the Looni, are the chief thul.

The Chauhan Rajput of the desert has, on the N. and E., the above tracts of Marwar, to the south Kolivara and the Rumm, to the west the desert of Dhat. The sterile ridge which passes through Chatun to Jeyulsuir passes west of Bankai on to Nagar Parkar. The wells are 65 to 130 feet deep. The Sahrai, Khossa, Koli, and Bhill inhabitants are predatory. The Chauhan Rajput does not wear the zonar, and does not much respect the Brahman. The Pitthil and Banya are farmers and traders.

Malli and Noe, gardeners and barbers, are important members of every Rajput family, and to be found in all the villages, of which they are invariably the cooks.

Choora and Thaor were, in Colonel Tod's time, actually castes of robbers, the former from the Lakhi jungle, the latter from Mewar. Most of the chiefs had a hand in their pay, entertained for the most desperate services. The Babadewan chief had expelled all his Rajputs, and retained only Choora and Thaor. The Choora were highly esteemed for fidelity, and the barriers and portals throughout this tract were in their custody. They enjoyed a very singular perquisite, which would go far to prove their being the aborigines of the country, namely, a fee of four copper coins on every dead subject, when the funeral ceremonies are over.

The Rahtor of Bikanar bear a mortal reputation. The Rahtor of the desert have fewer prejudices than their more eastern brethren; they will eat food without inquiring by whom it was dressed, and will drink either water or wine, without asking to whom the cup belonged. They would make the best soldiers in the world if they would submit to discipline, as they are brave, hardy, easily satisfied, and very patient; but in the midst of opium and in accordance with intoxicating herbs, are said to exceed all the Chatees Rajuela, the thirty-six royal tribes of India. The piala or 'cup' is a favourite with every Rajput who can afford it, and is, as well as opium, a panacea for ennui, arising from the absence of all mental stimulants, in which they are more deficient, from the nature of the country, than most of their warlike compatriots.

Bhatnair, now an integral part of Bikanar, was anciently the chief abode of another Jit community, so powerful as at one time to provoke the vengeance of kings, and at others to succour them when in distress. The Bhatti annals confirm what might have been assumed without suspicion, that to a colony of this race Bhatnair owes its name, though not its existence. The whole of the northern part is called Nair in the ancient geographical nomenclature of Maroosthali; and when some of the Bhatti clans became Mahomedan proselytes, they changed the vowel a to u, to distinguish them from the parent stock, viz. Bhatti for Bhatti. In all probability, the Yadu-Bhatti is the original Yiti colony from Central Asia; and the Jit prince of Salpur was the predecessor of these very races. Bhatnair has attained great historical celebrity, from its position being in the route of invasion from Central Asia to India. It is more than probable that the Jit name was transferred to the Mahomedans who seized Ghazni in a naval warfare on the Indus, and long before that period established themselves in the desert as well as in the Punjab; and as we find them occupying a place amongst the thirty-six royal tribes, we may infer that they had political power many centuries before that conqueror. In A.D. 1205, only twelve years after the conquest of India by Shahab-ul-Din, his successor Kutub-ul-Din was compelled to conduct the war in person against the Jit of the northern desert, to prevent their wresting the important post of Hansi from the empire; and when the unfortunate and intrepid queen Razia, the worthy heiress of the great Firoz, was compelled to abandon her throne to a usurper, she sought and found protection amongst the Jit, who, with their Scythic brethren the Ghikar, assembled all their forces, and marched, with their queen at their head, like Tomyris of old, to meet her foes. She was not destined to enjoy the same revenge, but gained a glorious death in the field of battle, and at the feet of the law of India. Again, in A.D. 1397, when Timur invaded India, Bhatnair was attacked for having distressed him exceedingly on his invasion of Multan, when he in person scouried the country, and cut off a tribe of banditti called Jit. In short, the Bhatti and Jit were so intermingled, that distinction was impossible. Shortly after Timur's invasion, a colony of Bhatti migrated from Marote and Phooha, under their leader Berti, and assaulted and captured Bhatnair from a Mahomedan chief.

The Indian desert differs very materially from that portion of the great African desert in the same latitudes. Water at 20 feet, was found at Mourzuk by Captain Lyon; this, in the Indian desert, is unheard of. At Daisnokh, near the capital, the wells are more than 200 cubits, or 500 feet, in depth; and it is rare that water fit for man is found at a less distance from the surface than 60 feet, in the tracts decidedly termed Thul or desert tracts. Some of the flats or oases, such as that of Mohilla, are exceptions, and abundance of brackish water fit for cattle is found throughout at about 30 feet. All the wells are lined with basketwork made of p'gok twigs, and the water is generally drawn up by hand-lines. Water is sold in all the large towns by the Millari race, or gardeners, who have the monopoly of this article. Most families have large cisterns or reservoirs called tanka, which are filled in the rainy season. They are of masonry, with a small trap-door at the top, made to exclude the external air, and having a lock and key affixed. Some large tanks are established for the community, and this water keeps sweet for eight and twelve months' consumption.

It was through this tract that Humayun sought refuge to the Dhat country; and at Omerkot, its capital, Akbar was born. Omerkot was
wrested from the Soda race by the Rahtr tribe of Marwar, and since then the chiefs of the expelled clan have dwelt in Chore, 15 miles N.E. of Omerkot. At one time every third year brought famine. The Soda women of this desert tract of Bhatta are proverbially handsome. In this desert and in the valley of the Indus are the Soda, Cat'hi, and Mallani, descendants of the sogdi, Cat'hi, and Malli, of Getes and Yuti, many of whom call themselves Baluch, or keep the ancient name of Numri, whilst the Zj'hut or Jut retain their primitive appellation; also remains of the Johya and Dahya, who, with the Geta, Jut, or Jum, hold places amongst the 36 royal races of ancient India. The Baraha and Lohana tribes are there, the Sahrai, the great robber of the desert, the Bhatti, Rahtr, Joda, Chiefan, Kaorwa, Johya, Sultan, Arora, Khoomra, Sinuli, Malsuri, Bishnavi, Jakkur, 'Shig, Ashig, and Poonda.

The origin of the Mahomedan Kullora and Sahari is doubtful, but the Nyad or proselytes from Rajput or other Hindu tribes are Jut, Rajur, Oomra, Soomra, Mair or Mer. Mor or Mohor, Baluch, Loomri or Looika, Sameicha, Mangulia, Bagcreah, Dahya, Johya, Khairowii, Jangurea, Onoudur, Bairowi, Bawuri, Tawuri, Chrendea, Khossa, Sudani, Lohana. These converts were ferocious and intolerant.

Arora, a thriftye race, tradesmen and farmers. Bhattiah, formerly martial, now traders like the Arora, and both these have commercial agencies all over India. Brahman, Bishnavi, cultivators and graziers, numerous in Dhat, some in Chore and in Omerkot, Dharms, and Mittii. Daudpura, founded by DAoud Khan from Shikarpur. Dute or Dhati, like the Kaorwa, a pastoral race of Dhat; their cows give 8 or 10 scores of milk daily. Kaorwa, a peaceable nomade race, chiefly in the t'hul of Dhat, rear cattle.

Kullora and Talpur, Sind tribes, which furnished the last two ruling dynasties. The Kullora claim descent from the Abbasside khalifs, and the Talpuri from Mahomed, but both seem to be Baluch, which are essentially of Jit or Gete origin. The Talpuri (Tal' or Tar, Borassus flabelliformis or palmyra, and Para, a town) amount to one-fourth of the population of HydeTABAD, which they call Lohri or Little Sind. There are none in the Thul. Lohana, numerous in Dhat and Talpura; they are scribes and shopkeepers. Jakkur, 'Shig, and Pooviah, harmless, industrious, in the desert and the valley, are denominations of the Jit race, but most of these sections have become Mahomedans, and call themselves Zj'hut.

Johya, Dahya, and Mangulia, once Rajputs, are now Mahomedans; are few either in the valley or desert, as also are the Baluch, Bairowi, Khairowii, Jangurea, Onoudur, and Bagcreah, descended from the Pramar and Sanka Rajputs. Zj'hut, Jut, or Jit, dwell in Sind from the sea to Daudpura, but not on the Thul. They are the old-stock of the proselytes to Mahomedanism.

Mair or Mer, of Bhatti origin. Mor or Mohor, of Bhatti origin.

Neouri, Loouri, or Looka, all of which mean fox, a subdivision of the Baluch race. Daudpura and Soomra are converts from the Pur or Pranara race; have mixed largely with Mahomedans. Rajur, a convert from the Bhatti, cultivators, shepherds, and thieves, and evil-livers. Rebarri, a race who in Hindustan profess Mahomedanism, and rear camels, here were a tribe who rear camels, or, with the Bhatti, stole them. Sahrai is the most numerous of the Mahomedan tribes of the desert, of which he was the terror. The Khossa is a branch of the Sahrai, whom in habits he resembles, plundering on camels, but they are cowardly and faithless.

The Soda is scattered over the desert, some are Mahomedans; the Sumeicha is a Mahomedan proslyte from the Soda.

Sumeicha, converts to Mahomedanism from the Soda race; some are pastoral, some are plunderers. They are dirty, and never shave. Tawuri, 'Thor, or T Ori, dwell in the t'huls of Daudpura, Beejnot, Noke, and Noakote, and Oudur; they own and hire out camels, but, like the Bawuri and Khengar, are great thieves, and are called 'bhoott,' or evil spirits, and sons of the devil.

Desert of Gobi. The great highway between Pekin and Europe from time immemorial, has been the caravan tract from the western end of the great wall across this desert. The route issues from the western end of the great wall, and, moving through the Kaiyau pass, has to traverse N.W. 500 miles of a desolate sand desert to reach the city of Khami. At this town the road bifurcates, the upper branch leading through Barkui, Urumchaj, and Kurkur-usu into Zungaria; the lower through Pijan, Turfan, Karasalar, and Kuchu to Aksa in Eastern Turkestan. While Chinese rule prevailed, Zungaria and Eastern Turkestan formed the province of Il. Gobi desert in 1860 reached within 6 miles of the town of Ichi on the N.E., but its shifting sands move along in vast billows, overpowering everything. Mr. Johnson was told that on one occasion, in the space of 24 hours, 360 towns were buried. Ichi and Yarkand are said to have been founded after this event. Near Ichi, the edge of this desert has the appearance of a low range of broken hills, and consists of hillocks of moving sand, varying in height from 200 to 400 feet. The belief that wildernesses are haunted places, is a very old and general one. Jesus himself, in a very solemn passage (Luke xi. 24), adopts the Jewish phraseology as to this belief. Pliny says (vii. 2) that in the deserts of Africa phantoms in human shape appear to travellers, and immediately vanish again. But the belief is especially prevalent among the nations of Central Asia. By them deserts are held to be the special headquarters and rendezvous of malignant spirits; hence the wilderness of Turan, and particularly the great sand waste of Gobi, have from hoar antiquity had an evil fame. The Turks have a saying that evil spirits play at ball in desert places. Both Pa Hian and Marco Polo allude to the evil genii of the deserts of Central Asia; and Rubraquis tells of a frightful defile, where the demons were said to snatch travellers off their horses. The Afghan believe each of the nume-
rous solitudes in the mountains and deserts of their country to be inhabited by a lonely demon, whom they call the Ghoul-i-Biaian, or spirit of the waste, a gigantic and frightful spectre, which devours passengers.—Schmidt, p. 352; Tude's Cathay, i. p. 157; Tod's Rajasthan, i. p. 19, ii. pp. 196, 202, 211, 289; Migman's Travels, p. 32; MacGregor, Khorasan; Mr. Johnson, R. Geog. Soc. Jr. 1847; Sir Bartle Frere on the Rann of Cutch; Pottinger's Travels; G. Rawlinson, i. p. 1; Major R. D. Upton, p. 165.

DESHASTH. Muni. A native country. Deshasthulu, native of Deshasth is a term by which the Brahmins of Maharastha are designated. They are described as a class of sedentary habits, extremely fond of their native place, very fond of display, and fond of rich and splendid clothes. On occasions of marriage and other festival ceremonies, they are lavish. Deshasth Brahman have acquired some literary celebrity, and have been largely employed under the several governments of India, chiefly in the revenue departments. The few Prakrit poets that have made their appearance are Deshasth, such as Wamun, Moropant, and Jagnath. Deshasth Brahman are better-featured than the Konkanasths, but the Konkanasth Brahman is fairer.

The social and political life of the Konkanasth Brahman has undergone a complete change since the beginning of the 18th century. Before that they were solely an agricultural class of people, visiting towns only on very unavoidable occasions. They possessed a good knowledge of the Vedas and Shastras, and were liberally rewarded on that account by the patrons of those branches of learning. They rarely held offices under Government, or in mercantile houses; on the advent of the British, they were compelled to come out for employment, and they at once spread all over the extensive table-land of Syhadri, called the Desh. Every department of Government contains Konkanasth Brahman, and they have shown themselves active, intelligent, liberal-minded men. The Deshasth from time out of mind have been in the possession of the rich table-land, and been Zamindars, Deshmukhs, Deshpandies, etc. They have never been distinguished for their knowledge of the Vedas or the Shastras. Once they were in sole possession of Government offices, but they have been greatly thrown into the background by the Konkanasth. All the lower class of offices, such as village accountants, etc., are, however, still in their hands.

DESIGN. Indigenous, belonging to the country. Par-desi, a foreigner, a stranger, a native of Northern India.—Elliott; Wilson.

DESIDEIRI. Pero Desideri, a missionary, started from Goa in November 1713, and, passing through Dehli and Kashmir into Baltistan, arrived at Leh or Ladakh on the 25th June 1714, and remained there for an entire year. From thence he continued his journey, in the autumn of 1713, to Lhasa, by a route of extreme elevation and great cold, which occupied from August 1715 to March 1716. Desideri found the temporal sovereignty of Lhasa in the hands of a Tartar prince (a Si Fan), who had recently conquered the country. —Princep's Tibet, p. 15.

DESIMA. The commercial site long occupied by the Dutch in Japan. It stands upon, and wholly covers, a little artificial fan-shaped islet, about 600 feet in length by 240 in breadth, and is joined to the island and town of Nagasaki by a small stone bridge, at the end of which was a strong Japanese guard-house.—MacFarlane's Japan, p. 51.

DES-KULKURN, under the Maharatta government, a revenue officer.

DESMANTHUS NATANS. Wilde.

Pani najak... Beng. | Sunday kiray... Tam.

This sensitive plant, with reddish flowers, floats in the tanks of India. Spongy bodies, formed between the leaflets, or as floats. When the water leaves it, it soon perishes. The leaflets and pods are eaten by the natives.—Jaffrey; Voigt; Thwaites.

DESMODIUM, a genus of small trees and bushes of the natural order Fabaceae. Voigt enumerates twenty-eight species in India. The bark of D. argenteum is steeped in water and made into ropes, which, when as thick as the wrist, bore a heavy strain where English rope snapped. The bark of D. tilaeolia is also made into rope, and its leaves are the shal-purni of the Panjeb bazar. Dr. Cleghorn says the Desmodium paper-shrub is exceedingly plentiful in the districts of Chota and Bara Bungalow, and in the Ravi valley; the plant having a wider range, and the bark being more easily stripped off, the fibre would be available in the plains at less cost than that of Daphne papryacea.—Drs. J. L. Stewart, Punjab Pl.; Voigt, Riddell, Cleghorn, Punjab Report.

DESMODIUM ARGENTEUM. Wall.

Sambar... Chienap. | Miss, Chiti of... Sueley.

A shrub of some size, which is found on several of the rivers, where the climate is somewhat dry, at from 3500 to 9000 feet. In Kanawar its bark is used for ropes, after steeping in water. These are not lasting, but very strong; and on the Hindustan and Tibet road, when plaited as thick as the wrist, were found to stand under a heavy temporary strain when English rope snapped. Cleghorn states that in Kanawar the bark is used for making paper.—J. L. Stewart, M.D.

DESMODIUM GYRANS, D. C.; Hedysarum gyrans, Linn. This small plant has pale yellow flowers, tinged with blue; its leaf is composed of three parts, a large broad leaf, having at its base two straight leaves. And during the entire lifetime of the plant, night and day, in drought or in humidity, exposed to the sun or in darkness, these small leaves make unceasingly little droppings, somewhat resembling the movements of the second hand of a watch. One of the two rises, and at the same time its twin leaf falls to a like amount. When the first descends the second remaints, and so on. These movements are more or less rapid in proportion to the heat and moisture of the weather. In India, these have been counted up to sixty regular falls in a minute. The large leaf makes similar movements, but less marked.

DESMODIUM TILLEFOIUM. Don.

Kathi... Beas. | Chmakat... Jilcum.

Gurkats... Chen. | Marra... Kangra.

Dud shambat... Kalaunchi... Panj.

Gur shagel... Ravi.

Chumgar, Chumara... Jil. | Laber. Kali-mort, Sultell.

This large, pretty flowering shrub grows near all the Panjeb rivers at 2800 to 8000 feet of elevation. It is browsed by cattle; the twigs are
DESMODIUM TRIFLORUM.

used for tying loads; and its tough bark is recommended for papermaking. Its lilac-coloured flowers grow in clusters.

DESMODIUM TRIFLORUM. De Candolle. D. heterophyllum, D.C. [H. stipulaceum, Burm.]

Hodysaryum tril., = Willy. Ascleynomene tril., = Poir.

Kudula, = Beng., Hind. = Munudma-mudda, = Tel.

Grows in Bengal and Peninsular India in several varieties. The fresh plant is applied to indolent sores.—Dryov; F. v. Mueller.

DEMOSTEMON ZETLANICUS. Thu. Wallakum-gala of the Singhalese. Central province of Ceylon, up to 4000 feet. Timber used for ordinary work.—F. Wright; Ferguson.

DESWAL or Dehmukh, a hereditary native officer under the Maharata governments, exercising chief police and revenue authority over a district. In the Akola district of Bora there are many Mahomedan Dehmukhs, descendants of Maharata and Brahman converts.

DESPANDYA, the hereditary revenue accountant of a district.

DESWAL, a tribe of Taga, in villages of Bhagpur.

DESWALA. Hind. Applied by Mahrattas to a native of the N.W. Provinces.

DESYADES. Panj. Land beyond the influence of inundation.

DETERGENTS. The Hindu and Mahomedan natives of India employ the following vegetable substances as detergents in the place of soaps:—Elapa kottai, kallee munnoo, kuppoo munjal, kushtoo munjal, mara kalm patatt, nalla yennal, paloo, paamshumung kattai, sikai, alkaranthool, villam cuumbo.

DEDICUS, sp., insects of the grasshopper tribe; they are kept by the Chinese in cages, for combatting. They live for months in captivity.—G. Bennett, p. 271.

DEUTZIA STAMINEA.

Phul kanri. = of Hazara. Sai. = of Chambara.

Phurri. = of Kashmir. Anuchi, Deus, of Bishahar.

A small-sized Panjabi wood, white and close-grained. The Deutzia genus is of the natural order Philadelphaceae. The leaves of D. scabra of Japan are so rough, that they are used for joiners’ work.—Powell.

DEVA, a deity; Devi, a goddess. The term is Sanskrit, and from the root Div, to shine, or Diu, the sky, the air, and is written and pronounced Deo, Deb, Dewa. Deva is cognate with the Latin Deus, Greek Zeus, Lithuanian Dievas, modern Persian and Hindi Deo, = Dewal (deo and alaya) being the house of God. Maha-deva, a title given to Siva by the Saiva sect, means great or supreme god, as Maha-devi, his wife, = title of Bhavani or Purvati, = means the supreme goddess. Deva, however, may equally, by the Vaishnava, be Vishnu. The word may also denote an idol, a man of high rank or sovereign, or a Brahman, or as a cognomen suited to Brahmanas, as Chandra-deb. Amongst the compounds of this word are Dewal or Deval, a Hindu temple, from Deva-alaya, a house of God; Deva-sera, from Deva, a god, and Sera, a soldier; Deva-jani, from Deva, a god, and Jaya, a wife; Devarshi, from Deva, a god, and Rishi, a sage. The Devata are subordinate deities in Hindu mythology; divine beings, celestial. They are not superior deities, nor are they deified mortals. The Devata people Swarga, the paradise of Indra, but are found also in Kailasa, that of Vishnu. When the Western Aryans broke off from their brethren the East Aryans and rejected the worship of their gods, the word Deva, which they specially applied to them, came to have a meaning equivalent to flesh, devil. The last term comes from the Greek, Latin, Italian, French.

Amongst the Hindus, there are three kinds of Devata, or deities to whom worship is given,—the Granadvata, or village god; the Kula Devata, the race or household or family god; and the Ishta Devata, the patron or personal deity of individuals. Adhi-devata is a primitive deity, Sthana Devata is a local deity. The Aryan Hindu does not recognise the village gods of S. India, but the non-Hindu Turanian races largely worship them; and even many of those Turanian races who have been converted to Hinduism worship them. They are mostly shapeless pieces of wood or stone smeared with vermillion, and mostly represent evil spirits or devils. These are the Amma, Ammum, and Amur of the eastern and southern districts of the Peninsula, and the Satwai, Bhaloo, Maha-devi of the Thalipeeth, and the Manoo, Gedh, Mang, and Muna of the northern and western parts of the Peninsula, all of whom are recognised as causing harm to individuals. In health they are neglected; but when sickness occurs, either to individuals or as an epidemic, these spirits of evil are worshipped with much solemnity, and bloody sacrifices are made to them of goats and sheep and bullocks and buffaloes.

DEVA-DARA. Hind. Cœdrus deodara, Large; Erythroxylon arceatum? Devadarum, Tam., is Sethia Indica, D.C.; and Guatteria longifolia, Wall.

DEVA-DARSA. Sansk. In the south of India, a visit to an idol by a bride and bridgroom, with their friends, at a particular period after marriage.


To the temples of Venus in Western Asia, and in later times in Greece, large bodies of hierodulies were attached, who were at once prostitutes and ministers to the goddess. The daughters of the most illustrious families in Armenia passed from the service of the goddess Anaitis into matrimony with those of equal rank, and no stain adhered to them from their former mode of life. We find traces of the same usage in the distant settlements of the Phoenicians on Mount Eryx, and at Siege Venereca in the Carthaginian territory. In Babylon, no woman, of whatever rank, could escape the obligation of once prostituting herself in the temple of Mulfitta. This debt once acquittet, as the necessary preliminary to marriage, they were ever afterwards faithful to its obligations, with whatever price they might be tempted. In Hindu mythology, the Devas are the attendants and the courtresses of Swarga, the heaven of Siva. The earthly Deva-dasa women, or dancing girls in attendance at the temples of the Hindu deities, by their name of Deva-dasa call themselves the servants or slaves of the god. Exodus xxxii. 19 tells us of the Israelites dancing in the presence of the idol which Aaron had made for them in the form of a calf, doubtless the Nandi bull, the vahan of Siva of the Hindus of to-day, and dancing before the
Hindu idols is a daily rite, and takes place at every Hindu festival.

The temple women of the Hindus originally appear to have been intended for the gratification of the Brahmanas only; but they were, in some parts of India, obliged to yield to all who solicited them, though consecrated in a special manner to the worship of the Hindu gods. Every temple, according to its size, entertains a band of them, to the number of eight, twelve, or more.

The service they perform consists of dancing and singing. The first they execute with grace, though with lascivious attitudes and motions. Their chanting is generally confined to the obscene songs which relate to some circumstance of the licentious lives of their gods. They perform their religious duties at the temple to which they belong twice a day, morning and evening. They are also obliged to assist at all the public ceremonies, which they enliven with their dance and song. They are reared to this life from their infancy. They are taken from any caste, and are not unfrequently of respectable birth. It is nothing uncommon to hear of pregnant women, in the belief that it will tend to their happy delivery, making a vow, with the consent of their husband, to devote the child then in the womb, if it should turn out a girl, to the service of the pagoda. And in doing so they imagine they are performing a meritorious duty. The life to which the daughter is destined brings no disgrace on the family.

Until towards the middle of the 19th century, these women were the only Hindu females in India who might learn to read, to sing, and to dance. Such accomplishments belonged to them exclusively, and were for that reason held by the rest of the sex in such abhorrence, that every virtuous woman would have considered the mention of them as an affront. That feeling has now greatly changed. They are now very generally kept by the wealthiest Hindu men. In some of the Hindu temples they are numerous. The temple of Kamakhya or Kamleucha is sacred to Durga, the Sakti of Siva. It is built on a hill rising about 700 feet from the river Brahmaputra, just below Ghowatty. It is said that in former times there were 5000 young girls attached to the temple. In 1872 there were still some hundreds there. In an inscription on a slab in the Bengal Asiatic Society's Museum, of date Sushat 32 of the Gaur era, about A.D. 1174, mention is made of Bhava Deva giving 100 damsels to a temple.

The eldest daughter of every family of the weaver caste, at the small town of Tiru-kali-kundram in the Chinglepunt electorate of the Madras Presidency, is devoted to the temple. She is reared in the weaver's habitation, being devoted to the gods to the exclusive of all other the labors of the weavers. Weaving, dancing, and music masters are provided. The Murli' girls of the Mahbratta country correspond to the Basava of the Teleng race. The Basava women are usually devoted to the goddess Siva, and become prostitutes. They are called the Linga or Garudu Basava, according as they are devoted to one or other deity. They are called also Jogin, and they are married sometimes to a dagger, sometimes to an idol. In making female children over to the service of a temple, a girl, generally an infant, is taken and dedicated for life to the service of some idol by a ceremony called Shej. A khanjar or dagger is put on the ground, and the girl who is to undergo the ceremony puts a garland on the knife. Her mother then puts rice on the girl's forehead. The officiating Bhutt then weds the girl to the dagger, just as if he were uniting her to a boy in marriage, by reciting the Mangalasalok, or marriage stanzas, a curtain being held between the girl and the dagger. The girl thus becomes a Bhavin, dedicated to the service of the temple. In many parts of the south of India, the non-Aryan races thus devote their young women, in order that they may follow prostitution openly, under the cloak of a religious rite. It is not easy to trace the origin of this custom; but at the Myllita festivals, which were connected with the worship of Baal or Moloch, the women, as slaves to the goddesses, were obliged to purchase exemption from being sacrificed by prostitution.

The devout Deva-dasa or temple servants are in a recognised office, and are obtained from Hindu races whose custom it has been for ages; or by Hindus vowing, in sickness or other affliction, to give one of their daughters to some particular temple, and the vow is scrupulously kept at the proper time; or by adoption. In the selection of girls for adoption in this profession, good-looking, well-made girls are chosen, and they are taught to dance at the early age of five. Older girls, when they adopt the profession, are also taught to dance. The lessons in dancing are given daily, two hours before daylight in the morning, one of which is devoted to singing and the other to dancing. At 4 P.M., the same number of hours are devoted, so that each girl has to practise for four hours daily, and in about three years she is supposed to have mastered the arts of singing and dancing. In Southern India there are reckoned six chief kinds of dancing:—1. Audo girathoo; 2. Ananeem; 3. Lencenhe nateem; 4. Moodelyido girathoo; 5. Hereaceothoo; 6. Colu autem. And the art of dancing, or Abinayam, is said to be exhibited in six different ways during these performances,—1. By the movements of the eyes, and 2. action of the features, and 3. attitude of the breast and chest, and 4. position of the hands, and 5. action of the feet, and 6. by calisthenic performances. By commencing their studies at the early age of five, these girls are able to make their appearance at about seven or eight years of age, very rarely earlier than that, and they continue dancing till thirty or forty years of age. When these girls, pagodas, as they are called, are worn as wages, the amount which is dependent on the wealth, sanctity, and popularity of the particular temple which they have joined. The money salary they receive is nominal, seldom exceeding a few annas, and sometimes a rupee or two a month. The chief object in being paid this sum as a salary, is to indicate that they are servants of the temple; in addition to this, one or more of them receive a meal a day, consisting merely of a mass of boiled rice rolled into a ball. They are required to dance six times a day at the temple before the deity, while the priests are officiating, but this duty is performed by turns. Dancing girls attached to pagodas are generally wealthy, and when they appear before
the public are well covered with the usual gold ornaments; if poor, tinsel is used, or golden ones are borrowed from others. Their heads, ears, nose, neck, arms, wrists, fingers, ankles, and toes are overlaid with jewels, and their hair frequently has flowers. The hair is divided in front along the centre, combed back, and parted into a single plate, falling loose on the back like a tail, averaging from two to two and a half feet in length, and always ornamented with jewels and flowers. Their dancing dress comprises usually the short bodice or choli, a pair of ravake or string drawers tied at the waist, termed pajumna or pavadi (both these are generally of silk), and a white or coloured muslin wrapper or saree. One end of the saree is wound round the waist, and two, three, or more feet, according to the length, is gathered and tucked into the portion encircling the waist, and permitting of a folding fringe or gathering of the cloth in front; while the other end, taken after the usual native fashion over the left shoulder, falls towards the waist, where the end or muthani is opened out and allowed to drop in front, one end of it being tucked into the waist on the side and the other left free. This portion of the saree is usually highly ornamented with golden thread, tinsel, etc. The free end descends to the middle or lower part of the thighs; the other free end of the saree hanging down towards the legs is now caught hold of, passed between the legs, and fastened to the tie around the waist at the back, and the whole encircled by a gold or silver waist-belt. By this mode of dress a fold of the muslin saree forms a loop round each leg, and descends nearly down to the ankles, whilst the gathering hangs in the front between the legs free. At home they wear the choli and saree, with a petticoat or pavadi; this, in fact, is their usual dress, except when about performing they exchange the pavadi for the pajumna or sharni. The pavadi is made of chintz or silk, according to the means of the individual. A string of small brass bells, known by the name of shulluagy or jeydim, is tied around each leg immediately beneath the ankles.

The dancing girl caste have peculiar laws for adoption and inheritance. A dancing girl can adopt a daughter, with the permission of the authorities of the pagoda to which she belongs; but she cannot adopt a son for the transmission of property, it being immoral whether she have a son or not. The adopted girl cannot share her mother's property during her lifetime; and although she may be the heiress, she is not bound by the laws of caste to support her brother's widow. Among dancing girls property descends in the female line first and then to males as in other castes. In the failure of issue, the property of a dancing girl goes to the pagoda to which she belongs. A simple recognition on the part of a dancing girl of a child as her daughter, in the presence of one or more individuals, is sufficient to constitute her claim to adoption.

Dancing girls are respected by the several castes or sects of Hindus, and are allowed to sit in the assembly of the most respectable men, such honour not being accorded to their own wives and daughters. As a rule, it is seldom that these women have children of their own, unless, perhaps, they had lived in continual concubinage with some single individual; consequently they are always anxious to adopt girls, not only to become their successors in the temple, but that they may inherit their property likewise. Formerly a large trade was carried on by kidnapping good-looking girls from large towns and remote villages, who were sold to these women. Females in Ganjam, Orissa, and Bengal were taken advantage of, not only by abandoned characters, but also by immoral native princes, for the basest purposes. During a criminal session in Calcutta, two women were sentenced to seven years' imprisonment each, for having purchased a girl under sixteen years of age, for one rupee ten annas. In some places there are said to exist two kinds of dancing girls,—the dancing women differing from the pagoda dancers. The latter are said to live in concubinage as a rule. They are a privileged class under the Aylah Santanam, or descent by the daughter's children, or in the female line, and the law of Dhyia applies to them; Dhyia Baga, or division by favour, Merasi heritage of right to official emoluments, operates as an accommodation. These classes are recognised as Dasi and Deva Dasi. The Deva dancing women belong for the most part to itinerant bands, and are frequently made up of women of low caste, who practise their professional accomplishments and prefer living in concubinage. The Siva temple of the Souarnamookie (Kalastry), a zamindari in the North Arcot district, maintains a large establishment of what is termed Deva Dasi or pagoda dancers, forming a distinct community there (Audapalpu), who live exclusively in concubinage. Their sons, who know no father, pass by the appellation of Nagari Kumara, or sons of the country, and are slaves to the zamindar. Of the daughters, after supplying the vacancies in the pagoda staff, the remainder are brought in the list of drudges of the palace. The dancing-master or teacher receives from fifty to five hundred rupees, with other presents, for teaching a girl the usual dances. This generally forms a contract which is greatly dependent on the wealth and position of the parties.

Dancing girls, when performing, are accompanied by two men singers, termed Nuthvan and Padowen, who, while singing, also play the cymbals; these instruments are of two kinds and sizes. While the cymbal is played with the right hand, the left hand, open, is generally applied to the left ear while they sing, bowing their bodies forward as well as from side to side, contorting their faces in like manner, and making grimaces. In singing they scream as loud as their voice and lungs will admit; one or more old women join in the song, and frequently clap their hands during the performance; they are generally dancing girls who have given up the profession from age or other causes. Some of the girls are very good-looking, handsome, with open countenances, large sparkling eyes, regular features, and intelligent pleasing appearance. They are perfectly self-possessed in manner, verging on assurance, staring at one with their large, intelligent-looking eyes. Notwithstanding, they possess a vast deal of courtesy and polish, tempered with languid grace and serene self-possession, whilst their manners are courteous and their bearing unembarrassed, possessing all the teaching which experience of the worst side of human nature gives, and they know but one form of pleasure, the degrading manner in which
their lives are spent. The majority possess some natural gifts. As to conversational powers, they seldom possess any beyond the usual laugh and giggle, and monosyllabic replies given to common-place questions. Some of the Telugu girls are very handsome, of a light pale colour, somewhat yellowish in tinge, with softness of face and feature, a gentleness of manner, with a peculiar grace and ease, which one would little expect to find among them. A ladylike manner, modesty and gentleness, such beautiful small hands and little taper fingers, the ankles so neatly turned, as to meet to separate conveniently. They can generally read and write their own language, and pretty correctly—some two languages. One girl at Conjeveram wrote three; the third was English, in which she wrote her name in a fair round hand, and spoke the language with some fluency; Tamil and Telugu were the other two languages, which she wrote tolerably well. She was said to have received her education in a mission school at Madras, but did not appear ashamed of her profession. She was doubtless a girl who had been devoted to the temple in her infancy. A similar case of a mission-taught girl occurred in Mysore about 1870. Their songs generally comprise praises in honour of their several idols, filled with repetitions and unmeaning expletives. These songs are often vulgar and lewd, and sung before assemblies of men, and before the deities, but they time the quality of these songs to suit the place and audience before which they are to appear. Nanthches are given on all occasions of marriage ceremonies, feasts, and other public occasions. Among rajas, zamindars, and others, they are almost things of daily occurrence. A few of these girls can play the native guitar or violin tolerably well, and some of their songs have a mournful and melancholy tune; the harsh grating of the songs of the attendants, and the rattling of the wind instruments and tom-toms, are, however, disliked by European ears, though they charm the natives. When their services are demanded outside the temple, larger sums of money have to be paid for them, the charge being increased according to the renown and position of the girl, as some few will not give their services to any one unless a raja or some person of rank. Some travel to other districts when their services are needed by petty rajas or zamindars, and they are considered for as many days as they have to perform, in addition to being well paid. They frequently receive valuable presents, in money, shawls, gold bangles or rings, which are bestowed on them during the performance. Every village of importance has a temple with a few of these women attached to it, and in some of the large towns, possessing temples of repute for sanctity, these are filled with them. It is perhaps one of the worst institutions connected with Hinduism, from the recognition and support it receives from all classes of idol-worshipping devotees, the women being the victims of such a system, recognised and patronised in every part of India where Hinduism predominates. These poor creatures being taught to read and write their own and other languages, with a view to be better able to master the lewd immoral songs; whilst their own wives, the mothers of their children, are deprived of learning of any kind, and are carefully shut out from society, not even allowed to appear in public before any assembly of men, and are allowed, further, to grow up in the greatest ignorance and superstition. To some extent female education and enlightenment are now penetrating the masses, and the natives themselves are seeking enlightenment and intelligence, from which their own mothers, wives, and daughters have hitherto been secluded.—Dr. Shottt, the Anthropological Society of London Journ. iii., 1867-68.

DEVADAT, brother-in-law of Sakya. He raised a solemn against the teaching of Sakya, whom he attempted to kill, but, according to the Buddhist legend regarding him, the earth opened and destroyed him and all his followers, and as he fell down into hell he was transfixed with three perpendicular hot irons, whilst three others pierced his shoulders transversely. The Burmese consider that Devadat was Jesus Christ, and the Siamese think that Devadat is the God of Europe.

DEVADA or Deo-dat, a Hindu man's name, literally god-given—Theodotus.

DEVADI, an island in Bombay harbour, known to sailors as Butcher Island. The native name, properly Deva-dwipa, means the Island of the gods, or Holy Island.

DEVADIGAR, KARN. A low-caste member in the temples of the south of India.—Wils.

DEVAKI, sister or cousin to Kansa, king of Mathura, and the wife of Vasudeva. Krishna was their eighth child.


DEVALA, MAHER, also Devalanada, KARN, a Brahman of an inferior order, who attends upon idols, and lives upon the offerings made to them. Devalaya, from Deva, a god, and Alaya, a house, a temple; the house of God. The same term is applied to an oath taken in a temple.

DEVALAS. Several Sanskrit writers had this title. One was author of a code of law, one an astronomer, one was grandfather of Panini, and one a Hindu mendicant who resided at Hurdwar, and was one of the Srami writers.—War, iv. p. 28.

DEVALAS. Hind. An ordeal. See Divination.

DEVALA-LOKAS. SANSK. The habitations of the Deva. In Hinduism there are six celestial worlds between the earth and the Brahma-loka.—Harvy's Eastern Monachism, p. 453.

DEVANA, NAGAR, an alphabet in use in India. It was introduced into Tibet from Kashmir in the first half of the 7th century of the Christian era. Deva-Nagari is the ancient alphabet of India, inscriptive, in capitals, and is a modification of the inscrptional and monitory Pali. The alphabets of the various languages allied to the Hindi are modifications of the Deva-Nagari alphabet. It is the character in which Sanskrit is usually written. Mr. Wathen, like Mr. Prinsep, refers the modern Deva-Nagari, through various changes which he shows in inscriptions of different ages, to the Old Pali lat or column character.

DEVANGA, KARN. A Lingnet, one who carries the emblem of Siva on his person.

DEVANGA or Devanaga. TEL. Devangadha, KARN. The title assumed by the caste of weavers in the Karnatia.

DEVANGANA, amongst Hindus, the celestials minstrels who perform before Mahadeva. They are also called Gandharva, also Apsaras. Their instruments are the tambourine, cymbals, castanets, lute, and violin.
DEVANHALI.

DEVANHALI, a small town in Mysore, 23 miles from Bangalore. It was formerly the seat of a family of Polygars, who traced their descent from one of the refugees of the Morasa Wakkalka tribe, who founded petty dynasties throughout Mysore in the 14th century. The last of the Gaudas, as the chiefs were called, was overthrown in 1748 by the Hindu raja of Mysore. It was in the siege of Devanhalli, on this occasion, that Hyder Ali first gained distinction as a volunteer horseman, and it was here that his son Tipu was born. Hyder erected a fort of stone, which was captured by Lord Cornwallis in 1791.—Imp. Gaz.

DEVA PAL DEVA. From a copper tablet discovered at Monghir, Raja Deva Pal Deva appears to have reigned in the 9th century as far as the Karnatic and Tibet.?

DEVARAM, a famous Saiva poem, part of the so-called Tamil Veda.

DEVASTHALA. SANSK. A temple of the Hindus, any sacred place.

DEVASTHANAM, the superintendent of Hindu temples, conducted by trustees called Dharma Karta.

DEVATA, from Deva, a divinity, a spirit, a demigod. The Devata are benign spirits, governed by Indra, properly the inhabitants of the North Pole, for the Devata are said to have day when the Daitya have the night, and vice versa. Amongst the Hindus there are several kinds of Devata or deities to whom worship is given,—the Gramma-devata or village god; the Kula-devata, the race, household, or family god; and the Ishta-devata, the patron or personal deity of individuals; Adi-devata is the primitive deity; Sthana-devata, local deity. The Aryan Hindu does not recognise the village gods of Southern India, but the non-Hindu Turanian races largely worship them; and even many of those Turanian races who have been converted to Hinduism, worship them. They are mostly shapeless pieces of wood or stone smeared with vermilion, and usually represent evil spirits or devils. These are the Amma, Amman, and Amur of the eastern and southern parts of the Peninsula, and the Satwai, Bhairo, Massoba, Chamanda, Asra, Ai, and Marryai of the northern and western parts of the Peninsula, all of whom are recognised as causing harm to individuals. In health they are neglected; but when sickness occurs, either to individuals, or as an epidemic, these spirits of evil are worshipped with much solemnity, and bloody sacrifices are made to them of goats and sheep, and bullocks and buffaloes. Gotra or Kula mean a family, and is used amongst Kathariya and Vaisyas as well as Brahmas. The Gotra depend on a real or imaginary community of blood, and then correspond to what we call families. No Hindu house is supposed to be without its tutelary divinity, but the notion attached to this character is now very far from precise. The deity who is the object of hereditary or family worship, the Kula-devata, is always Siva, or Vishnu, or Durga, or other principal personage of the Hindu mythology; but the Griva-devata or household god rarely bears any distinct appellation. In Bengal, the domestic god is sometimes the Saligram, sometimes the tulsi plant. Sometimes he worships with a little rice in it, and sometimes a water jar, to any of which a brief adoration is daily addressed, most usually by the females of the family. Occasionally small images of Lakshmi or Chandi fulfil the office, or, should a snake appear, it is worshipped as the guardian of the dwelling. In general, in former times, the household deities were regarded as the unseen spirits of ill, the ghosts and goblins who hovered about every spot, and claimed some particular sites as their own. At the close of all ceremonies, offerings were made to them in the open air, to keep them in good humour, by scattering a little rice, with a short formula. Thus, at the end of the daily ceremony, the householder is enjoined by Menu (8.30) 'to throw up his obligation (ball) in the open air to all the gods, to those who walk by day, and those who walk by night. In this light the household god corresponds better with the genti locorm in than with the Lars or Pantes of antiquity.—Wilson's Hindu Theatre; Warren, Kala Saukita.

DEVA-TOTTHA-PANA. SANSK. Dismissing or releasing the deities who have been invited to a ceremony, at its conclusion.

DEVAYANAI or Devasena, one of Subrahmanya's wives.

DEVENDRA, the king of the Deva.

DEVER, the tribal designation of the Maravar race in Ramnad, Madura, Shriganga, and Tinnevelly. It seems identical with the Telugu Dewara or Devem, a respectful mode of address to a superior.

DEVI. SANSK. A goddess, the feminine of Deva, a god. It is one of the titles of the Hindu goddess Durga, also known as Kali, and when used alone is understood to designate Parvati, the sakti or wife of Siva. Devi, as Durga, in the south of India is represented in paintings as a beautiful woman riding on a tiger, but in a fierce and menacing attitude, as if advancing to the destruction of one of the giants, against whom her incarnations were assumed. Devi, as Kali, in another form, an especial favourite in Bengal, is represented with a black skin, and a hideous and terrible countenance, streaming with blood, encircled with snakes, hung round with skulls and human heads, and in all respects resembling a fury rather than a goddess. Her rites in those countries correspond with this character. Goats and sheep and other animals, and even human beings, are offered in sacrifice. See Chandra; Dasshara or Dashaara; Kali; Karari; Langa; Lustral Ceremonies; Mahadeva; Mahadevi; Parvati; Sacrifice; Satarupa; Serpent; Vishnu; Yavana.

DEVICOTTAH, a fortress on a small island at the mouth of the Colerun, in lat. 11° 22' N. Devicotah frequently changed hands during the contests between the British and French in the 18th century.

DEVIL BIRD of Ceylon has its ordinary cry like that of a hen just caught. Its screams are like those of a youth in agony. It is said to be an owl, the Sturnus Indrani, also a species of Gualama. Mr. Mitford supposed it to be a goat-sucker, a cuckoo, or a blackbird.

DEVIL GOAD.

Croton oblongifolium. R. l. p. 635.

Dhathamkasaam. SANSK. | Dhatala Bhai, TEIL.

The Telugu name signifies 'demon driver' or 'devil goad,' and sticks made of this tree are carried as a protection against evil spirits.

DEVILS and Devil-dancers. The ordinary
DEVILS.

word in use in the Tamil country to designate a devil is Paisacha or Pisacha, and the temple raised to a Paisacha is a Pekoll; but the former seems rather to be an evil spirit, and the latter a temple to an evil spirit. All the Aryan and non-Aryan Hindu and Buddhist races of India, and all the races in the Malaya and the Eastern Archipelagoes recognize the existence of spirits both good and bad; and the whole series of the funeral ceremonies from the date of the death of a Hindu until the demise of his son, are instituted from the belief that the spirit of the deceased is present and can accept oblations; and there are even instances where contracts have been entered into or renewed with the spirit of a deceased owner. The Hindus have a hell, Narakam, and a devil, but the spirits of the non-Aryan races seem to refer to evil spirits. In their belief, if any good man die, his spirit may occupy a tree or stone or other locality, and be an evil spirit; may even take possession of one of his votaries, in which event the screaming and gestulating of the possessed person are attributed to the spirit in possession, and in the Urdu tongue the phrase would be, 'Saya, uska angh bharo,' the shade has filled his body; and the possessed person prophesies. In their belief, every malady may be the infliction of an evil spirit. To dispossess the spirit, wild music and dancing are had recourse to, and the possessed, generally a woman, enchained, by her Partholong, falls down utterly exhausted, is seized with violent hysteria, or goes into convulsions. The non-Aryan races are constantly recognising new spirits from amongst deceased natives of India or Europeans, particularly from amongst those whom death or accident have suddenly cut off, and they have also introduced the deities of the Hindus as demons; but the Amman or earth-deity is in every village throughout S. India, and the worship of all the demon gods is by blood-sacrifices and ardent spirits. Amongst the Shanar race in the south of the Peninsula of India, the belief is that sometimes demons are content with frightening the timid without doing any real harm. Failures in trade or in crops are attributed to demons. People hear a strange noise at night, and immediately they see a devil making his escape in the shape of a dog as large as a hyena, or a cat with eyes like two lamps. In the dusk of the evening, devils have been observed in a burial or burning ground, assuming various shapes, one after another, as often as the eye of the observer is turned away; and they have often been known at night to ride across the country on invisible horses, or glide over marshy lands in the shape of a wandering, flickering light. In all their journeys they move along without touching the ground, their elevation above the ground being proportioned to their rank and importance.

Dr. Caldwell has known a village deserted, and the people afraid even to remove the materials of their houses, in consequence of the terror caused by stones being thrown on their roofs at night by invisible hands. Demons more malicious still have sometimes been known, under cover of the night, to insert combustible materials under the eaves of thatched roofs. Even in the day-time, about the close of the hot season, when the winds fail, demons may often be seen careering along in the shape of a whirlwind, catching up and whisking about in their fierce play every dry stick and leaf that happens to lie in their path. In short, writes Dr. Caldwell, the demons do much evil, but no good. They often cause terror, but never bestow benefits, or evince any affection for their votaries. They must be placated by sacrifice, because they are so mischievous; but there is no use supplicating their favour. If in any case the hope of obtaining a benefit seems to be their votary's motive in worshipping them, further inquiry proves that it is the supposition that the demon's malignity stands in the way of what would otherwise be obtained as a matter of course. And it may be said to be the object of the worship of all the non-Aryan races, to avert from themselves the evils which the demons could inflict; for gratitude for good received, or resignation to the will of a Supreme, are not parts of the Amman or spirit-worship. A similar superstition respecting goblins and demons exists all over India. Every Hindu work containing allusions to native life, and the dictionaries of all the Hindu dialects, prove the general prevalence of a belief in the existence of malicious mischievous demons, in demonical inflections and possessions, and in the power of exorcisms. The chief peculiarity of the superstition, as it exists amongst the Shanars, consists in their systematic worship of the demons in which all believe. In every part of India, innumerable legends respecting goblins and their malice are current; but scarcely any trace of their worship in the proper sense of the term, much less of their exclusive worship, can be discovered beyond the districts in which Shanars, or other primitive illiterate tribes, are found. In travelling down to Tinnevelly from the north, the first village which is found to be inhabited by Shanars, Virduputty, about thirty miles south of Madura, is the first place where Dr. Caldwell observed systematic devil-worship. In like manner, in Travancore, devil-worship appears to commence with the first appearance of the Shanar race in the neighbourhood of Trivandrum, from whence it becomes more and more prevalent as you approach Cape Comorin. The demon-worship of the Shanars and a few other illiterate tribes is a degradation beneath which the human mind cannot descend. The places in which the demons are worshipped are commonly termed Pe-coil, or devil-temples; some of the temples, especially those erected to the sanguinary forms of Kali, are small, mean, tomb-like buildings, with an image at the further end of the cloister. But the majority of the devil-temples are built neither with stone nor brick; the roof is neither terraced nor tiled, nor even thatched. A heap of earth, raised into a pyramidal shape, and adorned with streaks of whitewash, sometimes alternating with red ochre, constitutes both the temple and the demon's image; and a smaller heap in front of the temple, with a flat surface, forms the altar. In such cases a large conspicuous tree—a tamarind tree, an umbrella tree (Acacia planifrons), or even a palm tree, whose leaves have never been cut or trimmed—will generally be observed in the vicinity. This tree is supposed to be the devil's ordinary dwelling-place, from which he snuffs up the odour of the sacrificial blood, and descends unseen to join in the feast. Turnour mentions that an ordinance of one of the kings of Ceylon commanded that a devil-dancer should be provided for every ten villages.
Buddhists of Ceylon still resort to the incantations of the devil-dancers in case of danger or emergency. The educated European of the 19th century cannot realize the dread in which the Hindu stands of devils. They haunt his path from the cradle to the grave. The Tamil proverb in fact says, 'The devil who seizes you in the cradle, goes with you to the funeral pile.' The chief anxiety of the Tamil father, when his child is about to be brought into the world, is to see that the leaves of the margosa tree are carefully fixed over the threshold, to prevent the devils from entering and seizing upon the child, while there are two boys and a daughter. If not, a bracelet is placed upon the child's arm as a safeguard, a golden ring is fixed in its nose, and it is solemnly dedicated to some particular demon, who is untreated to protect it. The child is then probably named Payen (the Devil's Own), a name of frequent occurrence in S. India. The ring is allowed to remain in the nose till the child is grown, a great feast is then made by the parents, and sacrifices of sheep or cocks offered at the shrine of the tutelary demon. The periods of marriage and pregnancy are times at which devils are supposed to be especially malignant, and ceremonies are then performed to avert the influence of the evil eye, ill omens, and devils. In so slight a matter as the boring of a child's ears for ear-rings, it is considered necessary to propitiate Karuppan with the sacrifice of a goat, or a cock at least. A European seeing a crowd assembled under an odina tree (Odina pinnata), which the massive iron chain hanging from its trunk be-tokened to be dedicated to Karuppan, rode up, and found there the quivering body of a ram just sacrificed to the demon. The head had been severed from the body by one blow of a large sickle-shaped weapon, which was courteously handed for inspection. It was made, handle as well as blade, of native iron, and had lately been presented to the shrine by a devotee. The sacrificer had made the present offering on the auspicious occasion of an infant son having his ears bored. The head of the ram fell, as usual, to the share of the officiating priest, while the body, slung on a pole, and carried on the moment of birth. If the head was not preserved the shrines where it was sacrificed to the demon. The head had been taken home to furnish the evening feast. No temple was near, but on a pedestal under the tree reposed a hideous object made of potter's ware. This particular demon is supposed to be, when propitiated, very liberal in the bestowal of benefits; and the pujari mentioned to the looker-on that if he would make a sacrifice of a goat or two, he would guarantee that his devil should obtain for him a lucrative appointment under Government. The sacrifice of goats is almost continuous—sometimes as many as twenty goats are sacrificed at one time. The flesh is generally cut up, cooked, and eaten on the spot; and round the shrines may often be seen a number of small earthen ovens. The strongest oaths a Sudra can take is to swear by the most famous demon of the district; and often, before a lawsuit is carried into court, the aggrieved party will say to his opponent, 'I will be satisfied if you will go to such a demon's shrine, and there, in the justice of your cause, blow out the flame of a lamp in the presence of the Kali.' A man who would not hesitate a moment to commit perjury in court, would never dare to perform this ceremony knowing his cause to be unjust, for then he firmly believes that he would immediately be stricken down by the demon. So swears Latinus in the Iliad:

'Tango aras, medios ignes et numina testor.'

Under this ever-present fear of demons, the Hindu often hesitates to go even a hundred yards in the dark. He will not enter a forest alone; he fears to stand on the borders of a lonely lake, for there dwells the spirit which in Scotland is known by the name of the Kelpie, and it is near the shore where, he has heard, may often be seen in the darkness of the night the 'furry-mouthed devil,' ignis-fatnus. But most of all he fears the sandy plain, for it is a notion thoroughly oriental, that the unclean spirit 'walketh through dry places,' which are called in Tamil, Padi Kaud, devil deserts. Devils are especially said to abound in the sandy wastes between Madura and Timevelly, where the mirage (in Tamil, Padi Ter, the devil's chariot), is frequently seen, and is said to be produced by them. When a fire takes place in a village, it is owing to the wrath of the village devil. His worship has been neglected, or some insult has been offered to him, and he thirsts for revenge. Near the village of Velliarpuram, in the Tanjore district, for about four or five years accidental fires had been of annual occurrence, and it was commonly reported to be owing to the anger of Aiyanaar, a demon, whose shrine is situated to the west of the village. A banyan tree near the spot, dedicated to him, was some years ago felled without his permission, and since that time the enraged demon, refusing to be propitiated by the usual sacrifices, yearly burned down a house or two. Many races besides Hindus are very prone to make vows in times of sickness. Formerly, we are told, people used to go from all parts of England to Canterbury, 'The holy blissful martyr for to seek, That them hath holpen when that they were sick.'

The Hindu makes a vow to go to a particular shrine, and there pour offerings of oil and spices. If a diseased member has been restored, oftentimes a golden image of it is made and presented to the shrine. A person suffered from a serious affection of the eyes. The row was made that in case of recovery two golden eyes should be made and presented to the shrine of Mari Amman. In like manner, the Filipinos, we read, when afflicted with emeralds, thought, after consulting with their soothsayers, that they could best propitiate the God of Israel by making and offering to him golden images of the emeralds. As may be expected, the devils are most busy in the

'last scene of all'

That ends this strange eventful history; and a young girl fears to cross a dying man, lest his latest breath should pass into her, in which case she would be possessed beyond recovery. For a similar reason, a Hindu at the point of death, is always removed to expire without the house, which would otherwise be haunted. As the corpse is carried away, parched rice is scattered along the route of the funeral procession. It is believed that the devils will stop to pick it up, and it is considered advisable to keep them so engaged till next sunrise, for should they return to the house before that time, they would probably not be satisfied without another victim. A native

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proverb says, 'A Saturday's corpse goes not alone.' When, therefore, a death takes place on a Saturday, to prevent evil consequences, a live cock is taken with the corpse to the burning ground, and it is there given away to some person of low caste, or, like the scapegoat of old, allowed to escape into the adjacent jungle. Brahmans, averse to bloody sacrifices, substitute for a cock the bolt of the door of the house, which they burn with the corpse. When a dead body is buried, instead of being burnt, as in the case of Suniyas (ascetic devotees), salt is placed in the grave, and frequently with it the leaves of the margosa tree, so famous as a charm against devils. Salt was till recently also in England placed on the corpse of Roman and Lutheran Christians, for the avowed purpose of keeping it secure from the evil one, and the practice is still said to linger in the Highlands of Scotland. It was seen in 1893, placed over the dead body of a young girl at Greenwich. The Highlanders, indeed, in many of their superstitions are remarkably similar to the Hindus. They formerly planted the rowan or mountain ash, regarding it as a safeguard against devils, just as the Hindus regard the margosa. Throughout India, the belief is as common as it was formerly in Europe, that a man who dies a sudden or a violent death becomes a demon. All the women in the district are immediately possessed by him, and innumerable mischiefs result. A Brahman, accidentally drowned in the river Cauvery, about the year 1870, became in consequence a Brahama Rakshasa, one of the fiercest of demons. An officer of artillery, killed at the battle of Assaye, was buried beneath a tree near the village, and his spirit is worshipped there to the present day. Dr. Caldwell mentions the ease of Captain Pole, an English officer who was mortally wounded at the taking of the Travancore lines in A.D. 1803, and has been traced by the Shanars. His worship consisted in the offering of various liquors and cheroots. About the middle of the 19th century, a Brahman who was sentenced to be hanged at Madras, for the murder of another Brahman going on pilgrimage from Benares to Rameswaram, threatened that though they were about to hang him, he would not die, but would become a Brahama Rakshasa, and torment all those who had given evidence against him.

Bells and chains are almost always used in devil-worship and exorcism; the notion involved seems less to be that of scaring the devil, than that of charming him, just as a snake-charmer charms a snake by music. Near the fanes of the popular devils there are massive iron chains hanging from the trees, with bells and knives attached to them. In the well-known Sanskrit work, the Hitopadesa, occurs a story relating to a famous devil, called Ghanta-karna or Bell-ear. This Rakshasa was believed to dwell on the top of a mountain near the town of Brahmapura. One day a thief, having stolen a bell (probably one of those near the demon's fane), was killed by a tiger as he was carrying off his plunder. The monkeys who dwelt in the adjacent forest obtained the bell, and amused themselves by ringing it. The people of the town having found the dead body of the man, and continually hearing the sound of the bell, were filled with intense horror, fully believing that the demon, enraged, had killed the thief, and was now ringing the bell. The town was in consequence nearly deserted, when an old woman, guessing the truth, went to the king, and said that for a small sum she would undertake to settle the demon. The king, delighted, gave her what she asked, and the old woman, after tracing the cabalistic circle,—the Kolam,—and pretending to go through certain incantations, entered the forest. By means of fruits which she strewed on the ground, she was enabled to decoy the monkeys, and, having obtained the bell as a trophy of her victory over the demon, she returned in triumph to the town. So little has the belief in devils been shaken, that in the India of the present day, it would, in a like case, be just as easy to deceive the people, and even their native Hindu rulers. Dr. Caldwell mentions that the process of demonification is still going on amongst the Shanars; and in every case the characteristics of the devil and his worship are derived from the character and exploits of his human prototype. There is a continued succession of devils claiming the adoration of the Shanars, and after a time sinking into forgetfulness. Among the demons most feared at the middle of the 19th century, he mentions Palavesham, a notorious robber during the latter period of the Mahomedan government. A few of the demons are forms of Kali, connected with a debased and comparatively modern development of the Brahmanical system.

Devil-worship in Ceylon by the Rodiya is performed in the jungle. A kind of altar is erected, and covered with the skin of the plantain tree. It is then scented with dammer resin, and cooked vegetables, placed on a plantain leaf, are laid on it, to which is added rice and flowers, and the blood of a red cock. The Kattidiya, or devil-dancer, then recites a charm, and the cure is supposed to be complete. The offering is left to be eaten by birds and animals. The devils Gorra and Meleyi are of two kinds.—Dr. Callebott on the Shanar; Kenrick's Phanimica, pp. 307, 314: Debosia India, quoted in Cole's Hind. Myth. p. 378: Sower's Voyage, p. 29; Dunsen, iv. p. 210; Williams' Story of Nala, p. 208.

DEWLS' HORSES. See Insects.

DEVISTHAN, a Hindu temple. Devisthana, temple revenue.

DEVOTTHANA. SANSK. Also Deotthan. The eleventh day of the light half of the month Kartik, when Vishnu is supposed to rise up from his four months' sleep at the end of the rainy season.

DE VRIESE, author of various memoirs on Malayian Island Plants, and also of a Monograph of Marrattiacae, a work of great labour.

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H'tung... Bumm. Shabnam, Aoes, Hind. Rosec... Fr. Raggiaha, Bir. Than... Grom. Ross. The devils Genre and Meleyi are of two kinds.

Some one has ventured the remark that at full moon, near the equator, more dew falls than at new moon, and to this are ascribed the moon heads (man hoofen), which, however, Jansen had but once seen during all the years which he had spent between the tropics. In British India, during the cold weather months, when rain very rarely falls, the dew is of very great importance to all the crops then in the ground.—Jansen, in M'urray's Phys. Geo. p. 146.
DEWA, a divine being, whether resident upon earth or in a deva-loka.—*Hardy*, p. 435.

DEWAK. HIND. Termes, white ants.

DEWALI. The Hindu temple in which the idol is placed, is called, as temples generally are, Dewal or Dewal, from Deva, a deity, and Aliya, a house, or, literally, a house of god. The British and other people call it pagoda, a word unknown in India beyond the reach of European colloquial instruction, but which has been supposed to be derived from But-khana, two Persian words, or But-gada, Telugu words, both meaning the ghost-house. It may, however, be from Paigudi, a devil temple; also from Dalgopa, a Buddhist relique shrine. Dewal, in Sind, was so called from its celebrated pagoda. Its site is now doubtful.

DEWALDA. HIND. Bankrupt.

DEWALDA DEVI, daughter of Kamala Devi. On the fall of Nerbudda, the ancient capital of Gujerat, Kamala Devi was captured and taken into the harem of Ala-ud-Din; but her daughter Dewalda Devi escaped with her father. She had been asked in marriage by the son of Rams, the king of Dowlatabad, but her father, proud of his Rajput origin, had refused to give her to a Mahratta, even though a prince. Kamala Devi, however, having expressed to Ala-ud-Din a wish to be joined by her daughter, Ala-ud-Din sent a strong army under a general to bring Dewalda Devi to Delhi. In this extremity her father accepted the Mahratta prince, and sent off her daughter under an escort, but the escort was overtaken, the fair maiden seized, and carried to Delhi, where she was married to Khizr Khan, son of Ala-ud-Din. A few years after the death of Ala-ud-Din, the throne of Delhi was filled by Kafoor, a converted Hindu, who put out the eyes of Khizr Khan, filled the capital with Hindu troops, put to death all the survivors of Ala-ud-Din’s family, and transferred Dewalda Devi to his own harem. See Kamala Devi.

DEWALDI, a heroine of Hindustan. When Chilan was on the throne of Delhi, Dewalda roused her sons to battle, and, observing other unwillingness, she said, ‘Would that the gods had made me barren, that I had never borne sons, who thus abandon the name of the Rajputs, and refuse to succour their prince in danger!’ They acceded to her request. She then said, ‘Farewell, my children, be true to your salt; and should you lose your head for your prince, doubt not you will obtain the celestial crown.’ When Akbar invaded Chitor, the mother of Putta of Kailwa charged her son to put on the safron robe, and die for his country.—*Calcutta Review*, No. 109.

DEWALI, properly Dipawali. SANSK. From Dipa, a lamp, and Ah, a row. A Hindu religious festival held about the end of October, in the last two days of the last half of Aswin and three days of Kartik, in honour of the goddess Kali and of Lakshmi, and to commemorate the destruction of the demon Taraki. The Hindus, after bathing in the Ganges or other river, anoint with oil, put on their best attire, perform a saadha, and at night worship Lakshmi. On this festival of lamps all Hindus propitiate Lakshmi, the goddess of wealth and fortune, by offering at her shrine. In Rajasthan, on the Amavus, or ides of Kartik, every city, village, and encampment exhibits a blaze of splendour from lamps. Stuffs, pieces of gold and sweetmeats, are carried in trays and consecrated at the temple of Lakshmi, to whom the day is consecrated. The rank of Dewar dines with his prime minister; and this officer and his near relatives offer an oblation by pouring oil into a terra-cotta lamp, which the sovereign holds. Every votary of Lakshmi tries his chance of the die, and from their success in the Dewali foretell the state of their affairs for the ensuing year. On the first day of the Dewali, the whole Hindu population of an Indian city bear branches of the sami, tulsi, and other sacred trees in procession, and walk round all the temples in the neighbourhood, offer salutation and prayer to their country’s gods, in their several incarnations. A rainfall at that period of the year is highly advantageous to growing crops, and a proved of the people of N. India is,—

‘Je min puya Dewali, Jiya phus, jiya hal.’

‘If showers fall about the time of the Dewali festival,’ [what matter] whether you are lazy (lit. a bundle of sticka) or a real ploughman, [the crops are sure to be equally fine.]—*Postans*’ *West. India*, ii. p. 177; *Todd’s Rajasthan*, i. 70, 279. See *Leviteus* xxiii. 40.

DEWAN. ARAB., PERS. In India, the chief officer of a second-rate sovereign. In Persia, a court of justice or of other business. A reception room is generally called the Dewan-i-Am, or public reception-hall. The Dewan Khana is the office room of the dewan, that part of the house of a Mahomedan where the master receives his visitors, and in which the men-servants reside; and the Dewani means pertaining to the dewan. The Dewani Adalat, under the E. I. Company, was a court of civil and criminal jurisdiction.—*Rich’s Kurdistan*, i. p. 88.

Dewan, PERS., a collection into one volume of the entire odes of an author, whether in the Persian or the Hindustani tongue. In bringing them together, they are arranged alphabetically according to the letters in which the verses terminate. The Dewan-i-Sadi and Dewan-i-Hafiz are generally known by the names of their compilers, and Dewani is the civil department, in contrast to the feudatory or criminal. Dewan-i-Am, a privy council chamber. The Dewan of Bengal, Behar, and Orissa was conferred on the British by Shah Alam II., on the 12th August 1766. The office was a vice-royalty, and comprised the collection of the revenue, then three kroo of rupees, and the administration of civil justice. The net revenue was two kroo.

DEWANAGI-WANLU. Tel. Religious mendicants in Southern India, who accept charity only from one or other of the artisan goldsmith castes.

DEWA PUJA, or worship of the implements in use as the means of subsistence, observed by all Hindus, and by all the Kayasth caste at the Dewali and Hooly festivals.—*Malcolm’s Central India*, ii. p. 167.

DEWAHR, Dewar, perhaps more correctly Deshwar or Dehwar, is the god under whose special care a village is placed; the gramma-deva or genius loci, for whom a portion of grain is always set apart at each harvest.—*Elliot*.

DEWAR-GIRI. HIND. Tapestry, or cloth for adorning a wall.

DEWAS. DEWA, a native state in Malwa, lat. 22° 42’ to 23° 5’ N., long. 75° 57’ to 76° 21’ E. The Dewas chieftaincy is held by a Mahrratta, whose
ancestors came to Malwa with the first Raja Rao. The revenue of the state is 4,25,000 rupees, the area 256 square miles, and the population 25,000 souls. The chiefs have each received a annual guaranteeing to them the right of adoption. The chiefs are equal in rank, and have an equal share in all receipts. Each receives a salute of fifteen guns.— Atcheon’s Treatises, iv. p. 334.

DEWAT. The 6th note in the musical scale, ‘Ja.’
DEXTRIN has the same composition as starch, but it is soluble in cold water.

DHA. BURLM. A bill, a sword; in various forms, it is the inseparable companion of every man among the hundred forest tribes of Trans-Gangetic India. Among the civilised Burmans, however, it is more confined to the lower orders, the peasant and boatman, except as a weapon of war. The Burman’s dha is a weapon about three feet long, with a slight uniform curve from end to end. About three-sevenths of this length is helve, the rest blade. The blade is generally about an inch and a quarter wide, with an obtuse point. It serves every purpose that a cutting weapon can serve, from making a toothpick to felling a tree, killing a pig or an enemy in battle. Very long and heavy dhals are worn by officials of the Burmese court.— Yule’s Embassy, p. 158.

DHAIE. HIND. A nurse. In Rajputana, the Dhabbas, or foster-brothers, often hold lands in perpetuity, and are employed in the most confidential places, on embassies, marriages, etc.— Tod’s Rajasthan, i. p. 278.

D’HAGHA. GUS. Thread.

D’HAGOBA. See Buddha; Dagoba; Dhatugarbha; Tupos.

D’HAMHIMA, a tribe of Rajputs recorded amongst the 36 royal races. They were the lords of Biana, and bore a high name for deeds of chivalry. Colonel Tod considered the tribe to be extinct, but they have three or four villages in Baghput. There are also Dhamhima Ahir and Dhamhima Jat in the same neighbourhood.— Rajasthan, i. p. 199.

D’HAI or Dahi. HIND. Curdled milk.

D’HAKH of Kashmir, a red and white bean, Phasoleus lunatus, etc.

D’HAKHA. JAP. or SANSK. A form of the drum that was one of the insignias of royalty of the Chalukya dynasty when ruling at Kalisar marriage ceremony.

D’HAKUN, a witch. Witchcraft is believed in all over Rajputana; but the people of Mewar, whose capital is Udaipur, have most faith in the belief. Her powers are believed to be unlimited, particularly at seasons of the Dassera and Dewali. In certain provinces a man will not marry into a family unless they have a witch among them, who may protect him from evil. Such witches are called Rakhvali, or guardians. The Jiggar Khor, or liver-eater of Sind, is the genuine vampire. An officer, after a long chase in the valley of Udaipur, spared a hyena, whose abode was the tombs, and was known as the steed on which the witch of Ar saullied forth at night. Evil was predicted; and a dangerous fall subsequently, in chasing an elk, was attributed to his sacrilegious slaughter of the weird sister’s steed.— Tod’s Rajasthan.

D’HAL. HIND. A shield, an ear ornament.

D’HALIZ-KOONDLANA, treading the threshold, a Mahomedan marriage ceremony.

DHAL-PHOR. HIND. A sept of the Kurmi, a great agricultural tribe in Hindustan; the words mean clad-breaker.

DHAIL SAHIB, a Maharamul am, or banner; literally, Mr. Shield.

DHAMA-PADAM, a Buddhist sacred book of high authority. It gives the most faithful picture of the ethical spirit of Buddha’s teachings.— Bunsen, Girl in Hist. i. p. 343.

DHAMAYANGYE. Flat arches of stone and brick are not uncommon in Burma. Captain Yule observed two of brick, in windows in the Dhamayangye temple at Pagan, where no suggestion of European or Indian aid could have helped. There is one flat stone arch in the northern gate of the fort, and another in a tomb, at Kunmool. There is one in the medieval building of Roslin Castle, and in the magnificent Saracen gateway of Cairo, called Bab-el-Fitoor.— Yule’s Embassy.

DHAMEE, this old Rajput state became independent of Kubler after the Gurkha war. The state was bound to supply forty begar, but this was commuted to a tribute of Rs. 720. Revenue, Rs. 4000; population, 2853.

DHAMEK, near Benares, a fine grove, the ancient Mriga-dawa, where Buddha first publicly preached his doctrine, which king Asoka commemorated by erecting a tower.

DHALI. HIND. A follower of Prannath, a Hindu reformer who flourished in the 17th century in Bundelkhand.— Wilson.

DHAMMA. PALL. Dharmas, SANSK. Law, duty; the doctrines or sacred writings of the Buddhists.—Hardy, Eastern Monachism, p. 435.

DHAMMAN or Dhanmon. PANJ. Grewia elastica, Royle; G. oppositifolia, Buch. Grewia tiliaefolia? are trees of Cuttack. G. elastica is a reddish —coloured wood, pliable, strong, very plentiful in the Santal jungles; used chiefly for cart wheels.— Calcutta Eng. Journal, July 1860.

DHAMNAR, about 40 miles S.E. from Nemuch, but close to Chundivassa, contains Buddhist caves with a Brahmanical rock —temple behind. The principal group are Buddhist.— Burges, p. 392.

DHANNI. HIND. Portulaca oleracea? P. sativa, DUKH, Helicteres isora.

DHAMUN. HIND. Green tea, in Ladakh; also brick tea, in Kashmir. Tea in cakes, both black and green.

DHAN. HIND. Oryza sativa, unhusked rice or paddy, also growing rice. Dhan marri, a rice field.

DHAN. HIND. Wealth. Tan, Man, Dhan, body, mind, and substance.

DHANA, the Gond portion of a Hindu village, which is always separate from the rest. Also applied generally in the north-west as Wuzra, Nurha, or Poorw.— Elliot’s Suppt. Gloss.

DHANAK. HIND. Very narrow gold ribbon.

DHANAPATTI or Srimanto, a romantic Hindu tale of adventures of a father and son, wealthy Banya merchants of the Ganges, who travelled to Coromandel, Ceylon, Java. Both of them were imprisoned in Ceylon.

DHAND. SIND. A pool of water, a marsh.

DHANDORA. HIND. Proclamation by beat of drum.

DHANGJI. HIND. Riot, rebellion; any hiding-place of robbers.

DHANGAR is the Danaga of the Carnarose-speaking races. The Dhangar in Telugana are in twelve tribes, who do not eat together nor internarry. In the centre and south of the Peninsula, Dhangar are shepherds and wool-weavers,
kitchen gardeners and labourers. In the hill country of Rangar and Chutia Nagpur, there is a tribe so called, some of whom descend periodically into the plains for labour. There are 8059 Dhangar in Amrooti. Many Dhangar are settled in the towns of the south of India, occupied as labourers, kitchen gardeners, and dairymen, and they arrange themselves accordingly. Dhangars have largely settled as cultivators in the Indapur, Bhimatherry, and Purandhar taluks of the Bombay Presidency. The Maharaja Holkar, the sovereign of Malwa, whose capital is Indur, is a Dhangar. The Asal, or pure Dhangar, are pastoral only. The pastoral Segar Dhangar also weave blankets. The Teling Dhangar are cultivators, milkmen, and weavers of coarse woollens. The Maharatta Dhangar graze cattle and sheep, and clarify their butter into ghi. The Bangar Dhangar are purely shepherds, as is indicated by the term 'Ban-gar,' wild man or forest man.

The Dhangar of the peninsular Dekhan are of two sections, the Kota Pullia Dhangar, who keep sheep, and the Barji Hatkar, or 'shepherds with the spears.' The latter still hold much land on the N. borders of the Nizam's territory, and, until the British took it over, were notorious for pugnacity and rebellion, and they still continue a quarelsome and obstinate race. They are supposed to have come from Hindustan in twelve tribes, and been impelled by the Gonds towards Hingoli and Bassim, which locality got the name of Bara Hatia, or the twelve tribes. They now occupy the hills on the north bank of the Pain Ganga. To die in the chase or in war is deemed honourable; and the Hatkar who is so killed is burned with his feet to the east; otherwise he is interred sitting with a small piece of gold in his mouth. The Hatkar are fine, able-bodied men, independent but arrogant; many of them never shave nor cut the hair of their face. The Hatkar can only have one laggan, but may have several pet wives. Their widows can contract a pit marriage.

The Dhangar in the centre of the Peninsula are dark, almost black men, of slender and spare forms; they are quite dissimilar from the Gaoli in personal appearance, and all the sheep (Kuru, Karnatica, a sheep) are under the Kurubaru or Kurumbar race. They are also wholly distinct from the Yedyan or Yadava cowherd race, who are known in all the Tamil country as 'Pillai.' In all probability the dispersed Kurumbar of the Peninsula of India, some of them in towns and others almost nomades, are the fragments of the great shepherd race who held sway in the Arcot district in the early centuries of the Christian era. The Kurumbar and Dhangar have no similarity in appearance.

Dhangar, in the Luki territory, bordering on Udaipur and Sultanpur, are short but muscular and able-bodied men, who speak a separate language. They do not follow Hindu rites, and they have no temples, but set up near their villages a stone with some rude carvings, which they worship in times of famine or sickness or calamity. They bury but sometimes burn their dead.

The Gaola is a cowherd, a dairyman, from Hindustan to Hyderabad.

The Kurubars are in the Canarese region, in the centre of the Peninsula. The Kurubur or Kurumbar and the Gaola dairymen keep aloof from each other.
DHAOLA DHAR.

DHAOLA DHAR, the four bearers, supporters of the platforms of Hindu temples.

DHAOLA. MAHI. Applied to the Koli, Paggi, and others, who habitually wear arms. 

DHAULI, name of a waterfall near the Hirumphal, or Deer's Leap, on the Nerbudda.

DHARICHA. Hind. Second husband of a widow.

DHARINJO. UDA. A common tree of Ganjam and Gumsur; extreme height 60 feet, circumference 4 feet. The bark is used medicinally by women after childbirth; the juice of the leaves is supposed to cure itch.—Captain Macdonald.

DHARMA, a tract of country in Kumaun district, N.W. Provinces, lying on the Tibetan side of the main Himalayan range, between lat. 30° 5' and 30° 30' N., and between long. 89° 25' and 80° 45' E. It is of considerable elevation, its chief peak, Lebong, rising 18,912 feet above sea-level; while the Dharma pass, on the northern frontier, leading into Hundes, reaches a height of above 15,000 feet. The habitable portion consists of narrow and very rugged valleys, traversed by the river Dhauli and its tributaries. The inhabitants are Bhotiya, a Tibetan race, who carry on a trade between Hundes and Kumaun, by means of pack-sheds, over the Dharma pass. Estimated area, about 400 square miles.—Lamp. Gaz.

DHARMA. HINDU. Sansk. Charity, law, virtue, morality, justice, religious ritual, religious law, legal or moral duty. Dharma, Artha, and Kama are the three principles on which Hindus base their ideas of life and its duties. Dharma, the acquisition of virtue and religious merit and obedience to the ordinances of religion; Artha, the acquisition of arts, friends, and property, land, gold, wealth, cattle, equipages; and Kama is the enjoyment of appropriate objects by the five senses. Dharmakartha, the manager of a Hindu temple, a churchwarden. Dharmasala, a resting-place for travellers. Dharmasala, a religious assembly. Dharmasasra, the Hindu code of laws, the whole science of law. Dharmakari, a judge. Dharmadas, a temple servant. Dharmaswama, literally faith (dharma), to his lord (swama). In the Dharmarcha or Dharma-avatara, the forms of the deities, dharmas and adharmas, virtue and vice, are covered with cow-dung and put in a covered vessel, and the accused is allowed to draw; if the dharmas image be withdrawn, he is innocent.

DHARMA, the eight scriptures of the Nepalese Buddhists.

DHARMAPADESAK, the teacher of Dharma, the ordinary term in use to designate a religious teacher.

DHARMAPURI, a mythological city of the Hindus, twelve months' journey from Yannapuri, another fabulous city of Hindu mythology. It is the same with the purgatory of St. Patrick in the gold island.

DHARMA-RAJA, the title of the spiritual ruler of Bhutan, literally king of virtue. He succeeds by incarnation.

DHARMA-RAJA, Shinje, Telugu, and Choigyal, Tibetan, is from Dharma, justice, and Raja, a king. A name of the Hindu deity Yama in his beneficent form. He is the king of justice, whose countenance the virtuous only see; the wicked see him as king of the infernal regions. In the Hindu religion he is the god of eternal justice. Antaka
DHARMA-SATRA.

is an attribute of Yama or Dharma-raja, in the character of the destroyer.—Cole's Myth, p. 379.

DHARMA-SATRA, the whole code of Hindu law, but more especially applied to the laws of Manu, Yajnavalkya, and other sages, variously ennumerated from 18 to 42, who are supposed to have recorded the Smriti, or recollections of what they received from a divine source. Of these, the greatest are Manu and Yajnavalkya. The works are generally in three parts,—Achara, rules of conduct and practice; Vyavahara, judicature; and Praya schitta, penance.—Dawson.

DHARMA-SUTRA, a term sometimes given to the Sutras of the charika rules.—Malle.

DHARMA-SASTRA, a work of learned men, both at home and in the Kangra district of the Punjab, in long. 76° 32' 46" E., and lat. 32° 15' 42" N. The houses are built up the hill, the lowest being at 4000 feet, the highest 7000 feet. The sanatorium is on one of the spurs running south from the great range of Dinola Dhar. This range runs east and west, at heights of from 18,000 to 19,000 feet, and forms a great wall on the north; it is due to this range that the climate of Dharmasala is so mild, and has such a heavy rainfall. Kangra, said by Lord Canning to be the most beautiful district in India excepting Kashmir, is surrounded by lofty mountains, interspersed with undulating hills, and situated between the rivers Ravi and Sutlej. On one side it has the territories of Kashmir and Chamba, on the other the wild but romantic hunting-fields of Kulu, Spiti, and Ladakh. Various races of men, speaking different languages, are distributed over its surface. Every tone of climate and vegetation is here to be met with, from the scorching heat and exuberant growth of the tropics, and barren heights destitute of verdure and capped with perpetual snow.—Dr. W. P. Dickson, 1870; India Annals, No. 227, 1870; Paharee.

DHARMSALA. Hind. A building erected for a religious or charitable purpose. It is like the sami or caravansari of Persia. A house for the accommodation of travellers or pilgrims, or for the reception of the sick or poor. In India they are of varied forms,—sometimes a quadrangle, open all round and to the sky, and with one entrance; sometimes small rooms, both on the inside and outside of the surrounding walls.

DHARNA BAITHNA. Literally, to sit Dharna, was a practice put in force in several parts of India by creditors, who sat down before the doors of their debtors, so as to close all exit unless over the sitter's body, and thus harrassed a payment of their claims. The practice, up to the 19th century, was familiar to Benares, and may be translated caption or arrest. It was used by the Brahmans to gain a point which could not be accomplished by any other means; and the process was as follows:—A brahman who adopts this expedient for the purpose mentioned, proceeds to the door or house of the person against whom it is directed, or wherever he may most conveniently intercept him. He then sits down in dharna, with poison or a poniard, or some other instrument of suicide in his hand, and, threatening to use it if his adversary should attempt to molest or pass him, he thus completely arrests the debtor. In this situation the brahman fasts; and by the rigour of the etiquette, which is rarely infringed, the unfortunate object of his arrest ought also to fast, and thus they both remain until the institutor of the dharna obtains satisfaction. In this, as he seldom makes the attempt without resolution to persevere, he rarely fails; for if the party thus arrested were to suffer the brahman sitting in dharna to perish by hunger, the sin would for ever be upon his head. This practice has become almost unheard of in late years; the last occasion in Madras was about A.D. 1846; but formerly even the interference of British courts often proved insufficient to check it, as it had been deemed in general most prudent to avoid for this purpose the use of coercion, from an apprehension that the first appearance of it might drive the sitter in dharna to suicide. The discredit of the act would not only fall upon the officers of justice, but upon the Government itself. The practice of sitting in dharna was not confined to brahman men. It was had recourse to by Benn Bhai, the widow of a man of the brahmanical tribe, who had a litigation with her brother-in-law, Bal Kishen, which was tried by arbitration, and the trial and sentence were revised by the court of justice at Benares, and again in appeal. The suit of Benn Bhai involved a claim of property and a consideration of caste, which her antagonist declared she had forfeited. Originally it was practised by brahmans, but was prohibited by Res. 7 of 1820 of the Bengal Code. In the south of India it is done before idols for obtaining the object of desire. It is an ancient practice. Genesis xxiv. says, 'I will not eat until I have told mine errand,' and a brahman sometimes went to a house, sat down, and refused to eat till he had obtained the object he had in view. The 'Englishman' was wont to say 'William, I am a Chutturhooj, son of a well-known and respectable Charan of Udaipur, carried to the late chief of that state certain grievances which he considered himself to be suffering in connection with his village. Failing to secure redress by ordinary measures, he took the unusual course of intruding on the chief without permission, for which breach of etiquette he was forbidden to enter the palace again. Accordingly, being under a sense of degradation, ill-feeling, and annoyance, engaged by the prohibitory order, he indulged in satires and philippics against his chief, who thereupon confiscated his village. Upon this, Chutturhooj proceeded to Suhumbar, which at that time was at enmity with the chief of Udaipur, and this step only incensed the chief all the more against him. Here he appears to have been provided for, but subsequently wandered about from place to place trying to obtain redress. But without having able to secure either the forgiveness of his chief or the restitution of his village. In this state of feeling he appears to have given way to the superstitions idea, still prevailing amongst the Rajputs, that the shedding of his own blood or the blood of his family would bring destruction upon those who had offended him, if it did not secure a ready attention to his real or imaginary wrongs. In 1859, therefore, whilst travelling through the jungle with his two wives, two slave girls, and a servant, together with a party of the Meena, who were his retainers, he one day disembowled and gave his horse in charge to the servant, and began to smoke. Then, advancing a little distance, he suddenly killed the servant, and called upon the Meenas to dismount the women. His orders were obeyed. One slave girl fled away with her boy to a neighbouring village, and escaped, but the three
other women were killed. The slave girl informed the villagers of what had occurred, and they went out and saw the dead bodies, and carried them away, and burnt them. The slave girl died the next year, and Chutherbhoor never turned up for six years after the offence had been committed. He then came in and confessed to having murdered the women and servant. Accordingly he was tried and convicted of murder, and the Viceroy was fully of opinion that the man deserved hanging, but that, considering the number of years which had elapsed, the prevalence of superstition, and the lawlessness which prevailed in that part of Rajputana at the period in question, when many such acts were committed with impunity, His Excellency commuted the sentence to transportation for life. The inviolability of a brahman, and the sin attached to causing the death of one in any way, is ineradicable, and to this, according to Sir William Jones, may be traced the practice of dharna.

**DHARWA,** a town which gives its name to a revenue district in the Southern Mahratta country, lying between lat. 14° 17' and 15° 50' N., and long. 74° 51' and 75° 57' E., with 986,087 inhabitants. Between 1787 and 1796, famine occurred from a succession of droughts, accompanied by swarms of locusts. The next famine was in 1802-3, occasioned by the immigration of people from the valley of the Godavery and the march of the Peshwa’s army through the country. In 1822, from want of rain, prices ruled very high. Owing to successive hot seasons, famines recurred in the years 1866 and 1877.—*Imp. Gaz.*

**DHASITI’-KI-PICHTAK,** the Sahara of Asia.

**DHASRA,** religious mendicants in Southern India, who hold an iron worshipping lamp in their hands, and perform on the jangata, tarte, and sinku. They walk before a corpse when being carried to the funeral pile.

**DHAT,** an isolated and now dependent chieftainship of which Oomerkote is the capital. It separates the Bhatti race from the Jareja race. Its prince is of the Pramara race and Soda tribe, ancient lords of all Sind. The Dhatti is the Rajput tribe inhabiting Dhat, and in no greater numbers than the Kaoura, whom they resemble in their habits, being entirely pastoral, cultivating a few patches of land, and trusting to the heavens alone to bring it forward. They barter the ghi, or clarified butter, made from the products of their herds, for grain and other necessaries of life. Rabri and chauth, or porridge and buttermilk, form the grand fare of the desert. A couple of seers of flour of bajra, joor, and kajri is mixed with some seers of chauth, and exposed to the fire, but not boiled, and this mess will suffice for a large family. The cows of the desert are much larger than those of the plains of India, and give from eight to ten seers (eight or ten quarts) of milk daily. The produce of four cows will amply subsist a family of ten persons from the sale of ghi; and their prices vary with their productive powers, from ten to fifteen rupees each. Rabri, analogous to the kous-kous of the African desert, is often made with camel’s milk, from which ghi cannot be extracted, and which soon becomes a living mass when put aside. Dried fish from the valley of Sind is conveyed into the desert on horses or camels, and finds a ready sale amongst all classes, even as far east as Barmair. It is sold at two doka (coppers) a seer. The poors, or temporary hamlets of the Dhatti, consisting at most of ten huts in each, resemble those of the Koowra.—*Toot’s Rajputan,* p. 45.

**DHATUGARHIA,** from Dhattu, reli, Garbha or Galsia, a casket, softened into the Dhagboga, is the altar, shrine, or reli receptacle in which the relics of Buddhism are kept. The Dhagboga is the descendant of the sepulchral tumuli of the Turanian races, whether found in Etruria, Lydia, or among the Seythas of the northern steppes. By some it is supposed to be the source of the word Pagoda. It is also known by the Sanskrit word Chaitiya. Dhagboga is a Buddhist shrine enclosing or protecting some sacred reli; but by some they are supposed to be shrines built over the remains of persons of the Buddhist faith, and consecrated to their saints.—*Prinsep’s Antiquities by Thomas,* p. 154. See Dhagboga.

**DHAVLI,** 20 miles south of Khatak, and 20 miles north of Jaganath, has two separate edicts of Asoka. The first edict is addressed to the public officers of the city of Tosali, and commands murderers to be imprisoned. Both edicts appoint two upas or colleges for meditation and the propagation of Heaven. The question of atheism in ancient Buddhism is set at rest by these edicts, which repeatedly speak of this world and the world hereafter; and these people are expressly commanded to propagate Heaven, and to confess and believe in God, who is the worthy object of obedience; or, more literally, ‘Him, the eternal, ye shall propitiate by prayer.’—*vi. p. 442.*

**DHAUARA,** Hind. Grislea tomentosa. The scarlet flowers, dhan ka phool, are considered stimulating, and given to women in labour; are also used in dyeing. The gum, dhaura or dhan ka gond, is white in colour, like the katira and tragacanth gums, swells in water. In dyeing cloth it is applied to those parts that the dye is not wished to touch. It is eaten in Luddoo. One maund costs ten rupees.—*Gen. Med. Top.* p. 133.

**DHAUSSA,** Hind. A kettle-drum, carried on horseback.

**DHAYA,** Hind. A thatch grass.

**DHAWALI,** a mountain in Nepal, in lat. 29° 11’ N., long. 82° 59’ E. One of the loftiest peaks of the Himalayas, rising 27,600 feet above sea-level.—*Imp. Gaz.*

**DHAWAR,** Mahi. A tribe of iron-smelters.

**DIANYA,** Hind. Land on a river bank, but subject to the occasional overflow of water; also ridges along the dry course of a river, which has turned in another direction.

**DHIE,** Hind. In the N.W. Provinces, a subdivision of the Jat tribe.

**DIEH,** Hind. Of the Cis-Sutlej. Old mounds yielding salt-petre earth.

**DIEKUDI,** Mahi. A water-lift, the pe-cotah of the Tamil, and dhenki of Hindustan. Dhenka or Dhenki is a lever of any kind; a pedal for husking rice. The rice is first dashed with water. It is a mortar with a pestle worked as a treadle.

**DIEHALLA,** Hind. Small weights for separating the gold strands in tinsel-making.

**DIEKLIE,** Hind. A water lever, a machine for raising water, the pe-cotah or yettan of the
Tamil countries. It consists of a horizontal lever, with a weight at one end and a bucket of iron or an earthen pot at the other, slung from or resting on an upright bamboo or pole; this, being lowered into the well and returned to its original place, brings up a bucket of water. The name is provincially corrupted into dhooblee, dhiblee, and in Gorakhpur into dheokul. The word appears to be derived from Dhulkana, to roll, to overturn. The posts which act as the fulcrum are called t'hoonya; the rope, iehte; and the bucket, kurwala. The chhakli is seldom used in the Terai proper, except for the irrigation of rice fields, and in river tracts for melons and tobacco. In the Peninsula of India it is in use in all the finer garden or even in field cultivation.—Elliot's Sup. Gloss.; Powell's Handbook, p. 208.

DHER, a non-Aryan race, many of them dwelling as predial slaves in parts of India, in the Panjub, rare in the N.W. Provinces, many in the Sauagor territory. In the Nagpur territory they have acquired some consideration from their employment as Dalal or writ-servers. In the Dekhan they are doubtless the same as the Hollar of the Canarees, the Mahr of the Mahattas, and the Pariah of the Tamil and Teling races. In the Western Provinces, though they are not often found in any numbers, they appear to have left the remembrance of their name, for it is a common term of abuse to call a man a Barra Dher, or a low caste fellow. They eat dead animals, clean skins and sell them to Chamar tanners. In Rajputana, the Dher will not eat hogs, either tame or wild; the latter they hold in great abomination, notwithstanding their Rajput masters look upon them as a luxury. Dherwarah, the locality outside the Hindu towns where the Dher race reside.—Elliot's Sup. Gloss.; Journal, R.A.S. p. 224.

D'HERBELOT, author of Bibliotheque Orientale La Haye, 1777.

DHERI, a Sufi sect in Persia, who believe the world is uncreated and indissoluble.—Malcolm.

DHEVARA, a tribe of boatmen.

DHEWUS. Hind. Dalberia Ujjainensis, a timber of Nagpur, of a light colour, liable to be devoured by white ants. Its strength is considerable. The young trees are cut for banyan poles. It sells at 8 annas the cubic foot. — Captain Sankey; Major Pearse.

DHIMAK. Hind. White ants; properly Dekaw.

DHIMAL, a race in the sal forest of the Terai, who, about the close of the eighteenth century, migrated to the north and east of the Koch from Nepal. The Dhimal dwell between the Kuki and Dhonla, between the open plains and the higher levels of the mountains, and their villages, though distinct, the people not intermarrying, are intermixed with the Bodo. The Dhimal differ from the Bodo in their language and their pantheon. The deities Data and Bidata preside over marriage, the feast of which is prolonged through three days, and costs from 30 to 40 rupees. They bury their dead. The Dhimal of the eastern portion of the Terai are estimated at about 15,000 souls. Latham's Descriptive Ethnology. See Bodo; India, Dhimar, a branch of the bearer or Kalar race, but sometimes considered offshoots of the Mullah or boatman race. They are chiefly employed in fishing and palingquin-bearing.—Wilde.

DHIMERE. Uria? A tree of Ganjam and Gumsur; extreme height 40 feet, circumference 4½ feet. Bandy wheels are sometimes made of the wood; but it is considered sacred, and is burnt when libations are offered. The fruit is eaten; a juice extracted from the root is used in rheumatism. —Captain Macdonald.

DHINGAN, in Purniah, an agricultural slave.

DHINGANA, vulgo Dheeegana (lit. a forfeit), a demand of a forfeit at a game. Dhingana Buddhnee, the earthen pot used on this occasion.

DHI R.A., SANSK. A monarch, an emperor, a ruler.—Gloss.

DHIRHOB, a tribe of the Ahir in Benares and Gorakhpur. They are reckoned in the Taehibul-Akwan amongst the Doab Ahir.

DHOB. It is customary for Hindu fathers to bind round the arm of the new-born infant a root of that species of the amirhob, the imperishable dhob grass, the Cynodon dactylon, well known for its nutritive properties and luxuriant vegetation under the most intense heat.

DHOBAL, a brahman tribe in Garhwal.

DHOB. Hind. A washerman; one of the lowest castes of Hindus. A woman is called Dhibi. Various subdivisions are recognised, the members of which do not eat, drink, or intermarry together. There are seven such in the N.W. P., but the septs differ, or are at least differently named in different provinces. Their names are the Magadhiya, Ajadhiya, Kanajija, Belwar, Gosar, Barhade, and Pagahiba. Other tribes, Shaikh and Bhaika, are Mussalmans. The cultivating Dhibi do not intermarry with the washing Dhibi. The class calling themselves Rajdhob are said generally to be engaged in the operation of rice-cleaning.

The cleansing is effected by steaming, and beating the clothes on a stone. The poorest Hindu does not wash his own clothes.—Sherring's Tribes; Calcutta Review, No. 110.

DHOBIS EARTH is a native carbonate of soda, called sajji matti in Hindustani, and applied in Tamil and Telugu. It is a whitish-grey, sandy efflorescence, which often covers miles of country where decayed white granite forms the surface soil. This earth begins to accumulate in the dry weather immediately after the rains, it can be spread on the surface to the depth of two or three inches, and by repeated boiling and the addition of a little quicklime the alkali is obtained of considerable strength. With a little care, very clean carbonate of soda can be obtained, fit for the manufacture of toilet soap, white glass, and glazes for pottery. The Nellore, Cuddapah, Masulipatam, and Chingleput districts yield this earth in great quantities; and it is also found largely at Puducotth, Hyderabad, Bellary, and Mysore. The richest in alkali is from the territories of the Nizam, the quantity of anhydrous carbonate being about 67 per cent. Repeated attempts have been made to prepare barilla from it for exportation, and very fair specimens have been exported at different times, but the moderate price of the carbonate of soda of England, prepared from sea salt, will always prevent this from being a remunerative article of export. The coloured frits for bangle glass, in making which it is used, have lately, however, become an article of export from the Madras Presidency. It exists in immense quantities in many parts of India, in Bengal especially, in the districts of Monghir, Purniah, and
DHOOTI.

Cawnpur. It contains from 40 to 50 per cent. of carbonate of soda, traces of sulphate of soda, organic matter, clay, sand, and oxide of iron. The salt can be extracted by washing the mineral without incineration, but the organic matter is dissolved at the same time, and gives a deep brown solution, from which pure crystals cannot be obtained. Firing destroys this substance, and then the solution is colourless. But care must be taken not to push the heat beyond redness, for the alkali at a higher temperature combines with the sand and clay, and the whole runs into green glass, insoluble in water. In Europe, barilla is prepared either by burning seaweed and fixing the ashes, the product being termed kelp and barilla, or by decomposing common salt by sulphuric acid, and then roasting the resulting sulphate with chalk, sawdust, and fragments of iron. The mass when washed gives the carbonate of soda.—Mr. R. Reynolds in Pharmaceutical Journal, 1853, xii.; M. E. of 1855 and 1857; Beng. Phar.

DHOOTEE. Kangra hillmen who work at iron-smithing.

DHOON. Hind. A large drum, both sides covered with leather, and played upon with the hands. Dholak or Dholkee, a drum only one side covered with leather; a small drum.

DHOLE. Hind. The wild dog.

DHOLO. Hind. A Gond tribe who dwell in jungly districts, and are employed as gotters.

DHOONA. Hind. A sort of amulet.

DHOLPUR, a town on the banks of the river Chambal, which flows for 100 miles through Dholpur territory. Dholpur state lies between lat. 26° 22' and 26° 57' N., and long. 77° 26' and 78° 19' E., with an area of 1174 square miles and 227,976 inhabitants. The most numerous classes are Brahmans 36,884, and Chamars 32,092. Thakurs number 23,703; Gujarats, 17,229; Kachhis, 15,090; Mina, 10,620; and Lodhas, 8050. The remainder of the population is divided among 75 other castes. There are 9964 Mahomedans, who reside for the most part in the towns of Bari and Dholpur. Lukindar Singh, king of the town of Gohud, was the first of the chiefs of Dholpur with whom the British Government formed political relations. The family belong to the Jat tribe, and first rose to notice under the Peshwa Baji Rao. After the overthrow of the Marattas at Panipat, the unce of Lukindar Singh rebelled, and possessed himself of the fort of Gwalior. During the Mahratta war which ended in the peace of Salbye, the British in 1799 formed a treaty with him. Much discussion, however, arose in 1803, 1804, and 1805, but ultimately the river Chambal became the boundary between Sindia's territories and Dholpur. Maharrana Keern Singh lived to a great age. He died in 1856, and was succeeded by Bhagwant Singh, who rendered assistance to the fugitives from Gwalior in 1857, but his minister Deo Hans incurred the displeasure of Government by plundering villages in the Agra district. Bhagwant Singh retained the right of adoption, and was declared entitled to a salute of fifteen guns. The military force of the state consists of about 2000 men.—Treaties, etc., iv. p. 108; Imp. Gaz.

DHONDAL. Mah. A black stony ground, retentive of water.

DHONDAL and Gogawat are two tribes amongst the most ancient of the alloidal chieftains of the Indian desert; the Dhondal being descendants of Rao Gango, the Gogawat of the famous Goga the Chauhan, who defended the Sutlej in the earliest Mahomedan invasion recorded. Both Goga and his steed Jowadia are famed in Rajasthun.—Rajasthun, ii. p. 90.

DHONEE. Hind. A fire lighted by fakirs, over which they sit, imbibing its smoke.

DHONI. Hind. A coating sloep. See Boat.

DHONPATTAA. Hind. A leaf used in tanning.

DHROR, Dhor. Hind. Most of the Mahorees are skinners, who reside in the Chambal, and who have fallen victims to small-pox and cholera, but those from some other diseases are burned; a pregnant woman dying is burned. They make leather from hides, and manufacture such articles as are used for water purposes, the mot bucket, the dhol and pak hal.

DHROR, horned cattle; also called Gai-gorun.

DHOORAVAR or Adhotar. Hind. Coarse muslin.

DHOOTEE or Dhatti is the Rajput tribe inhabiting Dhat. See Dhat.

DHOOTI. Hind. Dovati, Sankh. The unsewn garment which with Hindu men clothe the lower parts of their persons. It is mentioned by Near- chus, who tuck it round the waist, then between the legs, and fastened by being drawn in behind, and the appearance becomes that of wide or narrow trowsers. A coarse cotton one, worn by cultivators and labourers in the field, may cost about two rupees. One of yellow silk, called pitambar, is largely made at Benares. With every Hindu man, of all parts of India alike, the dhoti is an indispensable garment. Should he even wear drawers or trowsers, he will have a dhoti, large or small.
underneath. It is a single piece of cloth, from two and a half yards and a half yards long by two to three feet broad, with ornamented ends and borders; but may be somewhat broader and longer. As a general rule, there is literally no change up to the present day, from the costume of the male figures in Buddhist and Hindu sculptures of nearly two thousand years ago. All other articles of male attire are sewn garments, cut out by tailors and made by them; and there are, perhaps, as many varieties of vefts and tunics, angarka, joobiba, koorta, chapkun, mirzai, and the like, as there are surtouts, paletots, cambridges, etc., fashioned in Europe. Many of these are worn by Mahomedans and Hindus alike, the only difference being that the Hindu ties or buttons his vest on the right side, the Mahomedans on the left. Hindu tailors are found everywhere, possibly descendants of the needle-plying handiBawans who, like the weavers, smiths, and carpenters, found a place in the enumeration of trades in Muslim-instituted and the Yagnyawalkya. The texture of the dhoti, saree, and lungi fabrics, manufactured in Britain and sent to India, is not that required by the people, nor what they are accustomed to. It is in general too close, too minute like calico, in fact, which of course makes the garment hot, heavy in wear, and difficult to wash. Again, the surface becomes rough, and, as it is generally called, fuzzy in use, while the native fabric remains free. Comparatively few native women of any class or degree wear white; if they do wear it, the dress has broad borders and ends. But all classes wear coloured cloths—black, red, blue, occasionally orange and green, violet and grey. All through Western, Central, and Southern India, sarees are striped and checked in an infinite variety of patterns. Narainpet, Dhanwar, and Mukti, in the Nizam's territories; Gudik and Bottigerry in Dharwar, Kolhapur, Nasik, Yeola, and many other manufacturing towns in the Dekhan, Arme in the south, and elsewhere, send out articles of excellent texture, with beautifully-arranged colours and patterns, both in stripes and checks.

**DHOWA.** Hind. A whisth-coloured wood, close-grained and hard. Plentiful in the Santal jungles and hills from Ranibail to Haadha. Used for cart-wheels, beams, and door-posts by the natives, also for mallets and tent pegs.—Calcutta Engineers' Journal, July 1860.

**DHIRANGADRA,** a native state in Kattywar. Its chiefs are of the Jhala family, and of great antiquity.—*Jap, Gaz.*

**DHIRI SYAMNA,** brother of Draupadi, and commander-in-chief of the Pandaya in their war with the Kaurava. He killed Drona, and was in turn killed by Asawathanan, son of Drona.—*Drona.*

**DHIRI RASHTRA,** elder son of Krishna Dwiyanaya by the widow of Vichitra Vrya, king of Hastinapura. He was brother of Pandu, but was blind, and on that account was set aside from the throne; but he succeeded to it on Pandu's retirement. He married Gandhari, and his sons, Duhussana and Duryodhana, were named Kaurava. He had abdicated in favour of Duryodhana, at whose suggestion he banished the Pandavaprinces, his own nephews, from his kingdom. It was his sons and those of his brother Pandu who fought for supremacy at Kurukshetra. The chief of his sons were Duryodhana, Duhussana, Vikarna, and Chitrasena. His sons fell in the eighteenth days battle of Kurukshetra. Gandhari, after the battle of Kurukshetra, retired with Dhiratashstra and his mother Kunti to the jungle on the Ganges, where the maharajas died, or was burned in a forest fire.

**DHRUVA,** generally the pole of a great circle of the sphere, particularly the celestial poles. Uttara Dhruba, the North Pole, also the Polar Star; Dhakshina Dhruba, the South Pole. This term is also used to signify a constant arc, referring to the distance of a planet from the beginning of the sidereal zodiac. Dhruba means more commonly an epoch to which a computation is referred. Lastly, it is the name of the Yoga Star of the 12th Nakshatra, supposed to be the same as θ Leonis.—*Warren's Kal Norman.*

**DHUA.** In Bikainir, the six items of the revenue are.—Khalis, or fiscal revenue; Dhun; Angah; town and transit duties; Fussel or plough-tax; and Malah.—*Rajasthan, ii* p. 206.

**DHUDOOS,** a rod of iron about a foot long, with a knob at one end and a sharp point at the other, having from fifty to a hundred hollow rings, which, when shaken, rattle against one another; used by fakirs, who wield it about, striking their abdomen of a sudden with the sharp point.

**DHUB-KALA,** the Indian hot season. According to the Shastras, the seasons are six in number, each comprising two months. A more definite division is Choumasa or Burkha, the four months of the rainy season; Seela, Jara, or Mohasa, the cold season; and Dhub-Kala or K'hursa, the hot season.—*Eliot.*

**DHUDKI,** a wood of Nepal, also called bechia cori, sutha, and Isurinhoodi. Its branches are used in Nepal as torches; the fragrant turpentime which it yields is employed in sacrifices and in medicated salves, and its wood is converted into rafters for houses.—*Smith's Five Years,* p. 67.

**DUL,** Hind. A grass; grows in the marshes (juli) of Cachar; and the grasses of the jungle are the khak, eckur, and tara.

**DULBHUOM,** called also Ghatsallah, a large pargana east of the Kolehan, attached to the Singbhum district, first colonized by the Bhunjia.—*Dalton,* p. 156.

**DULIL,** a civil and military station in Kandesh.

**DULIL-BATTA,** of Coorg. Literally, sweeping of the threshing-floor; a cess levied on land holdings.—*Glossary.*

**DHUMKAR,** Kuli. A woman's shawl or wrapper.

**DHUMKURA,** among the non-Aryan tribes a half for bachelors.

**DUN,** Hind. Any low valley at the foot of a mountain; or the valley intervening between the true Himalaya and the Siwalik or outer hills is the Dehra-dun, Jaswan-dun, etc. The fixed gradations of true Himalaya, viz, dhan or valleys, sandstone or Siwalik range, 'bhaier' or forest tracts, and lowest of all the Terai, which consists of arid tracts or else swamps at the foot of the mountains, which are so constant and marked in the central Himalaya, are not observable in all the Punjab.

**DHUNA.** Hind. Small cups made out of leaves by the Dossai.

**DHUNA or Jhoona,** a resinous gum obtained
from the Vatica robusta by making incisions in the stem of the tree, from which the resin exudes.

DHUNCHEE, the Dunica or Dhunchea of Bengal, is cultivated for its fibres, which are made into ropes and nets. It is the Sesbania aculeata, *Persoon.* For its culture, the soil is generally low and wet, and not requiring much preparation, as the plant is hardy, growing from six to ten feet, and rapid in growth. It is considered a mелиорating crop. The sowing is when the soil has been moistened by the first showers of April or May. About thirty pounds of seed are allowed to the acre, and less weeding is required than for jute. The crop is ready to cut in September and October, though the fibre does not suffer, if left standing till the seed is ripe, in November. The process of steeping and cleaning the fibre is similar to that required for jute, which is Crotalaria junee. The general produce of an acre is from one hundred to one thousand pounds of fibre, the current price somewhat less than that of jute, viz. Corchorus olitorius and C. capsularis. The expense of cultivation, including land rent, is about nine rupees. The fibres are long (six to seven feet), but coarser and more harsh than those of hemp, unless cut at a very early period. From its great strength, it is well calculated for the manufacture of cordage and cables. In Bengal, the fishermen make drag-ropes to their nets of this fibre, on account of its strength, and durability in water. Indeed, by the Bengalis it is considered more durable in water than either jute or hemp. It is really a very excellent fibre for common cord and twine purposes, and certainly very much superior in strength and durability to jute. It is also a much harder plant than jute; the latter, indeed, being rather an uncertain crop for the production of the fine long silky fibre so much called for in England. Though rather wiry, it is strong, and remarkable for its contraction when wetted,—so much so, that it would even carry away the mainmast of a ship by mere contraction. Mr. Deene, a Belgian farmer employed in India, presented samples of the Bengal hemp, called dhunchea, to the Agricultural and Horticultural Society in London, in November, 1850, and alleged that they had been dressed after the Belgian mode. A bigha, he says, will yield 173 lbs. of cleaned fibre, and 92 lbs. of seed. A woman can dress about 4 lbs. a day. In April 1851, Captain Thonon presented a dressed sample of the fibre of the dhunchea of Bengal, and a piece of rope made of it. This rope, he stated, had been used in various ways for nearly two years, and, from various reports upon it, he thought it likely to come into extensive use. In the arsenal of Fort William, a three and a half inch rope of dhunchee broke with not less than 75 cwt., though the Government proof required for such rope was only 49 cwt. The price of the dhunchee in the interior has long been about Rs. 18 per munding. Dr. Royce thought it would probably fetch from £25 to £30 a ton, and, after being introduced, known, perhaps £5 more. It was also valued by others at £35 in 1858.—*Royce, Feb. IV.* p. 298.

DHUND. *Hindi.* A monumental mound. Boesil-Deo, a contemporary of Jeryal, the Tanur king of Delhi, lived about A.D. 1082-1096. He seems to have become a convert to Mahomedanism. But, for his subsequent expiation of this crime, he is represented in the garb of a penitent; and the mound (dhund) where he took up his abode still exists at Kalik Johaur, and is called after him, Boesil-ka-dhund.—*Bajranath,* ii. p. 454.

DHUNDHIJAMA, a king of Oudh of the Solbur line, properly called Kuvlayasa, but termed Dhundhunnar, from slaying a demon named Dhundhu, who annoyed the saint Uttakau.

DHUNDI. *Hindi.* An agricultural tribe of Mahomedans in the Multan division, on the banks of the Sutlej.

DHUNIA, the lowest caste in the Hinduja, who employ themselves as gold-washers, cotto-carders.

DHUNJEBHOY FRAMJEE, a learned Parsee of Bombay, author of a Zend and English and Zand and Gujarati dictionary. At the commencement of the work is a comparative table of the Zend alphabet according to the different systems of sixteen Asiatic and European orientalists. Preliminary Discourse on the Origin and Authorship of the Zend Language and Zendavesta. The Pehlevi Alphabets, published with observations on the Lapidary, Cursive, and Numismatic Pehlevi Writings, Tablets, Manuscripts, and Coins.

DHU NUWAZ was the surname of Yusuf, a king of Yemen, who, having, like some of his predecessors, embraced Judaism, terribly persecuted all who would not do so likewise. He put them to death by various tortures, the most common of which was throwing them into a glowing pit of fire, whence he had the opprobrious appellation of the 'Lord of the Pit.' This persecution is mentioned in the Koran, chapter 65. Dhu Nuwaz reigned till about 70 years before Mahomed, and was defeated by a force sent from Abyssinia, and slain.

DHUP or Dhupri. *Hindi.* Junipera excelsa, incense. J. communis, Chalei ke dhup; J. excelsa, Jari dhup, Dhupe. The word is also applied to many fragrant things used for burning, as incense offered to the gods, kindling the lamps of the festival, to juniper, or to benzoin, to Junipera excelsa, J. arborea, pencil cedar.

DHURGONTEE. In the time of Akbar, Dhurgontee, queen of Gulara Mundula, ruled over the Sargor and Nerbalada territories, and the greater part of Berar. She was a daughter of the reigning Chandul prince of Mahoba. He gave his daughter only on condition that the Gond prince who demanded her should, to save his character, come with an army of 50,000 men to take her. He did so, and, nothing looth, Dhurgontee departed to reign over a country where her name is now more revered than that of any other sovereign it has ever had. She was killed about the end of the 16th century, about 12 miles from Jubbulpur, while gallantly leading on her troops in their third and last attempt to stem the torrent of Mahomedan invasion. Her tomb is still to be seen where she fell, in a narrow defile between two hills, and a pair of large rounded stones which stand near are, according to popular belief, her royal drums turned into stone, which in the dead of the night are still heard resounding through the woods, and calling the spirits of her warriors from their thousand graves around her. The travellers who pass this solitary spot respect-
fully place upon the tomb the prettiest specimen they can find of the crystals which abound in the neighbourhood.—Sleeman's Rambles, p. 254; Jeggo, As. Soc. of Bengal, p. 213.

DIUJATI, a title of Siva or Mahadeva. The term means, He who weareth his hair bound about his head in the form of a tiara, in which style it is worn by the Jogi or Sanyasi devotees and other adherents of Siva.

DHUS, HIND., was an expedient to hasten the compliance of a demand from a dependent. A party of horse proceeds to the township, and are commanded to receive so much per day till the exaction is complied with. If the dhus is refused, it is considered tantamount to an appeal to arms.

DHUSAR, a tribe in Benares who came originally from Dehli. They cultivate a peculiar strain or measure of music, in which they are unsurpassed. The Dhusar rigidly maintain the purity of their order, and the performance of Hindu ceremonies and duties, and neither eat meat nor drink any kind of spirit.—Sherring's Tribes.

DIYA. HIND. In the Central Provinces the squatter cuts down and burns the trees, and sows seed among the ashes, usually abandoning the place after three crops, and repeating the process at another place. It is the Kumri cultivation of the south of the Peninsula.

DIYANA. SINGH. From Dhivi, to think. Religious meditation, mental abstraction, a Buddhist and Hindu practice. Ward says, in this act of devotion the worshipper of Siva, for instance, closes his eyes, places his arms before him, and, repeating the names of the god, ruminates thus:—His colour is like a mountain of silver, etc. Dhyan or Anupapadaka are celestial Buddha saints. Dhyan Bodhisattva, authors of creation.—Ward's Hindus, i. p. 67.

DIYE. HIND. Sour milk, the Yacoot of the Turk races, and Sauer Milch of the Germans. It is used in all Asiatic and European countries, except in England. Every native of India, Hindu and Mahomedan, eats dhye, plain with rice or bread, and in all sorts of cookery, both vegetarian and otherwise. It is made of several degrees of sourness, to suit the taste of customers. Boiling milk is poured into a porous earthenware vessel, the inside of which has been rubbed with a portion of the previous day's sour milk. It sets immediately. It much resembles butter milk.

DÌ, Doi, Ti, Thi, Tui, in several of the ancient tongues of India, mean water, as in the rivers Rapti, Iapti, Kampiti, Yang-tse-kiang, Goomtì, Dì, in Assamese and in Cachar; water; hence the name of the rivers, Dihong, Dihing, Dihong. Da in Damodar has the same meaning; and the Brahmaputra is called Doma, the river mother. The Dihong is generally regarded as the continuation of the Tsu Pu, and with the two Dihing rivers, makes the Brahmaputra river. These two are called the Na Dihing and the Buri Dihing. The Dihong is supposed to pierce through the Abor hills.—Dalton, Ethnology of Bengal, p. 87.

DIACOPE, a genus of fishes belonging to the section Acanthopterygii and family Percide. Many large and beautiful species inhabit the Indian seas. D. octolenta, a very beautiful species, caught off the coast of the Mauritius, is of a brilliant reddish-yellow colour, shaded into white on the belly, and is adorned with four longitudinal blue stripes on each side of the body; these stripes are margined with black. It is about 10 inches in length. Some of the species attain the length of 3 feet and upwards.—Eng. Cyc. p. 328.

DIALIUM OVOIDEUM. The. Gal-seyembala, SINGH. A valuable timber tree of Ceylon, north of Kandy. The wood is strong and handsome, and well adapted for ornamental furniture; the fruit has an agreeable acid flavour, and is sold in the bazaars.—Beddome, Fl. Sylv.

DIAMACHUS, an ambassador from the Greeks of Babylon to Mitragupta, son of Chandragupta. Mitragupta was known to the Greeks by the name of Alettero Chilias. Diamachus was the next Greek ambassador after Megasthenes.—Cal. Rev. 1686.

DIAMAND. Peak, or Nanga Parbat, in lat. 35° 14' 4" N., and long. 74° 34' 5" E., in Hasora. Top of the peak is 26,620 feet above the sea. This peak, the highest in Hasora, is situated to the north of the remarkable bend made by the Indus.

DIAMOND. Almas, Ar., Pers., Rus. Kamala, Kamula, Malay. Kin-kang-shì, Uhin. Intan, Jahlalom, H. Mass., Pers. Hira, Guj. Hind. Virum vachira kallu, Tam. The diamond is a crystallized mineral. On account of its lustre and hardness, it is reckoned the most valuable of all precious stones. The form is cubical, frequently in twin crystals, cleavage highly perfect, rarely massive. The bulk of the forms are those of the octahedron, an octahedron having six planes on the edges, or a dodecahedron with rhombic faces. Lustre brilliant adamantine. Colour white or colourless, occasionally with tints of blue, yellow, red, orange, green, brown, or black. Transparent to translucent when dark-coloured. Fracture conchoideal. H. 10. sp. gr. 3.5295 to 3.535. Exhibits vitreous electricity when rubbed. Index of refraction, 2.439. Becomes phosphorescent on exposure to light, and smaller diamonds become phosphorescent by a much shorter exposure than required for those of a larger size. The diamond is carbon in its purest form, and its combustibility was ascertained by the Tuscan philosophers. About 30 per cent. of diamonds are under half a carat, and one in a thousand may be above 24 carats. Diamonds have been obtained in India, from very ancient times. Ptolomy's Geography, said to have been composed sixty years after the time of Pliny, mentions the diamonds found on the banks of the Sumbulpore river; also speaks of Areata (the capital of the Sore or Sora-mandalam, from whence come the Coromandel), Melodia (the district which contains Masulpatam), and the river Canvery under the name of Chalari, Renell supposes Punna in Bundelkhand to be the Panassa of Ptolomy, and quotes the Ayin-Akbari as naming Biragur on the west of Bond near the Mahanadi river, adding that there is indeed a mine of more modern date in the vicinity of Sambulpore. Ptolomy's Adamas river answers perfectly to the Mahanadi; and the district of Sabare, on its banks, is said by him to abound in diamonds. Tavernier visited the Ralœonda diamond mines at the confluence of the Kistna and Bhima rivers, which were also noticed by Cesar Frederick; and both Tavernier
and Rennell notice the diamond mines of the Pennar river, and near Gudalcottah, also those of Colore (Kulur?) on the south bank of the Kistna, not far from Condavir.

The diamond mines of the Peninsula of India and Central India lie between lat. 13° and 25° N. They occur in irregular arid patches, sometimes basin-shaped, in hilly districts on the great elevated plains bordering the more considerable rivers that have an easterly and southerly course to the Bay of Bengal. Diamonds of considerable size are not rarely found in the sands of these streams and of their tributaries; but their geostratic situation must be referred to the sandstone and sandstone conglomerates at Ovalumpilly; Condappettah, in the Chinnor taluk on the banks of the Pennar, about 6 miles from Cuddapah; at Lamdur and Panchatgapadu; at Banaganapilly on the Kurnool frontier; at Ramulucottah and other places in Kurnool, and at Munimagadoo, north of Ghooty.

Further to the north and east diamonds are found on the ranges of the Kistna, in the vicinity of Condappily, in a plain formed by the alluvium of the river. Still further north, in the bed and alluvium of the Mahanadi river, especially at Sumbulpore, and about the mouths of the Hebe, Khelu, and Maund streams. Diamonds are also found in the bed of the Godavery about Badrachellum.

To the north-west of the districts here noticed, are the diamond mines of Punnah in Bundelkhand. They occur in a table-land covered by a reddish soil, which lies over a bed of rolled pebbles of the sandstone formation, in which the diamonds are found.

The Kurnool geological formation of the modern geologists occupies all the low ground of the Khundur valley, in the middle of the basin, and another large space in the Palnad. It consists of shales, limestones, quartizes, and, lowest of all, sandstones.

The Banaganapilly sandstone of the Kurnool formation is 10 to 20 feet thick, and is the only rock of that region in which the diamond is known to be found. Diggings are carried on in many parts of the country on or near the Kurnool formation, but mostly in the superficial gravels. At Banaganapilly, however, there have been extensive workings in the bottom sandstone. Shallow pits, not more than 15 feet deep, are sunk in the sandstone, and short galleries driven in the diamond layer, which must be at the very base of the group, or close to the bottom bed. In this locality the workings of the diamond miners are crowded over particular spots, whilst large areas adjoining, of the very same deposits, are left untouched. If this irregular working be only due to some delusion of the diamond seekers, a large field still awaits exploration. The Cuddapah geological formation has four great groups, called the Krishna, Nallamally, Cheynar, and Pampungi groups. These consist of shales and quartizes. The Cuddapah basin is about 210 miles long, and of a crescent shape. Its N.E. horn is the Palnad, and reaches to Juggiapet, a few miles N. of the Krishna river, an area of 13,500 square miles. More than a third of the area is taken up by the overlying Kurnool formation.

The Banaganapilly district is about 30 miles long from N. to S., and 26 in breadth from E. to W., lying between lat. 15° and 16° N. in the centre of the Ceded Districts. Its E. and S. part consists of a fertile plain of the regur or cotton soil, bounded on its N. and S. aspects by detached ridges of hillside clay and sandstone, which run from Kurnool towards Ghooty, Cuddapah, and Tripati, and terminate at Naggeri, N.W. of Madras. The Banaganapilly diamond mines are situated in and near a low range of hills about half a mile from the town. The diamond mines near Cuddapah are about 7 miles N.E. from the town, on both banks of the Pennar river, where this washes the foot of a range of hills. The mines at Cuddapah have, it is said, been worked for several hundred years with various success. In the Chinnur taluk, in which Cuddapah is the largest town, there are two places, called Condaetta and Ovalumpilly, where diamonds occur. In the next taluk, on the west side of this, diamonds are dug at Lamdur and Panchatgapadu. Several mines exist near Ghooty.

The Ovalumpilly mines are on the west side of the river, about 6 miles from Cuddapah, and 3 miles south of the Kistna. They are situated on a gentle ascent, about half a mile from the Pennar, in a well-cultivated country, and within a very short distance of three villages. They are chiefly on ground belonging to Ovalumpilly.

In the mines at Cuddapah, the uppermost stratum consists of sand or gravel, mixed with a small proportion of loam. Its thickness scarcely exceeds a foot and a half. Immediately under it is a bed of stiff bluish or black mud, similar to what is seen in places that have been inundated. It is about 4 feet thick, and contains no stones. The diamond bed comes next, and is easily distinguished from the incumbent bed, by the great number of large rounded stones which it contains. It is about 2 or 2½ feet thick, and is composed of large round stones, pebbles, and gravel, cemented together by clay; in the dry seasons, it is as dry as the bed which lies immediately above.

At Ramulucottah, about 20 miles from Kurnool, are many diamond pits in small ferruginous gravel. Iron ore, red hematite, occurs in all the hills in the neighbourhood of Ramulucottah. There are also diamond mines at Munimagadu, and Wudjar Karur near Ghooty; and during the Mahomedan rule diamonds were dug in the Sidhont Hills, a continuation of the Nallamally range, and also near the village of Durjipilly. Diamond mines occur at Naikenabad Mullaran, near Timmercottah, and in the bed of the Kistna river near Nagajureecondah.

Sandstone conglomerate extends eastwards from Banaganapilly to Condappilly and Mallavelly, in all which localities diamonds are found.

Mallavelly, a village 16 miles W.S.W. of Ellore, is one of seven villages near which diamond mines exist. The names of the other six villages in which diamonds are found are: Gani Partala or Partal, Atkur, Buthennyfada, Pertalla, Wustapilly, and Kodavetty Kallu. At Mallavelly, the hollow that where the diamond pits are excavated is a low swampy plain. Being surrounded by a bank or rising of the soil in a circular manner, it has the appearance of having been once a lake. The banks are formed of the red ferruginous sandy soil prevailing all round this place. The diamond pits are in general
excavated at the north end of the bank that surrounds the hollow. The deepest could not be more than 12 feet, and they never came to a hard mass of rock.

Partial is about 50 miles from Masulipatam, but the diamonds were of small size, and the searchers did not earn 4 or 5 rupees a month. In the northern diamond mines, particularly those of Partial, Dr. Heynes found in the diamond bed a great number of fine chalcedony and cornelian pebbles and garnets. The larger stones formed the greatest part of the diamond bed.

The district of the diamond mines of Golconda was ceded to the Nizam by the British under a special treaty, but is enclosed by British territory. Diamond mines not far from Coundaply are constantly worked. There are none found at Golconda, or in the Golconda district, but they were formerly cut and polished there.

The diamond washings of the Mahanadi, a little above Sambalpore, are exclusively from alluvial diggings; but the fact that they occur just outside and below the great lower Vindhyan basin, has suggested the conjecture that the gems are derived from those rocks, on the ground that those are the equivalents of the diamond-bearing beds of Southern India. The Joora, which are fishermen by caste, are the diamond searchers of the Mahanadi, at a place called Heeracode, near Chanderpore, adjacent to the place where the river Maid joins the Mahanadi. The river here makes a sudden turn to the left, where, amongst the smaller streams, which they dam up for a time, the diamonds are searched for during the hot season, generally commencing at the termination of the monsoon. The men throw the sand on the bank, and the women wash and expose it to the sun and select the diamonds.

In the main Vindhyan basin, diamonds are only known to occur in the Upper Vindhyan. Here, as everywhere, the great majority of the diggings are alluvial, but the principal workings are in a bed at the very base of the Rewa shales. Notwithstanding the immense range of this group, it is only known to be productive within a small area of the Panna State, on the borders of the Bundelkhand gneiss, and the surface diggings are confined to the same neighbourhood. Here, as in the Banaganapilly mines, the diamond-layer is conglomeratic.

A notice of the Pannya mines is in Dalrymple's Indian Repertory (v. p. 471), and there described as on a range of hills situated about 42 miles S.S.W. of Kalpi. The hills are called by the natives Band Achit; they extend about 12 miles in length and about 2 or 3 in breadth, and are divided into 21 districts, of which only the following nineteen names are given:—Pirnah, Gurria, Anwont Pokomnu, Channa, Birdu, Kallianpur, Pullu, Rajpur, Ellaw, Maharanpur, Rajpur, Kimmerah, Gadhaisia, Ranpur, Cheriapuri, Attunpurah, Merah, Singupurah, and Mityugah. Diamonds are found in all these districts, but those of Maharajpur, Rajpur, Kimmerah, and Gadhaisia are the largest and best.

In the Bundelkhand area, a cherty contact rock contains the gneiss under the Kaimur sandstone; and in the Chattarkot hill the contact rock occurs under the limestone, holding its position as a true bottom rock. It has been conjectured that this peculiar contact rock may possibly be an original nidus of the diamond. A common form of it is a semi-vitreous sandstone. Large pebbles of it are very abundant in the conglomeratic diamond bed of the Rewa shales at the Pannya mines, and are said to be broken up in the search for diamonds. The search for diamonds in Pannya is not, however, confined to positions in which the gems could be derived from any existing outcrop of the Rewa shales. There are numerous pits of surface diggings in the gorges and on the slope of the Upper Rewa sandstone, south of Pannya.

The Chinese Shan-tung diamonds are mostly very minute, varying in size from a millet seed to a pin's head, though occasionally larger ones are met with. Men with thick straw shoes on, walk about in the sands of the valleys and streams of the diamond mountains of Chin-kang-ling, some 15 miles S.E. of Yi-chow-foo. The shoes are burnt, the diamonds being searched for in the ashes. As in the case with amethysts and rock-crystal in the Lao-shan, the priests in the temples in the Chin-kang-ling and the prince deal in them. The Chinese diamonds are in general of poor quality, and are held in value by the Chinese themselves, being bought by the dealers at the large fairs held every year at Chou-chow, Lai-chow-foo, and Hwang-hien.

The diamond has been found in Borneo, in the district of Landak, in the territory of Pontianak, in long. 109° E., about 40 miles N. of the equator, and they occur from thence as far as Banjarasmun, between long. 114° and 115° E. The mines are worked by the Dyak, Malay, and Chinese. The gems are found in a yellow-coloured rubble or gravel, which occurs at various depths, the greatest to which a shaft has been known to be sunk being between 50 and 60 feet. Six different alluvial strata occur before reaching the diamond-yielding one, which the Malays call the areng. These strata are, a black mound, a yellow sandy clay, a red clay, a blue clay, a blue clay intermixed with gravel, called by the Malays ampir, or near at hand, and lastly a yellow clay, in which the diamonds are embedded. The prince of Matan has a rough diamond of 867 carats, but its genuineness has been suspected. It was found in 1787 at Landak.

The first South African diamond was found in 1867. A little girl was playing with it on the floor of a house in Albany, Griqualand West. Soon afterwards the Star of South Africa, weighing 38 carats, was found. The Port-Rhodes diamond was found in the Kimberley mine, 12th February 1880. It weighed 150 carats uncut, and £60,000 had been offered for it. Kimberley mine is the richest there. It has an area of about 7 acres, and its first owner sold it for £600; but in 1880 it was yielding £20,000 to £25,000 in rents, for about 400 claims.

After the Star of the South Africa, a diamond was found in 1872 which weighed 286½ carats. In 1880 the gross weight of diamonds passed through the Kimberley post office was 1440 lbs. 12 oz. avoirdupois, the estimated value being £386,897. At the end of the year, 22,000 blacks and 1700 white men were employed in the Kimberley division mines.

The Du Toit diamond was found in 1875 at Du Toit's pan. It has been cut and weighed 244 carats. It is the largest cut diamond.

Large diamonds are usually heirlooms in great families, and almost every royal house in Europe has one or more celebrated gems.
The Court of Holland has one of a conical shape, valued at £10,368.

The buttons of the silk stole of King Joseph 1. of Portugal were each a fine brilliant worth about £6000, or, in the aggregate of twenty, £100,000.

George IV. of Britain purchased a magnificent brilliant of a blue colour, which formed the chief ornament of the crown at his coronation. It cost £20,000.

The Pigot Diamond, brought to England by Earl Pigot, on his return from the Governor-Generalship of India, was disposed of in 1801 by lottery for £30,000. It afterwards passed into the hands of one of the Portuguese princes. It weighs 49 carats, and is valued at £40,000.

In the Crown Jewels of France there was a rich brilliant of a sky-blue colour. It weighs 67 carats and 2-16ths, and is valued at £40,000.

The Maximilian Diamond of the Austrian royal family is of a yellow colour, and rose-cut. It has been rated at 1894 carats, and valued at £155,682.

The Sanci Diamond originally belonged to an Eastern merchant, from whose hands it passed into those of Charles the Bold of Burgundy. Charles wore it in his cap at the battle of Nancy in 1475, where he was killed. A Swiss mercenary found the gem, and sold it to a priest for a florin, about twenty pence of British money. The priest sold it again at a very high rate. After this it came into the hands of Anselm Orloff, who pledged it to a gentleman named De Sanci for 40,000 francs, and afterwards, being unable to redeem it, he sold it to the same gentleman for 100,000 francs. A descendant of this gentleman, having occasion to deposit the family jewel with the Federal Government of Switzerland, entrusted it to the care of a faithful servant for that purpose. The servant disappeared for a long time, but so confident was De Sanci of his honesty, that he caused search to be made in his track, and found him at last murdered and half buried. In his stomach was found the brilliant, he having swallowed it to preserve it for his master!

The Russian Diamond is in the crown of Russia. Some Indian had placed it in the socket of an idol's eye. An Irish soldier gouged out the optic. After going through many adventures, it was sold by Count Orloff to the Empress Catharine in 1775 for £20,000 in present money, an annuity of £4000, and a patent of nobility. It is of the size of a pigeon's egg, and of a flat oval form. It weighs 179 carats, or 716 grains, and is without a flaw. Besides this stone, there is a stone among the Russian crown jewels valued at £869,800.

The Pitt Diamond.—Mr. Pitt, the father of the Right Hon. William Pitt, when Governor of Madras, purchased a diamond from a native for £12,500. When re-cut it was worth twelve times the money, and weighs 1863 carats. The small lamine, shreds, and cuttings from it were valued at £8000. It was purchased in 1717 by the Duke of Orleans for £135,000, and in the negotiations £5000 were expended. In 1791 a commission of jewellers valued the stone at twelve millions of francs, or nearly £500,000 sterling. Its original weight was 410 carats.

The Persian Court possesses the Sea of Glory and the Mountain of Light, the one valued at £145,000, and the other at £34,848.

The Nizam or Hyderabad Diamond belongs to the Nawab of Hyderabadd. It measures 2-16 inches in length by 1-35 inches in breadth, and 4ths of an inch in thickness, in the rough state. The gem was found in the mud wall of a native house, and was purchased for the Nizam. A child was playing with it as a stone, and on eight annas being offered for it, its value was ascertained. A small portion of the gem had been broken off one end before it was offered for sale. It weighs 1108 grains, nearly 277 carats (another authority says 340 carats).

The Moghul Diamond was described by Tavernier. He says: 'The water (of it) is perfection, and it weighs 319½ ratis, which are equal to 280 of our carats, the ratio being seven-eighths of a carat. When Miringola, who betrayed the king of Goeldona, his master, made a gift of this stone to Shah Jahan, from whom it descended, it was uncut, and weighed 900 ratis, which are equal to 787½ carats, and it had many flaws. If this stone had been in Europe, it would have been differently treated, for some good pieces would have been taken from it, and the stone left much larger; as it is, it has been almost polished away. It was a Venetian (Hortensio Borgio) who cut it, for which he was badly paid. They reproached him for having spoilt the stone, which ought to have remained heavier, and instead of paying him, the emperor made him pay a fine of Rs.10,000, and would have taken still further rewards possessed it. If the Venetian had known his work better, he might have taken some good pieces off, without doing injury to the king, and without having expended so much trouble in polishing it, but he was not a very accomplished diamond-cutter.' That Moghul diamond cannot now be traced. Many believe that the Orloff diamond and a stone now in Persia were cleaved from the Great Moghul.

The Koh-i-Nur Diamond belongs to Queen Victoria, Empress of India. When Shah Shuja was driven from Kabul, he became the nominal guest and actual prisoner of Ranjit Singh, who spared no means to obtain possession of this precious gem. In this he succeeded in 1813. After the death of Ranjit, it was occasionally worn by Kurruck Singh and Sher Singh. After the murder of the latter, it remained in the Lahore treasury until the supersession of Dhubil Singh and the annexation of the Panjab by the British. Upon the annexation of the Panjab, it was stipulated that the Koh-i-Nur should be surrendered to the Queen of Great Britain. It arrived in London on the 30th June 1850, and on the 3d July was presented to the Queen. It then weighed 186 carats, and looked like a very precious gem. It was cut by M. Voorsanger of Amsterdam, at a cost of £8000. It was placed on the mill by the Duke of Wellington on July 16th, 1852, to be cut, and was completely finished on September 7th, having taken thirty-eight days to cut, working for twelve hours per day without cessation. It was reduced to 106½ carats, and is valued at £100,000. It is a greyish stone, and, as jewellers say, too much spread, and was so very difficult to manage as to require to be twice cut. It has been suggested to be the Moghul diamond, but Tavernier states the weight of that at 280 carats, and the Koh-i-Nur had only 186 before cutting.

The Brazil Diamond, called also the Great Bra- ganza, the largest diamond known, belongs to the house of Braganza. When Don John of Portugal (afterwards John vi.) arrived at the Brazil in
DIAMOND.

1808, a negro conveyed a letter to him, in which he professed an ardent desire to present, in person, a large diamond which he had found. The regent granted him an escort, and the negro arrived and presented the stone. It is like a darkish-yellow pebble, kidney-shaped and oblong, about the size of a pallet's egg. Its weight is over 11 ounces, or 1680 carats. The Brazilian jewelers (Romé de Lisle) value it at three thousand millions of cruces, or £500,000,000! but it is believed to be a white topaz.

The Star of the South of America, a stone of singular beauty, was found by a negroess in Brazil in 1853. It weighed 254 carats, but has been cut down to 125. It was sold for £3000, but £80,000 were since realized for it from the Gaekwar of Baroda.

The diamonds of India are classed by native jewelers as white, yellow, red, green, and black; the coloured ones are extremely rare, but they are occasionally found of a white colour spotted with red, which are rejected as bad. They are classed by the northern native jewelers into three kinds, —Hira-la-rung-i-nausadir, greysish, or the colour of salt-ammoniac; Hira maktunt, of pale colour; and Almas-i-haiduli. Hindus distinguish four kinds of diamond, differing from each other in beauty and value, called, 1. Brahma, 2. Khatriya, 3. Vaisyia, and 4. Sudra, —names derived from the castes in which the Hindus are arranged. The Brahma diamond is described as of the colour of clear milk; the Khatriya, of clear honey; the Vaisyia, of cream; and the Sudra, of a smoky greyish white.

Diamonds in the rough are unattractive pebbles. Even with those who profess to be acquainted with precious stones, the white sapphire and topaz occasionally pass for the diamond. Some of the Ceylon diamonds which the Singhalese offer for sale are made of rock-crystal. The art of cutting diamonds is practised to some extent in India. A knowledge of this art, however, is not very common, as may be concluded when we mention that all Europe only possesses, in Amsterdam, one great diamond -cutting establishment, filled by workmen of the Jewish race, and in London another. The diamonds seen in such abundance amongst the wealthy natives of India are almost all cut in Europe.

Diamond-cutting is effected by a horizontal iron plate of about ten inches in diameter, called a schiff or mill, which revolves from 2000 to 3000 times per minute. The diamond is fixed in a ball of pewter, at the end of an arm, resting upon the table in which the plate revolves; the other end, at which the ball containing the diamond is fixed, is pressed upon the wheel by iron weights at the discretion of the workman. The diamond is cut by taking advantage of its cleavage, and also by abrasion with its own powder, and by friction with another diamond. It is a process of great labour, and many hours are spent in producing a single facet. They are cut into various forms, called the brilliant, the rose, and the table. The brilliant (brilliolette or briollette) form shows the gem to the best advantage, and is always set with the table upwards. In the rose the entire surface is covered with equilateral triangles, terminating in a sharp point at the summit. This form is used when the spread of surface is too great for its depth, and it could not be cut into the brilliant form without great loss. The table is applied to such diamonds as may be regarded as plates, lamine, or slabs of small depth compared to their superficial extent. The brilliant and the rose lose in cutting and polishing somewhat less than half the weight. In the formation of either a brilliant or rose diamond, so much is cut away that the weight of the diamond gets not less than half that of the rough crystal out of which it was formed. They were usually cut in the rose pattern till the middle of the 18th century; but roses are, in general, only now used where the space in the setting prohibits the introduction of the brilliant form, brilliants being at present universally worn. The double cut brilliant is at present the common form. Diamonds were first cut in Europe in 1456 by Louis Berquin, a citizen of Bruges.

According to Jaffries, the value of diamonds is in the duplicate ratio of their weights. Thus, if an uncut diamond of one carat be worth £2, that of one cut and polished would be valued at £8 sterling in the brilliant. A carat weighs four nominal grains, or 3·166 grains Troy. At this rate a cut diamond of two carats would be £2×8×32; one of three, 3×8×3×72; one of four, 4×8×4=128; and one of five, 5×8×5=200.

The rose diamond is of inferior value, but has been rated at £4 the carat when polished. For the purpose of estimating diamonds of inconsiderable size, the jeweller employs a gauge, in the handle of which are embedded small crystals of various relative sizes, from 1/24th to 1/4th of a carat, and a comparison is therewith made when there are numbers of various minute sizes. The rough diamond is called bort; and points are those small fragments with naturally acute angles which are set in glaziers’ cutting diamonds, and sell at £10 the carat.

Most precious stones will scratch, but diamonds alone cut glass. It is also employed for the lenses of microscopes. It has but little chromatic aberration, but the frequent irregularity of its structure is a drawback to its employment for this purpose. There seems to have always been a considerable traffic in this precious stone, carried on by the mercantile body on the east coast of peninsular India. In Madras, up to about the year 1840, what may be called the country transactions with England were conducted through European firms. The diamonds exported by them consisted of the small uncut stones, which were sent to London in packets called bulses; and the mercantile character of the Messrs. de Fries of Madras stood so high in the London market, that their packets or bulses were sold there by weight without examination. Latterly, however, the export trade fell into the hands of the native community, amongst whom there is a considerable tendency to speculate on prices. The course of trade has thus been somewhat changed. Prices have risen at least 20 per cent.; and if Europeans do now engage in the business, it is chiefly in importing from London.

—Tavernier’s Travs., pp. 135—149; Sir S. Raffles’ Hist. of Java; Low’s Sarawak; Remiell’s Memoir, pp. 233—290; Pennant’s Hindustan; Heyne’s Tracts; Captain Cullen; Lt. Newbold; Dalrymple’s Repository; Voysey’s Journal; Dana, Manual of Mineralogy; Catalogue of Great Exhibition of 1851 (Class xxiii.); Eng. Cyc. p. 325; Ainslie’s Materia Medica; Mason’s Tesserae;
DIAMOND CANING.

Powell's Handbook; Tomlinson, p. 309; Mr. Tennant in Illustrated London News, 31st January 1852; Crawford's Dict. p. 129; Medlicott, Blanford, and Ball, Geology of India.

DIAMOND CANING, a mode of using coloured rattans for caning the bottoms of chairs, etc., by boring the holes and putting on a first layer of rattan stripes, and a cross layer to form the diamond figures, ornamented with colours, and gilded. The colours are used, in powder, mixed with copal varnish, and the gold leaf is applied over a coat of gold size. It has a splendid effect, and is very durable.

DIANA of the Ephesians is the counterpart of the Hindu Kali. Diana of the Greeks is represented in Hindu mythology by Atavi Devi.

DIANTHUS, a genus of flowering plants cultivated in gardens. D. carphophyllus, or clove pink, clove flower, and D. Chinensis are called Kaempfi; the latter is of various colours. Dianthus carphophyllus, Ten-chun-ló, Chín.; its long dried stalks are made into brooms. Dianthus Fischeri, Ku-meh, and Shih-shuh, Chín., grows all over China.


A fine flowered linen, used for tablecloths and napkins, manufactured in the north of Ireland, Germany, and Scotland. Diapers are also made of cotton, in imitation of the linen goods bearing the same name. The shot diaper of Malaspitam, so made that it is difficult to ascertain whether it be not shot with silk, is a cotton fabric, excellent in quality and colour.—M. Ec. Jur. Reports.

DIARBAKAR, of Hazara, Cedrus deodara, Loud.

DIARBAKAR, a pashalik of Asiatice Turkey, between lat. 37° 28' and 39° 30' N., and long. 38° 30' and 43° 10' E. Its people occupy 2702 villages and towns, and many dwell in tents. They are Arabs, Kurds, 858,540; Christians, 123,056; Yezidi, 8804; and Kazzibashlı, 15,606. The Christians are of the Armenian, Catholic, and Greek Churches. Diarbakar town is on the banks of the river Tigris. In its prosperity it contained 40,000 houses, with numerous cotton looms constantly at work. The Diarbakar branch of the Tigris passes by Rodwan and Hasan Keif, before it joins the Tigris proper. The Mahallemi Kurds live in caverns hereabouts, cut in the cliffs of the Tigris. There is a prodigious number of these caves, which are said to be very ancient, and cut into different apartments. Altoon Soo, the river Caprus of antiquity, is called the Lesser Zab by Abulfeda. It joins the Tigris below Diarbakar, but it is an error to call the river Altoon, which is an epithet only belonging to the bridge, from what it cost, Altoon meaning gold or money.—MacleGregor; Ricâ's Kurdistan, i. p. 379, ii. p. 63.

DIATOMACEE, the Hazani- Yusuf of the Panjab, is a minute silicious shell of a triangular form, one of the Diatomacae found floating on lakes and ponds in the hills of Kashmir, whence it is skimmed off and dried. It was erroneously described by Honigberger and others as a seed.—Powell, i. p. 384.

DIAZ. Bartholomew Diaz, in the reign of John II., king of Portugal, proceeded with three vessels to ascertain the southern boundary of the African continent, and, driven from the land near the south cape, he ultimately regained the African shores east of the cape, at a bay which they called the Bay of Cows. The men seeing the land trend easterly here, began to murmur, and compelled Diaz to return. As they shaped their course homeward, they rounded that famous point in August 1486, to which Diaz gave the name of 'Cabo Tormentoso,' the Cape of Tempesta, but which John, with more foresight as to the future importance of the discovery, changed to that of the Cape of Good Hope. Diaz was the first who, in recent times, doubted the Cape of Good Hope. He landed at Calient about the beginning of the 16th century, soon after the discovery of America by Columbus. He was afterwards drowned in one of four ships lost by Cabral, in his voyage from Brazil to Calient.—Tennant's Ceylon. See Albuquerque; Cabral; Deulit; Vinco da Gama.

DIBARADANE or Dipartanai, or offering of fire, from Dipa, a lamp, and Aradana, to sacrifice, is a daily ceremony in honour of the Hindu gods, and makes the last part of the worship. The Brahman who officiates holds a little bell, which he sounds, and in the other a copper lamp full of ghi; he makes it pass and re-pass round the statue of the god he worships. During this time the dancing girls dance and sing his praises, after which the assistants, in contemplation, with hands joined, address their vows to the idol; the Brahman then breaks the garland with which the idol is adorned, distributes the fragments to the people, and receives from them the offerings they have brought to the divinity. The dance before the gods during divine service, and on festival days, was a ceremony much used by the ancients. The priests of Mars, called Sati, were held in great esteem by the Romans. They danced at Delos during divine service. This dance was performed in a very singular manner among the Greeks and the Romans: they moved from the left side of the altar to the right, meaning to intimate the course of the heavens, which moves from the east to the west; they then returned from the right side to the left side, which represented the motion of the planets. King David danced before the ark when brought back from the Philistines. We find in Exodus that the Jews danced before the golden calf; but there never has been a people like the Hindus, who choose girls of no virtue to dance before their idols.—Somervat's Voyage, pp. 157-59.

DIB-GRASS, the Anglo-Hindi name of several plants. In the Punjav it is the Cydonod dactylon, and there called Khabbal; on the banks of the Ravi it is the Typha angustifolia, and mats are made of it; in Sind it is the T. elephantina; in Hindustan it is the Pofy cosmucuroides. The Harial, Cydonod dactylon, is the creeping grass which is collected for horses by the grasscutters.

DIBROGARI, a district in the east end of the Assam valley, which produces coal.

DIBYA or Divya, Sansk. Divination; in Hindu law, the ordeal.

DIC, in Hindu astronomy, the four cardinal points of the compass. Asta dic, the eight principal points, including the cardinal ones. The Asta dic are called the eight corners of the world over each of which a divinity is supposed to preside.—Warren's Kata Sakhita. See Diepala.
DICE.

DUT. Buwah pari; D'adie, Malay.
FR. Kosti, Rus.
GER. Dades, Sp.
HIND. Tawaari, Tur.
IR. 

Those used in Europe are cubical pieces of ivory, bone, or ebony, marked with dots on each of their sides, from 1 to 6, according to the number of the face, and used for playing games of chance. Those used by the Hindus are oblong pieces of bone or ivory. The story of Draupadi being staked and lost by Yudishtra, the eldest of the Pandava, to Duraydhana, is equaled by one in Ainsworth's Old St. Paul's, and others in the History of England.—Faulkner.

DICTIT or Dikshit, a vernacular corruption for Dikshita, a name given to Brahmanis, and the title of one of the sixteen branches of the Kanotia Brahmanis; it is also borne by some families of Mahratta Brahmanis; and in Gauzipur and adjacent provinces by a tribe of Raijputs.—Wilson.

DICHOSTACHYS CINEREA. W. and A. 
Mimosa cinerea, Linn. 
Desmanthus cinereus, 
Wildie. 
Vurtuli, 
Andara-gass, 
Vata-tan, 
A small scruffy tree or large shrub, abundant in the hot and drier parts of Ceylon, Coimbatore, and waste places of the inland country in the Bombay Presidency, Archipelago, and North Australia. Flowers showy. The wood is very hard, strong, and good for pegs.—Drs. Wight, Gibson; Flor. Audh.; Thw. Zeyl.; Roxb.

DICKSONIA BILLARDIERII, P. von Mueller. 
A tree-fern abundant in the humid forests of Tasmania, S.E. Australia, and New Zealand, attaining a height of 30 to 50 feet. It is one of the tallest of all the fern trees of the globe, and certainly also the most hardy, the vitality being fully retained for several months. This species occasionally occurs with a divided trunk. Round the circumference of its top no fewer than nineteen crowns have been counted, and within the circumference there must be half as many more. D. squarrosa is the most southern tree-fern in the world, native of New Zealand.— Von Mueller; W. Archer.

DICLIPtera ROXBURGHII. N. ab E. 
Sonn. of . BEAR. Lakshmana of . Panjab. 

A medicinal plant; grows up to 6500 feet in the Western Himalaya.—Dr. J. L. Stewart.

DICPALA, eight guardians of holy places worshipped in India. See Dic.

DICRANOCEPHALUS ADAMSI. Pascoe. 
A beetle of Corea, a double-helmented coleoptera. It occurs also on the Himalayas.

DICRURIDE, a family of birds, comprising the genera Chibia, Chaptia, Bhiranga, Edolius, Dicurus. One of the genus Dicurus is the drongo shrike of the Peninsula of India. Other species: D. coromence, D. leucopygia, and D. eclectofornis. See Birds.

DID or Deed. Pess. A Sufi Mahomedan rite; the viewing or holding of the deity, pointed out by the moordsh or teacher.

DI-DITSII, N'guon, Moi, Ro-moi, and Ke-moi, rude tribes occupying the mountain ranges between Tonkin and Cochlin-China, and between Cochlin-China and Kambogia.—Latham's Ethnol.

DIDYMOCARPUS, a genus of plants. Dr. Wight gives as species, D. Humboldtiana, liruata, ovalifolia, Rotelliana, and tonentosa. D. aromatica is stated by Dr. Wallich to be used as a perfume and the aromatic drug, called by the natives Kumkuma and Rani Govindi.—Roxb., p. 204; O'Sha.

DIEG. At this place a battle was fought and won by Lord Lake. See Battles.

DIEGO GARCIA, one of the Chagos Islands, is about 14 miles long, and extends from lat. 7° 13' to 7° 27' S. It is low, and generally only 8 or 10 feet above high-water tides.—Horsburgh.

DIEN-NEUNG. Bumb. In Amherst, a timber used for rice-pounders; it is a close-grained, compact, brown, hard wood.

DIGA, a form of marriage amongst the polyandrist Kandyans in Ceylon, in which the wife dwells in her husband's house.

DIGAMBARA, or sky-clad, also called Nirgranth, without a bond, and Nagnata, naked. These are gymnosophist mendicants, who live absolutely separated from society, and from all family connections. Their name is commonly understood as sky-clad, and is derived from Dic, a quarter of the globe, and Ambar, apparel, and indicates one who has the world or universe for his covering. The Digambara is a division of the Jains, the members of which either go naked, or wear coloured clothes, in opposition to the Swetambara, or those who wear white. These ascetics have ceased to appear in public since the early part of the 19th century.—Wilson; Skerring.

DIGAMBARA, one of the six athecistical systems of philosophy current amongst the eastern Aryan race in India. The other five are the Charvaka, Yogachara, Siddhanta, Wai-boshika, and Madhyamika, all full of indeterminate phrases, and containing a jumble of atheism and ethics. The derivation of Charvaka is from Charu, insinuating, and Vaka, a word.

DIGITALIS PURPUREA. Linn., is the Mau-ti-hwng of the Chinese and the foxglove of the English.—Smith.

DIGITIGRADA, a tribe of mammals belonging to the order Carnivora. See Carnivora.

DIG-IJAYAY or SANS. From Dic, the quarters of the earth, and Vijaya, conquest. The Dig-Ijaya is a part of the Mahabharatas, relating the conquests of the four younger Pandya. It is also the name of a work by Sankaracharya, in support of the Vedanta philosophy.

DIHANG or Dihong, a river in the Lakhimpur district of Assam, one of the three which contribute to make up the Brahmaputra. The Dihang is supposed to be the connecting link between the Sang-pu (Tsang-pu) of Tibet and the Brahmaputra of Assam.—Imp. Gaz.

DIHING is the name of two rivers in Lakhimpur district, Assam, which contribute to make up the waters of the Brahmaputra.—(1) the Noa Dihing, rising in the Singpho hills; (2) the Buri Dihing, rising in the Patkoi hills.—Imp. Gaz.

DIF MAJORES and Dif Minores. See Hindus. Dif Patres of the Romans, the Pitrivedya of the Hindus. See Dehwar.

DIJLAH, a name of the Tigris. The designation applied to it in the Scriptures is Hiddelked. Dijlah is the name which it bears at the present day among a large portion of the people living
nearly its banks. The western branch rises at a spot which is about 20 miles westward of Argani Maden, and near 10 miles southward of the centre of the Ghuilkj lake; its course is north-eastward along the deep valley at the foot of the elevated ground of Kizan (4568 feet above the Black Sea), and, after having continued in the same direction towards the heart of Kurdistan, when a little more than 25 miles from the spring, it makes a sweep so as to take the direction of Argani Maden, or nearly south.

DIKAMALLEE, Hind., is the fragrant gum-resin of Gardenia incisa, Roxburgh. It exudes in amber-coloured transparent drops at the ends of young shoots. It is most useful in preventing vermin breeding in wounds, and in keeping away flies from sores, by its strong aroma, and is an article in the materia medica of the villagefarrier. It deserves more attention.—M. E. J. B.; Spry.

DIKHIT, a tribe of Rajputs inhabiting the parganas of Kooten, Futtupur, Ekdulla, Mootour, and Ghazipur, in the Futtupur district, also from Oudh to Bundelkhand.—Elliot, Supp. Gloss.

DIKO. Kol. A foreigner.

DIKOKAMENNI, a Kirghiz horde, divided into two wings, 'On' and 'Sol,' or right and left, corresponding to the Mongolian 'Borongar' and 'Zungar.' The right wing consists of two divisions, 'Adgen' and 'Tagai.' The left wing is formed of three tribes, who frequent the Talas. Their chiefs are related to the Khan of Kokan, who are on the female side of Kirghiz extraction.—Tal-kuhoof and M. Vinuukof, Russians, p. 103.

DIK PALAKA, in Hindu mythology, a regent of a quarter of the heavens. They are eight in number,—

Indra, E. | Kuvera, X. | Isani, N.E. | Yavu, N.W.
Varuna, W. | Yama, S. | Niruta, S.W. | Agni, S.E.

DIKSHA. SANSK. In Hinduism, sacrifical worship; initiation into sacred rites. Among Hindus of Malabar, the ceremony of abstaining from shaving for one year after the death of a relative.

Dikshamiga, a sacrifical act, explained in the beginning of the Aitareya Brahmana, meant to represent, by simple and natural emblems, the new birth (Matriculation), through which a man on his first admission to the sacrifice was believed to enter a new life.

Dikshaniya Ishti. SANSK. A curious sacrifical ceremony.

Diksha Visarjane. SANSK. A religious ceremony among Brahmans, who for six months after marriage allow their hair to grow, and then go to their father-in-law's house to have the head shaved.—Max Muller.

DILAZAK, a tribe in the Peshawur division, now few in number; were possessors of the Peshawur valley, till they were driven out by the Yusufzai. They are Mahomedans.

DILEM, a powerful tribe of Arabs, with about 1600 tents, in the province of Bagdad, chiefly on the E. bank of the Euphrates, from west of Bagdad to the north as far as the town of Hit. Their territory is rich, with 340 irrigating wells. They are agricultural and pastoral. The district yields sulphur and bitumen, also salt, from thermal springs.—MacGregor.

DILVARI ILICIFOLIA. Juss.

Acanthus ilicifolius, Linn., Roeb., Rhede.

Hakoreh, BENG. Paina shuh, MALAK.
Kaya, BURM. Koll mortal cheddar, TAM.
Harakat, HIND. Ails, Et chilhas, TEL.
Harcku kanta, ...

Grows in marine lagous, canals, and deltas in south of India. It resembles the holy; its leaves and root are used medicinally.—Roxb. ; Voigt.

DILKA, or swarming with oil, is in general use by the natives of the Soudan every evening by those who can afford it, before retiring to rest; to its use they ascribe the entire absence of cutaneous diseases, and also their being able to resist the cold and cutting winds of winter, with no other protection than a slight calico scarf or shirt.—Egypt, by J. Petherick.

DILLIET. HIND. A summons-server, apeon.

DILLENIACEE. D. C. A natural order of handsome trees, shrubs or under shrubs, rarely herbs; above 100 species, belonging to the East Indies and New Caledonia. The Indian forms are ranged under Tetracera, Wormia, Acrocomia, Dil- lenia. Several Dillenia yield useful and valuable timbers, in Ceylon, in the two Peninsulas, and in the Northern Provinces of India. Some are not yet species determined. The young fleshy edible of D. seabra and D. speciosa have a pleasant taste, and are used in curries by the inhabitants of Chittagong and Bengal. Dillenia augusta, Zim-byun, BURM., also D. seabra, Byew, BURM., and D. speciosa, Thab yew, BURM., occur in the Pegu forests; all three have a light-brown wood, and afford large and good timber for house buildings. In March and April the forests are dazzling from the bright yellow flowers which are crowded on their leafless branches. A species, always found on the borders of streams of Burma, produces a large green fruit, which is a favourite vegetable with the natives. Gamble mentions nine species.—Captain R. Benson ; Hooker, Hum. Jour. p. 395; Mason ; Royle, Hum. Bot.; Voigt ; Mc'Clendan, Cal. Cat. Ez. 1862.

DILLENIA AUREA. Sm. Zim-byun, BURM. Abundant in the plains and hills and in the forests of British Burma, but more scarce to the north of it, and found only on the banks of the Godra by General Hardwik. Wood of a light-brown colour, occasionally used in house-building, but mostly for firewood. Breaking weight, 198 lbs.

—Dr. Brandis, Cal. Cat. Ez. of 1862.

DILLENIA ORNATA. Wall. Zim-byun, BURM. Grows plentiful and of large girth in Pegu and Moulmein, and furnishes a strong, good timber, useful for general purposes in house and ship building. It has large gaudy yellow flowers.—Dr. Mason; Captain Benson.

DILLENS PENTAGYNA. Roeb.

D. augusta, Roeb. | Colubertia Coronamid, D.C.
D. pilosa, Roeb. | Wormia ...

Yeenga, Bjooben, BURM. | R. Pai, Nite-tek, TAM.
Kanaagalee, Machil, CAN. | Kaniga, China, TEL.

This is a very large tree, abundant throughout South and Northern India and Burma. It flowers towards the end of January, or as late as March or April, when the tree is destitute of leaves. The wood is close-grained, strong, tough, fibrous, and durable even under ground, of a reddish-brown colour. It is not easily worked, and is subject to warp and crack. A cubic foot unseasoned weighs 85 to 90 lbs., and 70 lbs. when seasoned; its specific gravity is 1.20; it is used in house and ship building, and is adapted for
DILLENIA PILOSA.

Cabinet purposes.—Drs. Roxb. ii. p. 652, Wight, Cleghorn, Gibson, Brandis, Voigt, p. 18; Captain Bennett; Cal. Cat. Ex. of 1862; Useful Plants.

DILLENIA PILOSA. Roxb. Grows in Assam near Goalpara, on the banks of the Megna, and furnishes a hard, tough wood, much used for canoes. —Roxb. ii. p. 652; Voigt; Mendis.

DILLENIA RETUSA. Thumb.


A moderate-sized tree, growing in Ceylon to an elevation of 2000 feet, but not abundant; used for roofs of houses.—Thur. p. 5.

DILLENIA SCABRELLA. Roxb. ii. p. 653.

D. scabra, Brandis.

Zen-bywon, . . . BURM. | Kulgal, . . . CAN.

Kyet-sen-bywon,. . . | Kurmul, . . . MAHR.

A stately timber tree; grows in Chittagong, also in Canara and Sunda, where it is most common below the ghat. Grows large, long, and straight. Its acid calyx leaves used in curries. Wood seems to be used for boat planks in Canara, but it is not reckoned a choice wood in the Bombay Presidency. It is plentiful in the Pegu province, but becomes scarce to the north of it, and it is there of large girth; furnishes a large, good timber, and is useful for general purposes, as house and ship building.—Drs. Roxb. ii. p. 653, Gibson, and M'Cleland; Captain Benson.

DILLENIA SPECIOSA. Thumb., Roxb., Bedd.

D. elliptica, Thumb. | D. Indica, Linn.

Kaboomoo, . . . BURM. | Mota kurmal, . . . MAHR.

Hondaparas, . . . CRYL. | Uva, . . . TEL.

Chalta, . . . HIND. | Pedda kalinga, . . . TEL.

This is a good-sized tree, one of the handsomest in India, and is much cultivated in particular parts by natives, about temples. It is found in dense forests at no great elevation in Malabar, the Northern Circars, Orissa, the Godavery forests, in various parts of Northern India, Bombay, Ceylon, Burma, and in the Malay Peninsula. The wood is hard and tough, and used to make gunstocks and in boat-building, and is said to be very durable under water. The timber weighs 44 lbs. the cubic foot when seasoned, and 55 to 60 when unseasoned, and its specific gravity is 704. Ovalkai is the Tamil name of the fruit, and is used by the natives in their curries, having an agreeable acid flavour; and also in chutnis. —Drs. Turvillae, Roxb. ii. p. 650, Voigt, Jeffrey, Brandis, M'Cleland, Riddell, and Irvine; Captains Beedome and Mason; Gen. Med. Top. p. 199.

DILLI, D'dy, or Yennala mountain, in lat. 12° 2' N., and long. 75° 14' E., in Malabar, near the sea-coast, rises 804 feet above the sea. Dilli was the first Indian land seen by Vasco da Gama. In Sonnerat's time the coast as far as Mount Dilli was inhabited by the Molandi, who lived merely by piracy, as the sea-robbers mentioned by Pliny, Arrian, Toleomy, and other ancient authors. They united themselves to other pirates who resided on the Angedib islands, near Goa, and captured all the small vessels which sailed from Goa to Cochín. The huts in which their wives and children lived were on the eastern side of Mount Dilli.—Voyage to the East Indies; Grand Tri. Surv.

DILLI-AL, or Dhilli wal, in J.M. 614, the ordinary coin of the country about Dhilli. The original currency, it is supposed, corresponded with the billion money of Prithi-raj and others, which was

initiatively adopted by the Mahomedans in the early days of their occupation of Hindustan.

DILLON, Captain, sailed from Port Jackson on the 4th June 1827, and at Mannickola discovered property that had belonged to La Perouse. The King of the French created him a Knight of the Legion of Honour.

DILL SEED, seed of Anethum sowa.

Buz ul shatat, Shubil, Afg. | Seleya, . . . SANSE.

Sowa, . . . GUJ. | Sattu-copa, . . . SINGH.

Mungai, . . . JAV. | Sadacappe, . . . TAM.

Adan-mansai, . . . MALAS. | Sadap, . . . TEL.

Mireyo, Sittu, . . . SANSE.

Flattened elliptical seeds, with brown and slightly convex backs, and pale membranous margin. Both the frrt-ibib and the plant are much used in the East Indies as condiments and articles of diet. The carapels have a bitter aromatic taste, making them useful as carminatives, and supposed to be used in the manufacture of gin. The seeds are procurable in all Indian bazaars. The Indian species is the Anethum sowa. Dill leaves are used to flavour pickles.—Paulkner; Jaffrey.

DILWARA, at Mount Abu, has been famed since a remote antiquity, and pilgrims seem to have been attracted to its temples since a.d. 1034. Hindu temples seem to have existed here in remote ages, dedicated to Siva and Vishnu, but all traces of them have disappeared; and on it now stand famous Jain temples, built by Bimul Sih, a rich Jain merchant, and others. In Jain estimation, Abu is the holiest spot on earth.

DILZAK are the predecessors of the Pathan tribes in the Koshwah valley. They seem to have been a considerable Pathan blood, and are supposed by some to be earlier Afghans.—Campbell, p. 96.

DIMAL, a tribe smaller than the Mechi, but somewhat similar in appearance, with a language that in some degree differs. The Kachari, Nage, Abar, and some other tribes bordering on Assam, are supposed to be of the same race as the Mechi. The Mechi form the chief population of the forests and N.E. Doars at the foot of the Sikkim and Bhutan hills, and a few have recently settled on the extreme eastern portion of the Nepal Terai. They are supposed to be the same as the Bodo, whom Mr. B. Hodgson described. Their features are described as Mongolia or Indo-Chinese; they are fairer than the Hindus around them, and of a yellow tinge; they are taller and larger than the Nepalese cultivators, are addicted to spirits and to smoking opium. They are proof against malaria, and make small temporary clearances in the forest; they are inferior to the Tharu in industrial habits.

DIMITY. Basin, Fr.; Dobletto, It.; Dimite, Sp. The name is supposed to be from Danietta. Dimity is a stout cotton cloth, white, ornamented either with raised stripes or figures, and employed for bed and bedroom furniture.—Tomp. ; M'Cullock.

DIMIYA. Singh. The great red ant of Ceylon; Formica smaragdina; it bites severely.

DIMRAUT. Hind. One of the twelve pal or tribes of the Mewati.

DIN or Deen, with Millat and Mazhab, are three Arabic words used by Mahomedan writers for religion. Din means as it stands in relation to God, Din-Allah, the religion of God; Millat as it stands in relation to a prophet or lawgiver, as Millat-i-Ibrahim, the religion of Abraham; and Mazhab as it stands in relation to the commentators of Islam, as Mazhab-i-Hanafi. Din is, however,
of general application. Mahomedans sometimes call their own religion, Din-i-Islam, the Faith of Salvation. Mazhab relates to the sectarian part of the Din. Thus a Mahomedan is of the Din-i-Islam, but may be of the Shiah or Sunni Mazhab. Din is everywhere used as the Mahomedan war-cry: Din! Din! For the faith! For the faith! The principles of the Koran generally, but in particular the text in chapters 8 and 47 which incites war against non-Mahomedans, and death in the contest as the surest passport to heaven, have established amongst Mahomedans an intimate connection between the spiritual aspiration and political convictions. Hami-i-Din, Defender of the Faith. Din-pana, Protector of the Faith.

DIN or Dina, Hind., a day, considered in a great variety of ways and durations, of which the following are the principal:

1st, a Savana or Bhumi savana dina, a natural day, being the time between two sunrises.

2d, a Saura dina. Of these there are two kinds; and the similarity of the name tends greatly to confuse the beginners in the study of Hindu astronomy. First, the absolute sense of Saura being sidereal, the Saura dina is the time between the same point of the ecliptic rising twice; or, more precisely, the time between the equinoctial points rising twice. Second, the other Saura dina is the time which the sun takes to describe one degree of the ecliptic. It follows, therefore, that, strictly speaking, neither of these kinds of days are equal throughout the year, yet the former (which is also called Nacshatra dina) are supposed to be so in the first steps of several operations. Such is also the case with the latter, but this only happens when calculating the mean elements of the planets by the Vayam process.

3d, Diva dina is equal to a sidereal revolution of the sun.

4th, Pityra dina, to a synodical revolution of the moon.

5th, Brahma dina is equal to a calpa, or 4,320,000,000 years, his nights being equal to his day.

6th, Yuga dina is another word for Ahargana, meaning the number of days expired from the commencement of a yug. Yuga dina also means the anniversary day of that on which a yug began, which is always noticed in the calendar. —Warren's Kala Sankito.

DINAPUR, a town which gives its name to a district in the west of the Rajshahi, Kuch-Bihar division of Bengal. In 1872 the population of the town was 13,042, and of the district 1,501,924. The most numerous caste is the Kebartta (38,651); the fishing castes are also strongly represented, especially the Tier, with 17,364, and the Jahees, with 10,296 members. There are 16,710 Vaishnav mendicants; many of the Fuli tribe are said to belong to this sect.—Imp. Gaz.

DINA-KARA. SANSK. The day-maker; a usual title of the sun.

DINAPUR, a large military cantonment which gives its name to a subdivision of the Patna district. The town is on the right or southern bank of the Ganges, 8 miles west of Patna, in lat. 25° 38' 19" N., and long. 85° 5' 0" E., with 42,084 inhabitants in 1872. The Dinapur district had 141,337. During the mutiny of 1857, the native soldiers of three regiments here joined the rebels.

DINAR. Denarius, LAT.; Dinara, SANSK. The Roman Denarius was of silver of the unit of 60 grains. The Denara of the Sanskrit was 32 rati, or 64 grains. Though sometimes applied by Ibn Battuta to an Indian gold coin, Dinar is the only name he uses for the standard Indian silver coin. Sometimes the term used by him is Dinar Diraham, which Defremery in some instances renders 'Dinars of silver,' and in others, 'Dinars in Dirhems.' Sometimes the term used is Dinair fizzat. The Dinar in Akbar's time was a gold coin weighing 1 miskal, i.e. 1/9 dirham, 1 miskal = 6 danga, 1 danga = 4 tassui.—Müller; Yule, Cathay.

DIND and Khooch-hali, though etymologically the antipodes of each other, the first meaning a compulsory contribution, the other a benevolence or voluntary, have a similar interpretation in Rajputana. Dind is coeval with Hindu legislation. The bard Chaud describes it; and the chronicleer of the life of the great Sidraj of Anhal-wara, 'who expelled the seven dilda or 'great evils' whose initial letter was d, enumerates dind as one of them, and places it with the Sirdar and Shakru, the slayers of the royal minister Zalim Shishoo. The reign of Koten was in 1817, abolished the dind, and commanded a stone to be raised in the chief town of every district of his country, on which was inscribed the edict of perpetual abolition of dind, with the denunciation of eternal vengeance on whosoever should revoke it. The effigies of the sun, the moon, also of the cow and the hog, animals reverenced or execrated by all classes, were carved in relief to attest the imprecation.—Toti's Rajasthan, ii. pp. 508-570.

DINDIGUL, a town in the south of the Peninsula, with 13,000 inhabitants, in a beautiful and fertile valley in Madura, extending along the foot of the ghats. It is in lat. 10° 21' 39" N., and long. 78° 0' 17" E., 800 feet above the sea. It is 270 miles S.W. from Madras. The principal rivers are the Kodavar, Mangerry, Vagachay, Kul, and Ellur. The Kodavar is a stream of considerable magnitude. A rock on the W. side of the town is fortified, the Dindu-kal, the rock of Dindo, an asura or demon.

DINDUGA TREE. ANGLO-CAN. Bayla-Nava maram, TAM. According to Dr. Roxburgh, a species of Andersonia. A large and valuable tree of the Wynaad.—Ains. Mat. Med. p. 213.

DINGO, a species of dog in Australia, Canis Australasiacus.

DINNER. To send a dinner to another person is a common compliment among Mahomedans. In Persia, when requesting permission to do this, the party begs leave to send a little Noon-i-jow, barley bread, which humble phrase (nain-i-jau) may include every delicacy of the season. In India the phrase is Dal khoosha, split peas and rice.

DIOCLESIAN ERA, or Martyrs' era, dates from A.D. 284, the year of that emperor's accession.

DIDON, a globe fish of the fam. Gymno- dontide. There are 6 Diodon, Tetrodons, Triodons, in Asiatic Seas. The Diodons have but one large tooth above and below, and are usually protected by large, strong spines. Tetrodons and Diodons have the power of inflating, with wind, a membrane which extends along the under side of the abdomen, which causes them to float on the surface of the water, without the power, it is said, of directing their course; the membrane, when inflated, gives to the fish an almost spherical

DION.
DIOMEDEA, a genus of birds of the family Procellariidae, comprising the genera Diomea, Procellaria, Prion, Pelecanoides, Puffinus, Thalassarche. The birds are familiar as the albatross to all travellers in the southern seas, the common albatross of the D. exulans, Linn., being very abundant. D. fuliginosa, Lath., and D. chlororhynchos, Lath., also met with. Mariners distinguish them by other names,—for instance, D. exulans is the wandering albatross, D. spadicea is the green-bill or Nelly, D. chlororhynchos their molly-mauux or yellow-bill, and D. fuliginosa the sooty albatross; D. canta, Gould, the cautious albatross; D. brevichyrax, Gould, the short-tailed albatross; D. culminata, Gould, the culminated albatross; D. melanophris, Gould, is the black-browed albatross, and other species, D. gibbosa, D. nigripes, and D. olivaceorhyncha.

D. exulans, Linn., Monton du Cap, Fr., is abundant and equally numerous in all parts of the ocean between lat. 30° and 60° S.; but it ranges much farther south, and is to within the Antarctic Circle. The measurable feet across.

D. melanophris, Penn., is the most abundant species in every part between lat. 30° and 60° S.

D. canta, Gould, was procured by Mr. Gould off the south coast of the Van Diemen's Land.

D. chlororhynchos, Lath., occurs between lat. 30° and 60° S., in both the Atlantic and Pacific Oceans.

D. culminata, Gould, is rather abundant both in the Pacific and Atlantic Oceans, between lat. 30° and 50° S.

D. fuliginosa, Gmel., occurs in all parts of the ocean, between lat. 30° and 60° S.

D. brevichyrax, Penn., found in the North Pacific.

D. gibbosa, Gould, an inhabitant of the North Pacific.

D. olivaceorhyncha, Gould, China Seas (2).


DIONECA MUSCIPULA, Venus' flytrap, is remarkable for the irritability of the lobes of the round and fringed blade of the leaf. These lobes close upon each other the instant any one of the six minute bristles upon their upper surface is touched, and in this way secure insects which alight upon the leaf, enveloped in a fluid of mucilaginous consistence, which seems to act as a solvent, the insects being more or less consumed in it.

DIONYSOPOLIS of Ptolemy, the modern Jalalabad.

DIONYUS, a name of Bacchus, said to be Rama son of Cush, who invaded India; also supposed to be the same with Deva Nahuaha, but also has been traced to Parasurama.

DIOPSIS, a genus of dipterous insects of the family Sepaide. The head is small, and appears as if it were furnished with two long horns, each having a knob at its apex. These horn-like processes are prolongations of the sides of the head, the knob at the apex of each being the eye of the insect. D. Sykesii of Gray is one of the largest species of the genus, and possesses the longest antennae. In this insect are of a pitchy red colour, and the body is of the same tint. The head and thorax are black, and the wings are coloured with brown. Colonel Sykes collected great numbers of this species near the hill fort of Hurrecoholmghur, in the western Ghats of the Dekhan, at an elevation of 3900 feet above the level of the sea, lat. 19° 23' N., and long. 70° 40' E. —Eng. Cyc. ii. p. 354.

DIOSCOREA, a genus of plants of the order Dioscoreaceae, which furnish the tropical esculents called yams. It is the type of the natural order Dioscoreaceae. The following Eastern species are generally recognised:—

-uncula.  
-uncula.  
alata.  
anguina.  
strepurpea.  
heterophylla.  
belophylla.  
nummularia.  
bispinosa.  
pentaphylla.  
crispa.

The yam plants are cultivated in India, also among all the tribes in the Archipelago, and generally most so where rice is least abundant; but they nowhere form the chief bread of the people, as rice, maize, or sago do. The Malay and Javanese names rubi or uwi extend to the languages of all the Malay and Philippine Islands, to those of the Pacific, and to Madagascar. In the Tonga it is ufi, in the Tahiti eul, in New Zealand uwi, in New Ireland u, and in Madagascar vi. In Madagascar a wild yam is called uvi-alu, which, is without doubt, the uwi-alu—the wild or forest yam of the Javanese, with the elision of the final consonant, conformably to the genius of Malagasy pronunciation. The word ufi, besides being applied specifically to the yam, is used as a generic for farmaceous roots. Thus the batata, or Convolvulus batatas, is called by the Malays uvi-java, or the Javanese yam, to distinguish it from the Dioscorea. While many species are nutritious in this genus, some are highly dangerous. D. demonum and D. triphylla, both terebra-leaved species, have very nauseous and dangerous tubers. In Otaheite, the D. bispinosa, which bears small fleshy angular tubers along the stem in the axils of the leaves, is the favourite species. The elephant-foot yam, with a tuber about the size and shape of an elephant's foot, is white, and often as light and agreeable as a potato. It abounds in Karen gardens, but is rarely seen among the Burmese, or in the market. In Bengal, yam species most esteemed is D. globosa; after it D. alata, and lastly the D. purpurea.

D. Crispa.  
Zoological Museum.  
Dioscorea.  
Ko-ori, Burm.  
A yam of Bengal.

D. Demonum.  
Zoob.  
Ubium sylvestris, Rumph.  
Ko-we, Burm.  
Grows in Gorakpur and the Moluccas.  
It is remarkable for its large terebra leaves, of which the leaflets are sometimes nearly a foot long and six inches wide.

Dioscorea Japonica.  
Thunb.  
A hardy yam of Japan and N.E. Australia.

D. Nummularia.  
Linn.  
The Tivoli yam of continental and insular India and South Sea Islands; roots exceedingly good.

Dioscorea oppositifolia.  
Linn.  
Of India and China; an edible yam.—Eng. Cyc.; Cruiseard, Dict.; Mason; V. Mueller.

DIOSCOREA ACULEATA.  
Linn.

Ma-alu, Beng., Hind.  
Ka-awi of.  
Pacific.

Chota pindalu.  
Dukh.  
Kaku-kukulalu, Singh.  
Potato.  
Eng.  
Suru-va-kalu, Thai.  
Prickly-stemmed yam, Kanta-kalangu, Thai.  
Kata-kalangu, Malay.  
Kummara baadan, Tel.  
Pudde-kalangu, Dampa.

This is a very valuable and delicate small yam, somewhat resembling the sweet potato in appearance; tubers of an oval form, and very white.
DIOSCOREA ALATA. *Linn., Roxb.*


This very large yam grows wild in both the Konkans, and is cultivated on the coast of Coromandel; and in Bengal it is esteemed next best to *D. globosa.* It has many varieties.—*Ainslie; Roxb.; Voigt; Mueller.*

**DIOSCOREA ATROPURPUREA. Roxb.**

Myouk nee, *Burm. Dark purple yam, Eng.*

This, with a dark purple root, is one of the best yams. It is extensively cultivated both by Karens and Burmeese, and at Malaccas; tubers are large and irregular, and grow so near the surface of the ground as to appear in dry weather through the cracks that make in the soil by upraising the earth.—*Mason; Eng. Cyc.*

**DIOSCOREA BULBIFERA. *Linn.*


A native of New Holland, and is cultivated on the western coast of India, and both the Konkans. The root is edible, and is applied externally to ulcers. The leaves are used as greens.—*Voigt.*

**DIOSCOREA DELTOIDEA. Wall.**

Dioscorea bulbifera, *L.?*


There is doubt as to whether all these vernacular names mean the same plant; but if so, it grows abundantly in many parts of the Panjab Himalaya, from as low as 2000 up to 9200 feet, and is found in the Khyber ranges. The root is used in Kashmir for washing sheep wool for shawls, and both there and on the Chenab and Sutlej for washing woollen cloth. The root of this, or a variety (?), which grows to several pounds weight, after steeping in ashes and water to remove acidity, is largely eaten cooked by various classes in parts of the Siwalik and outer hills, but in other places is not used; and Dr. Stewart was once told that the tongue would rot from eating it. Honigberger says that it is used medicinally.—*Dr. J. L. Stewart, Panjab Plants, p. 229; Porell, i p. 378.*

**DIOSCOREA FASCICULATA. Roxb.**


This small yam of Bengal is not much larger than a kidney potato, which it much resembles both in appearance and taste. It is cultivated extensively by the Karens race, and, being more like a potato than a yam, has acquired the names of the Karen potato and the Tavoy potato. It is the best vegetable the Karens have, but unfortunately it can be obtained during a few months only in the year; is largely cultivated in Bengal for food, and to make starch.—*Mason; Voigt; Roxb. iii. 801.*

**DIOSCOREA GLABRA. Roxb.; D. batatas, D. C. Chinese yam; introduced into Europe about the year 1849, having been sent from Shang-hai by M. de Montigny, the French consul. It is everywhere cultivated in China, and bears the names of Chou-yu, Tou-tehaw, Chan-chou, Chan-yo, and Chan-yun, which signify the 'Arum of the Mountain.' At Nankin it is very large and of excellent flavor; that of the Chou district is still better, but for medicinal purposes the Chinese prefer that of the Hoai-king district, where the Chou-yu root is laxative and sweet. It is particularly worthy of a place in the kitchen garden, as well as in field culture, on account of its perfectly succulent flavour, and the absence of any after-taste of sweeteness, acidity, or spiciness, such as is often found in other plants, as also on account of the case with which it may be cultivated, and the facility of preserving it from decay.—*Agricultural Rep. to Commissioners of Patents to House of Assembly for 1854.*

**DIOSCOREA GLOBOSA. Roxb., W. lc.**

Chupi alu, *Beng., Hind. Gunu pendalum, Tel.*

Is the most esteemed of all the Indian yams. Its flowers are highly fragrant; the tubers are white internally; it has arrow-headed cordate leaves.—*Roxb. iii. p. 797; Mason; Voigt.*

**DIOSCOREA PENTAPHYLLA. *Linn.*


This yam grows wild over all the East Indies and throughout the Archipelago, the flowers are used as greens, and the tubers as an esculent. In some parts of Southern India is called Kaat vulli kalang, or wild yam. It appears to be the Nooren kalang of the Hortus Malabaricus, and the Onu of the Malay.—*Ainslie, p. 249; Roxb. iii. p. 806.*

**DIOSCOREA PURPUREA. Roxb.**


This holds the third rank amongst the yams, and is cultivated throughout India, being boiled and eaten like a potato. The tubers are permanently stained purple throughout, immediately below the cuticle, and are sometimes three feet long. Its flowers are fragrant.—*Roxb. iii. p. 799.*

**DIOSCOREA SATIVA. W.**


This is eaten all over the E. Indies by Europeans and natives.—*Ainslie, p. 251.*

**DIOSCOREA TOMENTOSA. Spr. Subdampa, Tel. Grows in the Peninsula of India, at Travancore, and at Ginge.-Voigt.*

**DIOSCOREA TRIPHYLLA. *Linn.*


A yam of the Konkans and Moluccas; said to be used to render the coconuts tree too markedly intoxicating.

**DIOSCURI, the Greek analogue of the Aswini. DIOSPIRYACE.E, a natural order of plants, called by Ventenat and Lindley the Ebenaceae, or ebony tribe. They consist of trees and shrubs, and include two East Indian genera, Diospyros and Maha. The species of Diospyros form large trees, with alternate thick and often leathery leaves, remarkable for the hardness and the blackness of the wood of some species, and for the edible fruits of others, the woods being the ebones and ironwoods of commerce. The fruits are noted for
their extreme acerbity before arriving at maturity, but they are sometimes brought from China as a preserve. Diospyros kaki is common to Nepal, China, and Japan; D. melanoxyylon and D. chloroxylon, of the mountains of the Peninsula. D. embryopteris, found with them, extends from Sylhet and Bengal near to the Dhehra Doon along the foot of the mountains, and D. montana to the borders of the Raenka lake near Nahm. D. cordifolia seems to be common in every part of India, and D. tomentosa, first described by Dr. Roxburgh, from the northern parts of Bengail, extends to the Kheelee jungle, and the foot of the lower hills; the same species appears also to exist in the central range. D. Roylei, Wall. Cat. N. §. 4134, is a nearly-allied species, growing in abundance near Ajyghur and the Bierumganji Ghat. Wight, in Icones, gives 15 species, and Mr. Gamble notices 41. Besides those noticed here, authors mention D. bracteata, Roxb., D. clarkii, D. cerasifolia, D. Don, Nepal, D. frutescens, Bl., and D. macrophylla, Bl., of Java, and D. serrata, Buch., of Nepal. D. Candolleana, W. C.; Homedereya-gass, Singh.; in Ceylon, a middle-sized tree, in the Saffragam district and Hindoone Corle.

D. acuta, Thw., and D. attenuata, Thw., are middle-sized trees of Passoon Corle, in Ceylon. D. affinis, Thw., a middle-sized tree growing at Ooma, Oya, on the lowest land from Kandy to Badulla, in Ceylon; it grows sub-glabrous; timber is suitable for building purposes.

D. calycina, Bedd. This good-sized tree, everywhere glabrous, leaves dark shining green, has only been observed in the Tinnevelly district and southern portions of Madura, where, however, it is very abundant in the ghat forests from the foot up to 3000 feet elevation. It yields a valuable light-coloured wood, which is much in use in the Tinnevelly district.—Theuaites, Zeyl. p. 181; Roxb.; Eng. Cyc.; Dr. Mason; Royle, Ill. Jnn. Bot. p. 202; Wight, Icones; Bedd.

Diospyros cananica, Bedd. A good-sized tree, glabrous; leaves oblong to obovato-oblong. South Canara plains, near the foot of the ghat, called Karah-mara, allied to D. Arnottiana.—Miq. in Bedd. 1c. Plant.


Grows to a large tree on the Cercar mountains, and gives a very hard, useful wood; whereas it is generally a shrub about the Godavery forests. The fruit is edible.—Roxb. ii. p. 538; Voigt; Beddome.

Diospyros cordifolia, Roxb. Diospyros montana, Wight!! Ban-gab, BENG. Nalla ulinera, TEL. Guinathan, MARH. Kaka ulinera, "

Vukcan maram, TAM. Nalla urinida, "

Grows in Ceylon near Jaffna, in the Peninsula of India, in Coimbatore, and in Bengal. It yields a hard, Bengal, strong wood, of a dark-brown colour, and difficult to work. Not uncommon in the Bombay side of India, but more in ravines and waste places than in forests; and Dr. Gibson had never seen a tree that would turn out a log 4 inches square. The wood is strong and durable.—Roxb. ii. 538; Wight; Gibson; Theuaites; Voigt.

Diospyros crummentata. Thw. A very large tree of the central province of Ceylon; branches glabrous; leaves glabrous, oblong, abruptly and obtusely acuminate; growing at an elevation of 2000 to 4000 feet.—Thw.; Bedd. 1c.

Diospyros ebenum. Linn. Ebony.

Diospyros ebenaster, Retz. | Hebester, Rumph.

Kara maa, CAN. Kado beriya? "
Steinholz, GER. Kaka-tati; Atchem, TAM.
Don., SCI. Thabi maram, "
Habemen, HEI. Tuki, "
Tendu, Tendua (the white wood), HIND. Kendhoo, "

The timber of this great tree yields the best kind of ebony wood. In Exodus xxvii. 15, it is mentioned as brought with ivory by the men of Dedan. It seems to have been then brought both from Ethiopia and India, though Virgil appears to have been unaware of this, for he says (Georg. ii. p. 115).—

'Sola India nigrum
Fert ebenum.'

It was highly esteemed by the ancients. In Ceylon it is found not uncommon up to an elevation of 5000 feet, in great abundance in the north of the island, and to some extent in the Kandyman country. The great weight of the timber renders its transport very costly, unless where water conveyance can be obtained, which is seldom the case, but during the rainy months; and though immense forests of this wood still exist in the island, they are to a great extent too far from a port of shipment to be available. The exports of ebony have varied much of late years from 15,000 to 5000 cwt.

This valuable tree is not uncommon in the mountain forests on both sides of the Madras Presidency, and in Ceylon, and is well known in the Kurnool and Cuddapah forests, where it yields the best kind of ebony, generally jet black, but sometimes highly streaked with yellow or brown. It is very heavy, close, and even-grained, and takes a high polish; un seasoned, it weighs 90 to 100 lbs. the cubic foot, 81 lbs. when seasoned, and has a specific gravity of 1.296. It is used for inlaying and ornamental turnery, and sometimes for furniture. The sap-wood is white, hard, close-grained and strong, but not durable, but is used by the natives for various purposes.—Roxb.; Theuaites; Tredgold; Holtzapfel.


Tumika, BENG. Timbiri, SANJ. SINGH, Gab, BENG., HIND. Tumbikai, TAM.
Yendaik, TAM. Tumiki, Tinduki, TEL.
Timburi, DEK. Tumiki, "

Grows in the south of Ceylon, in damp forests, also in the Peninsula of India, in the Cercars, all along the foot of the Himalaya to Sylhet and Assam. It is a common tree on the western coast of the Peninsula, particularly near marine lagoons, and is also grown in the forests of Bengal, Mysore, and Bombay. The timber is only of average quality, but is used in Ceylon for the masts and yards of country vessels and for building purposes; and the fruit rusty-coloured, abundant in a viscid glutinous astrigent juice, obnoxious to insects, and used by bookbinders, also for paying boats' bottoms, and also in infusion for
soaking fishing nets, as it contains much tannin. Thwaites describes three varieties:—

Var. β. Atatra; folis membranaceis, gemmis, pedunculis calycico nigro-pilosis.

Var. γ. Nervoria; folis brevioribus, coriaceis, utrique valde prominentem senenis, basi, rotundatia; gemmis, pedunculis calycico nigropilosis; lobis calycis fructiferi ciliatis.

Var. α. is very abundant in the hotter parts of the island. Var. β. Less common, but generally distributed. Var. γ. In damp forests towards the south of the island. Wood indifferent, and not much used.—Roxb. ii. p. 553; Rohde’s MSS.; Voigt; Thee. En. Pl. Zeylii. ii. p. 178; Beddome.

Diospyros Exsculpta. Ham., D. C.

Diospyros tomentosa, Roxz. Tumki, Tel.

Diospyros Erecta. Ham.

This is a valuable tree, not uncommon in the Cuddapah, Salem, and Kurnool forests, and probably elsewhere in the Madras Presidency, and is found in Bengal and Bombay. It grows to a considerable size, and yields a valuable jet-black ebony, so very similar to that of D. ebenum, that Colonel Beddome doubts if the two woods could be easily differentiated. The tree sheds all its leaves in the cold season, and they appear again with the flowers in the beginning of the hot weather.—Beddome, Fl. Sylte. p. 66.


Diospyros Hisutsa. Linn. fisc.


Calamander maram, Tam.

A medium-sized tree in the Saffragam and Galle forests of Ceylon. It furnishes one of the calamander woods of commerce. The figure is between that of a rosewood and zebra-wood; the colour of the ground is usually of a red olive brown, described also as chocolate brown, with black stripes and marks. Veneer saws cut it without difficulty, and it turns well. A cubic foot weighs 57 lbs. It is a scarce though beautiful wood, close-grained, and the most valuable for ornamental purposes in Ceylon. It is exceedingly hard, and finely veined, with different shades of black and brown.—Ains.; Tredgold; Holtzapfelt; Mr. Faulkner; Thee. En. Pl. Zeyli. p. 181.


A very large tree of the damp forests of Ceylon, growing up to an elevation of 2000 feet; also in the dense forests of the Animalays; young branches slightly pilose.—Thue. p. 180.

Diospyros Kaki. Linn.

D. Chinnais, Bl.

Embryopteris kaki, G. Don.

Tee-tee, Tee-tea, Bum. Persimmon of China.

Sz. Tze. Chin.

Keg fig of Japan.

Chinese date., Eng. Chinese fig.

Date plum of China.

A tree of Nepal, Burma, Cochín-China, and celebrated in China and Japan, where it is common. The fruit in Japan and China attains the size of an orange, and is frequently sent to Europe in a dried state. Preserved in sugar, it is a large, thin-skinned, juicy fruit of an orange-yellow colour, with a sweet taste. The tree is occasionally cultivated by the Burmese, but it bears fruit very sparsingly, and is by no means equal to a good apple.—Roxb. ii. 557; Masou; Eng. Cyc.; Smith.


Diospyros lotus. Linn.


This is the true lotus of the LoduPeople. It is common in Kaghahan, in the hills and gardens of Murri and Hazaar and N. China. In parts of Hazaar the male plant is called Gwaldhar, and the female Amlok. Timber good. In Hazaar it is valued chiefly for its fruit, which is purple in colour, and about the size of a cherry or a pigeon’s egg; it is eaten either fresh or dried. The tree is not uncommon in the western part of the Jhelum basin from 2500 to 6000 feet, and appears to be common in some parts of the northern Trans-Judas hills; and one or two specimens were grown at Peshawur. It is a handsome little tree, growing generally to 3 or 4 feet in girth, the largest seen being one of 6 feet girth and 35 feet high at Jareed in Kaghahan, and another about the same size on the Kishenganga. There are three trees (probably introduced by fakirs) at Jugatsakh (6000 feet) in Kullu, and there called Bissahripala, the largest of 12 feet girth. Griffith remarks that the fruit is not worthy of any notice; but when fresh or even carefully dried, it is sweet and pleasant enough, and the Afghans, etc., prize it, large quantities being brought to the Peshawur bazar from Swat, etc. Bellew mentions that it is eaten plain or with rice, or is used in sherbets. It has the appearance of a dried cherry, but darker in colour. Irvine states that, in the Panjab, spirits are distilled from the fruit.—Dr. Irvine, J. L. Stewart, Ceylon; V. Mueller; Smith.

Diospyros Mabola. Roxb.

D. discolor, Wild.; Cavemilla Philippensis, Embryopteris disc, G. Don.; Devors.

Often called Mangosteen, under which name it is cultivated extensively in gardens at Vizagapatam. It is a small tree, native of the Philippine Islands; wood black, very compact. The fruit, called Mabola, is brown, with a pink-coloured fleshy rind about the size of a quince; its flavour is said to be agreeable.—G. Don; Madras Ez. Ju. R.

Diospyros Melanoxylon. Roxb.


Kendu, Kiu, Bong. Tumbali maram, Tam.

Ouk-chin-ya, Burm. Tamma chettu, Tel.


Wu-ma, Wu-pi, Chin.

It is the ebony tree of the Coromandel coast, and is found on the mountains of that coast, as well as on those of Malabar and Ceylon. The fruit is eaten by the poor. The leaves are deciduous in the cold season, the new ones appearing with the flowers in April and May. As in other species, it is only the centre of the large trees that is black and valuable, and this varies in quantity according to the age of the tree. The outside wood, which is white and soft, time and insects soon destroy, leaving the black untouched. The ripe fruit is eaten by the natives, though rather astringent, as is also the bark. It grows in Coimbatore, North Canara, in Malabar, and Otrisa, near the Godavery. It is a very large tree in Coimbatore. Its white wood is used for common purposes. It is found sparingly in North Canara, as below the Woolwa Ghat, and near Meerajan island. Accord-
ing to Dr. M'Clelland, it occurs plentifully in the southern forests of Pegu, from 15 to 18 inches in diameter and 50 to 70 feet in length, and might afford spars for naval purposes; but Dr. Brandis does not mention this as a Pegu tree.—*Drs. Ainslie, Roxb. ii. 599; Beddome.*

**Diospyros Microphylla.** *Bedd.* A lofty tree of the Animallasy dense forests up to 3000 feet elevation; very common in South Cunara, forests of the ghats and plains (Sooleya), Wynad; trunk very straight, young branches verticillate; it has the habit of Leucoxylon buxiiform.-*Maj.*

**Diospyros mollis?** *Ma-kleu, Bum.* One of the black-dye plants. The blossoms of the black-dye plant are used by the Chinese to dye leather black. The juice of the cashew tree gives a black to linen, and the fruit of the melastoma affords a black dye. The celebrated vegetable Shan black dye is made from the fruit of this species of ebony, which is said to grow on the mountains that separate the province of Tavoy from the Siamese territories. Isolated plants may be seen in the gardens of Tavoy and Moulmein.—*Mason.*

**Diospyros Montana.** *Rozb.*

*Diospyros Cordifolia, Rozb., W. i.e.*

Kendu of Beas and Doab. *Hilek, Pasenda,* *Panj.*


Teeboorni, *Tumiki.*

A middle-sized, handsome tree of the Circar mountains, in the hills eastward from Fanwell, extending northwards to Ruenka lake, near Nahn; very common in the larger Bombay jungles, both near the coast and elsewhere, and it would be one of the most prominent of their mountain trees if allowed to grow; but it is generally cut off for burning material, or such like worthless purposes.

It is not uncommon along the Sivalki tract up to near the Ravi, and occasionally out in the plains westward from Dehi to near Sirsa. Wood dark and strong, fitted for agricultural implements, indoor work, etc.; does not bear exposure, and could not be cresoted. Dr. Roxburgh says it is hard and durable, and is variegated with dark and white coloured veins. Dr. Stewart says it ordinarily grows to about 3 feet girth, but he had seen two trees of 7 feet. The wood is used for native roofs, etc. The fruit is not eaten, and he had heard it called poisonous. In some places it is applied to the hands for the boils to which the Bhisti are subject.—*Drs. Rozb.* ii. p. 598, *Ainslie, Voiyf, Gibson, Stewart.*

**Diospyros Moonii.** *Thee.* A middle-sized Ceylon tree near Cultura and Pasloon Corle. Branches terete, slightly pilose when young, but soon glabrous.—*Thee. Zeyl.*

**Diospyros Nicriganos.** *Dalt.* A tree of the Bombay Ghats, arboreous, glabrous, turning very black in drying; leaves membranaceous, glabrous.—*Bedd. Ic. Plant.*


**Diospyros Oocarpa.** *Thee.* Kalooka-dooambirheyga-gass, *Singh.* A middling-sized Ceylon tree of the Kornegalle district, and at Haragam, near Kandy, at no great elevation. It furnishes one of the camander woods.—*Thee. Zeyl.*

**Diospyros Oppositifolia.** *Thee.* Ka-loo midereya-gass, *Singh.* A middle-sized tree of Ceylon at Hindoon Corle, up to an elevation of 1000 feet; leaves opposite, slightly pilose when young. The timber much resembles the true camander wood.—*Thee. Zeyl.; Bedd. Ic. Plant.*

**Diospyros Ovarifolia.** *W. i.e. t. 1227.* A middle-sized Ceylon tree at Jaffna, in the central province, at Haweatherine and below Hapootelle, at an elevation of 2000 to 4000 feet.—*Thee. En.*

**Diospyros Paniculata.** *Dalt.* A middling-sized tree; branches glabrous; leaves glabrous, lanceolate; grows in Bombay Ghats and in the Cearoo Ghat, Wynad, at 2000 to 3000 feet elevation.—*Bedd. Ic. Plante.*

**Diospyros Pruniens.** *Dalt.* A small or middling-sized tree; young branches densely hisurate, with long yellow hairs; very common throughout the Wynad up to 3000 feet elevation; also in the Animallasy, the South Canara Ghats and plains, Tinnevelly and Bombay Ghats, also found in Ceylon.—*Bedd. Ic. Plant.*

**Diospyros Quesita.** *Thee.* Kaloo midereya-gass, *Singh.* A great tree of Ceylon; at Singherajah and other forests between Ratnapura and Gale. This species produces the most valuable of the timber known as camander wood, so much esteemed for ornamental cabinet work. Its branches are glabrous, leaves glabrous, prominently reticulated. *D. quesita* is nearly allied to *D. crumenata,* but its larger leaves and fruit, and its pentameros flowers, well distinguish it.—*Thee.*

**Diospyros Sylvatica.** *Rozb.*

Sandoon kadoombhirheyga-gass,—*Tella-goda,* *Tel.*

-Sinor.*

A middling-sized tree common in the Peninsula; in many of the western coast forests up to about 3000 feet, also in the forests of the Northern Division and in Ceylon, in the damp forests in the Hantani district and near Ratnapura, up to an elevation of 4000 feet.—*Rozb.* ii. 537; *Thee. Zeyl.*

**Diospyros Thwaitesii.** *Bedd.* A middling-sized tree; branchlets, young leaves, and inflorescence rufo-tomentose; grows in Ceylon at no great elevation; allied to, but quite distinct from, *D. Candolleana of Wight.—Bedd. Ic. Plant.*

**Diospyros Tomentosa.** *Rozb.*

*D. lotus,* *Linn.*


This tall, elegant tree grows in the northern part of Bengal, in the Panjab, in Kullu and Kangra, and is common in the Sivalki tract, westward near to the Ravi, and extending to the Khera jungle. It attains full size in 60 years. Length of trunk to first branch, 8 or 10 feet, and girth 4 feet. The wood of young trees is white, but that of old trees is black, and is termed Abmus; sap-wood soft; when the heart-wood becomes black, it is fine, extremely hard, but somewhat brittle, and is used by agriculturists for ploughs, and for the woodwork of their houses. It carves well, and insects are said not to touch it. In and near the Rohilkhand Sivalki tract, handsome workboxes, etc., are made from the wood; combs are made from it in the Ambala district. In Kangra, etc., it is used for ploughs, in house-building, and for small boxes. The fruit, which is said to ripen in June with the mango, is eaten being sweetish and astrigent, and not unpleasant. Resappings of the wood, called Burad-i-abrus, are
DIPSYROS TOPOSIA.

official, being given as an alternative.—Roeb. i. 532; L. Col. L.; C.; Koll.; Steuart.

DIPSYROS TOPOSIA. Him. D. racemosa; Roeb.; Encyclopædia racemosa, G. Don. Kaka-kaala, S. Ling. Tovaray, TAM.

A middling-sized tree of Ceylon, of the Tinnevelly Hills, and of Sylhet; glabrous, leaves coriaceous, not uncommon in damp forests up to an elevation of 4000 feet.—Th. Zeyl. iii. p. 179.

DIPSYROS WIGHTIANA. Wall., D. C. Tenda, ... Hind; Tum, Tuml, TAM, Tel.

This tree is common in most of the dry forests of S. India, and quite answers to the description of D. Wightiana, as given in De Candolle's Prodromus. Its heart-wood yields a jet black ebony like D. ebenum and D. exsulcatra, but the trees are always small and stunted in the trunk; and Colonel Beddome says all ebony in log comes from D. ebenum and D. exsulcatra. It sheds its leaves in the cold season, and they appear again with the flowers yearly in the hot season.—Bedd. Fl. Sylc. part vi. p. 67.

DIPA DUNI, a ruined city between the ancient city of D'Bharikotah and the more modern town of Amaravati, in the Guntur district of the Madras Presidency. It contains the ruins of one of the most magnificent dagobas ever constructed. Many of the sculptures obtained from it were sent to Great Britain by the Editor, from the Government Central Museum, Madras, and are lodged in the British Museum.

DIPA MALA, a Sikh festival on the 14th of the dark half of Kartik. It means a garland of lights; a pillar in front of a temple, on which lights are put. The Dimpal pedestal is an essential part of every large Hindu temple. It is often of great height, and furnished with niches or brackets, each of which holds a lamp on festivals, especially on that of the Dewali, the feast of lamps, celebrated in the autumn in honour of the Hindu goddess Bahwani or Kali.

The Dipawali, Dipali, or Diwali, is a Hindu festival in honour of the Hindu god Kartikaya, held on the new moon of the month Kartik, in September or October, when lamps are lighted by every one, after a procession to commemorate the killing of Narasakura by Krishna.—Wilson.

DIPDAN or Deepdan. Hind. In E. Oudh and Benares, is land assigned to Brahmins on the banks of rivers, to deprecate river encroachment. The word is derived from Deep, an island, and Dan, a gift.—Eliot.

DIP-DAN. Hind. A Hindu ceremony of suspending dipa, a lamp, to a pidal or other tree for ten days, after the death of a relative, in order to light the spirit on its way to Yamapuri, the city of Yama, the judge of the dead. Yamapuri is declared in the Hindu sacred books to be the general rendezvous of the departed from all parts of the world, from which they proceed in a body with a proper guard, composed of the servants of Yama (Plato) to Draymapuri. Also, presenting a lamp to the Ganges, setting it afloat on the river lighted, and watching for its extinction, as ominous of future good or ill luck.

Dip-Dan, or lamp-post pillars, are very common in the south of India near Jaina buildings, standing either singly or in pairs, in front of the gopuras. All the Hindu temples are provided with them. They generally consist of a single block of granite, square at base, changing to an octagon, and again to a figure of sixteen sides, with a capital of very elegant shape; some, however, are circular.—Ferguson; As. Res. x. p. 145; Elliot.

DIPLOCUS and Minimus. Monkey flower.

DIPLOSPORA APIOCARPA Ducl. This large tree grows on the Cominatore Hills (Mati-kolam, 4500 feet elevation), on the Simpara Ghats (Neelgherries), and in the Wynad (2800 feet elevation); and Mr. Dalzell found it on the Bombay Ghats. It flowers in the rains, and ripens its fruit in January; timber not known.—Beddome, Fl. Sylc. part xix. p. 223.


Dipsas cynodon? Schlegel. Scutae, 240; setella, 110; rows of scales, 21. Only found in forests on the west coast.

Dipsas trigonata, Tati kattaday, Tel.; Peri surutay, T. Scutae, 235; setella, 83. Common in the Kannatic.

DIPSAS, a genus of lepidopterous insects, the larvae of which have several curious modes of working. Those of D. isocrates occupy the interior of a pomegranate, which they enclose in a web, to prevent it falling.

DIPTERA, an order of insects, gnats, flies, etc., sec. Athericorum, fam. Muscidae, comprising,—

Dipsia Westwoodii, De Haan, Java.
D. sub-notata, West., Philippines.
D. sphyryncephala, West., Nieuw, India.
D. schia, Makl., Java.
D. colax variegatus, West., Java.

Midas rudeficoris occurs in Tranquebar. About fifty species occur in Ceylon, the most troublesome of the mosquitoes being Culex anaguer, on the coast. The genera Sciara, Cecidomyia, and Simillium have each one species there. The Peepsa, a troublesome dipterous insect, very small and black, floats like a speck before the eye. The bite of this leaves a small spot of extravasated blood under the cuticle, very irritating if not opened.—Journ. As. Soc. Bengal, No. xxix. p. 426. See Insects.

DIPTERIS HOISFIELDII and Matonia pectinata are two ferns of Mount Ophir in Malacca. They bear large spreading pinnate fronds, on slender stems six or eight feet high.—Wallace, p. 31.

DIPTERIX ODOHATA. Tonkin bean; Camarouma odorata. A native of the woods of China, used as a perfume for snuff.—O'Sh. p. 304.

DIPTEROCARPACEAE, the caupary tree tribe, a natural order of plants, generally large trees, which grow in the East Indies and Java, viz. Dippterocarpus, Doona, Hopea, Shorea, Vatica, and Vateria, with about 35 species. More than two-thirds of the species inhabit mountainous or hilly parts of the two Peninsulas. In Madras they are all natives of the hilly tracts of
the Balaghut. In Sylhet, Chittagong, and Pegu, where they abound, they, however, occupy the plains. In Java, one species, the Dipterocarpus littoralis, is found on the sea-shore. A Hopea and the Vateria Indica also approach the coast in Malabar, but the latter, or perhaps a distinct species, is also plentiful in Mysore. Two or three species are found in Gunsurn, forming extensive forests. Almost every species abounds in a balassic resinous juice. That from the genera Vateria and Vateria hinders on exposure, and is called dammer, but the exudations from the Dipterocarpi retain their fluidity, and are the wood-oils of the bazaars. Some of the species produce a fragrant gum-resin, which is used as incense in the temples. Dammer is used in India for most of the purposes to which pitch and resin are applied in Europe. Wood-oil alone, or thickened with dammer, supplies a useful varnish for wood, possessing the valuable property of repelling for a long time the attacks of white ants, as well as of resisting the influence of the climate. The species abound in Sumatra, Java, and Borneo, and are the chief sources of the dammer of commerce. Borneo tallow is said to be obtained from the seeds of a Dipterocarpus tree, and is generally run, whilst melted, into joints of bamboo. It has a pale greenish tint, is very hard, and approximates nearly to a vegetable wax.

Several trees of the genus Dipterocarpus produce a nut, that, when compressed, yields a fatty oil, which, having been recently sent to England, has been used extensively under the names of vegetable tallow and vegetable wax. Three species of this genus are common in Sarawak, under the name of Mencabang. One of them, Mencabang piang, is valued for its close-grained timber; the others do not grow so large in size, but have larger leaves and fruit. The one most valued for producing the oil is a fine tree growing on the banks of the Sarawak river; it attains the height of forty feet. The leaves being large, and the branches drooping towards the water, give it a very beautiful appearance; its fruit is produced in the greatest profusion about December and January, being as large as a walnut, with two long wings to the seed. These nuts are collected by the natives, and yield a very large proportion of oil, which, on being allowed to cool, takes the consistence of sperm, and in appearance very much resembles that substance. The native uses this as a cooking oil. In England it has proved to be the best lubricating substance for steam machinery, for surpassing even olive oil; and it has been used in Mauritius in the manufacture of candles, and found to answer admirably. It will doubtless be applied to many other purposes. From the quickness of its growth, and the great profusion with which it bears its fruit, it will, should the demand for it continue, become a profitable object for cultivation, by which the quality and quantity would most likely be improved and increased. It is also found in Java and Sumatra; and a similar substance has been lately sent from China. In Borneo the oil is called by the natives indifferently, Minik menebang, or Minik tankawan. The wood-oils dissolved in water, and have medicinal properties similar to copalina. D. levis, D. turbinatus, and D. alatus are useful for planking when not exposed to wet; extensively used in the Straits for this purpose in house-building. They are magnificent forest trees, growing straight to the height of 250 feet and more.—Wight; Voigt, p. 124; Crawford, Dictionary, p. 116; Loue's Sarawak; London Ex. 1862; Royle, Ill. Him. Bot.; M'Clelland.

DIPTEROCARPS ALATUS. Roxb.

Batee al, . . . BENG. Aing . . . . BURM. Ka-nyin, . . . . BURM. Wood-oil tree, . . . EGO. A magnificent forest tree of Pegu and the Mascal Islands, rising 250 feet in height. It is found chiefly to grow on laterite in the Townghoo and Prome districts. Its wood is of a light-brown colour. A cubic foot weighs 38 lbs. In a full-grown tree on good soil, the average length of the trunk to the first branch is 100 feet, and average girth measured at 6 feet from the ground, is 25 feet. It sells at 4 annas per cubic foot. This timber is excellent for every purpose of house-building, especially for posts. It is useful for planking when not exposed to wet, and is extensively used in the Straits for house-building; when exposed to wet, however, it rapidly decays, and canoes made of it do not last over three or four years.—Dr. Roxb. ii. p. 6, M'Clelland, Brandis.

DIPTEROCARPS ANGUSTIFOLIUS. Roxb.

D. costatus, Roxb. [Tilla garjan. . . . RAKH. A large tree of Chittagong, furnishing a wood-oil in the largest quantity.—Roxb. ii. p. 613.]

DIPTEROCARPS GLANDULOSUS. Thw.

Dorana, Singh. A large Ceylon tree, growing in the Saffraham and Ambaganowa districts, at no great elevation.—Thw.

DIPTEROCARPS GRANDIFLORA. Wall. Eng, En, Ain tha, BURM. [Kanne phin, . . . BURM. An immense tree of Burma, Pegu, and Tavoy, which grows on the sandy plains near the seashore, and on a similar soil in the interior. This tree, in company with a few other kinds, forms an extensive forest, which covers upwards of 200 square miles in the province of Pegu. The wood is somewhat more durable than that of D. alatus, and is used for canoes, house-posts, planking, etc. A cubic foot weighs 55 pounds. In a full-grown tree on good soil the average length of the trunk to the first branch is 60 feet, and the average girth measured at 6 feet from the ground is 10 feet. It sells at 8 annas per cubic foot.—Dr. Wallis, Brandis, and Mason; Col. Frith.

DIPTEROCARPS HISPIDUS. Thwaieta.

Boohora gass. SINGIL. A large tree of Ceylon, growing in the Saffraham district at no great elevation.—Thwaieta.

DIPTEROCARPS INCANUS, a tree of Chittagong. All the tender parts hairy.—Roxb.

DIPTEROCARPS INDICUS. Bedd. Common in all the ghats of the Peninsula, from Cape Comorin to Cape Cromali, and very abundant in S. Canara, where it is called guga. Its timber is very open in the grain, and not durable, but is occasionally used for various purposes; the tree yields a wood-oil, but it is never extracted. The liquid balsam, like copaiba, sold in Travenuond, and the produce of a tree from those glats, is not from this tree, but is extracted from the Hardwickii pinnata.—Beddome, Fl. Sylv. p. 94.

DIPTEROCARPS INSIGNIS. Thw. An immense tree of the Saffraham district, in Ceylon.—Thwaieta.

DIPTEROCARPS LEVIS. Buch.

D. turbinatus, Roxb.

Tills gurjan, . . . BENG. Ka nypeen phyu, . . . BURM. Ka nypeen tha? . . . BURM. Wood-oil tree, . . . EGO. Ka nypeen ney, . . . HERT. SINGIL.
DIPTEROCARPUS OBLONGIFOLIUS.

This majestic tree grows to a height of 250 feet. It is met with in Assam, Tiperah, Chittagong, Burma, and Pegu, and is very abundant all over the provinces of Anherst, Tavoy, and Mergui, where its wood is used similarly to D. alatus. Dr. Mason says it is a very useful timber, which is sawn into boards at Tavoy and Mergui, and used in house-building. Where not exposed to the wet, they answer as well as teak, and are sold at half the price; they are, however, not impervious to white ants. Captain Dance, who tells us that it is used for rafters and planks, adds that it is an inferior wood, by no means durable, as it rots as soon as it is exposed to water, and shrinks readily.

He says that Dr. M'Clelland speaks of this wood more favourably, but thinks he must mean some other wood, as this is decidedly bad, very porous, and when kept the oil oozes out and stands in globsules over it. It warps to a great extent, and, though used for cases, does not last for more than about two years. In the cold weather the tree is largely notched near the ground, and the wound charred. After this the oil or balsam begins to ooze out, sometimes forty gallons daily,—a balsam that compares favourably with balsam of copaiba. Maximum girth, 6 cubic; maximum length, 70 feet. When seasoned, floats in water.—Roeb. ii. p. 612; Drs. Mason, Voigt; Captains Dance and Benson; Dr. M'Clelland's Report, No. 81, p. 135.

DIPTEROCARPUS OBLONGIFOLIUS, Thw., and D. scabridus, Thw., are great trees near Tatanpur, in Ceylon.—Theaeetes.

DIPTEROCARPUS TUBERCULATUS, Roeb., of Chittagong; D. pilosus of the Mascal Island, are also known.—Roeb. ii. 614.

DIPTEROCARPUS TUBINATUS. Roeb. Shweta-garan., Burs.; Hora-gaha, SINGH. Kw-yin, BURM. A native of Chittagong, Tiperah, Pegu, etc., to the eastward of Bengal, where it grows to be an immense tree, and is famous all over the eastern parts of India and the Malay Islands, on account of its thin liquid balsam or wood-oil. To procure this balsam, a large notch is cut into the trunk of the tree about 30 inches from the ground, where a fire is kept up until the wood is charred, soon after which the liquid begins to ooze out. A small gutter is cut in the wood to conduct the liquid into a vessel placed to receive it. The average produce of the best trees during the season is said to be sometimes forty gallons. It is found necessary every week to cut off the old charred surfaces and burn it afresh. In large healthy trees, abounding in balsam, they even cut a second notch in some other part of the tree, and clear it in the same manner during the months of November to February. Should any of the trees appear sickly the following season, one or more years' respite is given them.

This is the most superb tree to be met with in the Indian forests. It is conspicuous for its gigantic size, and for the straightness and graceful form of its tall unbranched pale-grey trunk, and small symmetrical crown. Many individuals are upwards of 200 feet high, and 15 in girth. Its leaves are broad, glossy, and beautiful; the flowers are not conspicuous; the wood is light-brown, hard, close-grained, and durable, and fit for any purpose for which sal is employed, and is chiefly employed for canoe and boat build-

ing.—Roeburgh, ii. p. 612; Rokale's MSS.; Hooker, Fl. Jour. ii. p. 348; M'Clelland.

DIPTEROCARPUS UINER. Blume. A tree of Java; yields a resin which is substituted for copaiba, like wood-oil.

DIPTEROCARPUS ZEYLANTICUS. Thw. Hora-gass, SINGH. A great tree in Ceylon, abundant up to an elevation of 3000 feet. A cubic foot weighs 45 pounds; and its timber, which is used for the roofs of common buildings, lasts fifteen years.—Theaeetes; Mendis.

DIRHAM. Pers. Money. A silver coin; 20 or 25 equal one dinar. The dinar is equal to a ducat or sequin, about 9s. Also name of a weight.

Tataria dirhams are mentioned by Idrisi as current at Mansura and in the Malay Archipelago about a.d. 900. Mr. Thomas supposes them to be coins of the Tahir dynasty then ruling in Khorasan. According to Ibn Khordadhbeh, who died about a.d. 912, the Taturia dirhams were current in the country of Hazara; and, according to Ibn Haukul, who wrote about a.d. 977, these dirhams were also current in the kingdom of Gandhara, which at that time included the Punjab. The dirham and the dinar, even in Akbar's time, were considered old coins. The dirham was silver of 6 or 8 darg;—1 darg = 2 qirat; 1 qirat = 2 tassuj; 1 tassuj = 2 habbas.—Cumingham, Ancient Geo. of India, p. 313; Gloss.

DIHT-BIRD, also Scavenger Bird, Neophron percnopterus, Linn.; also called Dung-kite and Pharaoh's chicken.

DIRZI. Hind. A tailor, whether Hindu or Mahomedan. In Hindustan, the Hindu tailors are in clans,—Sri-bastak, Nam-deo, Tanchara, Dharana, Panjabi, Gaar, Kantak.

DISC. Auroole, or Glory, encircling the heads of gods and saints, signifies perfection. It was originally intended, in the Saivite worship, to represent the solar orb; but in the course of time the symbol was multiplied added to, and its meanings similarly increased, and in its changes it has represented the sun, the moon, and the whole planetary system. It has been an emblem of monothelitism, tritheism, and polytheism, of particular local divinities, as well as of those with universal dominion. It is put round Vishnu's head.

In Egypt, the Delta, δ, was originally the type of Haal, afterwards of Siva; and when placed with its apex upwards, δ, was used to denote fire, the element consecrated to the first-named god. When placed with its apex downwards, ν, it typified Vishnuz or water; and there were many other meanings attached to it, some of them very gross. Discs of six to nine inches in diameter, and about an inch of breadth of rim, were carried by all Sikh soldiers. The edges are ground very sharp, and, after having gained velocity by being rotated on the forefinger of the right hand, they are projected to a distance of 50 or 80 yards with considerable force, therefore, but with such want of dexterity or impossibility of regulating their flight, that the bystanders are more in danger than the object of the aim. The Chakra, the discus of the god Vishnuz, resembling a wheel or quoit, is whirled round the middle finger. The Chakra is mythologically described as a circular mass of fire, darting flames in all directions, which, thrown by the gods, slays the wicked, and then returns to the hand from which

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it issued. The Sikh Akali usually had several of them on their conical caps. They are cheap, and are almost useless weapons.

DISCOBOLI, a family of fishes. First group, Cyclopterina; second group, Liparidina. DISCOGLOSSIDÆ, a family of reptiles, comprising the genera Megalophrys, Xenophrys, Cyclopterus.

DISCOGNATHUS NASUTUS, hill-trout. DISEASE. Hindi sages suppose that diseases are either produced by sins committed in a former state of existence, by derangements of the humours, or by the combination of these two causes. The former are removed by sacrifices, prayers, penance, and gifts; the latter by remedies, regimen, medicine, or surgery. There are also accidental diseases. Simple medicines may be arranged according as they cure deranged air, bile, or phlegm.

DISHA, an Arabian astronomer who flourished in India. DISMAS and Jesmas, according to Mahomedan tradition, the penitent and impenitent thieves of the gospel.

DISTILLERIES. The principal matters distilled from in India are palm wines, dates, sugar, rice, mahwa flowers, bark, corncobs, and substances yielding perfumes. Under native rule, the akbari, or government excise system, was an item in the revenue arrangements of the proprietor of every estate, and he made his own arrangements with the distillers resident thereon. There were one or more small distilleries in almost every village, consisting of an oven, chilas, and reservoir (garh). In the latter were placed earthen vessels (kunda), into which was placed the material to be distilled, and the product was designated nari, or fourth quality, which sold at 33 annas a garha; tharra or third quality, at 64 annas; phul or second quality, at 12 annas; and tapka, or first quality, at 12 annas. A garha was equal to eight bottles.

The British Indian Government early suppressed these small stills, and introduced the system of distilleries at the chief stations, which are farming out to the highest bidder; and the spirits are called once-distilled (ekbara) or double-distilled (do-atas), according as they have passed once or twice through the still. The mahwa flower of the Bassia latifolia ferments in from five to nine days, and gur from eight to fifteen days, according to the heat of the weather. A maund or man of mahwa flowers yields four gallons in summer and five gallons in winter of a spirit between 25° and 30°. In the same way, a maund of gur will yield four and three gallons, according to the season.

The Bombay toddy or arrack still consists of a large earthen jar, of the shape of that used by water carriers, but many times more capacious. The receiver is of the same form and material as the still, but somewhat smaller in size,—the former being two and a half, the latter one and a half, feet in diameter. The still mouth is plugged up with a piece of wood luted with clay; a hole is cut in the side of the still near the top, and into this is fastened a wooden spout, which conveys the spirituous vapour to the cooler. This last stands on a trellis or frame of wood, placed over a pit for holding water, and cooling is effected by a man lifting successive fills of water from the well in a cocoanut ladle and pouring it on the top of the cooler. A vessel of water with a small spout or drip is occasionally resorted to.

A cocoanut tree will yield about 4 seers of toddy or sap a day. Seventy-five seers of toddy, or the produce for one day of 18 cocoanut trees, furnish a charge for a still; yield 25 seers of liquor on a first distillation; on the second it affords 36 seers of liquor, considerably under proof. The process of distillation just described is nearly as unskilful as can be; and a third, if half, might be added to the returns were a little more care and attention bestowed on the matter. Date and palmyra trees yield toddy as well as cocoanuts.

A strong alcoholic liquor, called mayah, is in popular repute amongst the natives in Western India. The following process is employed in making it at Surat. The berries of the mayah are about the size and form of marbles. They are first steeped or mashed in casks. So soon as they get into a state of active fermentation, the fermented liquor is drawn off and carried to the still, and more water poured over the berries, successive charges being added as long as the worts are strong enough to ferment. A sufficient number of casks, or mash tuns, as they may be called, are employed in the work, so as to permit a charge of the still to be supplied on each drawing off from the fermenting tuns, as it takes a couple of days to complete the process of fermentation; but worts already drawn off would sour were this to be waited for before the first run was run off. The still consists of a wooden tub, with a copper bottom, built over a surface of brickwork; over the mouth of this is placed a huge copper saucer, the centre of the bottom terminating in a nipple. This is placed over the mouth of the tub which contains the liquor, and is fitted tight after the still has been charged; it is then filled with cold water, a fresh supply of which is poured into it from time to time as the original fill gets heated. A bamboo spout passes through the side of the tub just above the level of the liquor inside; it terminates in a flat shovel or ladle-shaped dish under the nipple. Into this the spirit condensed in the under side of the saucer trickles down; it is run off and resolved into a suitable receptacle outside. A second or third distillation is resorted to when the liquor is required to be made very strong.

The Portuguese in India, for the purpose of rectification, use a very neat and serviceable variety of still, by them called an alembic. It consists of a common cooking pot as a boiler, with a cylindrical head of the same diameter, and generally about the same depth as the boiler. The bottom of this is a cone closed in at the apex, the mouth of which covers that of the boiler. Around its inner edge is a slight turned-up ledging or flange, from which a pipe or worm leads off the spirit. The cylindrical portion of the top being filled with cold water, the spirituous vapour is condensed by it in theinside of the cone, and, trickling down, is caught by the flange and carried off by the pipe. This is a convenient and serviceable implement, and may be so used to give very excellent results.

In the Panjab, the first spirit that passes over is called phul and ek-atas, or once-distilled. This is collected in vessels and distilled again in another still; when the spirit passes over, it
is called do-atasha, or double-distilled. This is of two qualities, according to strength. In the Panjab the spices and flavourings, or mesali, used in distilling, are the following:—Sak, or bark of the kikar, which is often erroneously supposed itself to yield a spirit on distillation, but is only added to promote and accelerate the fermentation of the molasses, etc.; triphala, the three myrobalans, mixed together as an astrigent; rose-leaves; cardamom pods (Cissampelia); gosabha (Cacalia Kleinitii); violets; anise seed (badyan); limes and lemon peel (sangtara); saffron; sandalwood, red and white; mututi buti (sphaeranthus); cashmuz (coriander); adak (ginger); ilachi (cardamoms); musli; darchini (cassia or cinnamon); gajar (carrots dry and fresh); motya (jessamine); seb (apples); naspati (pears); shir (milk); raughan, ghi; meat (?); misri (sugar); tulam patr (aromatic leaves); taj (aromatic flavouring leaves); bed-musk (willow flowers); kasturi (musk); ambar (ambergris); khaw (Anatherium arenarium); khas, root of the latter; chob-chini (Simulax chinu); salep misri,—are all distilled from.

Distilled waters contain a little of the volatile principles of plants, and may be distilled either off the plants, or by distilling some essential oil with water.—Powell; O'Shaughnessy; Cavenney.

DITA, a tree of Mindoro. Its sap, mixed with an infusion of the alyah, or rind of the fruit of the Sago palm (Cabo negro), is used by the wild tribes of Mindoro to poison their arrows.

DITHWAN, the Ekadasi, or 11th of the bright half of the moon Kartik, is a day also known to the Hindus of Northern India, by the name of Bodini. On this day a ceremony with music and singing is observed in celebration of Vishnu's return from his slumber of four months, during which he is represented to have been with Raja Bulating Patala, or the infernal regions. The Mudra Rakshasha, a Sanskrit play, says:

May Vishnu's shining glance
Yield peace and joy, as, waking from his trance,
His opening eyes are dazzled by the rays
From lamps dispincing that blaze:
Those eyes that, with long slumber red,
Ambrosial tear-drops shed,
As, pilowed on his snake-couch 'midst the deep,
He breaks reluctant from his fated sleep.'

It is the close of the rainy season. No marriages, and but few festive ceremonies, have taken place in the meantime, and the Dithwan is the signal for their commencement. Houses are cleaned, and smeared afresh with cow-dung. The fruit of the sing'hara, ber, and chunakasag, and other dainties of the season, may be lawfully enjoyed (Elliot's Suppl. Gloss.), and the sugar-cane is commenced to be cut, the cultivators bringing home a small quantity of it from a corner of the field, and spreading it out for the reception of the salagram, an ammonite regarded as a type of Vishnu, afterwards eat it at a fortunate hour.

DITI. Sansk. A Kala, or part of the Mula Prakriti.

DITI, the wife of Daksha; also one of the two wives of Kasyapa (Lamech), mother of the Asura or Daitya, who were destroyed by the flood.

DITTANY. Lung-tan-tau, Chin. The root of a species of Dictamnus.—Smith.

DIU, a small barren island, 04 miles long and 1 broad, on the S. coast of Kattyawar. It forms part of the Portuguese possessions in India. A fort was built on it in a.d. 1513. It is separated from the mainland by a shallow strait only navigable by boats at high water. Diu is in lat. 20° 43' 20" N., long. 71° 2' 30" E., at the entrance of the Gulf of Cambay, near the southern extremity of the peninsula of Gujerat; population, 10,765. The town has been repeatedly besieged by rulers of Gujerat and the Dekhan, but it continues in the power of the Portuguese. The convent of St. Francis is used as a mint, and the monument of St. John of God as a place of burial, that of St. Dominic is in ruins.—Jor. Gusz.; Postels' Western India, i. p. 112; Horsheburg; Findlay.

DIV. SANSK. From Div, the sky, hence the Latin Deus. Divas Pati, lord of heaven, from Div, heaven, Pati, lord.

DIVAKARA. Sansk. From Diva, day, and Kara, from Kree, to do, a name of the sun, under which it was worshipped in Sakadwipi.

DIVE PARRE. Singh. A wood of the western province of Ceylon, used in common house buildings. A cubic foot weighs 41 lbs., and the timber lasts 20 years.—Mr. Mendis.

DIVI-DIVI, Dibi-dibi, or Libi-libi, are the seed-pods of Cassipina coriaria, a plant of South American origin, belonging to the natural order Cassipinieae, naturalized in India, and now grown at several places in the Madras and Bengal Presidencies. The seed-pods have been extensively used for tanning leathers, and for that purpose are considered superior to all the Indian astringents. Leather tanned in this way is considered equal to that of the best of European manufacture. The average produce of pods from a full-grown tree has been estimated at 100 lbs. weight, one-fourth of which consists of seeds or refuse, leaving about 75 lbs. of marketable matter. Divi-divi pods are of a dark-brown colour externally when ripe, transversely wrinkled and curled, from 1 to 3 inches long, and 2 of an inch wide, and contain 2 to 4 seeds. The outer skin of the pods is very thin, and peels off easily if the pods are ripe. Underneath it, and separated from the seeds by a layer of woody fibre, is a considerable thickness of astringent matter of a light yellow colour, almost pure tannin, as met with in commerce. At an interval of 6 feet apart, an acre of ground will contain 1210 trees, yielding an average of 810 cwt., and 30 lbs. of divi-divi, or above 200 tons of marketable matter, worth, at only 55 per ton, £200. Its tannin differs materially from that of nutgalls. The quantity of mucilage it contains precludes it from the use of dyers, but it is largely used by curriers. One part of the divi-divi is sufficient for tanning as much leather as four parts of bark, and the process occupies only one-third of the time. The selling price ranges from £8 to £13 per ton. The imports into the United Kingdom from 1844 to 1850 ranged from 10 tons to 3800 tons.—Var. Rep. Med. Ec. 1855; Indian Annals, vii. p. 120; Simmonds' Comm. Prod.

DIVI LADNER, the forbidden fruit of the Ceylonese, is the produce of a species of Tabernamontana.—Eng. Cyc. ii. p. 365.

DIVINATION.


In all ages there have been seers, prophets, miracle-workers, exorcists, as there are now Shiamans amongst the Mongols, Payang amongst
DIVINATION.

the Malays, who are resorted to on all occasions of importance,—as for instance the fixing on a pro-
pitious day to commence a journey or any under-
taking. The commonest system is analogous to the
Roman 'sortes.' With Mahomedana a Koran is
used for this purpose. They have also books filled with
sentences and words. The Malay consulting
them turn in with a kris, and the sentence marked
by the kris point is interpreted to suit the wants
and wishes of all parties. In the Allo ordeal of
the Hindus of Gujarat, a cloth or a raw hide is
dedicated to one of the forms of Durga. The
claimant of a disputed boundary puts it over his
shoulders and walks over the contested limits.
In Sind, the Son or Sugum is a kind of divi-
nation by means of the position of birds and
beasts,—their cry, the direction of their flight, and
other such particulars. The divination by lots,
anguries, and omens by flights of birds, as prac-
tised by the Getic nations, and described by
Herodotus, and amongst the Germans by Tacitus,
are to be found amongst the Rajputs. Their
books on the subject could supply the whole of
the augurs and arcanae, German or Roman.
The Mahomedana in India often cast lots; and in
Sind is a practice similar to that of the moun-
taineers of Scotland, called sleinanchad, or ' read-
ing the speal-bone,' or the blade-bone of a shoulder
of mutton. One very common mode of divination
in Persia is called the Him-i-shooma, or ' science of
the shoulder-blade,' and practised by cutting out
the blade-bone of a sheep newly killed, and
examining the lines and marks upon it. This
was common in England in old times, and in
Scotland till the 18th century. Pennant gives an
account of a Highlander in the Isle of Skye for-
telling the event of the battle of Culloden by this
means. Confucius gave rules for this species of
sorcery. The poet Drayton alludes to the practice
of this amongst the 'Dutch-made English,' settled
about Pembroke-shire, in his Polybasion, song 5.
Confucius noted the same practice in China.

The ordeal of taking a piece of gold out of a
pot of hot oil, Karahi lena, is common in India.
If the accused do so without being scalded, he is
deemed innocent. The ordeal amongst the Hindus
called Dibya or Dieya, is from a Sanskrit word
meaning Divine. In the Tola, or weighing ordeal,
the accused is weighed; then certain ceremonies
are performed, and he is again weighed, and if
found lighter, he is guilty. In Agni, or fire
ordeal, the accused touches fire or heated metal,
and if burned, he is guilty. In Jala, or water
ordeal, the accused is dipped under water, whilst
an arrow is shot, and a person runs and brings it.
If the accused be still alive, he is innocent. Or the
accused is sewed up in a sack, which is let down into
water about three feet deep. If the person in the
sack can get his head above water, he is a witch. In
the poison or Visha ordeal, if the accused swallows
it with impunity, he is innocent. Others are the
Kosha, or drinking holy water, the Tandula, or
chewing grains of rice, the Tupta—nashia or
taking a nashia weight of gold out of a jar of hot
oil or butter. In the Dharmarcha or Dharma-
tharma ordeal, drawings of Dharma and Adharma,
virtue and vice, are covered with cow-dung, and
put in a covered vessel, from which the accused
draws one. In the Tulasi, the leaves of the tulsi
and water are swallowed after an oath, the tulsi
being sacred to Vishnu. In the Kacha ghaora, or
unhked pot, such a pot is filled with water and
carried to some distance without spilling. Bal-
bhundia is swearing by the leaves of the bel,
which is sacred to Siva. Gauagajala, swearing
on the Ganges water, Devata or Devolaya,
swearing in a temple, before an image. Gato, a
cow, swearing while holding a cow's tail. Brah-
man, swearing while touching the feet of a
Brahman. Sinwa or Sinhah, the ceremony, after
religious rites, of pointing out a boundary. In
Hinduism nine ordeals were recognised. In trivial
cases, a few grains of rice that have been weiged
with the Salagrama are put into the mouth of
the suspected or accused person, who chews them
and spits them out on a pipal leaf. If the person
be innocent, the grains appear as if stained with
blood; if guilty, the rice is dry. In the trial by
Kosha, or image water, the accused person drinks
some of the water with which an idol has been
washed, and if the accused survive free from
calamity through the next fortnight, he is inno-
cent. The Tola, or ordeal of the balance, is
applied to women, children, the aged, blind, lame,
and sick men, and to Brahmans. After a fast of
four hours, both of the accused and the priest,
the accused batters in holy water, prayers are offered
up, and oblalions are presented to fire. The
beam of the balance is then adjusted, the cord
fixed, and the accuracy of the scales ascertained.
The accused then sits in the scale, and, while being
weighed, the priests prostrate themselves, repeat
certain incantations and, after an interval of six
minutes, the accusation paper with the written
accusation is bound around the head of the
accused, who invokes the balance thus: 'Thou, O
balance, art the mansion of truth; thou wast
anciently contrived by the deities: declare the
truth, therefore, O giver of success, and clear
me from all suspicion. If I am guilty, oh!
venerable as my own mother, then sink me down;
but if innocent, then raise me aloft.' The accused
is then re-weighed; if he then weigh heavier, he is
found guilty, but if lighter, he goes free. In the
Agni, trial by fire, the accused, in India, walks
barefoot into a mass of burning pilap leaves
(Ficus religiosa); in Siam, over a pit filled
with burning charcoal. In the ordeal by boiling oil,
the accused has to thrust the hand into the scald-
ing fluid. In the hot iron ordeal, nine circles are
drawn, each 16 fingers in diameter, and each the
same distance of 16 fingers apart. The hands of
the accused are rubbed with unhked rice (paddy),
and all marks on them carefully noted; seven
pilap leaves are then bound with seven threads
on each hand, and the priest gives him a red-hot
ball to carry as he steps from circle to circle,
keeping his feet within each, until he reaches the
eighth, when he throws the ball on a heap of
dried grass inside the circle. If his hands, which
are then examined, be not burned, he is pro-
nounced innocent. In Japan, a reputed thief
bears on his hand a piece of thin paper having the
figures of three deities. On this a piece of red-
hot iron is placed, and if his hand escape, he is
pronounced free. The Hejaz Arab licks red-hot
iron as an ordeal. In other forms, the Jala or water
ordeal is in vogue in India, in Burma, and in Borneo.
In India, the accused stands in water nearly up
to his waist, attended by a Brahman, staff in hand.
A person near shoots three arrows from a bamboo
bow, and a man hurries to pick up the further—
—

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most shaft. As he takes it from the ground, another person runs towards him from the water's edge; at the same moment the accused grasps the Brahman's staff and dives beneath the water. If he remain there till the two arrow-fetchers return, he is innocent; but if any part of his body appear, he is guilty. In Burma, a stake is driven into the water; the accuser and accused take hold and together plunge beneath the water, and he who remains longer submerged is declared to have truth on his side. In Bustrin, the Leaf-ordeal is followed by sewing up the accused in a sack, and letting him down into water waist-deep; if he manage in his struggles for life to raise his head above water, he is finally adjudged to be guilty. Then comes the punishment of extracting the teeth. This is said in Bustrin to be effected with the idea of preventing the witch from muttering charms, but in Kamaon the object of the operation is rather to prevent her from doing mischief under the form of a tigress, which is the Indian equivalent of the lapon-garon of Europe. In the Poison ordeal, white arsenic and butter in a mixture is administered. In the snake ordeal, a cobra and a ring are placed in an earthen pot, and the accused has to withdraw the ring. In the ideal ordeal, two images, representing Karma, or Justice, the other Jahamara, or Injustice, are placed in a tank; the ring is put into a place, and to withdraw it is allowed to draw. If the dharma image be withdrawn, he is innocent. The Borneo Dyaks place two pieces of Salt in the water, to represent the accuser and accused, and the owner of the piece dissolving first loses the cause. Also, two shells are placed on a plate and lime-juice squeezed over them, and he whose shell moves first is pronounced guilty or innocent, as may have been resolved on. But the more common mode amongst the Dyaks is for the accuser and the accused to plunge their heads beneath the water, and he who remains longer is free. The Binjari people use the branch of a nain tree, the Azadarcha Indica. A husband throws it on the ground, and, turning to his wife, says, 'If thou be a true woman to me, lift that nain branch.' Arrows are sometimes used in North-Western India as tests of innocence. The opposite ends of the arrows are held by a rattron laid upon the hands by two persons placed opposite to each other: they are parallel to and just sufficiently apart to allow of the suspected person's hand being held between them. The ends of the arrows merely rest upon the fingers. The arrows are supposed to move towards and close upon the guilty hand. 

Amulets (totka, tawiz; hirz; ta'tit, jantar, nadi) are worn by almost all Eastern nations. They are especially prized by Mahomedans, both young and old of whom wear them. They are usually put on the young to ward off disease, and to guard from the evil eye, and consist of figures with numbers on pieces of paper, or Arabic words, often extracts from the Koran, engraved on potstone or silver or gold, and worn from the neck. They are also put over the door-porch or on the house-wall. Amongst the Malays of Java, Mustika means amulet, which is always some very scarce substance, but usually being worn about the person, they are supposed to act as a talisman, and ward off evil. The mustika kerbo, or buffalo amulet, is quite white, and round like a marble, nearly an inch in diameter, and semi-transparent; it is stated to be found at Panggul. The mustika waringin, a calcareous concretion, is found at Ngadi Rejo. It is quite black, and a little smaller than the mustika kerbo. 

Arrat, Taz, is a Hindu ceremony for warding off the evil eye. The Romans had peculiar modes of divination,—their dies fasti, nefasti, their auguries, etc. Tacitus informs us that among the ancient Germans, who were originally Scythians, the prototype of rhabdomancy was engraved on rods. The Chinese had also rods with similar inscriptions. The Arabs, before the birth of Mahomed, divided by bundles of arrows in the Kaba. Mahomed destroyed this practice.

The practice of astrology at the present day in Ceylon, and the preparation of the ephemerides predicting the weather and other particulars of the forthcoming year, appear to have undergone little or no change since this custom of the inhabitants of India was described by Arrian and Strabo. But in later times the Brahmins and the Buddhists have superadded to that occupation the casting of nativities and the composition of horoscopes for individuals, from which the Sophiste described by Arrian abstained. It is practised alike by the highest and most illustrious castes of Singhalese and Buddhists, from the Veddas or agricultural aristocracy, to the beaters of tom-toms, who have thus acquired the title of Nakatya or astrologers. The attendance on particular ceremonies, however, called Bali, which are connected with divination, belongs exclusively to the latter class. The Mahomedans of British India keep their calendar (Jantri), and the Hindu Joshi calculates the ephemeris. The Hindus also have their calendar or Panjangan, but they all practise divination from books, for which the Chintami Pastakam is in use in the south of India. Wilson's Glossary; Burton's Seinde; Tod's Rajasthan; Tennant's Christianity in Ceylon; Jour. Ind. Archi. 1863, 1857; Miller's Seven Churches of Asia, p. 127; Rasamala, Hindu Annals, ii. p. 463; Ouseley's Travels, i. p. 227; Skinner's Overland Journ. ii. p. 70; Ward's Hindoos, ii. p. 71; Herdicks; Burton's Mecca, iii. p. 255; Lyell's Studies.

DIVO DASA, the titular appellation of several kings and illustrious persons, viz. a king named in the Rig Veda; a Brahman, twin brother of Ahalya; also a king of Kasi, who, with all his family, was slain by a king named Vita-hanya. His son Pratardana avenged the slaughter of his relatives.—Dowson.

DIVORCE.

Ehescheidung... GER. | Divorzio,... | IT. Talaj,... | HINDI | Divorcio,... | SP.

The Hindu law does not admit of divorce. The Buddhist Burmese laws allow every facility for divorce. An appeal case heard by the privy council illustrates the Mahomedan law of divorce. A moonish wished to divorce his wife, without which a second wife would not have him, but he wished at the same time to avoid paying the first wife's dowry, amounting to Rs. 26,000. He had two modes of proceeding: either by his own declaration and repudiation of his wife, in which case he must restore the dowry, or to divorce the woman with her own consent (khola), in which case he may keep the dowry, or make any arrangement regarding it. After a divorce, the
woman must remain some months in seclusion, and be maintained by her late husband, till all chance of children has passed away. In a recent case, the husband, by ill-usage of his wife, induced her mother to give up the marriage settlement, and so proceeded by the kolta method, keeping the dowry; but the subordinate and appellate courts decreed the restoration of the dowry, on the ground of force being used. Mahomedans in India follow the Koran and Shara, and marry to four wives, though some take into their households a far greater number of women, under different designations. Mrs. Mir Hussian Ali had heard of princes in Hindustan marrying seven or more wives. On a native trip, Tippu Sultan had less than nine hundred women. In Madras, some of these are known as the Harm, which term is there applied to purchased women associating with their lord, but in Hindustan such are termed Doolie wives. These are not the Kameez, or slave girls, who are servants. There are three forms of Talaq, repudiation or divorce, amongst Mahomedans in India. 1st. Talaq-i-byn, which consists in the husband only once saying to his wife, 'I have divorced you'; 2d. Talaq-i-rijzae, in repeating the same twice; and 3d. Talaq-i-mootulnaa, in three similar repetitions. Mahomedan lawyers say there are 16 various kinds:—Talaq-i-absu, T.-i-rujai, T.-i-sumna, T.-i-bidat, T. kinat, T. minajal, T. sarh, Aila, Istena, Khala, Lan, Mubarat, Yamin, Zifar, Tawiz-ul-talah. In China, divorces are frequent; the divorced wife is sometimes provided for, or is rewarded. Chinese divorces are granted for seven reasons, unchastity, striking the husband's parents.

DIWALLI. thin plates of gold and silver prepared for the gold-beater.

DIWALLI.
Dipali. . . . HIND. | Dipali. . . . HIND. Deuli, . . . , D. Dewaligiecha, | KARN.

The Diwali is a popular Hindu festival on the two last days of the dark half of the month Aswin, and the new moon and four following days of Kartik (September—October). Appropriate ceremonies are performed on each day, but on the last the night is to be spent in merry-making and festivity, and illuminations are to be made in honour of deceased ancestors. The goddess Lakshmi is also to be worshipped in the night of the festival, and games of chance played in her honour. Amongst the Maharrattas, it is the commencement of the commercial year, over which Lakshmi, especially presides, and accounts are opened by bankers and merchants for the smallest sums—a few rupees—as tokens of success. Bankruptcies are also declared at this season.

DIWAN. In Persian poetry, a complete series of odes or other poems, the rhymes terminating from alif to ye in each letter of the alphabet. The Diwan-i-Haft and that of Jami are celebrated.—Gloss.

DIWAN. ARAB., HIND., PEERS. A royal court, a chief officer of state. The title of Diwan or office of Diwani was conferred upon the East India Company by Shah Alam in 1765, giving the right to collect the whole revenues of Bengal, Behar, and Orissa.

Diwan Khanah, amongst Mahomedans, the common hall or place of reception. It has a line of flat cottages ranged round the room, either placed upon the ground, or, on wooden benches, or on a step of mosaic, varying in height, according to the fashion of the day. When such foundation is used, it should be about a yard in breadth, and slope very gently from the outer edge towards the wall, for the greater convenience of reclining. Cotton-stuffed pillows, covered with chintz for summer, and silk for winter, are placed against the wall, and can be moved to make a luxurious heap; their covers are generally all of the same colour, except those at the end. The sent of honour is denoted by a small square cotton-stuffed silk coverlet, placed on one of the covers, which the position of the windings determines.

DIWHYN, Colonel, CHARLES GEORGE, an officer of the Bengal artillery, which he joined on the 14th August 1813. He served throughout the Nepa| war in 1814, 1815, and 1816; was present at the siege and bombardment of Hatras in 1817; was Quartermaster to the artillery and pioneers with the right division of the Grand Army during the Pindari campaign of 1817-18. In 1820-21, was present with the force which subjugated Mhairwara. In May 1835 he was appointed to its civil charge, and in January 1836, Commandant of the Mhairwara Battalion. In March 1839, the Mhair corps, in conjunction with the Jodhpur Legion, completely routed a large body of outlaws at Kot in Mhairwara, and killed their chiefs, with one hundred followers. In February 1842, the jurisdiction of Ajmir was added to that of Mhairwara, and he was appointed Commissioner of Ajmir in March 1835. The Mhair tribes were the bravest, and were amongst the most predatory, of the non-Aryan races in India. Colonel Dixon built a new town, and encouraged shopkeepers to settle in it. Gradually the whole population became attached to industrial pursuits. Up to A.D. 1838, the district was wholly dependent on supplies brought in (chiefly by plunder) from a distance. But by 1850 the population had much increased, and the sounds of honourable industry were heard on the face of those long-troubled hills in some of its most benignant forms. He wrote a Sketch of Mhairwara, 1850; also Ajmir and Mhairwara Revenue Settlement, 1855.

DIYAR BAKR, on the Tigris, in its prosperity contained 40,000 houses, with numerous cotton looms constantly at work, and it enjoyed an active trade in gall-nuts, not only with Kurdistan, but also with India on one side, through Baghdad, and with Europe, through Aleppo, on the other; and at present there are scarcely 8000 houses, 1500 Armenians and 6300 Turks, and its commerce is almost annihilated. Below Diyar Bakr, the Tigris contains several islands. Its banks are thinly peopled, and the country about them is only partially cultivated; but the pasture grounds are rich, and well suited for the visits of the nomadic tribes which come occasionally to the river from the neighbouring countries. The windings of the Diyak Bakr river thus far have a length of rather more than 150 miles, whilst those of the tributary by Myafarekin are less than 100 miles.

DIZABULUS, a Mongol ruler of the 13th or 14th century, who is described as seated on a couch that was all of gold, and in the middle of the pavilion were drinking vessels and flags and great jars of the same metal. At the entrance
of the tent there was a bench with cosmos (kunia, or fermented mare's milk), and great goblets of gold and silver set with precious stones. Shah Rukh's description in the 15th century of the constant drinking there corresponds exactly to the account of the habits of the Mongol court in Planco Carpini and Rubruquis (a.d. 1253). The former, on the occasion of Kuyuk Khan's formal enthroning, says that after the homage had been done they began to drink, and, as their way is, continued drinking till hour of vespers (p. 738). Rubruquis's account of his residence at the court of Mangu Khan is quite redolent of drink; from which one sees how Sultan Baban came by his propensity to strong drink.—Shah Rukh's Embassy to Cathay, i, p. 104.

DIZFUL, an important stream in Khuzistan. The bed of an occasional torrent in ancient Susiana, called Ab-i-Bald, which falls into the Dizful, is covered with a peculiar kind of pebble, which, being filled with little fossil shells resembling grains of rice, is called Sang-i-birjin, or rice stone. These stones are also found in the river at Shuster. They are in much request throughout Persia for the head of the nargel pipe, which is almost invariably composed of this material, set in silver. See Khuzistan; Luristan; Sassanian.

Dj, with the nations of continental Europe, are used to obtain the sound of the English j; thus Djalal, a camel, Djalal, a mountain. Similarly, tech is used for the English ch.

DOAB. Hind, Pers. From Do, two, and Ab, arid. A country lying between two rivers, a mesopotamia. In British India, people speak of the Doabs of the Ganges and Jumna, of the Godavery and Kistna, of the Tumbirda and Kistna, the Raichore Doab, etc. The five Doabs of the Panjab are fertile as far as the river influence extends, but have in the centre a high arid tract called Bar. The names of the Doabs of the Panjab are in all instances, excepting the first or Jalandhar Doab, the result of a rough attempt to join the names of the rivers on each side into one word. Thus the Panjab is traversed by six rivers, which, running in a south-western course to their places of junction, partition the country into five Doabs. The Jalandhar Doab is between the Sutlej and the Beas. The other four Doabs are still popularly known by those names which were given them in the days of Moghul ascendancy. The Bari lies between the Beas and the Ravi, the Rechna between the Ravi and the Chenab, the Chuj between the Chenab and the Jhelum; the fourth, enclosed by the Jhelum and the Indus, takes its title from the latter, and is styled the Sind Sangur, or Ocean of the Indus. Of these the Bari Doab carries off the palm, as containing the central Manja, or home of the Sikh nation, and the three greatest cities, Lahore, Amritsar, and Multan.

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It is by far the most populous, as well as the most important, whether in a political, commercial, or an agricultural point of view. It has also the sanatorium of Dalhousie near the Kalatop forest, and the district of Montgomery to the south of Lahore. This Doab has two features, viz., a flat alluvial tract, called Dhaya, several miles broad, running along either river, and producing tamarisk and jhund. Also an elevated dorsal plateau in the Manja or middle part, and called Ganji-bar, or bald country. Its soil is intensely arid, often saline, and produces only some salso- acinos plants and a few bushes of jhund. The Bari Doab (sometimes called Manja, whence the Sikhs resident here are called Manja Singh), between the Ravi and Beas, is the narrowest of the Doabs.

The district lying between the Indus and the Jhelum, called the Sind Sangur Doab, is 147 miles broad in the widest part, and whilst it is the largest, is the most sterile and least inhabited, abounding with undulating bare eminences and rugged declivities.

The Rechna Doab, between the Chenab and the Ravi, is seventy-six miles in its widest part, and consists of an arid plain.

The Jalandhar Doab, the smallest, is in a better condition than the other intra-fluvian tracts.

The Gangangetic Doab, the Antervey of the ancient Hindus, is the Doab or Mesopotamia of the Jumna and Ganges. From the narrow point in which it terminates, the valley broadens as it stretches away towards the west, embracing a greater and greater area between the Ganges and Jumna. The whole of its immense superficies forms a vast, populous, and busy hive, enriched by human industry, and embellished by human taste. On the map no country is so thickly dotted with great townships and cities, and under the sun no country makes up such a highly interesting prospect of green fields, orchards, and gardens, in a continuous succession. In this fair savannah man has had his abode from a remote antiquity, to reap rich harvests, and live amidst plenty. Here were the cradle cities of the pre-Vedic Draya races. Here rose the first cities of the Aryan race. In the plains of the Doab, the rajas of Hastinapur, of Indraprastha, and of Kanouj exhibited the highest power and splendour of Hindu sovereignty. The rich districts watered by the Ganges and Jumna have always tempted the avarice of the foreign conqueror. Here was the residence of the most famous Hindu sages. From this birthplace of arts and civilization wisdom travelled to the West. This Doab is the battle-ground of the Pandu against the Kurus, of the Gihzivide and Ghorian against the Hindu, of the Moghul against the Patah, the Mahratta against the Moghul, and of the British against the Mahratta, where many a spot is hallowed by tradition, and many a ruin is consecrated by history. In this Doab almost every inch of land is under the plough. Here the rural population is more intelligent and spirited than the camp follower of Bengal. The humblest Doabi lives upon better food, and covers his body with more abundant clothing, than the humbler Bengali. The cattle here are various. Camels, buffaloes, horses, donkeys, and oxen are all made to assist man in his labours. The fondness of the Doabi women for coloured millinery evinces a more refined female taste, and to them may remotely be traced the impetus which is given to the various dye-manufactures of the country. The agricultural women of the Doab use ornaments of brass and bell-metal. The same class in Bengal
is in the habit of wearing shell ornaments, and a pair of Dooa shell-bracelets may sometimes cost the sum of two hundred and fifty rupees. One particular ornament in general use amongst the Doabi women of both the upper and the lower classes, is the tikia, which is in the shape of a tiny crescent made of gold, silver, or tinsel, according as the wearer is circumstance. It is fixed with an adhesive substance on the forehead, just between the eyebrows. These tikas are not a little prized and coveted by the Hindustani young men. They train the boys to execute little commissions of gallantry. On a given signal, the birds go, seize and carries off the tikia from the forehead of a woman, as precious booty, to her planning lover. This Doab, like Bengal, is flat and alluvial. The vast plain is uninterrupted by a single eminence; but the soil and climate differ. The tall and robust figure, the firm step, the stern eye, and the erect bearing of the manly Hindustani are everywhere to be seen. In Bengal the oxen alone form beasts of burden. A Hindustani coolie takes the load over the waist, and not upon the head. The Calcutta Baboo do not know what it is to ride. In Hindustan, rural women perform journeys on horseback, and princesses discuss the merits of horsemanship. The people of the Doab have for the most part well-formed features.

In India, the country between the Ganges and Jumna (Jamuna) is especially known as the Doab. It includes the whole wedge of land enclosed between the confluent streams of the Ganges and the Jumna, comprising the districts of Saharanpur, Muzaffarnagar, Meerut, Agra, Mainpuri, Etah, Farrukhabad, Etawa, Cawnpur, Fatehpur, and part of Allahabad. The irregular horn-shaped tongue of country thus enclosed runs in a sweeping south-eastward curve, following the general direction of the Ganges watershed from the Siwaliks to Allahabad. On either side the great rivers flow through low-lying valleys, fertilized by their overflow or percolation, while a high bank leads up to the central upland, which consists of the older deposits. This central plateau, though naturally dry and unproductive, except when irrigated by wells, has been transformed into an almost unbroken sheet of cultivation by three great systems of irrigation works,—the Ganges, the Lower Ganges, and the Eastern Jumna canals. The East Indian, the Sind, Panjab and Dehli, and the Oudh and Rohilkund Railways also pass through the Doab in several directions, and afford an outlet for its surplus agricultural produce. This Doab was ceded to the British by Shah Rukh-Din Ghazni in A.D. 1194, and it continued in the power of the Dehli emperors until overrun by the Mahrattas in 1736, and occupied by the British in 1754-5, after the battle of Buxar and Kora, and in 1801 the whole lower Doab was ceded to the British by the Nawab Wazir.

Doaba, a moist rich tract of land between the Sutlej and Kabul rivers.—Tod's Rajasthan; History of the Panjab; Tr. of Hind.

DO-BEH. HIND. A Brahman who has studied, or who teaches, two of the four Vedas, hence the term Do, two, and Veda. The caste of Brahmans so formed are generally ignorant and low persons, and by profession boxers and wrestlers.—Wilson.

DO-BHASHA. HIND. Two languages. Do-bash or Do-bhashi, one who speaks two languages; a broker or interpreter.—Wilson.

DOBSONNOOR, or the Salt Lake, is celebrated over all the west of Mongolia. It furnishes salt, not only to the neighbouring Tartars, but to several provinces of the Chinese empire. The Dobson-Noor is less a lake than a vast reservoir of mineral salt, mixed with nitrous efflorescence. The latter is of a faint white, and friable between the fingers; and is easily distinguishable from the salt, which is of a greyish tint, and with a shining and crystalline fracture. The lake is nearly ten miles in circumference, and here and there yours inhabited by the Mongols, who are occupied with the salt trade; they have also Chinese partners, for Chinese take part in every kind of trade or industry. The manipulation to which the salt is subjected requires little labour or science. It consists of nothing more than picking up the pieces, laying them in heaps, and covering them with potter's clay, and the salt sufficiently purifies itself.—Huc's Journey.

DOCKET. This term, in trade, is often applied to a short certificate, summary, or memorandum. In Government correspondence it means the summary or précis on the back of a letter. In English law it signifies a brief in writing.

DOCKS. Along the greater part of the eastern coast of the Peninsula of India, wherever the rivers can be entered by coasting craft, docks are formed by digging a channel from the river sufficiently large to allow the vessel to be floated into it at high water. A dam is thrown across the channel, and the earth being thrown into the dock thus formed, the vessel is floated up above the water mark. By draining off the water, the vessel is left high and dry embedded in earth. This is removed to allow of access to the bottom of the vessel, which is propped up by stones. It is usual also to place logs under the keel. A dry dock is thus formed about the vessel at a small expense. The repairs having been executed, it becomes necessary to lower the vessel down to that point when, the dam being removed and the water let in, she can be floated out. For this purpose cables are coiled under her, and these coiled fillet in with earth, the earth under the vessel and logs which were placed under her keel removed, the dock is dug out to its former depth, the vessel is left suspended resting on the coals; by uncoiling the cables gradually the vessel is let down, and is then floated out.

Ships of 400 tons are thus docked at Coringa. This mode of docking ships is followed on the Indus, and is called Calcutta and Bombay. Ships are docked in Calcutta and in Bombay extensive wet docks for receiving ships.—Robbe.

DOCTOR FISH, a name given to a species of Chaetodon, also to the small-spined Acanthurus subarmatus, Bennettii.

DOCUMENT-BILL, an Indian bill of exchange drawn on London, having as collateral security the bill of lading and policy of insurance on the goods; against a part of the estimated value of these the bill is drawn.—Simmond's Dictionary.

DODABETTA, the highest peak on the Nilgiri mountains in Southern India, in lat. 11° 25' N., long. 76° 40' E., its height being 7670 feet. It was made the site of an observatory, under the astronomer at Madras. A record of the meteorological observations was published at 964.
DODAH.

Madras in 1848; the Toda name is Petmartz, the name means big mountain.—Sykes; Schlagent.

DODAH. Hind. The unopened cotton pod; any round seed-vessel, as poppy head.


DODA MARRI. See Baluchistan; Kahan; Kist.

DODDERS, species of Cuscuta; in the Sone valley they cover even tall trees with a golden web.—Hooker, Hist. Jour. p. 38.

DODITAK, a forehead jewel ornament, worn by Hazara women.

DODO, an extinct bird of the Mauritius. This and the Aphanapteryx of the Mauritius, the Dinornis, Philip Island parrot of New Zealand and Philip Island, and the Erythromachus of Rodriguez, have become extinct. Their large size made them conspicuous objects, and, being occupants of very limited areas, they were easily destroyed.—G. Bennett, Gatherings, p. 243.

DODOH. In Java, a posture of humility which inferiors assume when approaching superiors. It is similar to the custom in Burma, where the superior sits on his legs.

DODONEA BURMANNIANA. D. C. Angustifolia, Roxb.

Mendru, . . BRAS. | Gharaske, . . . | TR. INDES.
Sanatta, Aliar, . . . | HIND. | Veravena, . . .
Ban men du . . . | KAVI. | Shumashad, . .

A handsome small evergreen shrub, well suited for hedges, for which it is often used, and generally called bog myrtle.—Roxb.; Stewart.

DODONEA VIScosa. Linn. Common on the Neighberries and Panjab; wood elastic, and useful for tool handles.—Feyer; Von Mueller.

DODUGA. Tel.? A wood of the Northern Circars.

DOFLA, a tribe occupying the hills forming the northern boundary of Assam. In one of their districts, that of the Char Dwor, Four Marches, no less than 180 petty chiefs are said to hold authority in the Dolla villages. The tribes on the northern Assam frontier are found in the following order along the hills, viz. Aka, Abor, Dofla, Miri, and Mishmi; next to them is the Buteah. The Dofla country extends from the hill course of the Sunndri river to the Bhoroli river, comprising the hills to the north of Chedwar in the Lakhimipur, and of Naodwar in the Tezpur district.

Bangri, the term in their language to signify a man, is the only designation they give themselves. During the latter days of the declining Abom sovereignty, several of these were made to check the Dofla aggrandizies; and on one occasion, raja Gourinath Singh is said to have marched an army into their hills for the express purpose of chastising them, and several thousands Doflas were taken prisoners and brought down to the plains. The raja obliged them to dig a canal, with the view of draining off the large and unwholesome morasses that still exist in mahal Kollongpur; but the greater portion of them are said to have perished, and the task assigned to them remained unaccomplished. They are in communication with the Tibetans, and possess many articles of Tibetan or Chinese manufacture. They have a Mongolian type of physiognomy; but from their intercourse with the people of the plains, and the number of Assamese slaves which they have acquired, it is much modified and softened, and Colonel Dalton had sometimes seen Dolla girls with pleasing and regular features. Their complexion varies much from olive with a ruddy tinge, to dark brown. Marriages and marital rights are the same with the Dofla as with the hill Miri. Those who can afford it are polygamists; but polyandry is far more common amongst the Dolla than amongst the eastern tribes.—Dalton, Ethn. of Bengal; Beng. As. Soc. Jour., No. 2051.

DOG.

Kahl, . ARA. | Cazis, . . . | LAT.
Kan, . . CHIN. | Sag, . . . | PER.
Chien, . . GER. | Swans; Sias, . . . | SANSK.
Hund, . . . | IR. | Perro, . . . | SP.
Kn, . . . | CH. | Nal, . . . | TAM.
Kutta, . . HIR. | Kuka, . . . | Tel.
Cane, . . . | J. R. | Kun, . . . | TUR.

The various kinds of dogs are commonly believed to have been derived from one extinct species. On the monuments of Egypt, of date B.C. 3400 to 2100, several varieties of dogs are represented, and on one Assyrian monument, of date B.C. 640, an enormous mastiff is figured,—evidences of the fact the long existence of many varieties. A predilection for the society of man seems almost inherent in the dog; and when we trace back its history, as far as the refuse heaps of Denmark and the pile folks of the Swiss lakes, or, what is still more suggestive, the representations on the Egyptian temples and tombs, the great fact is irresistible, that man and the dog have shared each other's company for possibly a longer period than any other creatures; and whether the attachment at first was gradual or not, it has now, at least as far as the brute is concerned, become instinctive. Moreover, when we think of the vast periods embraced by the Egyptian monuments of antiquity, and the time it must have taken to develop even one variety from the feral stock, and note the foxhound or the turnspit of 4500 to 5000 years ago, it may well be conceded that the dog, of all four-footed beasts, has a claim to man's kindness and protection. The dog is mentioned forty times in the Hebrew Scriptures, but always in terms of aversion. In the present day, Bedouins prefer their dogs. Except at Medina, they are met with everywhere in Arabia and Syria, of the fierce Turkoman breed, the shepherd dog, the bazar dog, and the Macedonian greyhound, and are almost as much cherished by Europeans; and, whether a wretched mongrel, or belonging to one of the pure breeds, a dog is the fierce companion of the wandering Turkoman, with its long ears and winter coat of long soft hair. The shepherd dog is not inferior to that of Europe in any respect. There is also the town or bazar dog, besides crosses of the dog and wolf and the dog and fox. They are generally the only sentinels of every Bedouin encampment; and the Macedonian greyhound, with the usual addition of a hawk perched near the entrance of the tent, forms part of the suite of a sheikh or other chief throughout most parts of Arabia. This animal is about the height of a full-sized English greyhound, but rather shorter; he is deep-chested, has long smooth hair of a red colour, and a tail nearly as much feathered as that of an Irish setter. His speed does not quite equal that of the highest bred dogs of Great Britain,
but he keeps it up so much longer, that he is tolerably certain of running down the fleetest gazelle.

The wild dog is the Cunor rutulans of naturalists. They are to be found in packs throughout Ceylon, British India, and Malayanna, the Himalaya and Tibet, and each of the races has a name for it, mostly meaning wild dog. Wild dogs do not bark,—they only whine, howl, and growl. The Himalayan wild dog, when taken young, is easily tamed: and this rule would seem to hold good with the wild races of other countries; indeed, although not generally acknowledged, the wolf, jackal, and hyena get much attached to man, if carefully reared and treated with kindness. The semi-domesticated dogs, in common with the wild species, have erect ears, and this would seem to become more pronounced the nearer they assimilate to the latter. This circumstance has been noted in respect to domesticated sheep, goats, etc., when left more or less to shift for themselves, as is apparent on the Himalayas and Alps.

In the Nepal hills, the dhole or wild dog are found in packs, varying from 50 to 200, and the havoc committed by them among the flocks of sheep and hill cattle is incredible. Their destruction of deer also is immense, and their mode of hunting may be worth of mention. In size the wild dog is little larger than the common jackal of India, but longer in the body, and possessing much greater power, with a very formidable set of jaws. Colour, a rich reddish-brown, with scenting qualities of the highest order. Soon after nightfall the pack assemble at a given cry, when they disperse in threes and fours in search of game. The first party that hits off the trail, open, when the whole pack rush to them, and when all are assembled, fasten to the trail and off they go. The deer soon become alarmed and double, when the pack immediately fell off in parties, each one rushing to the different passes for which deer are known to make; and on the deer attempting to pass either, it is immediately seized by the party, who utter a simultaneous cry, and the whole pack then rush in, and the deer is at once devoured. Fresh game is next sought, and in the same way destroyed; and this species of hunting is continued according to the size of the pack, till all their appetites are appeased, when they retire to their almost inaccessable fastnesses in the rocks, and remain for three or four days, until hunger again drives them forth on another excursion. From their destructive qualities, the wild dogs hardly ever remain longer than a month in the same locality, having in that time effectually scattered the deer they have been depending on. Captain Smith never knew them to attack man, and even when severely wounded, they will only snap after the manner of a wounded jackal. When deer are not procurable, they will attack even bears. Wild dogs differ slightly in appearance. They are 'the most determined enemies of the tiger, hunting him whenever they meet with him.' 'I have been assured,' remarks Lieutenant Rice, 'by Bhils, that they have sometimes seen a tiger kept prisoner up a large tree, with a pack of these dogs hanging around him, when on no other occasion would a tiger attempt to save himself by climbing trees. On the approach of the men the wild dogs dispersed, when the tiger jumped down and gladly made his escape. This I firmly believe to be a fact, for the story arose out of a casual remark which one Bhil made to another in my hearing, as we were passing a certain large tree (with a straight stump about five yards high before the branches began, up which a tiger had jumped). Perhaps these dogs hunt the tiger for poaching on their deer; or it may be only the old antipathy between cat and dog on a large scale.'

Mr. Arthur Grote, C.S., sent to the Bengal Asiatic Society from Chibbars, Central India, the skins and skeletons of a mature female and male half-grown, of the ordinary wild dog, so called, of British India. These animals are specifically identical with a particularly fine living adult male sent down from Upper Assam; and this appears to be the ordinary specimen of the Himalaya and of Central and S. India, Canis Dukhunniensis, Sykes, and C. primaeus, Hodgson; and a Malayan specimen in that museum, which was supposed to be C. Sumatrensis, Hardwicke, differed only in the considerably deeper tint of its rufous colouring.

The Vakhan Dog is a breed from Chitral. It bears a strong resemblance to the Scotoh collie. They have long ears, a bushy tail, and a body more calculated for swiftness than strength. The colours are black, reddish-brown, or mottled.

The Hill Dogs are covered with black wool, which forms an article of traffic. They are large, and ferocious to strangers, but are useful as sheep-dogs, and are provided with an iron collar to secure the dog from a leopard's teeth.

The Tibetan Mastiff is large, strong, with a shaggy coat. It is very fierce, well adapted to defend flocks against robbers or beasts of prey; it is subject to hydrophobia. It has a tan-coloured super-orbital stripe.

The Shikari Dog of Kamaon is very like the pariah dog of the plains.

The Dogs of Kanawar are of a large ferocious breed, resembling wild beasts in their nature; they are covered with black wool, and are very averse to strangers, whom they often bite and tear in a most shocking manner; they are generally chased during the day, otherwise it would be dangerous to approach a village. The fleece, especially of the young ones, is almost equal to shawl wool.

The breed of Bisur, in the Himalaya, is noted for its size and hardihood. The finest dogs of this breed bear a considerable resemblance to a mastiff, but retain a good deal of the ear. Their colour in general is black and white, with a little red occasionally; their hair is long and thick, and the tail long and bushy, curling up behind; their head is long and narrow, and somewhat like the common shepherd's dog. They are often very fierce, and sometimes attain a considerable size, but are seldom so large as a full-sized mastiff. These animals are furnished with a down under their long shaggy hair, which is as fine and soft as shawl wool; this comes off easily in warm weather, and is regularly shed with the hair. Every animal is similarly furnished in this cold country. The natives use these as sheep-dogs, in the same way as those of other countries, and also for hunting all sorts of game, even birds, which they tire out in flying; and some were valued at a very high price.

From a genealogical table in the Encyclopaedia Britannica, it appears that the common Turkish dog is the parent stock of most others known in Europe.
DOKHMA.

The Greyhound of Babylon is fleet. It has long shaggy hair on the legs and body. The Persian greyhound has a fringe of soft silky hair on the ears.

The dog which is known in Bengal by the name of the Nepalese dog, is, properly speaking, a native of the Upper and Lower Tribes, whence it is usually brought to Nepal. It is a fierce and surly creature, about the size of an English Newfoundland, and covered with thick long hair. It is reckoned to be a good watch-dog, and never to sleep at night.

Amongst the Hindus of India and the Indian Mahomedans, the dog is regarded as an unclean animal. With the Ceylonese, the dog was supposed to be the most acceptable sacrifice to the offended deities, five dogs being the common number for a propitiatory offering. The unclaimed dogs of Bombay, Egypt, Mecca, and Constantinople are a sad nuisance, and even in Bombay, being protected and fed, but not housed, by the Parsee inhabitants, as well as by Hindus. An expiring Parsee requires the presence of a dog, in furtherance of his departing soul, and, after the Sag-did or dog-look, the exposed body is speedily consigned to the Tower of Silence. In Rangoon, pariah dogs infest the town. The greatest number of dogs are found near the Kyongs.

Dogs are eaten in China, at Zanzibar, in Australia, and the Pacific. In China there are restaurants both for dogs' and cats' flesh.

Dog-skin is thin, but tough, and makes good leather. Of late years house leathers take its place for thin dress shoes. Most of the dog-skin gloves are really made of lamb-skin.

Dogs in the Pacific Islands are fed on cocoanuts.—MacGregor; Darwin's Variation of Animals and Plants; Jordan's Mammalia; Smith's Nepal; Journ. As. Soc. of Ben., November 1856; Gerard's Kauacac; Fraser's Himalaya Mts. p. 364; Robinson's Travels, ii. p. 356; Gray, ii. pp. 75, 76. See Canis.

DOGAR, also Dogra, a predatory and pastoral race scattered over various tracts of the N.W. of Hindustan. There are a few in Hansi, Sonam, and Firozpur, which latter place, together with a considerable tract along the bank of the Sutlej, they held for a long time during the 18th century in almost undisputed sovereignty. Their occupation was divided between pasture and plough. They are Mahomedans, and state that they were originally Chauhan Rajputs; but the Kalim Khani and other converted Chauhans of those parts will not acknowledged their fraternity, asserting that Dogra was nothing but Jats and Gujars. Dogars are held in no consideration by their neighbours, but in former times they were much dreaded on account of their predatory habits, which a civilised neighbourhood and a strong government compel them now unwillingly to relinquish. Their personal appearance is in their favour: they are a tall and muscular race, and are generally remarkable for having large aquiline noses. Members of the Dogar race attained distinction first as feudatories of Ranjit Singh, and later as allies of the British. The raja of Jamu and Kashmir is a Dogar. They use as a written character a modification of the Nagari, to which the term Dogri has been given.—Elliot's Surr. Gloss.; Cust.

DOBANES, the Apocynaceae, or dogbane tribe of plants, are trees and shrubs, of which the oleander is a conspicuous example. Some are herbaceous, as in the case of the vine or periwinkle, a climbing plant with trailing twigs. The Nerium pascical of Roxburgh is common in the Khasiya or Sylhet mountains, and there called echalat. It is an extensive perennial climber. Its bark contains a large quantity of fibre, which the natives use for the same purposes as hemp. Dr. Roxburgh, in speeeing some of the young shoots in a fish-pond, in order to facilitate the removal of the bark, and to clean the fibres, found that many, if not all the fish, were killed. Hence the specific name which he applied. Dr. Wight formed the plant into a new genus, Echaltum.—Fl. Ind., i. p. 7.

DOG-FLY, the zimb of Abyssinia.

DOG'S TONGUE; FISH is shaped like the sole. It attaches itself to the bottoms of boats, and makes a sonorous noise, which is more musical when several are stuck to the same plank and act in concert.—Boer's Stiemen, i. p. 11.

DOH, a name in Java for the horsehair-like fibre of the eje or gomuti palm, the Arenga saccharifera, Labill.—Simmonds.

DOHADA. HIND. A term which usually signifies the desire or longing of a pregnant woman, to which the Hindus attach as much importance as do the nations of Europe.

DOHAGUN. Amongst the Hindus, Sohagun is a woman who becomes sati previous to her lord's death; Dohagun, one who follows him after death.

DO-HARTA. HIND. A well with two wheels. DOING NAK, a hill race in Arakan, on the upper waters of the Mayu river. They are Buddhists; their language is a corrupt Bengali, and they call themselves Khein banago. They are a branch of the Chukma, and appear also to have been endogamous. Captain Lewin mentions that they abandoned the parent stem during the chiefship of Janbakhsh Khan, about 1782. The reason of this split was a disagreement on the subject of marriages. The chief passed an order that the Doing Nak should intermarry with the tribe in general. This was contrary to ancient custom, and caused discontent, and eventually a break in the tribe. —Lewin's Hill Tracts of Chittagong, p. 65; Raffles' History of Java, i. p. 328; Lubbock, Orig. of Civil. p. 103.

DOI-PHORYA. MAH. The name of a class of importunate Hindu mendicants, who knock their heads against stones to enforce compliance with their demands; hence any importunate petitioner.

DOJA. THET. An ingot of silver, stamped, current on the hills for 20 rupees.

DOKA. HIND. A tree of Chutia Nagpur, with a hard red timber.—Cal. Cutt. Ex.

DOKAD-DAR, a pattern in a Kashmir shawl. Dokh, a Central Asian cotton fabric.

DOKH. HIND. A cut-and-thrust sword of Hindustan.

DOKHMA or Dokhma, or Tower of Silence, the place for depositing the dead of the Parsee race. The dokhma has a deep well, surrounded by a platform with channels converging to the well. The body is laid on a partition of the platform, and the fluids resulting from its decomposition flow along the channels into the well; but after a time the remains of bones are also swept into that excavation. The word is also said to be
DOLICHOS UNIFLORUS.

A valuable pulse, prized in India; it is cultivated in Portugal. D. Sinensis has six varieties, distinguished by their white, brown, and black seeds, —leucosemperus, phaeosemperus, and melanosemperus. Ainslie, p. 237; Roxb. iii. 308. See D. Sinensis.

DOLICHOS FALCATUS. Klein.

Its cube tige, . . . Tel. Verri ulva, . . . Tel. Common in hedgerows, thickets, etc., where the soil is rich and moist. Flowers during the cold season. The tuberous roots are cut by the natives into the form of beads, and strung and worn round the neck to cure purging in children.—Roxb. iii. 311.

DOLICHOS GLUTINOSUS. Roxb.

Glycine viscosa, Roth. = Rhynchosia visciosa, D.C. (see entry above, p. 311). Shim-batraje, . . . BENG. Karu kanuli, . . . Tel. Naga chikakku, . . . Tel. Karu chikakku, . . . Tel. Grows all over India, and has largish yellow flowers; differs but little from D. tomentosus.

DOLICHOS PILOSUM. Roxb.

Tao bai, . . . BURM. Takuri kulay, . . . HIND. Grows over all India. Cattle eat the straw.—Roxb. iii. 312.

DOLICHOS SINENSIS. Linn.

1. ecremocarpus. as leucosemperus. phaeosemperus. melanosemperus. Burtati, . . . BENG. Chota harwan, . . . PANJ. Chowa, . . . DUKH. Chovan, . . . DUKH. Lobat, . . . OAS. Chanaan, . . . SHAH. Lob, . . . HIND. PERS. Karmani, Bobbaru, TAM. Rooghi, . . . MALAEL. Paru, . . . Ala-cheshala; Alasanda, . . . DOL.

The varieties of this commonly-cultivated species have white, brown, and black seeds. The section ecremocarpus is D. Sinensis, D.C., the D. sosiquepadas of Linn. The orthocarpus is the D. Tranquebariensis of Jacquemont, D. catjang of Roxburgh. This bean is sown at the commencement of the rains; it has a very long and slender pod, and eaten as French beans. The bean itself is small, and those with white seeds are esteemed the best.

Moisture, . . . 12-44 Fatty or oily matter, 1-41 Nitrogenous matter, 24-01 Mineral constituents 59-62 (ash), . . . 3-13

DOLICHOS TRANQUEBARIENSIS. Jacq.

D. Sinensis, var. orthocarpus. Lobor ke phalli, . . . DUKH. Poy-an-kal, . . . TAM. Rajamasha, . . . SANSK. Pesola-kai, . . . TAM.

This is a long, slender, pleasant-tasted legume, not unlike the French bean both in appearance and natural qualities. There is a larger variety of it, called in Tamil, Perum pyttum-kai; in Dukhiani, Saffaud lobor ke phalli; in Telugu, Dantoo pesola-kai, and in Sanskrit, Svetra raja-jamasha.—Ainslie, p. 244.

DOLICHOS UNIFLORUS. Lam.

D. biflorus, Roxb.

Roong ; Rawan, . . . BEAS. Barat ; Botang, . . . PANJ. Kulthu kule, . . . Kulti, . . . BEN. Kulture ; Cuhula, . . . SANSK. Huru ; Kalat, . . . CAN. Kult ; Kolt, RAVI. SUTLEJ. Kalat ; Kulate, . . . CHER. Mudra, . . . GRAM, ENG. Gaddi, . . . TAM. Horse gram, . . . TAM. Kolti, . . . HIND, MAHR. Muthera ; Maeliri, . . . MAL.

It is used in S. India for cattle, and is the common food for horses in the southern part of the Peninsula. It is a very pleasant-tasted pulse, and is used by the poorer classes as an article of diet in curries. It is grown in fields after the seasons.
DOLPHIN.  

Arthur's quoit or cœtan, near Criccieth, Lanyon quoit and Chûn quoit and others in Cornwall, Stanton Drew quoit in Somersetshire, the Kite-koty or quoit near Maidstone, and the Coity-y-encro in Guernsey, all of them circles of upright stones. Professor Sven Nilsson (On the Stone Age, p. 159) defines the English cromlechs as synonymous to the French dolmens, the Scandinavian döös, and the dyss of Denmark, consisting of one large block of stone, supported by some three to five stones arranged in a ring, and intended to contain one corpse only, several of these dösser being sometimes enclosed in circles of raised stones. Following, however, the nomenclature given by the late Dr. Lukis, we cannot fail to agree in assigning the word to an architectural megalithic structure of one or more chambers, in which category the passage graves may be included. The dolmen (Dol, a table, Moen, a stone) is, as its name implies, of different structure. The cromlechs of Jersey and the adjacent islands partake of the character of the French grottes aux féces, the fairy's grotto, as well as the Gang-rifer, the gallery tombs of the Swedes, the jetestoner or chambered tumuli of the Danes, and the German Hunnenbetafen. In China, the chambered tumuli associated with megalithic avenues have attained their greatest development. The great tomb (the Ling or resting-place of Yung Lo of the Ming dynasty), 30 miles from Pekin, consists of an enormous mound or earth barrow covered with trees, and surrounded by a wall a mile in circumference. In the centre of the mound is a stone chamber containing the sarcophagus, in which is the corpse. This chamber or vault is accessible by an arched tunnel, the entrance to which is bricked up. This entrance is approached by a paved causeway, passing through numerous arches, galleries, courts, and halls of sacrifice, and through a long avenue of colossal marble figures, sixteen pairs of wolves, kelinis, lions, horses, cemals, elephants, and twelve pairs of warriors, priests, and civil officers.

There was a fine called dolmen formerly existing near Nidi-mund, on the Neighgheries, and throughout the Belgaum and Kaladgi collectorates are scattered groups of dolmens, formed of large rough slabs set on edge, with a huge cap-stone laid over them. Many of these are to be seen to the S.W. of Konur, in the Belgaum collectorate. A dolmen was discovered in Gujarat. Barrows occur in Zorapur. Upright monumental stones or menhirs also occur.—Ind. Ant.

DOLMELA MACROCEPHALIA.  

Dupa, Diopa, Panch, Gagal, Gagal, Pakar, Pakar, Pakar, Pakar, Pakar.  

A plant not uncommon from the Sutlej up to the Indus, at from 10,500 to 13,000 feet, often growing on the crests of ridges. The odorous root is locally used as incense offered at shrines and to rajias, and the flowers also are placed in temples on the Sutlej.—Dr. J. L. Stewart.

DOLOMITE. Hwah-ju-shih, CHIN. The Chinese make vessels out of their dolomites. It is also used medicinally internally. Dolomite is a magnesian limestone, used for building and for lithographic stones.—Smith.

DOLPHIN. This name is applied by southern-going sailors both to the brilliant Coryphaena hippurus, Linn., the Dorado or Dolphin proper, of a brilliant blue or purple, and to the Delphinus or
Porpess. The Coryphaena hippurus are caught in the Gulf of Arabia (Bennett, i. p. 8). When swimming about it is of a brilliant blue or purple, gleaming with a metallic lustre on every change of reflected light, and varying in intensity according to the degree of illumination and shade. On being captured, the changes of its tints are most lovely: the bright purple and golden yellow hues change to a brilliant silvery tint, varying back again into the original colours of purple and gold. This play of colours continues for some time, and then settles to a dull leader hue. The Delphinus Perouisi is very rare, and confined to the confines of the Antarctic Ocean. S. of Cape Horn.—G. Bennett, i. pp. 8, 29.

DO-LUNGI of Jalandhr, a fine double lungi or scarf.

DOM or Halī. In the great belt of forest land intervening between the mountains and the plains, are several tribes. One of these, the Dom of the N.W. Provinces, is generally regarded as a remnant of the original stock which the invading Aryans displaced. The huts of the Dom or Halī are on a low range, and the Dom are hereditary bondsman to the Rajputs. They are supposed to be the same as the Dom of the Santal hills, and the Duni, still a well-defined tribe in sub-Himalayan Nepal. Besides the Dom of Garhwal, in the N.W. Provinces, there are wandering and wild tribes, named Bhur, Damak, Kanjar, Kumbh, Nat, Saussi, Gond, the Tharu in the Terai, and the Pasī in Oudh. In Oudh the Dom is a sweeper, carries away the dead, is often a musician, and his wife the Domini, an actress who performs in the private apartments of women. In Kamaon in N.W. India, the Dom is engaged in basket-making and wicker-work. They have dark, almost black skins, and crisp curly hair. The Dom is now dwelling amongst the general population in the north of India, under the Himalayas, and in the Kamaon hills. The Dom were once a considerable tribe, and are still a numerous helot section of the population, being in fact the only inferior class, and ordinary labourer as well as artisan, and, with the Ghasi, in the labour market of Northern India take the place of the Mang, Mhar, Dher, and Parīsh of the south of India, and are rope, fan, basket, and mat makers. Tradition fixes the country of the Dom to the north of the Gogra, touching the Bhur on the east, in the vicinity of the Kanī. So many old forts testify to their former importance, and still retain the names of their founders, as for instance Domdiah and Dommangur. Ramghur and Shumkote on the Rohini are also Dom forts. Buchanan considers that the Dom are the same as the Dom Kutur (Donatikar); also that the Dom expelled the Tharu, and were afterwards expelled by the Bhur. There are several Dom or Domra tribes scattered over the western districts of Oudh, and in Bundelkhand and Sangor. The Mirasi Dom are Mahomedans descended from Bhat, and are perhaps more generally known by the name of Mirusi and Pakhawaj. The name of Mirasi is abbreviated into Mir; and thus the Mir of the Kul Naubāt, after whom Mirapur is called, having assumed this distinguished title, are frequently able to conceal the truth of their being really descended from the Mirasi Soorkh. Domnang, a low caste men in Kanauj, the same as the Dom of Kamaon.—Wilson; Latham; Campbell, pp. 16-125; Buchanan, Eastern India; Elliot; Dalton, Eth.

DO-MALA. HIND. A large well, furnished with a double 'barth' or Persian wheel.

DO-MAT. HIND. Soil, part clay and part sand, hence the name 'two-earths,' Do-mat.

DOMBA, Dombar, or Domar, an athlete, rope-dancer, or gymnast, known in the south of India as the Kollati or Kheilti. The young women are models of physical strength; they are not restrained from intercourse for money. They are in small claims in the centre and south of the Peninsula of India.

DOMBA GASS. SINGH. Calophyllum inophyllum, L. Donba-keena is C. Mooni, W. Domba oil, a fragrant fixed oil obtained from the seeds of the Alexandrian laurel, C. inophyllum. It is used for burning and for medicinal purposes. C. inophyllum has a soft, coarse, open-grained, light wood, bearing a strong resemblance to inferior Honduras mahogany, takes a good polish, and presents a pretty curied pattern; perhaps not a very durable wood, at all events in its native country.—Ex. 1851.

DOMBEYA, a genus of plants belonging to the natural order Sterculiaceae, inhabiting the East Indies, and the Isles of France, Bourbon, and Madagascar. The bark of D. spectabilis is made into ropes in Madagascar. D. angulata, Cac., is the D. tiliefolia, Roeb. It is a shrub, native of Bourbon, with rose-coloured flowers like those of the common censer, leaves coriace; flowers in corymbs, of a pretty rose colour. D. palmata, Cac., a shrub; leaves palmate, resembling the common censer-oil plant. Flowers, in large terminal corymbs, rose-coloured, appear in September and October. D. tomentosa is a small tree with rose-coloured flowers.—Eng. Cac.; Riddell; Roeb.

DOM, in architecture, is generally in use for tombs of the Indian Mahomedans. The ceilings and domes of Hindu and Jain temples are sometimes of singular excellence of execution. In the western side of India, the cupped arch and the dome characterize the Mahomedan style of architecture, but that of Ahmadabad and that of the Bijapur buildings present points of difference. Perforated stonework occurs in old Hindustani buildings, but specimens remarkable for the variety of beautiful design are chiefly to be found in the Mahomedan works of the 16th and following centuries at Ahmadabad and Aurangabad.

DOMETT, a thin kind of flannel, of which the weft is of wool, the warp of cotton.—Paulnier.

DON, D., a botanist, author of the Prodromus and Flora Nepalesins.

DON. HIND. A cloot-crusher drawn by two bullocks; the driver stands on the implement when working it. The kulu is used after the cloot-crusher for levelling the ground, and, with the scart remover, it is used for covering the seed after it is drilled in. The kuri is a drill used in rice cultivation.

DONA. HIND. A leaf folded up as a cup.

DONABEW, a town in Pegu, taken by the British 20 April 1825.

DONDRA HEAD, the most southern point in Ceylon, is in lat. 5° 55' N., long. 80° 33' 40'' E. It is low and projecting, and covered with coca-nut trees. Extensive ruins are still on it of an ancient and once celebrated temple, which was sacked and destroyed by the Portuguese in 1587.
DONDU.

DONDU. Hand. Tubes of the corolla of the Nyctanthes arbor-tristis.

DONG. Buot. The wild yak of Tibet, the fiercest of all known ruminants. It will rarely allow a man to escape alive if it can come up with him. It is generally hunted on horseback, the great aim being to detach one from the herd. It affects open grassy places, and goes in large herds. Its favourite pasturages being ascertainment, in the midst of these the hunters, who are on foot, throw up circular enclosures of stone a few yards apart, the hunter taking up a position in one of them. When a dong is within shot, the hunter, having fired at him, instantly quits his enclosure for another; for as soon as the animal hears the shot, whether he has been hit or not, he, guided by the smoke of the discharge, rushes furiously on the enclosure, and commences knocking it to pieces. When the hunter gets another shot at him, he retires again from his shelter to a fresh enclosure, and so on till he has killed his game.

The ordinary size of the dong is four times that of the domestic yak; it is black all over, having occasionally a white streak in the forehead. The horns of a full-grown bull are said to be three feet long, and the circumference must be immense.

The common mode of describing it is to throw out the elbow, bring the fingers to the ribs, and point to the circle thus formed as the size of the base. It is used by the grandees of Tibet at marriages and other feasts, when it is filled with strong drink, and handed round to the company. Nothing more commendatory of the host's joviality can be said, than that he regaled his guest out of the dong's horn. The horns so used are finely polished, and mounted with silver or gold and precious stones. It is common in a Tibetan gompa (lamaserai) to see a stuffed dong standing in front of the image of Maha Kali, at whose shrine the animal is thus figuratively sacrificed; axes and other instruments of sacrifice are ranged around the image. Strange that Buddhists should preserve this feature of Hinduism in their places of worship; not more so, however, than, as Hirs describes, that a llama should nearly go into fits on seeing a louse from his tunic imbedded in the fur of his coat. If, in the whole of his countrymen and co-religionists are among the greatest sufferers and consumers of animal food in the world.

DONGAR. MAHR. A hill, high ground. Dongar-Koli. MAHR. A lawless tribe inhabiting the hilly country. Dongargaon, on the plateau of Chhattisgarh, has a great grain market.

DONGI - DONGI of Maccasar, Echenhama spinosa; Plocaria candida, Nees; the agar-agar of commerce.

DONI of the Coromandel coast is a huge vessel of the ark-like form, about seventy feet long, twenty feet broad, and twelve feet deep, with a flat bottom or keel part, which at the broadest place is seven feet; and at the fore and after parts of the vessel it breaks into ten inches, which is the siding of the stem and stern post. The fore and after bodies are similar in form amidships. Their light draught of water is about four feet, and when loaded, about nine feet. These rude unhappily vessels trade from Madras and the coast to the island of Ceylon; and many of them to the Gulf of Mannar, as the water is shoal between Ceylon and the southern part of the continent. They have only one mast, with a long sail, and are navigated from land to land, and coastwise, in the fine season only.

DONJONG-MA, a goddess of the Guaro.

DONKEY, the ass, the Gaddha of the Urdu-speaking races of India. Gaddha-ka-hal, Hind., literally a donkey's plough. Before the British domination in India, it was not uncommon to yoke donkeys in a plough and drive them over the ruins of a captured fort, as a mode of showing supreme contempt for the vanquished enemy. The furrows thus raised were levelled by the hohe-kimye, or iron harrow. Horace says (Carm. i. 16):

"Exitio graviter
Stravere, et alia urbibus ultime
Stetere cause, cur perirunt
Funditus, imprimenterque muris
Hostile aratrum exercitus insolens;"

indicating this mode of wreaking vengeance.

It has been in especial favour with Eastern nations, and was practised by Chengiz Khan and Timur with unremitting severity. Hence the common expression, 'I shall saw barley where you now stand,' as in the vault of the bandit minister Kurrug II., at p. 185 of Popular Poetry of Persia. Gaddha-karanchar, literally to seat upon a jacksass, is a punishment formerly known by the Arabic word Tash'hir, publication, celebration, which is rendered by Golius, 'Per urben duo jussit sotonem in exemplum; fere asino aut cameloo impositum.' In India delinquents are never placed on camels, but often paraded on donkeys. — Elliott's Supp. Gloss.

DONKIA, a pass in N. Sikkim, in lat. 27° 56' N., and long. 88° 48' E. The crest is 18,466 feet above the sea. Tibet is visible from its summit. Dr. (Sir) J. D. Hooker described the grand but most desolate panorama beheld by him from the summit of this pass.

DONWAR, a clan or tribe of the Bhunhaar, found in considerable numbers in the districts of Mirzapur, Azimgarh, and Jaunpur; a few also reside in Gorakhpur. Some of them are called Rajputs, and others Bhunihars. The Donwar clan of Rajputs was once in possession of the Doab pargana, in the Ghazipur district. This tract has passed in the course of the wealthy and influential raja of Donon, but they continue to inhabit the soil in large numbers. — Skerrington.

DOOLEY, a litter with wooden framework and canvas; a coarsely made palanquin, light and airy, generally used for carrying the sick.

DOOM or Donum, the gingerbread palm-tree, exclusively inhabiting Upper Egypt, especially the neighbourhood of Thebes, whence it is named Cucifera Thebica. Its stem forks two or three times, thus assuming the appearance of a Pandanus. The fruit is about the size of an orange, angular, irregularly formed, of a reddish colour, and has a spongy, tasteless, but nutritious rind. The albumen of the seed is hard and semi-transparent, and is turned into beads and other little ornaments. Gertner, described it under the name of Hyphaene coriacea. It is known in Egypt as the gingerbread tree, because of the resemblance of its brown mealy rind to that cake. — Eng. Cyc.

DOONA. (Lobelia amabilis.) A genus of great trees of Ceylon. D. affinis occurs between Ratnapura and Galle, at no great elevation; D. congestiflora, Tinneya-gass, Stign., at Hikkaduwa and Pasdooen Corles; D. cordifolia, at no great elevation
DOONA TRAPEZIFOLIA.

DORDONIA

by

D. an it but when who Persia, a stranger as all flowers, rich and this creamy colour of the doors, open the former colour may be, for the ornamentation is chaste and suitable. For the most part, the fabrics of Benares are not intended for ordinary washing; but the dyers and securers of India have a process by which the former colour may be discharged from the fabric, and it can then be re-dyed. The gold or silver work is also carefully pressed and ironed, and the piece is restored, if not to its original beauty, at least to a very wearable condition. The do-pattas of Pytum, and indeed most others except Benares, are of a stronger fabric. Many of them are woven in fast colours, and the gold thread—silver is rarely used in them—is more substantial than that of Benares. On this account they are preferred in Central India and the Dekhan, not only because they are ordinarily more durable, but because they bear washing or cleaning better. In point of delicate beauty, however, if not of richness, they are not comparable with the fabrics of Benares. Scarfs are in use by every one,—plain muslins, or muslins with figured fields and borders without colour, plain fields of muslin with narrow edging of coloured silk or cotton (avoiding gold thread), and narrow ends. Such articles, called sehla in India, are in everyday use among millions of Hindus and Mahomedans, men and women. They are always open-textured muslins, and the quality ranges from very ordinary yarn to that of the finest Dacca fibres. No attire is so becoming to the brighter form of woman as the Hindu-stani garments in silver and do-patta. A woman in European attire gives the idea of a German manikin; an Asiatic in her flowing drapery recalls the statue of antiquity. These scarfs are manufactured at various places, and of different qualities and colours. Those brought from Benares, always with gold and plain lace borders of different sorts, are sold at from 25 to 350 rupees each. Those of Aurnce, in the collectorate of Chingleput, with borders of yellow cotton, are priced at from 2 to 7 rupees each, and those of Oopada in Rajamundry are woven with white borders, and are sold at from 1 to 3 rupees each.—Dr. Watson; Tr. of Hind. ii. p. 37.

DOH, a tribe of Rajputs, some of whom, mostly converted to Mahomedanism, are settled in the Alligur district, also about Banda and Sungur. Time has destroyed all knowledge of the history of this branch, but they must have been of importance in the time of the last Hindu sovereign of Tanjore, Prithi-raj, as he commemorated a victory over them by a tablet. Before the emigration of the Bir Gjur race, they were the chief proprietors of Aligur, and a remnant of them now exists in Dubhace, Atrowlee, Coel, Shikarpur, and Burun.—Elliot; Tod; Wilson.

DOH. HIND. Land ploughed twice; from Do, two. When ploughed three times, it is called Toor; when four, Chawur.

DOH, the modern village Atbeia, the first place towards Jaffa; it is the Castel Pelegroino of the crusaders, and the Dor of the Hebrews. Its columns and butresses are a confused mass, stretching into the waves, over which the surf breaks. Dor is the celebrated city of Cesarea.—Skinner’s Journey, i. p. 96.

DOR, with the Tamil and Telugu races, is equivalent to the Mangal words, Sir, Master, and to the Arabic Sahib. Both in its singular and plural forms, Doravdru, Doraguru, Dorawaru, it is a title of the Konda Dora, the chieftains in the mountains of Gunmur. Dorasani is a lady.

DORADINA, a group of fishes of the family Siluride stenobranchi.

DORADO, one of the dolphins.

DORAN, woolen cloth of Kulu.

DOEDONIA ORIENTALIS, hop wood of Nor-
DORYANTHES AMMONIACUM.

Folk Island, does not attain to more than a foot in diameter, and is principally used for veneering and in turning ornaments.—Keppel's Ind. Arch.

DORYANTHES AMMONIACUM. Don.

Ferula orientalis. | Ferula ammoniaca, Vec.
Fesbuk, | Arab. | Simugh teratees, | Pers.
Ooshak, | Pers. | Simugh buss-shirin, |

A glaucoous green plant belonging to the natural order Umbellifera, with a perennial root, and large leaves two feet long. It is a native of Persia, in the plains of Yezdeghast and Kunnishna, in the province of Irak, and near the town of Jezud Khat, in very dry plains and gravelly soil, exposed to an ardent sun. It is one of the plants which yield gum ammoniacum, but it is probable that several plants yield this, as well as the other gum-resins of the order Umbellifera. This gum-resin is imported into Bombay from the Persian Gulf, and re-exported to different countries. It is obtained by incisions in the plant, and occurs in two forms,—first, in voluminous masses of yellowish colour, enclosing white almond-like tears, the whole being of plastic consistency, and very impure; secondly, in tears of irregular form, white or yellowish, opaque, rather solid, agglutinated or distinct, compact, brittle, of glassy fracture, and free from impurities. Its odour is faint and peculiar, taste sweetish and then bitter. It is partially soluble in water, ether, alcohol, alkaline solutions, and acetic acid. Its medical effects are similar to, but less powerful than, asafoetida. It is principally employed as an expectorant in the chronic catarrh and asthmata of old persons. It is also applied externally as a warm and stimulating plaster.—Linley, Pl. Med.; Eng. Cyc. p. 395; Todd, in Phil. Mag., 71, p. 384; Powell, p. 354. See Asafoetida; Ferula Persica.

DORÉ or Dori, a village in New Guinea, in which the houses are built on posts in the water, and are reached by long rude bridges. The houses are low, in the form of a boat bottom upwards. In Dori the Papuans are called Myfore. They are about 5 feet 3 inches high; few attain 5 feet 6 inches. They wear their crisped hair its full length, and generally uncurled for, which gives them a wild, scared appearance. The men, not the women, wear a comb. The beard is crisp. The forehead is high and narrow; eyes large, dark brown, or black; nose flat and broad; mouth large, lips thick, and teeth good; few have regular features, and most are apathetic. Theordinary men wear a waist-cloth made of the bark of a tree, called Mar, which is wrapped round the waist and passed between the legs. Women wear a short sarong to the knee, generally of blue cloth. Men and women tattoo their bodies by pricking them with sharp bone, rubbing in lime, black. The Dori people are seafarers, fishers, and traders, and are expert swimmers and divers. Their palms have outriggers, and are excavated from the trunk of a single tree. Their food consists of millet, obi, maize, a little rice, fish, and logs' flesh, and fruits; sago is imported in small quantities. Theft is considered a grave offence. The people resemble the Ke and Aru islanders. Their colour is a deep brown, often approaching closely to black. On a pole near the stem of the boat, they place, chiefly for ornament, a thin, finely-carved red-and-white striped plank, sometimes furnished with the image of a Papuan's head, with out-sticking hair, made from gomuti fibres or cassowary feathers. Respect for the aged, love of their children, fidelity to their wives, are traits which reflect honour on their disposition. Chastity is held in high regard, and is a virtue which is seldom transgressed by them. A man can only have one wife, and is bound to her for life. Concubinage is not permitted. Adultery is unknown amongst them. They are generally very fond of strong drink. They do not make any fermented liquor, not even sugoweer or tuak. Kidnapping is general in these countries. The hillmen, or Arfak, of the interior are generally black, but some are brown. Their hair, though always more or less frizzly, is sometimes short and matted. The Arfak mountains are about ten thousand feet high, and inhabited by savage tribes. Birds of paradise are brought to Dori for sale from Amberbaki, about a hundred miles west.—Wallace, ii. p. 184; Earl, p. 71; Journal of the Ind. Arch., June 1852, pp. 312 to 317.

DORI. HIND. An iron straining ladle to separate the curd for cheese-making.

DORI. HIND. A kind of edging or narrow braid in gold and silk. Dorihar, a pellor selling laces and thread; also a Sivai mendicant living partly by the sale of thread. Dori means a small twine or thread, or cording edge, used for the edges of clothing, similarly to nakki, gota, kinari, patti, mandil, and zarzi.

DORIA. HIND. A cotton fabric coloured with fine stripes, one of the piece goods of India.

DORIA. HIND. A leash, consisting of a bunch of silk thread fastened at the ends; they are often worn to suspend charms or amulets, etc., round the neck.

DORIAN, the fruit of the Duroio zibetinum, it is pleasant-tasted, but of most offensive persistent odour, though the natives of Amherst and Malacea are very fond of it. They cost three rupees each at Moulmein.

DORID.E, the sea-lemon family of molluscs. Doris Barnardi, Keluwart, has rich colours. D. exanthemata, Keluwart, of Formosa, Labuan, and Borneo, is nearly eight inches long, of an olive green colour, and is the largest known nudibranch. Its bosses and tuberules render it an unpleasant object.—Cooli.

DOR-KHAIR. HIND.? A tree of Chutia Nagpur, with hard, yellowish-red timber.—Cat. Cat.

DORO. SIND. Unripe fruit of Capparis aphylla, Roxb.

DORVILLE and Grueber, two Romish missionaries who travelled in Tibet in the middle of the 17th century. They crossed China from Pekin by Sin-gan-foo to Teshing, reached the Koko-nor and thence passed into Tibet, and thence the sources of the Hoang-ho, and, crossing those of the Yang-tze-kiang river, they came on from thence to India, through the valley of Nepal by Khatmandu and Hetounda to Patna on the Ganges, where Dorville died.—Prinsep, Tibet, p. 14.

DORYANTHES EXCELSA. A lofty tree Amaryllis, the gigantic lily of the sea-coasts of Australia between Sydney and Botany Bay. It is a magnificent plant, with a lofty flowering spike. The height of the flowering stem is from 10 to 20 feet, bearing a terminal cluster, 12 to 14 inches in diameter, of crimson flowers. In the beautiful Ilhawara district it is found in the greatest perfection, and attains its full magnitude and beauty about the mountain ranges. It is supposed that

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a useful flux could be made from the fibres of its leaves. It should be introduced into India.—G. Bennett, p. 340.  

**DORYMA BERDMOREI.** Blyth. A genus of the Geckokidæ found in Mergui.  

**DO-SUTI.** Hodyson's soil.  

**DO-SAD.** In Bengal, a low caste employed as executioners, to remove dead bodies, as village watchmen and messengers. In Bengal and Behar, the work of labourers is done by Bhuï, Rajjwar, and other aboriginal tribes, but Chandal, Dosad, Hari, Bhumali, are names of other low-caste races; the Bhimnal, in Bengal, being the lowest or swearer class. The Dosad of Behar used to make frequent predatory excursions into Lower Bengal. The Dosad men are of strong build, and as tall as the average Hindu; have coarse features, but with nothing of the Chinese or Negro about them. They have adopted the worship of the demon Rahu, who is supposed to cause eclipses by his periodic attacks on the sun and moon, in revenge for having had his head cut off by Vishnû. The Dosads not only adore him, but claim to be his descendents, from their upper class from Rahu and his wife, and their second class from Rahu and his wife's maid-servant. In their mode of worshipping their founder, the faithful ascendants formed of sword-blades, so placed as to bring the sharp edge in contact with the foot as they ascend. The Dosads aspire to higher employment than the Ghissi and Dom. They serve as village watchmen, and sometimes as police and as court runners. They live freely.—Wilson; Dalton, Ethnol. of Bengal, p. 326; Campbell, p. 129.  

**DO-SALI.** A caste who make leaf cups and leaf platters in India.  

**DO-SHAHI.** Hind. A soil part clay and part sand; soil of two kinds mingled, hence its name, Do-mat, or two earths. See Do.  

**DO-SHAH.** Hind., Pers. Double shawl, shawls being always worn double by the natives of India. The ordinary do-shah is a pair of shawls, made with the 'kinara' or border at different sides, so that one may be worn over the other for thickness as well as appearance, for then both sides show as right sides. See Do.  

**DO-SHAM.** See Polyandry.  

**DO-SHA.** Hind. A kind of coarse white cotton cloth. The words mean double thread. Dosa-shí, Sina-shí, Celut-shí, literally, two-thread, three-thread, four-thread; kinds of cotton cloths. Káde and Púrum are other kinds.  

**DO-SUTI.** A kind of coarse white cotton cloth. The words mean double thread. Dosa-suti, Ins-suti, Char-suti, literally, two-thread, three-thread, four-thread; kinds of cotton cloths. Káde and Púrum are other kinds.  

**DOSALI,** a cotton fabric with broad stripe in blue and orange.  

**DOSS,** from Dasa, Sansk. A slave; a surname of many Hindu races in India, as Jangdamba Doss. It has the same reference to the Hindu gods as the Abd or Ghulam of the present Arabs, slave to the Almighty, as Abd-ul-Kadar, Abd-Allah, slave of the Almighty, slave of God. This name among Hindus is borne chiefly by men of the Banya caste, by Byragi fakirs, and occasionally by Kayasthas and Brahmanas. It is usually coupled with the name of some deity, as Esvara Doss, Shib Doss, Narayan Doss, etc., to imply subject of some religious tutelary god.  

**DOST ALLI** in 1732 became nawab of the Karnatic, in succession to his uncle, Saadat Allah. He gave one daughter to Chanda Sahib, and one to Murtuza Ali, and he appointed Chanda Sahib to be his diwan. His succession had been disputed by Nizam-ul-Mulk, who in 1730 incited the Mahrattas to invade Areqot, and Dost Ali met them at Ambur on the 20th May 1740, and fell in battle.  

**DOST MAHAOED KHAN** was one of the youngest sons of Sirfaraz Khan, a Barakazi sirîr, slain by order of Shâh Zaman at Kundahar in 1709. The mother of Dost Mahomed Khan was a Junsirir family. He succeeded Shah Shuja as ruler in Afghanistan. After a youth and early manhood passed in strife with his brothers and the Sadkozi family, in 1826 he became supreme at Kâbul. His youth had been neglected; but he now reformed, made a public acknowledgment of his past errors, taught himself to read and write, studied the Koran, abandoned the use of strong liquors, became serulously abstemious, plain in his attire, assiduous in his attention to business, urbane and courteous to all. He was a just ruler, and was supreme at Kâbul until political difficulties induced the Indian Government, at the close of 1838, to resolve on displacing him and replacing the deposed king, Shah Shuja-ul-Mulk. This was done on 7th August 1839, after a series of successes and severe reverses, in one of which an entire brigade of British was destroyed by climate and the sword. It was the greatest disaster that ever befell the army of India. He was driven from his throne by the British in 1839, was taken prisoner to Calcutta, but was ultimately restored. He brought Kâbul and Kundahar under his rule; when close on eighty years of age, he wrested Herat from Persian influence, and on the 9th June 1863 he died, twelve days after which he had taken the city by storm. He left sixteen sons, who continued for many years a civil war of succession.—Musson's Journey, iii. p. 17.
DOW.

DOW.

A dealer in cloth, a pedlar of the Banya tribe.

DOWA, a province of Nepal bordering on Kamaon. Dung is one of its subdivisions, and the Dung people are called Dimul.

DOUBLE-HEADED SNAKE of Ceylon, Uropelia grandis.

DOUBLETS, in jewellery, a thin slice of a pure gem cemented over a paste of same colour; or a face of faceted crystal cemented over a pure gem.

DOUL, Hind. The ridge or small embankment dividing irrigated fields. Doula or Doula, a boundary. In many English games, as in barley-break, and occasionally in football, the limits are the doula, and the football is said to be douled.

DOUR, surrounded by the Waziri hills, and adjoining the western border of Bunnu, is the small valley of Dour, inhabited by a distinct race, and containing about 8000 inhabitants. This valley originally belonged to the Dourani kingdom. It was, together with other outlying tracts, formally ceded to Ranjit Singh by the tripartite treaty of 1858; but afterwards, in 1847, the British relinquished all claim to it on behalf of the Sikhs. The people of Dour more than once expressed a wish to come under British jurisdiction, but the offer was not accepted. During the treaty negotiations of 1855, the amir's representative urged that the valley once formed an integral portion of the Dourani empire, and that his highness now wished to take it, provided that the British did not claim any title. The Government replied that the British did not desire to assert any claim, nor to interfere with the amir, if he chose to reannex it to his kingdom.

DOUR or Dour, Hind., in military life in India, is a sudden expedition against an enemy.

DOURABA. — A village watchman.

DOURANI, a name of the Abdali tribe, given to them by Ahmad Shah, Saddozai, on his ascending the throne in A.D. 1747, he designating them Dar-i-Dauran, Pearl of the World. They are also called Sulimani, from a district of which, the Tobeh Maruf, they formerly came. The Dourani are an agricultural, but chiefly a pastoral race, who term their summer and winter ground Ailak and Kishlak, dwelling in their coarse black camlet tents, called Kishli, the same with the Kora-uli of the Turks, and Sah-ch deficient of the Persians. The Dourani country is about 400 miles long, and, except in the north-west, the general breadth is from 120 to 140 miles. It is bounded on the north by the Paropamisus mountains, inhabited by the Aimak and Hazara; on the west it has a sandy desert of various breadth, beyond which, on the south-west, it has Scistan, and a desert which separates it from Baluchistan; its southern boundary is formed by Shorawak and the hills of Khajah Amran, which separate it from the Tarin and Kak; and on the east it has no natural boundary, but joins to the lands of the Ghilzai, into which the valley of Urgheasan, part of the Dourani territory, runs for a considerable extent. The number of Dourani tribes are nine, — Mak, Khugian, Barakzai, Popalzai, Alikuzai, Achakzai, Nurzai, Alizai, and Ishakzai. The Popalzai are the largest. In person, the Dourani are stout and well-natured, many of them being above the standard of the Indo-Germanic races of Europe. Some have round and plump faces. With others the countenance is strongly marked, and with most the cheek-bones are prominent. When a family is by itself, the men and women eat together; few restraints are put upon the female, and her influence is considerable. The Dourani tribes, all but the Achakzai, are religiously given, but not intolerant. They are of the Sunni sect. Their national dance, called Attan, is danced almost every evening, with songs and tales to accompany it. Their language is a mingling of tales, and fond of the chase. The Dourani, especially the men of Kandahar, have a powerful love of country; the Dourani is rarely a merchant or adventurer. They are hospitable and brave, and are the most important of the Afghan tribes.

DOW, ALEXANDER, translated and published Ferishta's History of the Mahomedans of Asia.

DOW, a vessel employed in the trade between the Red Sea, the Arabian coast, the Gulf of Persia, and the W. coasts of India, in Cutch, Gujerat, and Malabar. They were also used in the Persian Gulf for the purpose of war and piracy. They are always manned by Arabs. The Arab dow is of about 150 to 250 tons burden by measurement; grab-built, with 10 or 12 ports; about 85 feet long from stem to stern, 203 feet broad, and 11½ feet deep. These vessels have a great rise of floor, are calculated for sailing with small cargoes, and are fully prepared, by internal equipment, for fighting, with decks, forecastles, ports, poop-deck, etc., like a vessel of war; many of them are sheathed, on 2½ inch plank bottoms, with one-inch board, and a preparation of chumam and oil, which is called galgal, put between the planks and sheathing-board, causing the vessel to be very dry and durable, and preventing the worm from attacking the bottom. The worm is one of the greatest enemies in India to timber in the water, while the white ant is as much so out of it. On the outside of the sheathing-board there is a coat of whitewash, made from the same articles as that between the sheathing and planks; which coat is renewed every season they put to sea. These vessels have generally one mast, and a lateen sail; the yard is the length of the vessel aloft, and the mast raking forward, for the purpose of keeping this ponderous weight clear in raising and lowering. The tack of the sail is brought to the stern-head, and sheets aft in the usual way; the halliards lead to the taffrail, having a pendant and treble purchase - block which becomes the backstay, to support the mast when the sail is set; this, with three pairs of shrouds, completes the rigging, which is very simple, the whole being of coir rope. Several of these vessels were fitted as brigs after their arrival in Arabia, and armed by the Arabs for cruising in the Red Sea and Arabian Gulf, as piratical vessels; they are also the class of vessels of which Tipu Sultan's fleet of 1100 consisted. When armed, they were too powerful for the Bombay marine brigs, when weak and unsupported. The large dows make generally one voyage in the season to the southward of Arabia, taking advantage of the N.E. monsoon, and the S.W. to return with an exchange cargo. They generally bring dates, fruit, preserves, Shiraz wine, and horses, and take back rice, coir, canvas, coconuts, oil, timber, daumer, etc., various articles of
cloth of the country manufacture; and from Bombay, European articles of every description. The trade of the western coast of India is very great in those vessels; extending from Allippee, the southernmost port on the coast of Malabar, up to Bombay; but all the trade to Bengal is carried on by ships which are called country traders, from the Gulf of Persia and Arabia. The Arabs usually navigate their ships to Bengal in perfect safety, and with great skill.—Edge ; Malcolm.

DOWLASHWARAM, a small town in the Rajamundry taluk of the Godavery district, in lat. 9° 38' N., long. 81° 43' 55" E., and 7252 inhabitants.

DOWLAT, Ar. Wealth, prosperity. Umr - dowlat ziadah, May your days and your prosperity be prolonged. Dowlah, a state, a kingdom. The fifth title amongst Indian Mahomedans, as Suraj - ud - Dowlah, Rashid - ud - Dowlah. In Southern Arabia, a dowlah is a governor of a province, equivalent to the Turkish title of Pasha. Doulat - ul - Aliyah - al - Usmaniyyah, the Ottoman Government.

DOWLATABAD, in lat. 19° 57' N., long. 75° 14' E., in the Dehkan, 9 miles N.W. of Aurangabad. Mean height of the village, 1721 feet. Its fortress, which was first known as Deoghour or Deogori, consists of a conical greenstone rock, the base of which is scarped to a height of 120 feet from the ground. The upper conical part is reached by means of an opening at the base of the scarp, which gives admission into a low narrow passage, hewn out of the solid stone, and opening into a large chamber or vault that has been excavated in the interior of the hill. From this vault a vapp or gallery, gradually sloping upwards, and also excavated in the solid rock, winds round the interior. It has a height and breadth of 12 feet, and terminates above in a recess on the top of the rock about 20 feet square. At the base of the rock is a ditch, which is crossed only at one place, and by a causeway on which only two men abreast can walk, and defended on the side next the rock by a battlemented building. Outside the ditch is a minaret 100 feet high. Its position is commanding, and it has from the most ancient times been a stronghold of the rulers in that part of India. It was the capital of Ram Deo, a prince of so great power that the Mahomedans looked on him as king of the Dehkan. Ala - ud - Din, nephew and general of the emperor Firoz, in 1294 swept across the Nerbadda with an army of 8000 men, and presented himself before Deoghour, which he captured. He entered into negotiations with the raja, and, besides money and jewels, obtained the cession of Ellichpur and its dependencies, and the raja was further to pay tribute annually. On his return, he was met by his uncle Firoz, whom he assassinated, as he was being patted by him on the cheek. Kamala Devi was the wife of the raja of Gujerat, and was celebrated as the flower of India. On the fall of Nerwalla, the capital of Gujerat, her husband became a fugitive, and Kamala Devi was taken prisoner and carried to Ala - ud - Din's harem, and, attracted by her beauty, wit, and accomplishments, he made her his queen. Her fascinations soothed that savage Pathan in his moodiest hours, and influenced him to a lenity hitherto unknown to him. Her daughter, Dewala Devi, had escaped with her father. Her reputation for beauty equalled that of her mother, and the son of Ram - deo, the raja of Deogori (Dowlatabad), had long sued for her, but her father, proud of his Rajput origin, would not accept a Maharrat, even though a prince. Kamala Devi, however, having expressed to Ala - ud - Din a wish to be joined by her daughter, Ala - ud - Din sent a strong army, under a general, to bring Dewala Devi to Dehli. In this extremity her father accepted the Maharrat prince, and sent off his daughter to Deogori under an escort, but the escort was overtaken, the fair maiden seized and carried to Dehli; when Khizr Khan, the son of Ala - ud - Din, married her. Their union was very happy, and the poet Khusru praised them. In five years from the death of Ala - ud - Din, the throne of Dehli was filled by Kafur, a converted Hindu, who filled the capital with Hindu troops, put out Khizr Khan's eyes, put to death all the survivors of Ala - ud - Din's family, and transferred Dewala Devi to his own zenana.—Wilson; Bridges, The Nizam.

DOWRY, the mahr, dota, and jahaz of the Mahomedans. According to the law of Moses, Exodus xxii. 16, Deuteronomy xxii. 29, 1 Samuel xviii. 25, Hosea iii. 2, the dowry of Hebrew women was from thirty to fifty shekels. In Arabia and in Egypt, the mahr of the Mahomedan woman is a sum commensurate with the bridegroom and bride's condition in life. In India it is usually an ideal amount, fabulously large, the object being to prevent divorce, which in India is almost unknown. The dowry of the Mahomedans is the gift of the bridegroom to the bride agreed to during the marriage ceremony. It is her own money, and must be paid unless she waive her claim to it. This the Mahomedan wife often does, sometimes at the point of death, in order to prevent her children claiming it from their father.

With Hindus, the practice as to money gifts at marriage varies. With some races the bridegroom pays money or cattle for his bride; others receive a dowry with the bride. Menu (Institutes, ii. 51, and ix. 93) mentions both customs. In the N.W. Provinces, among the agricultural races, the bride's father gives a dowry with his daughter. It is the poverty originating from this which led the Rajputs to murder their infant daughters.—Elliot.

DOWSON, JOHN, M.R.A.S., author of a classical dictionary of Hindu mythology; editor of the posthumous papers of Sir Henry M. Elliot, K.C.B., which the latter had begun under the title of The History of India as told by its own Historians. It reached eight volumes, and occupied eleven years—1867 to 1877.

DOWYAT. BURM. A timber tree; maximum girth 3 cubits, maximum length 18 feet. Found abundant, but always inland, all over the country, at Amherst, Tavoy, and Mergui. When seasoned, floats in water. It has a soft, bad wood, useless except for elephant bells.

DO-ZANOBYTHINA. HIND. To kneel on both knees.

DOZUK. HIND. Hell; the seven hells.

DRACENA, a genus of plants belonging to the Liliaceae, known as the dragon trees. Several species, mostly shrubs, grow in the East Indies, China, Madagascar, the Archipelago, Bourbon, the coast of Africa, and Canary Islands. One mentioned by Sir G. Stawton had a diameter of 12 feet at 10 feet from the ground. The singular
red - leaved Chinese iron - wood, a species of *Dracaena*, is chiefly noticeable for its long red leaves. D. draco is the indigenous dragon tree of Orotava in Tenerife. It affords a similar secretion to that of Calamus dracon. The tree at Tenerife measured 17 feet in diameter. It was known to be a very ancient tree in 1406, and was destroyed by a gale in 1867. - *Roxb.*: "Williams’ *Med. Kingd.* p. 279; *O’Sh.*

**DRACAENA ATRO-PURPURA**. *Roxb.*

Kwon len nat, . . BURM. | Kwon len phyo, . . BURM.

Two or more species of the dragon tree, resembling small areca palms, are seen in Burmese compounds, but the most prominent is this one, with dark purple leaves. — *Mason.*

**DRACAENA TERMINALIS.** *Wild.* A native of China, the Eastern Archipelago, and Pacific, whose root is called Ti; is considered valuable in dysentery and diarrhoea. The plant is a signal of truth and of peace in the Eastern Archipelago.

A sweetish juice is expressed from its roots, and afterwards reduced by evaporation to a sugar.

M. Gauchard mentions that in the Sandwich Islands generally an intoxicating drink is prepared from this root, to which the name *Ava* is often applied, as well as to that made with the roots of *Piper mysticking*. The root is employed in cooking in the Fiji Islands; it weighs from 10 to 40 pounds.

**DRACO,** a genus of reptiles of the family Agamidae: —

*Devi. teniopierus*, *Genth*, Tenasserim.
*Devi. volaria*, *Linn.*, Singapore.
*Devi. macrostigma*, *Genth*, Malacca, Tenasserim.
*Devi. Dussuniere*, *D.*, and *B.* Madras.

**DRACOCEPHALUM CANAIRENSE,** the balm of Gilead, has pretty blue flowers. The scent only lies in the leaves, and the plant seldom exceeds 18 inches in height. Other species have large splendid blue flowers. D. Royceannum yields Tukhm-Balungu of Bombay, and is largely cultivated for medicinal purposes. — *Riddell.*

**DRACONTIUM POLYPHYLLUM.** L.


Grows in the Konkans, on the western coast of India, at Bombay, and in Japan. Its root, after having undergone certain preparations to subdue its acrimony, is supposed to possess antispasmodic qualities, and is considered valuable in asthmatic affections; given to the quantity of 12 or 15 grains in the course of the day. It is also in native use in hemorrhoids. In the dry condition in which it occurs in the bazaars, it has, though faint, a smell not unlike that of musk. — *Ains. Nat. Med.* p. 73.

**DRAGOMAN.** *Turk.* An interpreter; a dialectal change of the Arabic word, *Tarjumman*, a translator.

Since the 7th century B.C., from the time of *Psammeticus* I, this as a distinct class has existed in Egypt, and is mentioned by Herodotus.

**DRAGON.** Dragons are supposed by the Chinese to inhabit the four oceans, Tonquin Gulf, China Sea, Eastern Sea, and Yellow Sea; and in A.D. 1725, the emperor *Yung Ching*, in the second year of his reign, conferred titles and other honours upon the four dragons, *Hsin Yuen*, *Ching Hung*, *Shang Tai*, and *Telu Ming*.

**DRAGON BOATS** of China are long and narrow, capable of holding forty to eighty men. They are employed by the Chinese in their boat races and rowing matches, in the festival of the fifth day of the fifth month, usually falling in June, and seemingly relating to the summer solstice. During this festival, three - cornered dumplinges of glutinous rice are eaten. They are wrapped up in the large, long leaves of the phragmites reeds.

**DRAGON CANE,** a kind of rattan, strong, springy, and much valued. They occur both light and dark coloured. A variety with a soft bark is called Manila dragon cane. — *See man.*

**DRAGON FLY** of Ceylon, *Euplaca splendens,* See Insects.

**DRAGON RIVER,** or Kew-lang-keang, takes its rise in *Yu-nam*, on the frontiers of *Se-fan*, lat. 27° 29' N. It is at first named *Lam-tsan*; but towards the south, and before it enters the Laos country, it is called *Kew-lang-keang*, or Nine Dragon River. In Chinese territory it runs a long distance through a magnificent valley. In lat. 16° N. it bends more to the west, and enters Cambodia, having previously been augmented by a large tributary. It then drains the whole length of that country, and falls by three embouchures into the sea, in about lat. 9° 34' N. In many places the river is very deep; at others there are rocks, sandbanks, and shallows, which obstruct navigation. The river runs through *Yu-nam*, and there are cities upon it. In Laos villages adorn its banks, and in Cambodia the principal population is near it. It traverses eighteen degrees of latitude; it forms at its mouth an alluvial deposit second only to the *Yang-tssiang* or *Hoang-ho.* — *Roxb.*

**DRAGON'S BLOOD.**

*Sang-dragon,* . . *Fr.* | *Kandamuraga rattan,* *Tan.*
*Drachenbluth,* . . *Ger.* | *Khadga-mrugam netru,* *Tel.*

The dragon's blood gum-resins of commerce are obtained from several plants. The fourth Chinese name means dragon's spittle gum-resin. As sold in China, it is the product of two plants, probably the *Pterocarpus dracon*, the other the *Calamus dracon*. Pterocarpus dracon wood when first cut presents no marks of redness, but in a little time red drops begin to exude from the wood. In about ten minutes these become hard and clear, and are collected. All the dragon's blood obtained, now, in the market is said to be from several species of Calamus, *C. petræus* (Lour.), *C. rudentum* (Lour.), *C. verus* (Lour.), and *C. dracon* (Willd.), natives of Hindustan, Cochim-China, the Moluccas, Borneo, and Sumatra; but Linnaeus reckoned the last three mere varieties of the *C. rotang* (Linn.). Its ripe fruits are covered with a reddish-brown dry resinous granular matter, which is obtained by beating or threshing the fruit in little baskets. Within the Archipelago, the principal place of production is Jambi, on the N.E. side of Sumatra. The plant is not cultivated. The collectors are the wild *Kubu*, who dispose of it to the Malays at a price not much exceeding a shilling a pound. The best kind imported into Europe in recent years is manipulated by the Chinese. The causes of the male plant used in former times to be exported to Batavia, and very probably formed the 'true Jambes,' con-
memorated in The Spectator as the most fashionable walking-sticks in the reign of Queen Anne. The secretion of the fruit constitutes the best of jur-nang, or dragon's blood. A second and rather inferior kind is produced by heat, and by bruising the fruit, from which the natural secretion has been removed. The third, and most inferior, seems to be the refuse of the last process. It is perhaps doubtful whether it is ever procured from the plant by incisions. Quantities of this drug are annually sent from Banjer Mising in Borneo to Singapore and Batavia, and thence to China, where it is much prized. In Europe it is a constituent of some tooth-powders and tinctures, but is chiefly used for colouring spirit and turpentine varnishes. It is found in the market either in oval drops, or in large and impure masses composed of several tears. That which is good is of a bright crimson when powdered, and if held up to the light in masses, is semi-transparent. It is often adulterated with other gums. It is sent to the Chinese market in reeds, at 15 to 35 dollars per pukul, principally in native vessels. The price in China varies from 80 to 100 dollars a pukul, after purifying and refining.—Paullker; Morrison; Marsden's Sumatra, p. 159; Crawford; Seaman on Palma.

DRAGON'S BONES, the Lung-kh of the Chinese, is fossil ivory. Dragon's teeth are the Lung-chi of the Chinese. Dragon's teeth and dragon's bones, in use in Chinese medicine, are the fossil teeth and bones of various extinct mammalia of the tertiary series of rocks, such as those of the Rhinoceros trichorhinus, also those of a mastodon, an elephant, a horse, two species of hippotherium, a species of stag, and the teeth of a large carnivorous animal. The fossil teeth of the Stegoton Sinensis, Ocen, are likewise so called; as are also the horns of the Chalicotherium Sinense, Soinhoe, the teeth of Hyla Sinensis, the molars of mastodons, elephants, sheep, stages, and teeth of two species of hippotherium.

DRAMA. Mahomedan countries have never cultivated the drama, if we except the passion play of Hasan and Hussain in Persia and Bombay, which is rather a religious commemoration than a drama proper. The older Semitic literature contains no dramatic pieces at all. With Hindu, and with the Buddhists of Burma and China, the drama has formed a branch of literature, and the performances have been an amusement to the people from the most ancient times. In 1877, 102 dramas were published in India; and there were 196 works of fiction and 697 works of poetry. The dramas of the Hindus intermingle various dialects, as also prose and verse.

The dramatic performances in South India possess many interesting features which would be creditable to the actors of any nation. The histrionic art is extensively practised, but so seldom receives substantial encouragement from the purses of its admirers, it is matter for astonishment that it should have made any progress at all. The graceful modulations of voice, expression of emotion, propriety of gesture,—not to speak of the grotesque dress, and the peculiar music of the performers,—rivet a stranger's attention.

Like every other trade or profession in India, acting is confined to one particular caste, though it sometimes happens that outsiders join a dramatic corps, which has no settled abode, but strolls from place to place in quest of employment. Tanjore has the largest number of these itinerant actors, and their performances are reputed to be the best in South India. Female performers are rarely to be met with in districts farther south; but their places are easily supplied by young men of effeminate appearance, who have been trained from infancy to speak in a high-pitched, melodious tone of voice. The actresses of Tanjore have their headquarters at Ammapet, in the same district. They frequently play a heroic part on the stage, by personating kings, rajas, and heros, especially in a popular historical play called Markandian's Nadjagam. Both men and women sometimes assume strange and objectless characters, to the infinite gratification of their patrons. About the year 1870, in Madras and Bombay, dramas were largely acted, and attracted crowds.

In the Tamil drama, anything like the scientific divisions of tragedy and comedy, and the nice classifications which obtain among more advanced nations, is nowhere to be seen. Nor have the Hindus been more careful in dividing a play into acts and scenes, or in portioning out a piece among different actors.

The best of the ancient Sanskrit dramas have been translated into Tamil and other languages. Portions of these are sometimes acted at weddings. When a nautch is given, a drama is occasionally performed. Generally, however, in the south of India, the drama is humble as to its attendants, owing, perhaps, to the extraordinary fondness of the people for the splendid processions, and night festivals of temples, and their ceremonies. The Toy Cart was written in Sanskrit about the commencement of the Christian era. In it the king is dethroned for tyranny, by a cowherd. In the Uttara Rama Charitaya, the great monarch Rama is compelled by the clamours of his people to banish his beloved queen. The Pui of the Burmese is their favourite dramatic display, and no festival is deemed complete without a performance of this kind; the entire race are passionately fond of them. The puppet-shows or marionettes, however, is their legitimate high art drama. The figures are 2 to 3 feet high, and they are cleverly moved on a bamboo platform, animals, ships, supernatural beings; and the dialogue is in polished language.—Forbes, p. 152; Imj. Gaz. ; Ward, iv.

DRAPER, COLONEL, a British officer, who entered into a literary contest with Junius. He conquered Manilla, and in 1758 joined Colonel Lawrence in the Kurnak, and gave able assistance at the battle of Wandiwash.

DRAPER, MRS. ELIZABETH, the Eliza of Sterne, was born at Anjengo. She was married to Mr. Draper, one of the E. I. Company's Council at Surat. Her monument of marble is in a Bristol church.

DRAS, a district of Ladakh. Kargil, a little fort, is situate near the junction of the Zakut and Kartse, which flow into the Dras a short way to the north of Kargil. In the upper part of its valley, the sites are marked by descending glaciers and beds of snow. The Dras people in general are very ugly; their dress consists of a round pork-pie cap of black material, fitting close to the head, a thick woolen gown reaching midway beyond their knees, with their legs wrapped in bandages of cloth; and boots,
reaching above the ankles, of the same material, with under-surfaces covered with leather. The females muffle up in piles of clothing; and both sexes frequently clothe themselves in sheep and goat skins, with the woolly side inwards.

DRAUPAD. MAJN. SANSK. Evil eye.

DRAUPADI was the daughter of Drupada, king of Panchala. She was put forward by her father as the lady of the swayamvara, or tournament. Famed for her beauty, many rajas and chieftains attended her swayamvara, where she promised to accept the competitor who should on the first attempt shoot an arrow through the revolving chariot, and hit the eye of the golden fish beyond. Karnata wished to try, but Draupadi declared she would not wed with a charioteer's son. Sisupala, raja of Chedi, and Jarnaadhara, raja of Magadha, both tried the bow, and failed; but Arjuna, one of the Pandava princes, bent the bow, and hit the mark, and Draupadi threw the garland around his neck, and accepted the five brothers as her husbands. Yudhishtra was a gambler, and staked and lost the throne of Indra to Durvodyana; to recover it, he hazarded the beautiful Draupadi. By the loaded dice of his foe, she became the goli of the Kaurava chief, and underwent great hardships till the destruction of the Kaurava. Duhssana, one of the Kaurava princes, dragged her by the hair into the public court; Bhima vowed to kill him for the insult, and drink his blood, and he fulfilled his vow. Draupadi, as the polyandric wife of the Pandava princes, is the heroine of the Mahabharata. Yudhishtra and Draupadi have been defied, and their feast is named the procession of fire, because in Hindu legend she is fabled to have passed every year from one of her five husbands to another, after a solemn purification by that element. In the Bhasha language, her name is written Dropti. In the drama of the Enchanted Fruit, when Draupadi and her five husbands entered the garden, Arjuna, with an arrow, brought down the fruits.

'Light-pinioned gales, to charm the sense,
Their odorif'rous breath dispense:
From Bela's pearl'd or pointed bloom,
And Malty rich, they steal perfume.
There, honey-scented Singarlar,
And Jyly like a rising star,
Strong Cheampa, darted by Caudew,
And Mulsery of paler hue,
Cayora which the Ranies wear
In tangles of their silken hair,
Round Hubal flow'rs, and Gul-cchein,
Dye'd like the shell of Beauty's Queen,
Sweet Mindly pressed for crimson stains,
And sacred Tulus, pride of plains.
With Seowy, and embalming rose,
Their odours mix, their tints disclose,
And, as a gemmed tiara bright,
Paint the fresh branches with delight.'

Wb. H. of 1; Sir W. Jones, xiii. p. 217.

DRAVEE. The Bombay group consists of fifteen or twenty islands in all, viz. the island of Bassein, about 30 miles to the northward of that which gives the cluster its name; Dravce and Versova, just off the shore of Salsette; Salsette, by much the largest of them all; Trombay, conspicuous for the mountain called Neat's Tongue, which attains the altitude of 1000 feet; Bombay itself, united on the northward to Trombay and Salsette, as these are united to each other by bridges and embankments, and to the southward, Old Woman's Island; Colaba; and Henery and Kenery; with little rocks and islets of lesser note and name.

DRAVIDA, a class of the Brahmanical tribes called the five Dravir, comprehending all those of the Peninsula, or Dravira, Karna, Telinga, Gujerata, and Maharatta.

DRAVIDIAN, a term which Dr. Caldwell applied to the peoples and to the vernacular tongues of the great majority of the inhabitants of Southern India. Dravida is used in Sanskrit Brahmanical writings as an ethnological and philological term. Menu mentions the inhabitants, the Dravida, as out-castes and barbarians, i.e. not in communion with Brahmans. In the Brihat Sanshita of Varaha Mihira, A.D. 404, Dravida is described as divided into Chola, Pandya, Kerala, Kannatuka, Kalinga, and Andhra. Philologists identify the words Arava, Dravida, and Tamil, and identify these with the Penterigian tables, and the Limyrics of Ptolemy. The eastern and southern parts of the Peninsula of India, from the Vindhy mountains and the river Nabadda to Cape Comorin, appear to have been peopled from the earliest period by different branches of one and the same race, speaking different dialects of one and the same language; and scattered offshoots from the same stem are to be traced still further to the north and to the west, as far as the Rajmahal hills and the mountain fastnesses of Baluchistan. Their line of route to their present sites, and the time of their advent, are alike unknown. They are generally supposed to have streamed through the passes of the Himalaya, and also from the west side of the Indus. Ferguson, however (Ind. and E. Arch. p. 12), says if they came into India in historical times, it was not from Central Asia, but from Babylonia, or some such southern region of the Asiatic continent. Mr. Logan is of opinion that a Negroid race once occupied S. India; and Professor Huxley has expressed the opinion (J. Eth. Soc. 1869) that the Dravidian, Tamil, and the Australian are the same race.

Researches into the families of language to which the spoken dialects belong, and the existing physical peculiarities of the several races, permit the belief that India and the island parts of South-Eastern Asia were peopled long prior to historic times, and that a succession of races, or of branches of the same human family, have entered India, and in some instances become amalgamated with or been dispersed amongst the prior occupants, or have pushed them further in into less peopled or less fertile districts, or amid forest and mountain tracts. In India proper, from the Himalaya to Cape Comorin, even yet, every village and every hamlet have small bodies of predial slaves, who, though possessing certain minor agricultural and civil rights, are not allowed to purchase lands, are compelled to reside outside the village walls, and are prevented quitting the locality, for they furnish the only free labour available for the work of the field. On this point Chevalier Bunsen mentions (Iepport, Brit. Association, 1847) that throughout Asia, the two great nations, who once centred the one in the Altai and the pasture land towards the Himalaya, the other having its centre in the Ural mountains, appear in Asia as the subdued or primary element, as the subdued substratum
of Iranian civilisation, and that the aboriginal languages of India, which attained their full development in the Dekhan dialects, belong to that stock.

Professor Rask of Copenhagen, and Dr. Caldwell, have given the opinion that the Dravidian languages are to be affiliated to the Scythian, Turanian, and Baltic group of tongues. The Turkish, Finnish, Hungarian, and Japanese languages, though in many particulars distinctly Turanian, have become still more inferential than the Dravidian.

A general name for all these peoples has not been fixed upon. In India they have been called the Mongolid, pre-Aryan, non-Aryan, Tamulian, Turanian, and Scythian. Several of them in India are highly civilized, with cultivated languages; others, though without a literature, and even predatory, form large nationalities; while there are many broken tribes, dispersed, homeless wanderers, or dwelling in forests. In Southern India the Mongolid races are in two great branches, the Dravidian and the Kolarian; and their number has been estimated at 45,670,000, of whom the interior Mahrattas, Kolt, Bhil, Santal, and Gond constitute 12,000,000. The Dravidian section speak the Tamil, Telugu, Canarese, Kodaga, Malealum, Tulu, which are cultivated tongues, and the other branches in the south speaking uncivilized Dravidian languages are the Kurumbars, Badaga, Irular, Toda, Kota, Male-Arisar, Ramusi, Gond, Khand, Khond, or Khu; while the branches in the Central Provinces, Chutia Nagpur, and Bengal, are the Oraon, Gadaba, Rajmahali, Bhumia, Bhumiar, Binjia or Binjhar, Kaur or Kaurava or Kaurani or Raj Kaur, the Kochh, Rottia, Sabar or Savara, and Yerkala. Of these uncivilized branches, the Kurumbar and Irular speak Tamil, the Badaga, Kota, and Toda have dialects of Canarese, the Male-Arisar use Malealum, and the Ramusi Yerkala have a Khu.

The people of the coasts of Ceylon are Dravidian of the Tamil stock. Those of Kandy, with their habits of polyandry, would seem to be allied to the people of Coorg, and Ceylon has a few wild races, the Galaveya, Rhodia, and Vedda, in the forests and unfrequented parts.

In the Peninsula of India, where the Tamil is spoken in the extreme south-east by about ten millions of souls, the Tamil-speaking people are, generally speaking, a dark-coloured and short-statured race, energetic, fiery, quarrelsome, but not vindictive. Most of them have embraced Brahmanism, but largely mixed with a devil and hero worship, and the worship of the local deities called Amman. Where the Telugu is spoken by about 15 millions of people, on the eastern side of the Peninsula, the people are a taller and fairer race than the Tamil, many of the more northern of them being equal in stature to the Aryan Hindus of the north. They are more Brahmanical than the Tamilians, and are as energetic as the latter, though less restless. The people who speak Canarese are about five millions in number, chiefly in the centre of the Peninsula; they are a tall and singularly graceful, dark, almost black race, with whom something akin to polyandry is very prevalent. The Malealum language in the south-west of the Peninsula is spoken by about 2½ millions, and the Tulu, on the seacoast somewhat to the north, by about 150,000. The people of Coorg and Mysore speak a Canarese dialect; and on the Neighherry Hills are the Kota, the Toda, the Badaga, the Irular, and other small tribes. In the interior of the Peninsula are Kod tribes, and the Khand, Kru, also Dravidian, who are estimated at half a million of souls, and the Bhils are of Kanesh and the Nerbadda, and Rajputas.

Dravidian aborigines deal in demonology, fetishism, frantic dances, bloody and even human sacrifices. They are, however, superior to the Aryan Hindus in freedom from disqualifying prejudices. but inferior to them in learning, and all its train of appliances.

Of the broken tribes, the Mhar, Dher, Madera, Hariar, Holaru, Toty, and Pariah are labourers and village servants; the Mang, Chakili, and Madaga are leather-workers; the homeless Korawa, Yerkah, Bhatu, Domar, are mat-makers, fowlers, and athletes; the hillmen, Kotah, Toda, Irular, Kurnurbar, Kadar, Chenchewal, Male-Arisar, Saora, Khand, Gond, Juanga, are in the mountains and forests and hilly country from the Peninsular Bengal to Central India, Behar, and Benares, to Cape Comorin, and from the Western Ghats inland to the Bay of Bengal.

Of all the Dravidian tongues, no two are so nearly related to each other as to be mutually intelligible to the people who speak them, except in the simplest and most direct manner. In the cultivated Dravidian tongues, Sanskrit words are not at all, or but very rarely, employed. Tamil was the earliest developed of all the Dravidian idoms, is the most copious, and contains the largest portion of indubitably ancient forms. It includes two dialects, the classical and colloquial, the ancient and the modern, called respectively the Shen Tamil and the Kodum Tamil, which so widely differ, that they may almost be regarded as different languages. The Tamil race is the least scrupulous or superstitious, and the most enterprising and persevering of Hindus. They swear wherever money is to be made, or wherever a more apathetic or a more aristocratic people is waiting to be pushed aside. The majority of the Hindus found in Pegu, Penang, Singapore, and other places in the east, where they are known as Klings, are Tamilar. All throughout Ceylon, the coolies in the coffee plantations are Tamilar; the majority of the money-making classes even in Colombo are Tamillars; and ere long the Tamilians will have excluded the Sinhalese from almost every office of profit and trust in their own island. The majority of the domestic servants and of the camp followers in the Madras Presidency are Tamillars; and the coolies who emigrate to the Mauritius and the West Indies Islands were largely Tamil. Includ- ing the Tamil people who are residing in the military cantonments and distant colonies, and those in Mysore, south Travancore, northern Ceylon, and excluding all Mahommedan, Telings, and Brahman residents of the Tamil country, who amount to at least ten per cent. of the whole population, the people who speak the Tamil language were estimated by Dr. Caldwell at about 10 millions.

Tamil was the language of three ancient dynasties of whom we have record,—the Chola of Tanjore and Combaconum, who were settled...
on or near the Cauvery and Coleroon rivers, and who, as some suppose, gave their names to the Coromandel or Cholamandal coast; the Pandya, whose capital is now occupied by the inhabitants of Madura; and the Chera, who ruled at Kerala on the Malabar coast.

Tamil is now spoken throughout the vast plain of the Karnatic, or country below the Ghats. From Cape Comorin to Pulicat, 30 miles north of Madras, and inland from the Bay of Bengal to the Eastern Ghats, it skirts Mysore on all its eastern frontier, is also spoken in the Bara Mahal, Salem, and Combaconum, meeting with the Malaalam at the great gap of Palghat. It is spoken also on the western side of the Ghats from Cape Comorin to the neighbourhood of Trivandrum; also in the northern and north-western parts of Ceylon, where it is the turned settlements prior to the Christian era, and from whence they have gradually throut out the Singhalese. Mr. Taylor is of opinion that Tamil was cultivated in its purity in the ancient Pandiya kingdom.

Teling is the Andhra of Sanskrit writers, a name mentioned by the Greek geographers as that of a nation dwelling on or near the Ganges. Until lately, Europeans termed the people and their language Gentoo, from a Portuguese word signifying heathens or gentiles. In respect to antiquity of culture and glossarial copiousness, it ranks next to the Tamil in the list of Dravidian idioms, but it surpasses all of them in euphonic sweetness. Telugu extends from Chanda, where it meets the Mahratta, and from Ganjam and Chitacole, where it intermixes with Urya, along the coast to Pulicat on the marine lagoon 30 miles north of Madras, where it meets the Tamil. At Vizagapatam, which is 120 miles south of Gauja, Telugu is the sole language spoken. On this line of coast two monarchies formerly existed, the Andhra and Kalinga; both, apparently, were enterprise races with a seafaring people, and it is doubtless from the name of the latter dynasty that the Burmese and Malayas derive the appellation of King, by which they distinguish all people from India; and the Tagi of the Delta of the Irawadi are supposed to have been Teling. The Kalinga dynasty appear to have gained great possessions to the westward, as, at the time of the Mahomedan conquest, Warangal, seventy miles N.E. from Hyderabad, was considered by them the capital of Telingana, including then the eastern part of the nawab of Hyderabad’s dominions, all the modern districts of Ganjam, Nellere, and Cuddapah, and much of the lands north. The most westerly spot at which Telugu is spoken is the small town of Murkundah, about 30 miles west of Beiler, and it reaches its western limit running from north of Madras, as far as the eastern boundary of Mysore, which it follows up to that of the Canarese country, thus including in its extent the Ceded Districts, Kurnool, the greater part of the Hyderabad Dominions, and portions of the Nagpur country and Goundwana. In ancient times it seems to have been spoken as far north as the months of the Ganges. This appears both from the geographical limits which the Greeks have assigned to the territory of the Andhra or northern Telugu dynasty, and from many of the names and places mentioned by Ptolemy tip to that delta being found to be Telugu. The Telugu people are undoubtedly the most numerous branch of the Dravidian race, although the Tamil surpass them in enterprise and in that self-reliance which supports them in their emigrations. Including the Naik or Naidoo (Nayaka), Reddi, and other Telugu tribes settled in the Tamil country, who are chiefly the descendants of those soldiers of fortune by whom the Pandiya and Chola kingdoms were subverted, and who number not less than a million of souls, and including also the Telugu settlers in Mysore, and the Telugu inhabitants of the Nizam’s territory and other Native States, the people who speak the Telugu language may be estimated to amount to at least fourteen millions. Tamil and Telugu roots are in the great majority the same; but peculiarities in inflection and dialectic changes have so modified the modern tongues, that they differ from each other as much as Portuguese from Spanish, Irish from Welsh, Hebrew from Aramaic, and Hindi from Bengali.

Canarese, properly the Kannada or Karnataka tongue, is bordered by the Tamil and the Telugu on the east. It is spoken throughout the plateau of Mysore, and in the south-western districts of the Hyderabad territory as far north as the village of Murkundah, about 30 miles west of Beder. Also it is much spoken in the ancient Tulava country on the Malabar coast, now long designated as Canara, a name which it acquired from having been subjected for centuries to the rule of Canarese princes. But, in Canara, the Malealam, the Konkani, and the Tulava are also spoken, though less extensively than the Canarese. The Canarese writing characters differ slightly from the Telugu, from which it has been borrowed, but the characters used for Tamil, Malealam, and Telugu are quite distinct from each other. The ancient Canarese character, however, entirely differs from that of the modern Telugu, and the Canarese language differs even more widely from the Telugu than it does from the Tamil. There is an ancient dialect of the Canarese language current, as well as modern, the latter differing from the former by the use of different inflexional terminations. The ancient Canarese dialect, however, has no connection with the Sanskrit character to which that name has been given, in which, viz. the Hala Kannada, many very ancient inscriptions in the Mahratta country as well as Mysore are found. The Imperial Gazetteer gives nine millions as the number speaking Canarese, but this number seems to be excessive. In the Hyderabad country, Canarese, Maharati, and Telugu are spoken. The Urdu or Hinulustani language used there is merely known as a linga fravara by the Mahomedans, to the Hindus and kayasthis from Northern India, and to the resident population. The Coorgy or Konkana language is spoken in the small principality of this name, lying on the Western Ghats, and has hitherto been regarded as Canarese, modified by the Tulu. But Mr. Moegling states that it is more nearly allied to the Tamil and Malealam than to the Canarese.

Malealam or Malearnma is spoken along the Malabar coast on the western side of the Ghats or Malealam mountains, from Cape Comorin to the Chandagiri river, or, more strictly, perhaps to Nileshwar (Nileswaras), where a Nair raja, conquered by Hyder, formerly ruled; from the vicinity of Mangalore, where it supersedes the Canarese and the Tulu, to Trivandrum, where it begins to be
superseded by the Tamil. The people speaking it in the states of Travancore and Cochin, and in the provinces of Malabar and Canara, were estimated by Dr. Caldwell at two and a half millions. The language, however, on the Malabar coast is rapidly being driven out by the Tamil. The people who speak it are, of all the Dravidian races, the most exclusive and superstitious, and shrink with most sensitiveness from contact with foreigners, though their coast, more than any part of India, has been in all ages visited by the traders of other lands,—by Phenicians, Greeks, Jews, Syrian Christians, and Arabs, and the three last even formed permanent settlements amongst them. They shrink even from their own people, retreating from the great roads, cities, and bazaars as eagerly as the Tamil flocks to them; and the Malealaman-speaking race are to be found isolated with their families in their high-walled parambams, even in parts where the lines and centres of communication are entirely occupied by the more enterprising Tamil people, whose language, too, seems gradually pushing the Maleala aside. Their reticent character has led to the less scrupulous and more adroit Tamil occupying all the lines of communication, and monopolizing the greater part of the public business and commerce of the Malabar states. In a short time, perhaps, the Maleala will only be known in the hilly tracts or jungle fastnesses. Maleala was separated from the Tamil before the latter was cultivated and refined, and from Brahmanical influence has since had an infusion of Sanskrit words more than in any other Dravidian language, the fewest of such being in the Tamil.

Tulu or Tuluva is the last of the cultivated Dravidian tongues. It is an idiom which holds a position midway between the Canarese and the Maleala, but more nearly resembling the Canarese. Though once generally prevalent in the district of Canara, it is now spoken only in a small tract of country in the vicinity of Mangalore, by not more than 100,000 or 150,000 souls. It has been encroached upon by many languages, and is likely soon to disappear. The Tuluva has a strong resemblance to Maleala, though the Tuluva-speaking races are unable to understand their Maleala neighbours.

The Toda, properly the Tudo or Touda, language is that spoken by the Tudadam, a primitive tribe on the Nilgerry Hills, believed to be the aboriginal inhabitants. They do not at present number more than from 300 to 500 souls. It is supposed that they never could have exceeded a few thousands; but they have diminished through opium-eating and polyandry, and at a former period the prevalence among them of female infanticide. The Toda is the oldest indigenous speech on the hills.

The Kota is the language of the Kotar, a small tribe of hill-craftsmen inhabiting the Nilgerry Hills, and numbering about 1000 souls. It is a very old and rude dialect of Canarese, and their ancestors on the hills are supposed by Dr. Caldwell to have been at some ancient time a low-caste tribe who had fled thither to escape persecution. They are exceedingly filthy in their habits, are addicted beyond all other low-caste tribes to the eating of carrion, and have been generally shunned by Europeans.

Budoga or Budagar speak an ancient but organized dialect of the Canarese. They are immigrants from the north, and are the most numerous class of the inhabitants of the Nilgerry Hills.

The Irular, people of 'ignorance or darkness,' speak a rude Tamil.

The Curb, or Cernubar, or Kurnumbar, are nomade shepherds, who occupy the denser, deeper jungle, where they are occasionally stumbled upon by adventurous sportsmen, and the smoke of whose fires may occasionally be seen rising from the lower gorges of the hills.

The Gond is the language of the indigenous inhabitants of the northern parts of the extensive hilly country of Gondwana, of the northern portion of Berar, and which includes the greater part of the Central Provinces. Mr. Dribeg compiled a very complete grammar and vocabulary of the Mahadeo dialect of the Gond language; and the dialect of the Stonee Gonds was noticed in a paper by Mr. Manger. The Urunon and the Male or Rajahamul dialects are close to the Gond and Sinhalese.

Khard is the language of a primitive race, who are supposed to be allied to the Gond. They inhabit the upper parts of Gondwana, Gumsar, and the hilly ranges of Orissa, and their horrid rites of offering young people in sacrifice (see Meriah) is generally known. The two people by whom the Gond and Ku languages are spoken are supposed to amount to 500,000 souls. 30,000,000 of Dravidians are British subjects, and the remainder are under the Native States of Mysore, Hyderabad, Travancore, and Cochin, and in this enumeration there has not been included the idioms of the Ramusi, the Yerkaul, the Korawa, the Birijar, the Beder, the Male-Arisar, and other wandering, predatory, or forest tribes. The Birijaram speak a dialect of the Hindi; the Ramusi, and the majority of the Korawa, a patois of the Telugam. The tribes inhabiting the hills and forests of the Gonds, on the contrary, have the most pure and uncorrupted dialects of the language of the contiguous plains. The Male-Arisar, hill kings, the hill tribes inhabiting the Southern Ghats, speak corrupt Maleala in the northern part of the range, where the Maleala is the prevailing language, and corrupt Tamil in the southern, in the vicinity of Tamil-speaking districts.

Kol and Saora dwell towards the north of the Gond and Khard, in Central India; their languages contain Dravidian words, but they belong to a totally different family of languages.

Uronon, the language of the Ura people, is an uncultivated idiom, and contains many roots and forms belonging to the Kol dialects, but so many Dravidian roots of primary importance, that it is considered by Dr. Caldwell as having originally been a member of the Dravidian family of languages.

The Mal, Paharia, or Rajamhal, contains so many Dravidian roots of primary importance, though it also contains a large admixture of roots and forms belonging to the Kol dialects, that Dr. Caldwell considers it also had originally belonged to the Dravidian family of languages. It is spoken by the Malei, or inhabitants of the hills. A brief vocabulary of the words of the tribe inhabiting the Rajamhal Hills, in Central India, as contained in vol. v. of the Asiatic Researches, and Mr. Hodgson’s more complete collections, prove the idiom of this tribe to be in the main Dravidian.
DREAMS.

The Brahu language, spoken by the mountain-dwelling women in the kingdom of Kelat in Baluchistan, contains some Dravidian words, and a considerable infusion of unquestionable Dravidian forms and idioms. Considered as a whole, this language is supposed to be derived from the same source as the Panjabi and Sindi; but it unquestionably contains a Dravidian element, derived from a remnant of the ancient Dravidian race having been incorporated with the Brahu. The discovery of this element beyond the Indus has been thought to prove that some of the Dravidians, like the Aryans, the Greek—Scythians, and the Turkic—Mongolians, entered India by the north-west route. The Brahu language extends from Shawl in the north to Jaisalmar in the south, and from Kohak in the west to Harand in the east.—Professor Huxley in Jo. Etnu. So.; Bunsen in Rep. Brit. Assoc.; The Rev. Dr. Caldwell's Comparative Grammar; Sir Erastus Perry's Bird's-eye View.

DREAMS.

Song, Révé... Fr. Sogno... It. Terra... G. Sogno... Sr. Khab, Nazr, Manam, Parmash, Bogh, Dush... Turk.

Dreams are to a great extent still trusted to in Eastern countries. Their earliest remarkable dreams related were those to Abraham, of the captivity, and at Bethel, of the ladder (Genesis xxvii. 12). Subsequently were Joseph's dreams and those of Pharaoh (Genesis xi. 5, xii. 1), Gideon, and Saul (1 Samuel xxviii. 6). Belief in dreams is intimately associated with the lower forms of religion. To the savage they have a reality and an importance which we can scarcely appreciate. During sleep the spirit seems to desert the body; and as in dreams we visit other localities and even other worlds, living as it were a separate and different life, the two phenomena are not unnaturally regarded as the complements of one another. In Madagascar the people pay a religious regard to dreams, and imagine that their good demons or inferior deities tell them in their dreams what ought to be done, or warn them of what ought to be avoided.

Throughout the Christian world and in Great Britain, as elsewhere, it was customary for young women on St. Agnes' eve to endeavour to divine who should be their husbands. This was called fasting St. Agnes' fast. They took a row of pins, pulling one out after another, saying a paternoster, and sticking one pin in the sleeve. Then, going to rest without food, their dreams were supposed to present the image of their future husbands. In Kent's poem, entitled The Eve of St. Agnes, the custom is thus alluded to:—

'They told her, how, upon St. Agnes' eve,
Young virgins might have visions of delight,
And soft adorings from their loves receive,
Upon the honeyed middle of the night,
If ceremonies due they did aright,—
As, supperless to bed they must retire,
And couch supine their beauties lilly-white,
Nor soft adorings from their loves receive,
Of Heaven with upward eyes for all that they desire.'

DREDGING. In this process, note the numbers of species, the kinds usually found associated together, the number of living specimens of each, the number of dead, the average age of the specimens, whether young or adult. The general state of the animals, and particularly as to the maturity of the eggs, or if they have been recently shed. The kind of ground. The depth; the distance from land. The zone, whether the littoral zone, the space between high and low water marks; the laminarian zone, or that in which the large tangles or sea-weeds flourish, and extends from low-water mark to a depth of about 15 fathoms; the coralline zone extends from the depth of 15 to 50 fathoms; sea-weeds are scarce, but corallines abound in this region; the coral zone is that in which deep-sea corals are found, and where the depth is beyond 50 fathoms. Any particular currents. What are the molluscs found between tide-marks on the neighbouring coast? Is mud present, and if present, of what kind? Are any dead shells common, of which no living examples occur? What sea-weeds are found? Do the different specimens of the same species vary much in size, form, or colour?—Ed. N. Phil. Journ. pp. 206, 207, July 1806.

DREN. Hind. An inflated buffalo skin, used by swimmers in torrents.

DREPANA. Several caterpillars, the Aloe lactines, the Orgyia Ceylanica, Euprocotis virgincula, the Trichia exigua, the Narosa conspersa, the Lambadas graciosus, and a species of Drepana, are found on the coffee trees, but they do not cause much injury. Another caterpillar, however, though fortunately not abundant, the Zeneza coffee, destroys many trees, both young and old, by eating out the heart. It resembles the caterpillar of the goat-moth of England, and is as thick as a goose quill. It generally enters the tree 6 or 12 inches from the ground, eating upwards. The sickly drooping of the tree marks its presence.

DREPANOGLATHUS SALTATOR, Jordon. An ant which moves by jumps of several inches.


DRESHUK. In front of the Gurchani and Lishari hills, and between Harand and Mithunkote, are plains inhabited by the Dreshuk.

DRILL. In Bundelkhand the drill-sowing is called bob, jaya in Dehli, and water in Rohilkhand and the Deccan. In some parts of N. India the drill is attached to the plough, in other districts it is a detached instrument. Bansa or orna, Hind., is the channel down which the seed descends. The mouth into which the seed is cast is called daura or mal, also weira in N. India. The drill of Cuddapah is of bamboo. It is a small wooden hopper, perforated with holes, which communicate with bamboo tubes below, into which the seed is fed by the hand. The seed, passing down through the bamboo tubes which radiate from the hopper, is deposited in the soil by a number of similar perpendicular tubes which are fixed in a beam of wood which receives the lower ends of the bamboo, which communicate with the hopper. The whole is very effective.


DROGUE AMERE. Fr. A compound of mastice, fruckincense, myrrh, aloes, and kreat.

DROK or Brog are Bhot occupants of the central part of Northern Tibet. Mr. Hodgson supposes them a mixed race, joined together for predatory purposes.

DROMAIUS. A genus of birds belonging to the order Cursores or runners, fam. Casuaricidae, Casauri galactus, and C. Bennetti, Dromius Novae Hollandiae, and fam. Struthionidae, Struthio camedus.
Casuarius Bennettii, Gould, is the cassowary of the island of New Britain, near to New Guinea, where it was called Mooruk. The height of the bird is 3 feet to the top of the back, and 5 feet when standing erect. Its colour is rufous mixed with black on the back and hinder portions of the body, and raven black about the neck and breast. The loose wavy skin of the neck is beautifully coloured with iridescent tints of bluish purple, pink, and an occasional shady green, quite different from the red and purple caruncles of the Casuarius galeatus. The feet and legs, which are very large and strong, are of a pale ash colour. This bird also differs from the C. galeatus in having a horned plate instead of a helmet-like protuberance on the top of the head; which callous plate has the character of and resembles mother-of-pearl darkened with black lead. The form of the bill differs considerably from that of the emu, Dromaius Nova Hollandiae, being narrower, larger, and more curved, and in having a black or leathery case at the base. Behind the plate of the head is a small tuft of black hair-like feathers, which are continued in greater or lesser abundance over most parts of the neck. The egg is about the same size as that of the emu, and is of a dirty pale yellowish-green colour. It utters a peculiar chirping, whistling sound, but also a loud one resembling that of the wood Moork. Casuarius galeatus, the helmeted cassowary of Ceram only, is so called from the horny helmet which surmounts the head. Its rudimentary wings consist of five long bristles like blunt porcupine quills. It runs swiftly with a bounding motion. It feeds on fruits, birds' eggs, insects, crustaceans, and tender herbage. It is a small bird strong, standing 5 or 6 feet high, and is covered with long, coarse black hair-like feathers. The head has a large horny casque or helmet, with bright blue and red colours on the bare skin of the neck. These birds wander about in the vast mountain forests that cover the island of Ceram. The female lays three to five large and beautifully shagreened green eggs, on a bed of leaves. The male and female sit alternately on the eggs for about a month.

The Dromaius Nova Hollandiae rises to a height of 7 feet. It lives on fruits, eggs, and small animals.—Crawford's Dictionary, p. 84; London Athenæum, No. 1512, 12th Dec. 1857, p. 1551; Wallace, ii.; Dr. Bennett in a Letter, dated Sydney, 10th Sept. 1857.

DROMEDARY, Camelus dromedarius, Linnaeus.

DRONA, son of the rishi Bharadwaja. He was a Brahman, but he had been taught military science by Parasurama. His offers of service were unceremoniously rejected by raja Drupada, on which he visited Hastinapura, where he was appointed teacher of the five Pandu princes. He instructed them to rein the steed, to guide the elephant, to drive the chariot, launch the javelin, hurl the dart, wield the battle-axe, and whirl the lance. He took an active share in the battle of Kuru Kshetra; on the death of Bhishma, he took the command of the Kuru forces; on the fourth day he killed Virata and king Drupada, but was subsequently unfairly slain by Dhrishta-Jyumna, who had sworn to revenge his father's death. The son of Drona is a celebrated hero in the Mahabharata, named Asvatthama.—Garrett.

DROSERA, a genus of the natural family Drosenaceae, or sun-dew tribe of plants. D. Burmanni, Yahl, Mo-dwen-tha of the Burmese, grows in Ceylon, the Peninsula, Bengal, Sylhet, and Burma. There are two different species at Tavoy. D. peltata (Drosera Junata, Ham.) grows in the Neillgherry and Baba Booden Hills. The leaves stain paper red. They are applied as a blister to the skin. They close upon flies which light upon them.—Masson; Voigt; Roxb. ii. 113.

DROUGHTS are frequent in tropical Asia. They are alluded to in Genesis xxxi. 40, 'In the day the drought consumed me, and the frost by night, and my sleep departed from my eyes.' The following droughts are generally known:—

B.C. 136, The whole world.
A.D. 767, Asia.
1291, the Baroda. N.W. London 1412-3, 1682-3,
1877, Madras, Mysore, and parts of Bombay.

DRUG is a hill fort, or any hill, and is a vernacular change from the Sanskrit word Durga. Chittle-drug in Mysore, Raman-drug in the Bellary district, Chinthergooty-drug in lat. 14° 27' N.

DRUGS. Dawa of the Arabs, and Marandu of the Dravidian races. Amongst the physicians of the east and south of Asia, as in Europe until recent times, almost every substance possessing any peculiarity of colour, shape, smell, or taste, is believed to have some medicinal virtue. Much reliance is placed by them on the doctrine of the signatures, i.e. the belief that a substance which has some of the physical characters of an organ, or of the symptoms of a disease, will have power over what it resembles. Some substances (chiefly animal, however) are considered to have medicinal virtues merely from their oddity,—for example, pikhal müs, rat's drug, the gall-bladder of the brown bear, the hairs of a tiger's whisker, etc. Difficulty of acquisition would also appear to add virtue. Thus it frequently happens that of two kinds of a drug, the one which is more rare is considered much the more powerful,—in some cases, indeed, when neither would appear to have any special virtue. The bākīmn of India has curious beliefs as to the plants which produce some of the foreign vegetable drugs, and still more curious theories are held as to the source of some of those of mineral origin. Thus Zahr-mohra, which comprises several mineral substances given medicinally, is believed by them to be formed by the spittle of the Mar-khor (Capra megaceros) falling on stones in the Kohistan, west of the Indus. The great number of substances to which, by natives and in their books on medicine, aphrodisiac virtues are attributed, is remarkable, some in connection with the doctrine of signatures, but most of them probably quite destitute of the qualities assigned to them. Drugs of Cachar and Tibet hold a high reputation in Northern India.—Powell's Handbook.

DRUHYU, in Hindu legend, one of the sons of Yagati, one of the old fathers of mankind. Ann
was the founder of one of the five great Turanian tribes, the Yadu, Turvasa, Druhu, and Ann.

**DRUIDICAL REMAINS.** The cromlech or trilithic altar in the centre of all Druidic monuments, is supposed by Tod to be a torus or triumphal arch, sacred to the sun-god Belenus. There are numerous Indo-Sctthic remains in the Nizam's territory and near Bustar. See Cairn; Cromlech; Dolmen; Menhir.


The drum is used by Asiatic nations as a musical instrument in war, and in lieu of a bell. The institution of the drum was adopted by a late king of Siam, according to Paleloogix, but the pages who had to answer it succeeded in extinguishing the practice. A curious Chinese drawing engraved in Chine ancienne ('L'Univers Pittorique'), pl. 3, represents this institution of the drum. A drum was suspended at the gate of the emperor of China, to announce the entrance of strangers. The custom is a genuine Chinese one, and the summons seems to have been by a drum rather than by a bell. Thus in the romance of The Fortunate Union, the hero Teichun-gyu exclaims, 'My lord, you are mistaken. The emperor himself suspends the drum at his palace gate, and admits all to state their hardships without reserve.'—Yule, Cathay, i. vi.; Davis's Chinese Miscellanies, p. 109.

**DRUM-FISH,** a sea-fish near the Pearl River at Macao. Every evening they assemble around a ship, and continue their musical humming till about midnight. The noise rises and falls, or suddenly ceases at times, as they quit the ship in search of food. The drumming of fish or molluscs is said to be heard also in the seas near Bombay, also in the Carolina seas.—Adams, p. 63.

**DRUMMOND, Lieut.-Col.,** an officer of the Bengal army who wrote on the mines and mineral resources of Northern Afghanistan, on the copper mines of Kannon, on the natural resources of Almroth, which form the subject of Extracts from Public Papers, N.W. Provinces, Bombay Telegraph and Courier, Oct. 24 and Nov. 19, 1849, and Mufussilite, Nov. 10, 1849.—Dr. Boyd's Catalogue.

**DRUN,** also Pau. Th. The Tibetan name of the red marmot of the western mid-Himalayas; Arctonyx hemachalans, Hodgson. It is confined to certain situations at high altitudes, and prefers fertile and secluded valleys, where vegetation returns rapidly and is luxuriant. There it spends the summer months, until again forced to its burrow by the cold and snow of winter. Their excavations are formed on gentle slopes or under stones and rocks, where they delight to sit erect and scream. Often the burrows are scattered over the valley, where loud wailing cries may be heard for miles along the mountain-sides. It is seldom they wander for any distance from their habitations, and usually take up a position close to the entrances, darting thence on the approach of danger. They frequently leap during progression, at times using their tails to assist them. The hibernation lasts from four to five months, or even longer when the snow lies for any lengthened period.—Adams.

**DRUNKENNESS.**

**Drus.**

In India the inebriating substances used are opium, preparations of hemp, distilled spirits, and the fermented juices of the palm trees. In modern times these substances are beneficial, and all nations use them, though the mode of their action on the human frame is not understood; but most of them must be regarded as valuable in wearing mental or bodily exertions,—they evidently supply some want in the system. In some individuals drunkenness is a hereditary disease equivalent to a mania, and these cases are generally given up by the medical faculty in despair.

Although Hindus and Mahomedans and Buddhists are by their religions or by social usage prohibited the use of alcoholic fluids, they do use them largely, either stealthily or openly, the fermented palm wines, or the distilled arracks or spirits, being in great demand. In ancient times the conquering Aryans seem to have largely used some alcoholic fluid, because the excitement described from drinking their sacred beverage must have resulted from its use. Out of 500,000 persons who took the pledge in America, 350,000 broke it, proving that a moderate use of alcohol is proper for man; the experience of the hydrophatic establishments shows an enormous increase in the use of food. If we only drink water, our consumption of farinaceous and animal food must be very largely extended. The effect of alcohol is to arrest the destruction of the tissues, and to utilize the constituents of life; and therefore, under the present conditions of modern life, where the nervous system is liable to so much waste, alcoholic substances, as the most portable form of accessory diet, are more than ever necessary. If, as is the case in infancy, the only purpose of life were to live, the complementary diets of animal, farinaceous, and leguminous food would be sufficient to sustain life; but so soon as man begins to work and think, alcohol, as preventing and arresting the destruction of tissues, is the cheapest food and most bountiful on the table, to a man having a skill in spending on food, he will do a better day's work on nine pennytroy of bread and meat and three pennytroy of beer, than on six pennytroy of bread, six pennytroy of meat, and sufficiency of water. Another important fact is, that total abstinence from stimulating drink actually predisposes to certain diseases.

**DRUPADA,** king of the Pandula, was son of Prishata and father of Draupadi. Defeated by Drona, his kingdom was restricted to the boundary of the Chantal and the Ganges. He took part with the Pandava in the battle of Kurja Kshetra, but was killed by Drona on the fourth day of the engagement. He was schoolfellow of Drona, and father of Dirghoth-dynama and of Draupadi.—Garrett.

**DRURY, BEVER,** an officer of the Madras army, author of Useful Plants of India, London 1873, a work of much value; also of Handbook of the Indian Flora.

**DRUSE.** A race occupying the range of hills which extend parallel to the coast from the neighbourhood of Beyrut to the heights above Sidon. They are brave, honest, and hospitable. They number 70,000. Min kadim (ab origine) is the general answer given to all inquiries as to their settling there; they are likewise spread over the Haaran to the S.E. of Damascus. Zaleh, seven hours from Balbe, belongs to their territory. Half an hour from Zaleh, on the south side of the
village of Kerak, is shown the tomb of Noah. They trace their cult to Al Hakim, a khaliq of Egypt. They believe in the transmigration of souls, and that the prophets recorded in the Old Testament were only a succession of identical spirits. The names of David, Abraham, Ishmael, and Pythagoras occur in their sacred code, but without any adherence to ascertained chronology. Hamsa, their God and sovereign, they consider to have been the true Christ; and Jesus, son of Joseph, a travelling impostor, and therefore deservedly crucified. They seem equally opposed to Mahomedans and Christians, but not the Koran to deceive their Turkish masters. They consider the four evangelists to have been so many powers or parts of religion, and Hamsa to have appeared about 400 years after Mahomed, when he flourished eight years upon earth, and afterwards appeared seven times in all from the time of Adam, finally and formidably to reappear when the Christians shall be more powerful than the Turks; he will then spread the religion of the Druses by divine authority. Their creed requires implicit obedience, and rejects fasting, prayers, tithe, and killing of animals. In mode of life, form of government, language, and customs, they resemble the Maronites. Druse women wear the tautour, a conical tube, about 18 inches long, of silver or plated copper, and ornamented with a variety of patterns. It is fixed upon a cushion fastened to the top of the forehead, and inclines slightly forward, like a horn. Over this a piece of white mullin is thrown, which falls down to the hips, and serves to envelope their faces at pleasure when they go abroad. In some parts of the mountain it is worn on the side of the head. Their religion seems a remnant of some Mahomedan heresy. They arrange themselves as the Akal or intelligent, and that of the Jahil or ignorant. The Akal, in number about ten thousand, form the sacred order, and are distinguishable by their white turbans. The Akal are not permitted to smoke tobacco; they never swear, and are very reserved in their manners and conversation, but are allowed to marry. The chief of the order resides in a village called El-Matna. The Jahil, or uninitiated, perform no religious rite whatever, unless, to assume the appearance of Mahomedans, they enter the mosques and recite their prayers with Turks. Schools are very frequent among the Druses. The Akal are generally the masters, and are paid by their pupils. They teach reading and writing. — Robinson's Travels, ii. pp. 9 to 322; Cataphago.

DRYADS. See Fountains; Rivers; Springs.

DRYANDRA CORDIFOLIA, Thou., the Wootherg-shoo or Tung-ct of the Chinese, is a plant valuable on account of its oil-seeds, much in use in China. It is one of the favourite trees of the Chinese, prized for its beauty and the hard wood it furnishes.—Williams' Middle Kingdom, p. 281; Fortune's Tea Districts, p. 119.

DRYOPHID.E, the white snake family of reptiles, containing—

Tropidococex perroteti, D. and B., North Canara.

Trigops prasinus, Rein., Eastern India.

T. diaper, Gthr., Animalley mountains.

T. fronticinctus, Gthr.

Passerita mystizarians, L., Ceylon, Peninsula of India.

P. purparascens, Gthr., Ceylon.

SHOREA CAMPHORIFERA, Roxb., is a very large tree, a native of Borneo and Sumatra, where it sometimes attains 6 to 8 feet in diameter, and 120 feet high. In the cavities of the trunk there occur collections of solid camphor, and of a light fluid called camphor oil. The solid camphor is highly prized by the Chinese and Japanese, and rarely finds its way to Europe. The tree is said to be common in Sumatra, in the country of the Battas, but not to be found to the south of the line. In Borneo it was found at first towards the north, was particularly abundant in the country of the Kayans, in the interior, on the Bintulu and Rejang rivers, and has since been discovered in Sarawak. In Labuan it is common, and is one of the noblest of the trees in that fine jungle. Not one in ten trees is found to produce camphor, and the camphor collectors cut notches in the trees, in order, before felling, to ascertain whether they are likely to find camphor. The younger and smaller trees are often quite as prolific as the older and larger trees. The camphor is found in a concrete state in the crevices of the wood, so that it can only be extracted by felling the tree, which is afterwards cut into blocks and split into wedges, and the camphor, which is white and transparent, is then taken out. The essential oil, found in hollows in the wood, the natives crystallize artificially, but the camphor thus obtained is not so much esteemed as that found naturally. The high price of the concrete camphor depends wholly on its scarcity, and the fancy of the Chinese and Japanese, who ascribe high medicinal virtues to it, which it probably possesses in no higher degree than the cheap article which they themselves obtain by the distillation of the wood of the Camphor officinalis, and which may be had in the same markets for about one-hundredth part of the price. After a stay in the woods, frequently of three months, during which they may fell a hundred trees, a party of 30 persons rarely bring away more than 15 or 20 pounds of solid camphor, worth from 200 to 250 dollars. The camphor of D. camphora is in white crystalline fragments; sp. gr. 1·009. Its odour is not of so diffusable a nature, otherwise it closely resembles the camphor from the Camphora officinalis. The wood of this camphor tree is good timber, suited for house and ship building. The liquid camphor of the same tree appears of the nature of camphagen. Dr. A. T. Thompson, by passing a current of oxygen gas through it, converted it into camphor.—As. Researches, xii. p. 585; Low's Sarawak, p. 44; Marsden's Sumatra, p. 150; Royle's Mal. Med., p. 586; Crawford's Dictionary, p. 81; Simmonds' Commercial Products; O'Sh. Bengal Disp.; Mason's Tenasserim; Tomlinson, p. 287; Indian Agriculturist.

DRY ROT is a disease affecting timber, produced by the attacks of fungi. The first sign of it consists in the appearance of small white points, from which a filamentous substance radiates parallel with the surface of the timber. This is the first stage of growth of the spores of the fungus, and the filamentous matter is their thallus or spawn. As the thallus gathers strength, it insinuates its filaments into any crevice of the wood, and they, being of excessive fineness, readily pass down and between the tubes from which the wood is organized, forcing them asunder, and completely destroying the cohesion

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of the tissue. When the thalli of many fungi interface, the radiating appearance can no longer be remarked; but a thick, tough, leathery white stratum is formed wherever there is room for its development, and from this a fresh supply of the destructive filamentous thallus is emitted with such constantly increasing rapidity and force, that the total ruin of timber speedily ensues where circumstances are favourable for the growth of the fungi. Dry rot consists of the thallus of Merulius lacrymans, or Polyporus destructor, two highly-organized fungi; but any of the fungi that are commonly found upon decaying trees in woods are capable of producing dry rot, and the most rapidly-spreading and dangerous kinds is caused by the ravages of different species of Sphagotrichium. The latter throw up from their thallus whole forests of microscopic tubes headed with reproductive spores, of such excessive smallness that they may insinuate themselves into the most minute crevices or flaws even in the sides of the tubes of which timber consists, and they are infinitely more dangerous than merulii or polyposi, which seldom fructify. The circumstances that are most favourable to the development of the dry rot fungi are damp, unventilated situations, and a subacid state of the wood. The latter condition, especially in oak, is easily produced by a slight fermentation of the sap which remains in the timber, especially if the latter has not been well seasoned before being employed. It has been proved experimentally that fluids which, in their ordinary state, will not produce fungi, generate them abundantly if ever so slightly acidulated. Dutrochet found that distilled water, holding in solution a small quantity of the white of egg, will not generate fungi in a twelvemonth; but upon the addition of the minutest quantity of nitric sulphuric, muriatic, phosphoric, oxalic, or acetic acid, it generated them in eight days' time in abundance. Alkalescent infusions possess the same property. The only poisons which will prevent the appearance of fungi are the oxides or salts of mercury. A solution of fish-glue yields fungi rapidly and in great abundance; but a small quantity of red precipitate or corrosive sublimate destroys this power entirely. It is, moreover, an important fact that no other mineral preparation has any such properties. Dutrochet ascertained that other metallic oxides acted differently. Oxides of lead and tin hastened the development of fungi; those of iron, antimony, and zinc were inert; and oxides of copper, nickel, and cobalt, although they retarded the appearance of fungi, yet did not prevent their growth in the end. These facts are confirmed by the experiments of the use of Kyan's process for preparing timber, which consists in submitting the wood to the action of corrosive sublimate. Immersing the wood in chloride of zinc likewise prevents the attacks of fungi, and also submitting it to the action of the vapour of creosote. Dry rot also occurs in animals. Specimens of hymenopterous insects resembling wasps have been brought from the West Indies, with a fungus allied to Spharia militaris growing from between their anterior coxe, and it is positively asserted by travellers that the insects fly about while bedracked with the plant. Upon opening the bodies of the wasps, they are found filled with the thallus of the fungus up to the orbits of the eyes and the points of the
tarsi, the whole of the intestines being obliterated. In such cases it is to be supposed that the thallus of the spheira first kills the wasp by compressing and drying up the body, and then, continuing to grow, occupies the whole of the cavity of the shell of the insect. A more common instance of animal dry rot is the disease in silk-worms called La Mucadine. Silk-worms of all ages are occasionally liable to become sickly and to die, soon after death becoming stiff, and acquiring such a degree of firmness as to be readily broken. They then throw out from their surface a sort of white efflorescence, which is the fructification of the fungus called Botrytis bastiana, their inside being filled by the thallus of the same plant. If some healthy caterpillars are placed beneath a bell-glass, along with a small portion of worm killed by the botrytis, they soon catch the disease, exhibit the same symptoms as those already mentioned, and eventually perish, having no doubt been infected either by rubbing themselves against the dead worm, or, which is more probable, having received upon their skins the infinitely minute seeds dispersed by the botrytis. If healthy cysalids are inoculated by the introduction below their shell of a little of the botrytis matter upon the point of a needle, they also sicken and die. In these cases effects are produced upon insects similar to those upon timber; that is to say, vitality in the one case, and cohesion in the other, is destroyed by the growth of the thallus of certain fungi, which spread with great and irresistible rapidity, and fructify where occasion offers. Boletus destructor is also one of the dry rot fungi.—Eng. Cyc.; Todd.

DUBBER. DUBBER. DUBBER. DUBBER.
DUBBOYE, in Gujarat. Its chief is of the Bagela race. See Komarpal.

DUBDUBA, a Nepal tree abounding in the Terai. Wood is a powerful astrigent, and an article of trade.—Smith’s Five Years.

DUBHI. Hind. The grass Cyperus dactylon. Its dry, creeping rhizomes spread out, and take root at the nodes. It is commonly called khabal in the Panjab. This is the durba grass of Sanskrit authors, and in the Atharva Veda it is thus apostrophized: ‘May Durba which rose from the water of life, which has a hundred roots and a hundred stems, efface a hundred of my sins, and prolong my existence on earth for a hundred years.’ The flower of this grass is a most beautiful object under the microscope. There are, however, three sorts of dubh recognised in the north of India. The best, called Pauma, is especially the same as Fioini; the second, called Khatia, is smaller, and grows on hard ground; the third is of two white sorts, called Ghur-dubh, for horse fodder, and Ban-dubh, a coarser kind.—Powell.

DUBLO. MAH. Dubaro, GZ. A clan of the Bhil in the inland tracts of Surat and Broach. They are addicted to the practice of idolatry, and are forbidden by the Hindus to wash their clothes.

DUBOIS, ARBE J.A., a French missionary in Mysore and in the south of India. He wrote an account of Hindu Ordeals in Mad. Lit. Trans., 1827; On the State of Christianity in India, Lond. 1823; also a Description of the Character, Manners, and Customs of the People of India, and their Institutions, Religious and Civil, Lond. 1817.


DUCK. 

Canard, ... Fr. Anitra, ... Fr. Ente, Schatzchen, Gér. Anade, ... Sp. Battah, ... Hind. Urde, ... Turk.

The domesticated duck is a descendant from the common wild duck, the Anas boschas. Its domestication has been accomplished in comparatively recent times, for it was unknown to the Egyptians, to the Jews of the Old Testament, or to the Greeks of the Homeric period. About eighteen centuries ago, Columella and Varro speak of the necessity of keeping ducks in netted enclosures, like other wild fowl, so, even then, there was danger of them flying away. The A. boschas is met with in all the northern parts of Asia, Europe, and America. The domestic duck is polygamous. Young ducks are injured by being allowed to swim in water. The domestic breeds are the Common duck, the Flat-billed, Call and Penguin duck, Arlesbury, Tufted, Hook-bill, and Labrador duck; but though breeding in remote southern latitudes, where the mallard is unknown, the domestic breed always shows parts of the wild. Certain ducks breed on cliffs or trees, and they must carry their young to the water, though this has not been observed. A large red duck is the emblem of fidelity with the Rajputs.

Tadorna vulpanser, the Common Shieldrake of Europe, Asia, N. Africa; is common in the Panjab, not rare in Lower Bengal.

T. tadornoides, Australian Shieldrake, S. Australia.

T. variegata, Paradise Shieldrake, New Zealand.

Aix galericulata, Mandarin Duck, China.

Cassares rutila, Ruddy Shieldrake, N. Africa and S. Asia.

Dendrocygna arcuata, Whistling Duck, Java.

Spatula cypraea, or Anas cypraea, the Shoveller, northern regions, N. Africa; tolerably common in India.

Anas strepera, the Gadwall, the northern regions and Barbary; tolerably common in India.

A. cajeta, the Pintail Duck, northern regions and Barbary, and is very common in India.

A. boscas, the Mallard, the northern regions and Barbary; in India, is confined to Sind, Panjab, and the Hindustan and its vicinity, replaced southward by A. pecatorrhyncha.

A. creca, Querquedula creca, Teal of Europe, Asia, Barbary; common in India.

A. penelope, Meara penelope, Widgeon of Europe, Asia, N. Africa; common in India.

A. pecatorrhyncha, the Spotted-billed Duck.

Aythya ferina, the Pochard of the northern regions and Barbary; common in India.

A. nyroca, White-eyed Duck of Europe, Asia, N. Africa; common in India.

Fuligula marila, Scap Pochard of the northern regions; occurs in Panjab, Sind, Nepal.

F. cristata, Tufted Duck of Europe, Asia, Barbary; common in India.

Ducks are sacred to the worshippers in China of a canonized being, Hon-yun—shuee. The ducks on the river at Canton are so trained, that, when feeding in the fields, on being summoned to return by the whistle of their owner, they all waddle hastily back. They are similarly trained on all China rivers. Flocks of ducks are huddled together in the village, and driven the ducks from place to place during the day, sending them home in the evening.—Montgomery, ii. p. 262; Frere; Antipodes, p. 248; Darwin; Blyth; Jordan.

DUCK—WEED, Lemma gibba and other species of Lennacea.

DUDAEN, of Genesis xxx. 14, is the Mandragora officinalis.

DUDHI. Hind. Milk. Hence Duddh ka Mahena, the tenth month, literally the milk month. Duddh-Pavra, sweetmeats.

DUDHI TUPPAS, forming the S.E. portion of the Mizrapore district, are in a hilly tract of considerable size, which, owing to a variety of circumstances, escaped assessment when the rest of the Benares province was regularly settled. The great bulk of the cultivators and village managers belong to a tribal or aboriginal tribe, and are a simple, ignorant people, easily overreached by astute and grasping money-lenders. The people in general are truthful, willing to labour, possess great physical courage, and exhibit much enterprise. The Suri, however, are addicted to theft; they coin false money, and live principally by jugglery. They procure wives for their young men by kidnapping girls. Their women wear a tartan dress, often have a horn projecting from the forehead as an ornament, and are fond of intoxicating drinks. The Bhuiya are daring mountaineers. Their courtships are managed by the father of a marriageable lad searching round the neighbouring villages for a daughter-in-law, not related within the prohibited degrees of consanguinity. Having at last chosen one, he returns home, and in a few days again visits the bride’s house with his son, and not less than five other kinsmen. Five rupees are then paid to the girl’s father, baskets of flowers and fruit are presented to the bride herself and her mother, and the proceedings are closed by the marriage ceremony, which is performed by the family priest or a barber. The inhabitants, as a body, shun society. Mr. Conybeare says their language will become extinct.

DUDRENEE. Chevalier Dudrene, a native of India.
DUKFAR. HIND. An officer of irregular cavalry: the head of a party of labourers.

DUGDAH, a tribe of inferior Brahmans on the borders of Futtehpur and Allahabad. They date their origin from the time of Jye-chand, who figures in many fabulous legends of those parts. The Pande, who wore Dugdha Brahman (i.e. of mixed blood), received 48 villages, of the greater part of which they are in possession to this day.—Elliot's Supp. Gloss.

DUGGY, in Madras, round timber from 20 to 40 feet long, 1 to 2½ feet square.

DUGLA or Dauri. HIND. A bamboo basket swung on double ropes, and worked by two men in irrigating land.

DUGONG. MALAY. The sea siren, merman, mermaid. Professor Owen denominated the dugong of the Archipelago, Halicore Indicus, in distinction from that of the northern coast of Australia, at a time when the former had not been ascertained to frequent (as a dugong of some kind is now known to do) the Malabar coast and Gulf of Calpentine in Ceylon.

Halicore Dugong.

Trichechus dugong, Gmel. | Dugongus Indicus, Ham. | Halicore Indicus, F. Cuvier.

Indian dugong, ENG. Mermaid, ENG. Sea siren, Merman, : Le dugong des Indes, Fr.

This inhabits the shallows of the Indian Ocean and about Ceylon, where the water is not more than two or three fathoms deep. It does not appear to frequent the land or the fresh water. Its flesh is delicate. The dugong was noticed as occurring in Ceylon by the early Arab sailors, by Megasthenes (Fragm. lix.) and Zelian, and subsequently by the Portuguese. It is this creature which has given rise to the tales about mermaids which have till the present day occupied the world, and doubtless had their origin in the tales of the Arab seamen. They are phytoplankous or plant-eaters. Numbers are attracted to the inlets from the Bay of Calpentine to Adam's Bridge, by the still water, and the abundance of marine algae in these parts of the gulf. One which was killed at Manaar in 1874 measured upwards of 7 feet in length, but specimens considerably larger have been taken at Calpentine; and their flesh is represented as closely resembling veal.

Halicore Australis, manate of Dampier, white-tailed manate of Pennant, is a native of the west coast of Australia, and is called also the sea-cow. About the month of January the dugong shows itself in Port Mount Bay, coming to feed upon a species of seaweed, which is also relished by the

DUKU. H. tabernaculum, Rup. | Dagungus marius, Tiede.

Dugong. . . . MALAY. | Pseudipinnus laurii, MALAY.

Under these synonyms Dr. Theodore Cantor unites all the above, which he says inhabits the Red Sea, the seas of the Malay Peninsula, Singapore, Sumatra, the Philippine islands, Moluccas, Sunda islands, and New Holland. It is supposed that the dugong can be easily domesticated. Doubtless the ancient Arab stories gave rise to the mermaid tales which have since then occupied the world, for it is this creature that has given rise to all the fables about the mermaid and the merman. Tennyson writes of

'A mermaid fair
Singing alone,
Combing her hair,
Under the sea,
In a golden curl,
With a comb of pearl,
On a throne.

At night I would wander away;
I would cling on each side my low-flowing locks,
And lightly vault from the throne, and play
With the swimmers in and out of the rocks;
We would run to and fro, and hide and seek,
On the broad sea walls in the crimson shells
Whose silvery spires are nearest the sea.'


DUH. SANSK. To milk. Hence Duhitar and Duhiti, a milker, a daughter.

DUHAI. HIND. Justice! An exclamation still made in Hindustan from an individual who considers himself injured. 'Duhai, Maharraj! Duhai, Company Bahadur!—Justice, justice, my lord! Justice, Company Bahadur!—' Yule, Cathay, ii. 436.

DU HALDE, J. B., author of Description of the Empire of China, Chinese Tartary, Corea, and Tibet.

DUHARU. BENG. A caste of fishermen and divers.

DUHET. ARAB. A cove or bay. Duhet Dilam, Hafah, Kabir, Kulaib, Kathemeh, Selwah, Shahrah, Shishal, are in the Persian Gulf, and Gwettur in Baluchistan.

DUSASANA and Duryodhama, sons of Dhrirat-rashtra. Dussasana behaved brutally to Draupadi, and he was afterwards killed by Bhima when fighting in the battle at Kurukshetra.—Dowson.

DUJA. ARAB. Blood-money, paid by a criminal to the relatives of a murdered person.

DUK or Duk. JAY. The hair-fibre of the Arenga saccharifera, Gooni, Malay.

DUKAI. MAHI. Hog; Sus scrofa. Dukkari-chahari. HIND., hog's head.

DUKSHIN-ACLARI. SANSK. From Dukshina, the right hand, and Aclain, acting.

DUKU, the Malay and Javanese name of a tree and fruit of the Lasiurus domesticum, and natural order Meliaceae of botanists. To the same genus belong the langsat, langsat, or langsab, for in all these forms the word is written, and also the ayyayar, L. aquen. The duku is the most esteemed of them, and to the European palate is the best of the native fruits of the Archipelago, after the mangostin. The natives class it after the durian and mangostin. It is of the size of a pigeon's egg, of globular form, and covered with a coriaceous
skin of the colour of parchment. The species seems to be indigenous in the western portion of the Archipelago, but has been introduced into the Philippines, where one variety of it, the langseh, is cultivated.—*Crawford's Dict.* p. 125.

DULCAMARA or Solanum dulcamara is the Shuh-yang-ta's-uen of the Chinese. Dulcamara contains an active narcotic alkalai, solanine, narcotic and diuretic. Solanum nigrum, Arrubsus-saleb, may possess similar virtues.—*Being. Disp.*

DULHA, ARAB. A bridgroom. Dulhan, a bride. For the Dulha-Deo of India the Greeks had Adonis, Ganynede, Hylas, and Thammuz.

DULLA, HIND. Carbonate of soda. A soda ash or natron from the waters of the lake of Luner; it is used in dyeing, in medicine, and in the arts.

DUM, in Afghanistan, a class of servants attached to families of rank, whose wives serve in the women's apartments, and are go-between in marriage negotiations.

DUMA, HIND, also written Duma, is the name of the leather case in which tea is imported from Tibet into Garhwal and Kumaon. It contains about three seers, and bears a price of six or seven rupees.

DUMAGUDEM, on the Upper Godavery, 120 miles from Sironcha, and same from Ellore. Coal occurs about 15 miles N. of Dumaguedem, near the junction of the Tal river near Lingalana.

DUMAI MURALLEE, in Cachar, the first crop of rice, sown in April.

DUMBA, HIND. A flat-tailed sheep of Pesah Warren Kabul, the Salt Range, and the Cape. Dumki marchi, the tailed pepper, cubebs. Dumki satari, a comet.

DUMB-BELLS. See Magdar.

DUMDUM, a subdivision of the 24 Parganas, in which, near Calcutta, there is a military station of same name, in lat. 22° 38' N., and long. 88° 30' E., and 44 miles from Calcutta.

DUM-I-GURG, or the wolf's tail, is the Persian name for the first brushes of grey light which appear as forerunners of dawn. Dum is a tail.

DUMKI, a brave and martial tribe of Baluchistan who inhabit Eastern Kachi; part of them were removed to Sind by Sir Charles Napier in 1845.—*MacGregor, N. W. F.* p. 502.

DUMOH, a district in the Jubbulpur division, lying between lat. 22° 10' and 23° 30' N., and long. 79° 5' and 80° E. It is situated on the table-land of the Vindhyian range of hills, and is 90 miles long from N. to S., and 50 broad, with an area of 3799 square miles, and 269,642 inhabitants, largely Goud, Kurku, Lodhi, and Kurni. See Damoh.

DUMUR. TEL. A name for the Bhatu Attakats. Dumbram, Tam., Dumbed war, Tel., and called also Khollati. See Bhatu. DUN. HIND. A valley; a term locally applied in the Sivalik Hills, under the Himalaya, as Pattie Dun, Dehra Dun. It seems to be the same word in the Celtic and Indo-European languages, as well as in the Arabic. In English, the adverb Down implies descent, and Down, the noun, a sloping hill, an elevated plain, or hillock of soil on the sea-shore. See Dunes.

DUN, BURMA. Of Arakan, a land measure 30,720 square yards, therefore equal to a little more than 64 English acres.

DUNAI or Doab, in Rajputana, is a portion of the dish of which the prince partakes, sent by his own hand to whomsoever he honours at the banquet. At the russora, or refectory, the chiefs who are admitted to dine in the presence of their sovereign, are seated according to their rank. The repast is one of those occasions when an easy familiarity is permitted, which, though unrestrained, never exceeds the bounds of etiquette, or the habitual reverence due to their father and prince. When he sends, by the steward of the kitchen, a portion of the dish before him, or a little from his own khansa or plate, all eyes are guided to the favoured mortal, whose good fortune is the subject of subsequent conversation. Though, with the diminished lustre of the Rajput house, the dunah may have lost its former estimation, it is yet received with reverence.—*Todd's Rajasathan*, i. p. 317.

DUND or Dhand. SINDI. Pools, ponds, or lakes on the line of the river Narra, from Sukkur to Omerkot, or about 100 miles. The Narra is only filled with water during the inundation of the Indus river, and even this not often; it never reaches the sea, but is lost in the sand near Omerkot. Betwixt this and Sukkur there are at least 360 dund, most of which contain water throughout the year. They are from 300 to 400 yards across, but often many miles in length. They all become brackish during the hot weather. They abound in fish.—*Captain Del Hoste in Bom. Geo. Trans.* ii.

DUNDA. DUN, or Dun, or Dungar, is in several dialects derived from the Sanskrit, a hill or mountain, as it was also in some of the old languages of Europe.—*As. Res. ix.* p. 98.

DUNDA. The best-known boats on the Indus are the Zoruk of the Upper Indus, the Dunda, which plies from Mithankote to the sea, and the Dugga, which is specially suited, from its strong build, to the navigation of the rapids between Attok and Kalabagh. The better kinds of wood used in their construction (sissoo and large babul) are procured with difficulty, and various species of timber are generally seen in one boat, such as babul, deodar, chir, kalm, and karil. Malabar teak is much prized in the Lower Indus, and fetches a large price. The ordinary ferry boats are constructed by the sides and bottom being prepared separately, and brought together to be secured by knees or crooked pieces nailed to the bottom and sides. The bottom is made of sissoo, the knees of mulberry or olive, and the side planks of deodar. The wedges and treenails are usually made of tut and kahn. Ropes for rafts and boats are prepared either from hemp (Cannabis indica), sirki (Sacharum spontaneum), Typha latifolia, dib, or other grasses, common on the river bank. Munj (Sacharum munja) is also largely employed by the native boatsmen. The great boat-building localities of the Panjab are Pind Dadun Khan, Wazirabad, and Jhelum, but there is a marked increase on the Indus, not only at Attok, but at Nowshera, Hashnagar, Mokhd, and Kalabagh.

DUNDGIRI. HIND. A very populous village, adjoining the esplanade of Bombay fort.

DUNDOO-MALE, GUM-resin of the Doona Zeylanica subsequent to 1868. DUNES occur in India near the sea, and to leeward of the beds of rivers, also on the Indian desert, and in the desert of Gobi, where the sand
waves are overwhelming cities. In the Indian desert are to be seen multitudes of the Tuba rising 400 or 500 feet high. Newbold describes dunes of the Hogri and Penmar rivers, and mentions the overflowing of Bodhurti, a village of Konigul, also of an old village near Jameulmadig, and the encroachments on the village of Honour, 204 miles S. from Bellary. In the Landes of Gascony, many dunes exceed 225 feet; some attain 391 feet elevation; and on the W. of Africa, near Cape Verde, they are no less than 800 feet high. See Down; Dun.

DUNG. BIOTT. An encampment of shepherds and herdsmen in the N.W. Himalayas.

DUNG. Tin. The wild yak of Darjiling.

DUNG of birds and bats is applied medicinally externally, and, given internally by the Chinese. That of the avadavat, Fringilla amandava; of the common house sparrow, Passer montanus (Kung-ma-tsho-fen, Chin.); of the magpie (Han-hau-echung, Chin., and WU-le-Chi, Chin.), is applied externally in leprosy; and the dung of the white pigeon, Tso-pwan-lung, Chin., left-coiling dragon, is an external veterinary medicine.—Smith.

DUNGA, a punt or broad boat of Kashmir.

DUNGANE, the great Onigoor horde in Eastern Turkestan. They are Turk, and became Mahomedans in a.d. 966. The Chinese call them Hoiheke, Ohior, and Hoai-Hoi. Towards the close of the 8th century, the emperors of the Tang dynasty deposed a million of Onigoor people from the neighbourhood of Kashgar, and settled them at Kau-su and Chen-si. About a.d. 966, these families embraced Mahomedanism, and under their chief Satook they conquered Transoxiana, and carried away captive an immense number of Turks of the Turgut tribe. In 972, the majority of these captives were allowed to return to their homes; but many remained, and these were called Targhanchi or Tanghani, signifying remnant, and corrupted into Dungen. They are all Mahomedans, but dress like Chinese. They are abstemious, religious, quarrelsome, using the knife; honest, and fond of trade. The Dungan or Turgen race, following Mahomedanism, in the N.W. of China, rose in rebellion against the Chinese in 1867. The Burmeese call them Tharat; their own name for themselves is Muslim. In 1881, the delegates of the inhabitants of Kulja chose the following districts for the colonization of the Dungan and the remaining Tarantehi, for whom there is no room on the Tchilik steppes,—for the Dungans, the district Tchink, between the rivers Soukoulouk, Aksu, and Tehoun; for the Tarantehi, a part of the same district, situate between the rivers Alarteha and Soukoulouk.

DUNGAREE, HIND. Datta, TAM. A coarse cotton cloth manufactured in various parts of India, and used by the poorer classes of natives. The stouter kinds are much employed in the making of sails for native sailing vessels and tents. Dungaree is woven with two or more threads together in the web and woof. It is generally used for sails of country ships, and would no doubt be advantageously employed for the occasional light sails for larger ships, being more easily handled than European canvas. Superior descriptions are made with the web and woof, or web only, twisted either wet or dry, but this becomes as expensive as the best English canvas. The prevailing price of the ordinary dungarees, 30 cubits,—that is, 15 yards long, and 2 feet wide,—is 1 rupee 12 annas; the piece at Masulipatam being brought from Ray- lunny, a village and tank to the northward, where a finer description, well adapted for tents, is made at 7 rupees the piece of 36 yards, 1 yard wide. About Vizagapatam, the ordinary dungaree is usually sold by weight. The best Bengal tents appear to be made of an open-textured dungaree, the threads of which are finer than is usual in dungarees. Like all other cotton goods, dungaree should not be exposed to the weather in tents, tents, etc., till the weavers’ dressing and flax has been thoroughly removed by washing and partial bleaching.—Frankner; Rohle, MSN. See Cloths.

DUNGAPUR, a native state in Rajputana, ruled over by a Maharawul in a town of that name, in lat. 23° 52′ N., and long. 73° 19′ E. The population of the state in 1878 was 175,000. Three-fourths of the inhabitants are Hindus, one-eighth Jains, and one-eighth Musalmans. The Bhils aggregate about 10,000 souls. The family is an offshoot of the house of Udaipur. On the fall of the Moghul empire, Dungapur, like other Rajput states, became tributary to the Marhattas. The tribute of Rs.35,000 levied from it was transferred to the British Government by the treaty of 1818, with Jeswunt Singh, in return for its protection.

—Imp. Gaz.

DUNG BIRD, Neophron perenpenturis.

DUNGING OF CLOTHS is a process resorted to by dyers, both in the East Indies and Europe, the object being to impregnate cotton cloths with animal matter, for which many dyes have a strong affinity.—Rohle, MSN.

DUNGTEEN, a bone or relic receptacle of the Buddhist religionists. The chayita is any sacred object worshipped by the Buddhists, as a tree, an altar, a temple, as well as any monument raised on the site of a funeral pile, as a mound or pillar, and is probably applicable both to the Buddhist chodtan, or offering to the deity, and the dungten, a bone or relic receptacle. The stupa or chayita of Indian Buddhism is supposed to have been erected subsequent to the cave temples and viharas or monasteries. The ancient stupas were originally meant as receptacles of either the Buddha or the Bodhisatwas and the kings who encouraged the propagation of the Buddhist faith. The chodtan or charter of Tibet are similar to the stupa. They consist of a cylindrical vase, and have a cupola over their head. The dungten, on the other hand, correspond to the dhagoba of the Sanskrit, is a bone or relic receptacle, built in honour of the mortal Buddha, and ought to contain some portion of their relics, real or supposed.

—Cunningham. See Buddha; Stupa; Topes.

DULIBAR or Danywalor, a mode of address among fakirs.

DUNORHUNG, a Penang wood of a brown colour, sp. gr. 1:253. Used by the Chinese for carving images.

DUPADA NUNA, Tel., is Dupada oil, or Piney tallow. Dupada resin exudes from the Vateria Indica, and constitutes the piney varnish. The resin is used as a fragrant incense in temples; the quantity procurable is very considerable.—M. E. J. R.

DUPERRY. Anquetil Duperron, without means, and in the face of great hardship, learned the Zend from some Parsee priests at Surat, and
DUPLEIX.

DUPLEIX, JOSEPH FRANCIS, an eminent French commander, who served in the Peninsula of India in the middle of the 18th century, and made great efforts to sustain French interests there, against the British. He opposed Anwar-ud-Din and his son Muhammad Ali, in opposition to Major Stringer Lawrence, who was contending against Chanda Sahib. Dupleix failed in an attack on Fort St. David, on the 19th December 1747. His efforts were directed to expel the British from the Peninsula, his chief British opponents being Lawrence and Clive. In that time, Madras, Fort St. David, Cuddalore, Arcot, St. Thomé, repeatedly changed hands. He was appointed chief of Chanderugur, and succeeded M. Dumas as governor of Pondicherry. He was of a bold, self-reliant, but haughty character, and was much thwarted by M. de la Bourdonnais. It was in his time that Madras was taken and held by the French, and again restored to the British. He twice failed to take Cuddalore. He negociated largely and formed alliances with native chiefs,—with Chanda Sahib, Muzaffar Jung, and Nisar Jung. In 1752 he was appointed by Salubut Jung, Subhadar of the Dekhan, Nawab of the Kaf-natic. For his services he was created a marquis; but misfortunes overtook him, and he was superseded by M. Goddeheu, and returned to France in September 1754. On his return, the French Government refused to pass the bills for the sums which he had ordered to be disbursed on his own responsibility, and he was reduced to extreme poverty. He was shamefully ill-treated, and three days before his death, in 1754, he wrote in his memoir, 'I have sacrificed my youth, my fortune, my life, to enrich my nation in Asia.' His great name shed a lustre on the struggles of his countrymen for empire in the East. —Orme; Malleson.

DURA. Daniel iii. 1 tells us that Nebuchad-zezzar the king made an image of gold, whose height was three score cubits, and the breadth thereof six cubits. He set it up in the plain of Dura, in the province of Babylon. This is the modern Imam Dour, on the left bank of the river.

Riek's Kurdistan, i. p. 148.

DURA. HIND, a whitish blanket of Basahir.

DURAND, SIR HENRY MARION, K.C.S.I. and C.B., entered the Bengal Engineers in June 1828, and promoted to Major-General in 1867. He served in the Afghan campaign; headed the explosion party, and fired the train at Ghazi; served also at Gwalior and in the Panjub campaign at Chillianwalla and Gujerat; was afterwards Agent to the Governor-General in Central India. He was for a brief time Commissioner of the Tenasserim Provinces. He was also Military Secretary to the Government of India. Invested with the Order of the Star of India in June 1867. He was a sagacious political officer. In 1857 he stood to his ground, and stemmed the flood of mutiny, and bursting into Hyderabad and recovering the Dekhan. In January 1871 he was killed on an elephant, entering a gateway on the Tank frontier. Wrote on Dadapir Fossils in Bl. As. Trans. v. 291; On the Barometer, ibid. 301; On Fossil Rhinoceros, ibid. 486; Carnivora, 579; Shells, 661; Quadrupeds, 730.—Howell Thurlow; Dr. Buist's Catalogue.

DURANTA ELLISIA, one of the Verbenaceae, a beautiful large shrub, with light blue pendulous scentless flowers. D. Plumieri is also a large shrub, with handsome drooping blue flowers having the scent of almonds; the clusters of seed-berris, which are numerous, when ripe, have a very pretty appearance from their dark orange colour; they do not appear to germinate readily. —Riddell.

DURBA CHAPALOO. Tel. A kind of mat made in Tannjam from the fibres of the Sansieveria Zeylanica.

DURDU, an old secluded pastoral race in Gilgait and Chulas, on the Indus river, on the north. The Afghans on the one side, and the Turkoman on the other, are pressing on them. See Dard.

DURGA, a form of Parvati, and wife of Siva. She corresponds with Juno of the Greeks and Romans, and the Isis of the Egyptians, as also with Ceres and Proserpine. Durga is also known as Bhawani, Kali, Devi, and Singhwani. As Durga, she is represented with ten arms. In one hand she holds a spear, with which she is piercing the giant Mahesha; in another, a sword; in a third, the hair of the giant, and the tail of a serpent is twined round him; and in others, the trident, the discus, the axe, the club, the arrow, and the shield. One of her knees presses on the body of the giant, and her right foot rests on the back of a lion, which is lacering his arm. On her head she has a crown richly gowned, and her dress is magnificently decorated with jewels. The giant is issuing from the body of the buffalo, into which he had transformed himself during his combat with the goddess. From this victory she took the names Durga and Singhwani, or Lion Rider.

Like the Ephesian Diana, Durga wears the crescent on the head. She is also 'the turreted Cybele,' the guardian goddess of all places of strength (durga), and like her she is drawn or carried by the lion. As Mata Janavi, the 'Mother of Births,' she is Juno Lucina; as Padma, 'whose throne is the lotus,' she is the fair Isis of the Nile; as Tripura, 'governing the three worlds,' and Atma-devi, 'the goddess of souls,' she is the deceased transformed of the Greeks. In short, her power is manifested under every form, from the birth through all the intermediate stages until death, whether Janavi, Gouri, or the terrific Kali, the Proserpine or Calligenia of the West.

As Parvati, Bhavani, Durga, or Devi, she is the sakti or personified energy of Siva. And the yoni, the symbol of female energy, is the emblem of this goddess, as the lingam is that of her husband.

In the different terrific forms of Siva and Durga, a necklace of skulls forms an invariable decoration, as does the crescent moon on her forehead; and the moon is considered to be the peculiar reservoir of Amrita, or the beverage of immortality. In Hind. Theatre, ii. p. 59, Aghora Ghanta, invoking Chamunda, says of Durga:

'The elephant hide that robs thee, to thy steps Swings to and fro; the whirling talons rend The crescent on thy brow; from the torn orb The trickling nectar falls; and every skull That gus thy necklace laughs with horrid life.'

She combines the characteristics of Minerva, Pallas, and Juno, and in her amiable character is often called Bhawani. Durga is worshipped in the form of a water-pot. It is called Ghata puja, also Ghatishtapana. A water-pot is placed, and, after certain ceremonies, Durga is supposed to enter it, and she is then worshipped. —Todd's Rajasthan, i. p. 576.
DURGA.

DURGA. Sansk. Durg or Doorg, hence Droog. A hill fort, a fort. Durga means difficult of access, from Door, prep., and Gami, to go.

DURGA PUJA is the festival of Durga, held in Bengal in the month of Aswin, about October, and on this occasion the images of her sons, Kartikeya and Ganesha, are usually placed on each side of her. In Calcutta this is the most splendid and expensive, as well as the most popular, of any of the Hindu festivals, and takes place in the month Aswina, the end of September or beginning of October. The preliminary ceremonies occupy several days previous to the three days of worship. During the whole of this period all business is suspended, and pleasure and festivity prevail. This festival is known among the Maharratins as the Dassera.

In the Durga puja, a sacred jar is an essential article in the celebration of the mysteries, and is marked with the combined triangles denoting the union of the two deities, Siva and Durga. The Satka sect, worshippers of the satki, or female principle, mark the jar with another triangle. The Vaishnava in their worship use also a mystical jar, which is also marked. These marks, Mr. Paterson says, are called tantra, and are hieroglyphic characters, of which there are a vast variety. He hence deduces the identity of the Durga puja with some Egyptian rites of a corresponding nature. In some parts of the country there are figures paraded of a coarsely licentious character, but these are being forbidden. The festival, with its boisterous and obscene merriment, its vigils of three successive nights, its monetary extravagance, its ludicrous sights, its licentious exhibitions, deteriorates the moral health of the community. On the fourth and last day no sacrifices are offered. After religious adorations, the officiating priest dismisses the goddess, and implores her to return the next year. The dismissing ceremony over, the females of the house lament the departure of so beneficial a deity. The goddess is presented with gifts, and the dust of her feet is rubbed on the foreheads of the votaries. The idol is paraded through the streets with great pomp. The streets resound with music and singing, and the acclamations of the worshippers. As it passes along the streets, the spectators join their hands in form of adoration. The parade over, the idol, with all its trappings and its tinsel ornaments, is cast into the waters, where the people vie with one another in rilling the goddess of her decorations.—Sir John Malcolm in Tr. Bombay Lit. Soc.; Cote, Myth. Hind, p. 51; Paterson, Essay on the Origin of the Hindu Religious Asiat. Researches, viii. p. 401.

DURGARASPTNAM, a seaport village on the Nellore coast of the Bay of Bengal, in lat. 15° 59′ N., and 55 miles N. of Madras. It was known to the British as Armegon, from the circumstance that when they settled there, and it was their first site on the Coromandel coast, the name of the Kurnam or village accountant was Armagam Mudiar.

DURGAVATI, pronounced Durgoti, was the daughter of the Chandaal king of Mahola, the ancient capital of Bundelkhand. With her father's consent, the Gond king of Gurhah, Mundla carried her off with an army of 50,000 men. After her husband's death, Asof Khan, a general of Akbar, in 1564 advanced to annex Gurhah Mundla, but, as her son was a minor, Durgavati assembled 1300 elephants, 8000 horse, and some foot, and, clothed in armour, met the Moghul forces and drove them back. Asof again advanced, and was again defeated, with a loss of 600 men. A third effort was successful, her son was wounded, and her troops fled; she herself was wounded, and she ended her life with a dagger. Her tomb is still to be seen in a narrow defile between two hills, and passers-by place crystals on her grave. Her name still rests in Gond story (As. Res. xv. p. 437). She was interred at the place where she fell (Ben. As. Soc. Journal, vi. 628), and to this day the passing stranger places a votive offering one of the fairest he can find of those beautiful specimens of white crystal in which the hills in this quarter abound. Two rocks lie by her side, which are supposed by the people to be her drums converted into stone; and strange stories are told of their being still occasionally heard to sound in the stillness of the night by the people of the nearest villages.

DURG BANSI. Hind. A tribe of Rajputs in Joupur and Azimgurh.

DURGI MURGI WALE of Kohlapur, are Hindu wanderers, who exhibit idols and beg. Their favourite objects of worship are Lakshmi and Hanuman.

DURIA MADDEE, also Korn maddee and Kornman. Tel. Briedelia spinosa. A tree of the Godavary; wood very strong and good. Cattle eat the leaves most voraciously.—Beddome.

DURIO. The name of this genus of plants has been derived from Durian, a well-known fruit of the Malay Archipelago. The specific name of zibethinus has been applied to the tree from its fruit smelling like the fœtid zibet (Vivera rouse, Hor.). The genus belongs to the order Sterculiaceae.

DURION, a tree of Sumatra; its trunk is hollowed out as a collin of the Batta rajas.

DURIO ZIBETHINUS. Linn. Du yeen, ... Birm. Doriain, ... Eng. Du yeen yaising, ... Turrien, ... Siam.

The durian is a large and lofty tree of the Malay Peninsula, the Eastern Archipelago, and the Moluccas. The flowers are arranged in clusters on the trunk and older branches, where is also borne the fruit, as in the jack tree. It is of the size of a melon, covered with sharp points; when ripe, the outer skin opens spontaneously, and the interior consists of five lobes of a creamy consistence and a whitish colour, in which are nuts more or less numerous. During May and June it is in season; but there is usually also a second crop in November. It is as remarkable for the delicacy, combined with richness, of its flavour, as for the intolerable offensiveness of its strong and persistent smell, which repels most Europeans, possessing an odour so powerful and diffusive as to taint the air of a whole town when it is in season, and steamers carrying the fruit stow them in the tops. It is sometimes compared to a rolled-up hedgehog; hence it has been called Echinus arboreus, in consequence of its hard and thick rind, which is yellow-coloured when ripe, being covered with firm and angular projections. The seed, with its edible enveloping pulp, is about the size of a hen's egg. The pulp is as white as milk, and as delicate in taste as the finest cream; but it should be eaten fresh, as it soon becomes discoloured, and undergoes decomposition. When
the fruit is ripe it falls of itself, and getting them as they fall, the smell is less overpowering. When the fruits begin to ripen, they fall daily, and almost hourly, and accidents not unfrequently happen to persons walking or working under the trees. The seeds are likewise eaten when roasted, and have something of the flavour of chestnuts. The wood of the tree is valued for many economical purposes, especially when protected from moisture. The rind, probably from containing potoah, is used in the preparation of some dyes. The natives of the countries yielding the durian prize it beyond all other fruits. In countries with a suitable climate, it flourishes without care or culture. It is most abundant in the western portion of the Archipelago, and extends east as far as the island of Mindano, the only one of the Philippine group in which it is known. It is abundant in Siam, and is found on the coast of Tenasserim about lat. 14°, which is the furthest distance from the equator to which it has been successfully propagated. All attempts to cultivate it in any part of Hindostan have failed; nor has it, like some other Asiatic fruits, been transferred to tropical America. A hot, moist, and equable climate would seem to be indispensable to the durian; but soil seems to be indifferent to it, for it thrives in the granite, in the sandstone, and in the calcareous soil of the Malay Peninsula and Sumatra, in the volcanic soil of Java, and in the rich alluvium of the valley of the Surabaya in Siam. The name is from Dari, Malay., a thorn or prickel, with reference to the sharp tubercles with which the rind is covered. In the interior of the Malay Peninsula, in several places in the forest are found durian trees, always in a body together, to the number of about ten or twelve trees. Such places are for the Jakuns an object of great attention, and matter of work. They cut with the great axe all the other trees which surround the durians, that these, by receiving more air, may grow up more easily, and give finer and a greater quantity of fruit. They build there a small house, and then return to their ordinary habitations, which are sometimes distant from such places one or two days' journey. Durian is seen to grow spontaneously in one of the small islands of the eastern coast of the Malay Peninsula, and which is nearly one entire forest down to the margin of the sea. On Pulo Tungi, the Orang Laut, or sea-gypsy, assemblé, attracted from the coast of the Peninsula, as well as from the islands of the Johore Archipelago. On one occasion, six boats from Moro, an island of that group, were found on their way to Pulo Tungi; they had travelled by sea a distance of 180 miles, to partake of the fascinating fruit.— Roxburgh, iii. p. 398; Madden's Hist. of Sumatra; Mason's Tenasserim; McClelland, Eng. Cyc.; Crawford, Dict. p. 126.

DURKHEE, Hind., also written Durkhi, an insect whose ravages are very destructive to indigo, when the plant is young.

DURKOTEE. This petty chieftainship pays allegiance to the British Government, and is exempted from all pecuniary liability. Revenue, 500 rupees; population, 612.—Alcheson, Treaties.

DURRAH, a derivative of Dwar, a barrier, pass, outlet, or portal. Mukund is one of the epithets of Krishna. Mukundurra and Dwariarath are synonymous, the pass and portal of the deity.—Rajasthan, ii. pp. 702, 703. See Door.

DURRAH, a Pindara brigade.

DURREE, Hind. A woolen cloth of Ambala and Bahawulpur.

DURUNG. Malay. In Bawean, a hall of audience or of reception, before the houses.

DURVA. Hind. Pea cynosorioides. Vishnu, as Rama, in his seventh incarnation, assumed the colour of this grass, which is therefore held sacred to that god, and used by the Vaishnavas in all religious ceremonies.

DURVASAS, in Hindu legend, a rishi of a choleric temperament, whose curse was of dreadful effect. He is described as the son of Atri and Anasuya. He cursed Sakuntala for keeping him waiting at the door; he foretold that Krishna would be killed, because Krishna did not wipe particles of food off his foot; but he blessed Kunti, so that she became a mother by the sun. He cursed Indra to lose his sovereignty over the three worlds, and Indra had recourse to Vishnu to be restored to health.

D'URVILLE. Admiral Dumont d'Urville, an eminent French navigator, who left France in 1857 with the Astrolabe and La Zélée corvettes, on a voyage of discovery in the Antarctic Ocean. He perished on the 8th May 1842, in the fire that destroyed the cars on the Paris and Versailles Railroad.—Am. Exemp, p. 278.

DURYODHANA was the eldest son of king Dhrita-ras'ka, and, being of the elder branch, retained his title as head of the Kuru, while the junior, Yudishtra, on the separation of authority, adopted his father's name, Pandu, as the pater-onymic of his new dynasty. He educated along with his own 100 children, the five sons of his brother Pandu; but he took a dislike to Bhima, and the Pandava princes went into exile, where his enmity followed them, and he failed in an attempt to burn them in their home. On their return from exile, he gambled with Yudishtra, eldest of the five Pandu princes, and won their entire possessions, even to the freedom of themselves, and even of their wife Draupadi, whom he ordered to sweep the room, and on her refusing, his brother Dushasana behaved rudely towards her. Yudishtra having lost his kingdom, his wife, and even his personal liberty and that of his brothers, for twelve years, became an exile from the plains of the Yamuna. The Kaurava and Pandava fought for dominion. The site of the great conflict, known as the Mahabharat, between these rival clans, is called Kuru Khotu, or Field of the Kurus. On the 18th day of the battle, Bhima fought with and wounded Duryodhana, so that he died of the injuries he received.—Dowson; Garrett.

DUSSUMIERIA ACUTA. C. and V. Tamba-bulat. Head above, back, and upper third of the sides, deep glossy blue, bordered by a longitudinal band of pale copper-red; the rest of the head and body shining silvery. Single individuals occur at Penang at all seasons, but numbers from June to September. It is highly valued for its delicate flavour, and passes commonly as a sardine. The latter denomination it shares, however, with Clupeonella perforata, with which it is also conjoined by the Malays under the common name of Ikan tamban. Both have been prepared as sardines à huile. See Clupeidae.

DUST and Dust-storms.

Dust, or cloud of minute particles, blown or transported by the wind, is a common phenomenon. It is well known that in deserts there is a daily dust-storm, the result of the gradual evaporation of the moisture in the soil. When this soil is fine and sandy, it is easily blown up into a cloud, and may be carried for many miles. Even in arctic regions the snow is blown up into the air, and sometimes covers the trees with a white snow-like deposit. In desert regions, where the heat is intense, it is well known that the fine dust is blown up into the air, and forms a cloud, and may be carried for many miles. Even in arctic regions the snow is blown up into the air, and sometimes covers the trees with a white snow-like deposit.
DUST.

Dust is carried along with winds to great distances. Sicere or African dust has been found by the microscope to consist of infusoria and organisms whose habitat is, not Africa but S. America, and carried in the track of the S.E. trade wind of S. America. In the dust of the Cape Verdes, Malta, Genoa, Lyons, and the Tyrol, Ehrenberg discovered separate forms. Dust is blown from Arabia and Africa far to seaward, causing a great haze. During four months of the year, a large quantity of dust is blown from the N.W. shores of Africa, and falls on the Atlantic over a space of 1600 miles in latitude, and for a distance of from 300 to 600 miles from the coast. But dust has been seen to fall at a distance of 1030 miles from the shores of Africa. Darwin mentions that in some of the dust 330 and 380 miles from Africa, falling in the sea near the Cape de Verde Islands, particles of stone occur 1000th of an inch square. Dust-storms are very frequent in India, and usually have a north to south course. One commenced at Allahabad about seven A.M., and continued till one P.M., retaining the same fury as when it began. On the evening of the 17th, Secunderabad had been visited with an unusually severe dust-storm. It came from the N.W. and was accompanied by lightning and thunder. The air to a considerable height was rendered almost opaque by dense clouds of red dust. The wind raged with great fury for upwards of half an hour, and on its abating was followed by a heavy shower. The dust-storm passed over Madras on Sunday the 19th, beginning at one P.M. It had passed over Kristnapatam, seventeen miles S.E. of Nellore, at half-past ten o’clock in the forenoon of that day, accompanied by a slight fall of rain. In the north of the district between Ongole and Ramapatam, there was a heavy fall of rain in the forenoon of Sunday, averaging from two to four inches. At Chingleput, thirty-six miles south of Madras, the storm was experienced in full force at that station at two P.M. the same day. It came from the N.W., and the wind was laden with vast quantities of reddish dust; no refreshing shower succeeded the storm.

A dust-storm occurred over 8800 square miles, from Ningpo to Shang-hai, on the 15th March 1846. It consisted of a congeries of light downy fibres or hairs, with silex adhering to them, and an admixture of an alkaline salt. In China, according to Richthofen, beds appearing like fine sediment, several inches deep, are found over an enormous area, owe their origin to dust blown from the high lands of Central Asia.

Whirling dust-storms are caused by spiral columns of the electric fluid passing from the atmosphere to the earth; they have an onward motion, a revolving motion, like revolving storms at sea, and a peculiar spiral motion from above downwards, like a cork-screw. It seems probable that in an extensive dust-storm there are many of these columns moving on together in the same direction, and during the continuance of the storm many sudden gusts take place at intervals, during which time the electric tension is at its maximum. These storms, in the Panjab, mostly commence from N.W. or W., and in the course of an hour, more or less, they have nearly completed the circle, and have passed onwards. Precisely the same phenomena, in kind, are observable in all cases of dust-storms; from the one of a few inches in diameter, to those that extend for fifty miles and upwards, the phenomena are identical. It is a curious fact that some of the smaller dust-storms occasionally seen in extensive and arid plains, both in the Panjab and in Afghanistan above the Bolan pass, called in familiar language devils, are either stationary for a long time, that is, upwards of an hour, or early so, and during the whole of this time the dust-storms revolving on the ground are kept whirling above into the air; in other cases, these small dust-storms are seen slowly advancing, and when numerous, usually proceed in the same direction. Birds, kites, and vultures are usually seen soaring high up just above these spots, apparently following the direction of the column. They may be looking for prey, or involved in and unable to fly out of, the invisible part of the electrified aerial column, of which the lower part only is visible to us by the dust raised. The phenomena connected with dust-storms seem to be identical with those present in waterspouts and white squalls at sea, and revolving storms and tornadoes of all kinds; and they apparently originate from the same cause, viz. moving columns of electricity. In 1847, at Lahore, an observer, being desirous of ascertaining the nature of dust-storms, projected into the air an insulated copper wire on a bamboo on the top of his house, and brought the wire into his room, and connected it with a gold-leaf electrometer and a detached wire communicating with the earth. A day or two after, during the passage of a small dust-storm, he had the pleasure of observing the electric fluid passing in vivid sparks from one wire to another, and of course strongly affecting the electrometer. Afterwards, by the same means, he observed at least sixty dust-storms of various sizes, all presenting the same phenomena in kind. Commonly, towards the close of a storm of this kind, a fall of rain suddenly takes place, and instantly the stream of electricity ceases, or is much diminished; and when it continues, it seems only on occasions when the storm is severe and continues for some time after. The barometer steadily rises throughout. In the Panjab plains, the fluctuation of the barometric column is very slight, seldom more than two or three tenths of an inch at a time. The average height at Lahore is 1180, corrected for temperature, indicating, it is supposed, above 1150 feet above the level of the sea, taking 30 inches as the standard. A large dust-storm is usually preceded by certain peculiarities in the dew-point, and the manner in which the particles of dew are deposited on the bulb of a thermometer. The mode of taking the dew-point is to plunge a common thermometer in a little ice, and let it run down 20° or 30°. The manner in which the electricity acts upon the dust and light bodies it meets with in its passage, is simple enough. The particles are similarly electrified and mutually repulsive, and then, together with the whirling motion communicated to them, are whisked into the air. The same takes place when the electricity moves over water. The surface of the water becomes exposed to the electric agency, and its particles, rendered mutually repulsive, are in the same way whirled into the air. At sea the waterspout is thus formed. First of all is seen the cloud descending, and beneath
DUTCH.

DUTCH. This name, in the English language, is given to the people of Holland, who call their own country Netherlands or Netherland. They have occupied parts of the East Indies since the middle of the 16th century. Ceylon was occupied by the Portuguese in 1596, but was taken possession of by the Dutch in 1658, and by the British in 1797. They had small possessions on the continent of India, chiefly near Cochinn. They had taken Malacca, Naming, and neighbouring sites, but some of these were taken by arms by the British, and others were obtained from them by negotiation under the treaty of 17th March 1824.

Asiatic nations have territories great established also in Asia. Houtman of the sultan, the then is comprised in the strait which is called the Malacca, in the Dutch, Dutch and the Dutch. The British at that time to war with his brother Mangkoe Boemi. The war lasted till 1755, and the Mataram territory was then appropriated to the brothers,—Surakarta to the Sultan, and Jokyokarta, with the title of sultan, to Mangkoe Boemi. These two principalities continue independent of each other to the present, although diminished in extent.

The Dutch possessions in Netherlands India comprise subject and feudatory states. The former is Netherlands India proper, and consists of Java and Madura, arranged into 23 civil districts. In the tributary states the old reigning families remain, but in every state a resident is appointed, and under his superintendence the native administration is carried on, much in the same way as is done under similar circumstances in India. Some states, which have not been subdued, are under treaty agreements.

The area of the principal islands of Netherlands India, according to Baron Melvillo Van Carnebo, 445,411 square English geographical miles. Population, 23 millions.

In the year 1880 the population of the two divisions of Netherlands India was as under:

<table>
<thead>
<tr>
<th>Province</th>
<th>Natives</th>
<th>Chin.</th>
<th>Arab.</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Java, Madura, 38,353 Celebes, 12,660 Banda Islands, 1,450 Malacca, 500</td>
<td>428,590</td>
<td>1,065</td>
<td>127</td>
<td>57,122</td>
<td></td>
</tr>
<tr>
<td>Java, 7,211 Simeulue, 2,204</td>
<td>850,383</td>
<td>75,224</td>
<td>1,005</td>
<td>127,347</td>
<td></td>
</tr>
<tr>
<td>Malacca, 15,655</td>
<td>2,524</td>
<td>60,657</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Borneo, 3,850</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Borneo, 3,850</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
</tbody>
</table>

Total, 3,707,963,342 131,337,889,049 4,914,919,870

In 1877 the revenues were as under:

A. Licences (opium licence, for slaughter of cattle, for pho and topgoes, for sale of Javanese and Chinese tobacco, birds' nests, coves, etc.), f. 10,656,625

The income from the opium duty was 16,389,960

Import and export duties and excise, 9,162,825

Property tax (rate levied on real property which is not subject to the land tax) and tax on the spice grounds in the Banda Islands, 1,563,175

B. Public sales, 680,135

Small stamps, 872,028

Tax on tobacco, 456,850

Tax on carriages, 49,765

Surtax, 69,235

Tax on markets, 3,638

On private lands (the tax on the other markets was abolished in 1802), 101,026

Licensing Chinese gambling tables, 51,700

Tax on the slaughter of cattle, etc., in the Preanger, 52,447

Tax on professions, 1,738,699

Special taxes in the possessions outside Java and Madura, 1,344,967

Contribution of inland princes, 238,265

Contributions from inland princes, 238,265

Income from land (rent, rent on fish ponds, and a tenth of the rice crop, saltpans, and sugar-cane in the government of Celebes), 16,349,662

Transfer of freehold, ground lease, and building lease, 538,610

Netherlands India Proper, 36,251 square miles. Population of each district of Java and Madura in the year 1880.

<table>
<thead>
<tr>
<th>Province</th>
<th>Natives</th>
<th>Chin.</th>
<th>Arab.</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banjarmasin, 4,729</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Buton, 5,800</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Houtman, 5,490</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Javan, 6,100</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Javan, 6,100</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
</tbody>
</table>

Total, 53,708,19,642,835 206,914,156,528 39,919,797,577

Settlements and Residences.

<table>
<thead>
<tr>
<th>Province</th>
<th>Natives</th>
<th>Chin.</th>
<th>Ar.</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Padang, 1,005</td>
<td>1,005</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
</tr>
<tr>
<td>Pagni, 9,803</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulo Banca, 2,025</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billiton, 2,025</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billiton, 2,025</td>
<td>41,047</td>
<td>1,005</td>
<td>41,047</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total, 7,923,4,763,342 131,337,889,049 4,914,919,870

May be observed the water in a cone.—Bengal Asiatic Soc. Journal, No. v. of 1850, p. 790; Darvin, p. 239.
Birds' nests (so far as not leased)............. f. 14,288
Wood and forests (leases, sale of timber, etc.).. 831,694
National banking establishment................ 169,388
Salt monopoly.................................. 6,705,796
Letter post.................................... 65,914
Horse post..................................... 304,933
Telegraphs...................................... 50,038
Port anchorages and pilot duties................ 248,912
Sale of coffee.................................. 60,411,761
Sale of tin...................................... 3,904,247
Sale of quinine................................ 87,880
Excise on sugar-cane plantations, manufactures working on contracts with the Government........ 4,655,282

The figures give the value of the imports and exports for private account were for 1877.
Imports, f.126,067,000 { Merchandise, 112,705,000
Specie, 13,362,000
Exports, 163,392,000 { Merchandise, 161,583,000
Specie, 1,592,000

The army of 30,000 men which Holland maintains in these dependencies is entirely distinct from that in Europe. It is under the Minister for the Colonies, and is commanded by a Lieut.-General, whose position is next to that of the Governor-General. The islands have military commands:—

Three divisions in Java, with their headquarters at Batavia, Semarang, and Sourabaya.
One division for Sumatra and its dependencies, headquarters at Padang. The districts of Lampung, Palembang, Banka, Kiow, and dependencies.
The W. division of Borneo, headquarters Pontinak.
The E. and S. division of Borneo, headquarters Tandjermas.
Colchus, headquarters Macassar.
The Molucca, headquarters Ambonva.

The regulars comprise in definite proportions, Europeans and natives. Enlistment is voluntary. The officers of all arms are furnished from the Military Academy at Breda, from non-commissioned officers of the army in Europe, who pass certain special examinations, and from the non-commissioned officers of the colonial army, who pass successfully through the schools. There are also a certain number of officers detached from their corps in Holland for five years, who are replaced during their absence by officers of the colonial army. Of the European rank and file, one half are Dutch, and the remainder French, Swiss, and Germans. In the island of Java are concentrated nearly all the military establishments, and the greater part of the troops.

The native soldiers comprise men from the coast of Guineas, from Congo, from Ambonva, Madura, and Java, and of these the best are said to be the Ambonva and Guineans men. The Schutterij are a sort of national guard, composed of Europeans and natives from sixteen to forty-five years of age; they can be mobilized for service, but not out of the islands to which they belong. The Pradocripts are small bodies of native soldierly, which serve as guards to the residents and Dutch authorities. They comprise about 2000 men, and cannot be sent on service beyond their own districts. Finally, there are the Dyayangescars, a sort of native gendarmerie, commanded by European officers.

The troops kept up by native princes can also be mobilized for service on the Governor-General's orders. These are called Barrisans, and are reported to be brave men. They comprise infantry, cavalry, and artillery, and are paid by the Malay princes.

In 1854, Amboyna, Ternate, Banda, and Kayeli were made free ports.—Dickmore, p. 147;
Comte d'Ivoydrop, Camp d'ici sur I'ile de Java,
Arch.; Toninick's General View of the Dutch Pos-
sessions in the Indian Archipelago; Straits Times;
Civil and Military Gazette; Regriyn's Almanac,
1882.

DUTT, from Datta, a gift, a frequently occur-
ing name amongst the Hindus of Calcutta, as Deo-dutt, Theodotus, God's gift. See Datta.

DWAJA. SANSK. A twice-born man; a man of any of the three first classes or castes of the Hindus, the Brahman, Kshatriya, and Vaisyia, after being initiated into their respective tribes by investiture with the sacred thread, which is called a second birth. Various ceremonies are attendant upon these caste Hindu boys between infancy and the age of eight years. After that age, and before a Brahman boy is fifteen, it is imperative upon him to receive the poita, zornar, janavi, or jhandiam, the sacred thread, which the Brahmanas, in their secret ceremonies, call Yadupavita. The investiture of a Brahman boy, after a variety of preliminary ceremonies, is thus performed. The priest first offers a burnt sacrifice, and worships the salagrama, repeating a number of prayers.

The boy's white garments are then taken off, and he is dressed in yellow or red, and a cloth is brought over his head, that no Sudra may see his face; after which he takes in his right hand a branch of the vilva tree, Agie marmolos, and a piece of cloth in the form of a pocket, and places the branch on his shoulder. A poita of three threads, made of the fibres of the anar, to which a piece of deer's skin is fastened, is suspended from the boy's left shoulder, falling under his right arm, during the reading of the invocations. The father of the boy then repeats certain formulas, and in a low voice pronounces three times, the gniirti O'm! Bhurubhuvani savahii, O'm! Tatsa vichh varennayam, B'hamge devasaya dhimahi dhyo yona Praho dayath. O'm! earth, air, and heaven, O'm! Let us meditate on the adorable light of the divine Sun (ruler), Savitri; may it guide our intellects. After this the suru poita is taken off, and the real poita, or sacred thread, put on. During this ceremony the father repeats certain formulas; the suru poita is fastened to the vilva staff; shoes are put on the boy's feet, an umbrella in his hand, as is prepared for a long journey. The receiving of the poita is considered as the second birth of a Hindu, who is from that time deno-
minated 'dwaaja,' or twice-born. A Brahman boy cannot be married until he has received the poita. The sacred thread must be made by a religious Brahman. It consists of three strings, each ninety-six hatli or cubits (forty-eight yards), which are twisted together; it is then folded into three, and again twisted; these a second time folded into the same number, and tied at each end in knots. It is worn over the left shoulder (next the skin), extending half-
way down the right thigh, by the Brahman, Ksha-
triya, and Vaisyia castes, and in Southern India by the artisans. The first are usually invested with it at eight years of age, the second at eleven, and the Vaisyia at twelve. The period may
DWARITA.

from especial causes, be deferred; but it is indispensable that it should be received, or the parties resisting it become out-castes. They do not consider an individual as fully a member of his class until he has assumed this emblem. It is, in its import, the counterpart of the confirmation of the Anglican Church. Of these zonas, a Brahman wears four, the other privileged tribes but three. Some writers call this the Brahmanical, or priestly or sacredaist, tribe, and it is not being confined to a Brahmin, priestly, but worn by three out of the four tribes of Hindus, and by all the five sections of the artisan class, the kansa of the Hindus, viz. the goldsmith, brazier, blacksmith, stonecutter, and carpenter. The number of three threads, each measuring ninety-six hands, for the sacrificial string, may have some mystical allusion to the ninety-six fixed annual sacrifices. The number three is mystical with almost all nations, and with the Hindus may refer to the same source as the three sacred fires, the three legs of Agni, the triad of divine powers, etc. Ninety-six does not, however, arise from any ordinary process of three, and seven, and two, the distinguishing numbers of Agni’s legs, arms, and faces. —Muir, p. 379; Cole, Myth. Ind., pp. 155, 245.

DWARITA, Adwaitya, and Vasisthadwaitya are three great schools of Brahmanical philosophy. Adwaitya is the doctrine of unity, distinguishing two principles in creation, spirit and matter. It is opposed to the Adwaitya or Monad doctrine, which acknowledges the reality of spiritual existence only. The followers of Madhavacharya, who are Vaisnava sectarians, adopt the Dwaitya or dual philosophy, and maintain that the soul of man is distinct from that of the deity.

DWAJASTAMBHA. Sansk. A flagstaff; a pillar bearing an ensign.

DWAFAKARA. Sansk. From Dwa, the second, and Para, after. The Dwaqara-yuga, in Hinduism, the third age of the world, the brazen age, extending to 864,000 years:

‘The Dwaraka yug! ah thou! —
Preposterous that one bipped vain
Should drag ten housewives in his train,
And stuff them in a gaudy cage,
Slaughters to weak lungs, or potent rage.
One beam dame might wed five men.
True history in sacred terms
This philosophic lore confirms;
For India once, as now cold Tibet,
A group unusual might exhibit,
Of several husbands, free from strife,
Linked fairly to a single wife!
But, lest my word should nought avail,
To fair, to no unholy tale
Attend;—Five thousand years ago,
As annals in Benares show,
When Pandu chiefs with Curus fought,
And each the throne imperial sought,
Five brothers of the royal line
Blazed high with qualities divine:
The first a prince without his peer,
Just, pious, liberal Yudhishthir;
Then Arjun, to the base a rod,
An he favored by a god;
Bhima, like mountain-leopard strong,
Unrivaled in the embattled throng;
Bold Naucul, fired by noble shame
To emulate fraternal fame;
And Scehdeo, flushed with manly grace,
Bright virtue dawning in his face;—
To these a dame devoid of care,
Bhitte Draupady, the debonair,
Renowned for beauty and for wit,
In wedlock’s pleasing chain was knit.’

DWARA. Hind. A gate or entrance. A term applied to the mountain passes leading from the plain at the foot of the Himalaya into Bhutan, also to the rich and fertile level tract itself. The Dwar are occupied by an Indian race. They are 18 in number. Their breadth varies from 10 to 20 miles, and their extreme length 220. They are in a narrow tract extending along the foot of the lower range of the Himalaya, and very unhealthy, and were inhabited by the Mech or Kachari and the Kochh or Rajbans, in all about 37,047. The Eastern Dwaras is a flat strip of country lying beneath the Bhutan mountains, intersected by numerous streams, and overgrown with wild vegetation. The West Dwaras include the tract of country at the base of the Bhutan hills from the Tista river to the Sunkos river on the east. It is about 25 miles broad, and terminates on the northern limits of Rungpore, Kochh Behar. The Bhutan government had been guilty of raids and of grossly insulting a British ambassador, and in 1863 to 1865 the Dwaras were seized and annexed. The Mech are cognate to the Kochh, Kachari, Garo, and Rabha. They are widely scattered over all N.E. Bengal, being able to support life in the malarious Terai that continuously fringes the first slopes of the Himalayas. The social condition of the Mech is very low. They are migratory, and their marriages are by abduction, but they are said to have adopted Rajaswini for its number, assumed by those Kochh who have adopted Hinduism.—Imp. Gaz.; Ann. Ind. Asia, xii. p. 87.

DWARA, a portal, a door, the Celtic Dooras. Amongst all nations of antiquity, the portal had its peculiar veneration. To pass it was a privilege regarded as a mark of honour. The Jew Haman, in the true oriental style, took post at the king’s gate as an inexpugnable position. Natives of India visiting prominent men, or attending court, alight at a distance from the portal. The most pompous court in Europe takes its title from its porte, the bab or door, where, as at Udaipur, all alight. The tripolia or triple portal, the entry to the magnificent terrace in front of the Udaipur rana’s palace, consists, like the Roman arcs of triumph, of three arches, still preserving the numeral sacred to the god of battle, one of whose titles is Tripart, which may be rendered Tripoli, or lord of the three pieces of abode, or cities, but applied in its extensive sense to the three worlds, heaven, earth, and hell. From the Sanskrit Pola, we have the Greek Polis, gate or pass; and in the guardian or Polish, or Dwara palata, the doorkeeper or porter; and the English language is indebted, not only for its portes and porters, but its doors (dwara). Pylas signified also a pass; so in Sanskrit these natural barriers are called Pala, and hence the poetical epithet applied to the aboriginal mountain tribes of Rajasthan, namely, Palipati and Pala-Indra, lords of the pass. Nathdwaras is the most celebrated of the fanes of Krishna, the Hindu Apollo. Its etymology is ‘the portal’ (dwara) ‘of the god’ (nat’h), of the same import as his more ancient shrine of Dwariaca or Dwarka. Nathdwaras is 22 miles N.N.E. of Udaipur, on the right bank of the Bunas. Although the principal resort of the followers of Vishnu, it has nothing very remarkable in its structure or situation. It owes its celebrity entirely to the image of Krishna, said to be the same that had been worshipped at
DWARA SAMUDRAM.

Mathura ever since his deification, between eleven and twelve hundred years before Christ. As containing the representative of the mildest of the gods of Hind, Nat humanoid is one of the most frequented places of pilgrimage, though it must want that attraction to the classical Hind where the caves of Gaya afford.—*Toö's Raja斯坦*, i. pp. 323-589.

DWARA SAMUDRAM, the modern Halibud, a town in Mysore. It was at one time held by the Bellala, a Yadava race.

DWARKA or Dwarka or Dwara Vati, the City of Gates, also called Abdhi-nagar, is at the W. extremity of the Gugera peninsula, in lat. 22° 14' 20" N., and long. 69° 5' E. The great temple, the most famous shrine of Krishna, is at the point of the Saurashtra peninsula called Jagugat Koont. In the time of Krishna it seems to have been a hotbed of drunkennes. The people suddenly fell on each other after a great drinking bont, and many were killed. A storm-wave overwhelmed the city, and destroyed more of them; but Krishna, his brother Arjuna, and a few others escaped. It is one of the seven sacred cities of the Hindus; population 4712. At Dwarka the god of thieves is called Bucha Trivernara, or of triple energy, the Hermes Triplex, or three-headed Mercury of the Egyptians. Dwarka, in Obkanra, was taken 26th November 1800.—*Toö's Raja斯坦*, i. p. 75; Wheeler's *Hist. of India*.

DWARKANATH TAGORE, an enlightened Hindu and religious reformer of Bengal, who travelled through Italy and France on his way to England. He returned once to his native country, but again revisited England and died. He took with him several medical pupils to be educated there. He adopted theical views, and his example originated the Hindu sects known as the Braho-Samaj and Vebo-Samaj.

DWIPA. SANSK. An island, from Dwi, two, and Ap, water; also an extensive region or continent. The cosmogony of the Agni Purana divides the world then known to the Hindus into seven dwipas or continents.—(1) Jambu-dwipa, (2) Alaksha, (3) Samnali, (4) Kusa, (5) Kranucha, (6) Saka, (7) Pushkara. Jambu-dwipa, according to the Hindus, the division of the world in which India lies, was so named because the jambu tree grows in it. Saka-dwipa, whose inhabitants descended from Bupha, are termed Saceswara, i.e. Saka lords. Bupha's offspring or descendents were Julud, Sookmar, Manichuk, Koorn, Ootures, Darbeeka, Drooma, each of whom gave his name to a Khand or division (qu. Sookmar Khand). The chief ranges of mountains were Julud, Krait, Sinanah, Indue, Amki, Rim, and Kesari. There were seven grand rivers, viz. Mug, Mugud, Arverna, etc. The inhabitants worship the sun. We must believe that this Saka-dwipa or Sacatai is the Sythian of the ancients; and the Saceswara (the Saca of Menu), the Sacc so well known in western history, the progenitors of the Parthians, whose first (ad) king was Arsaca. The sun-worship indicates the adorer of Mithras, the Mitra or Surya of the Hind; the Arverna recalls the Araxes applied to the Jaxartes; while Julud, the proper name of the son of the first king of Saka-dwipa, appears to be the JuludRemarks on the Tatar historian Aboulizi, who used the same term as does the Hind, to designate a range of mountains. Whence this identity between Prurane and Tatar cosmography?

DYES.


Dyeing is the art of imparting to wool, hair, silk, cotton, linen, leather, etc., colours which resist the operation of washing, and the wear to which they are subject, when made up into articles of furniture or clothing. The art was known at a very early period. Jacob made for Joseph a coat of many colours (Genesis xxxvii. 3); and in Exodus frequent mention is made of the ornaments for the tabernacle, as being composed of blue, purple, scarlet, and fine linen. About N.C. 1400, the Mahabharata describes the colours of garments worn by men and women, which could only have been produced by the indigo, which was known by the ancients to yield the blue dye. The term Dye, in the first use to designate the cloth, and in the present meaning of the word, i.e. to dye. The art of dyeing was found in India, the place which has been visited by Arab traders, and is the source of the wool, and the dyeing of the henna, turmeric, and indigo. The dyeing of the indigo is first worked up into an extract, and then into various colours, and finally into the proper article. The colours are made by mixing the extract with various substances, and are called *Dyeing*.

In the Bagh caves in Central India, which are nearly as old as those of Ajunta, Dr. Bhau
Dyes. in but and they played in that part of India, from B.C. 200 to A.D. 800 or 1000; and besides garments of many colours, they show coloured borders and ends to white clothes. Pliny mentions the flags of various colours displayed by the Indians; and the Egyptians may have learned the art from the Hindus, from whom they doubtless obtained the alum celebrated by the name of Egyptian alum, the manufacture of which is still carried on in Cutch.

We read also in 2 Chronicles ii. 14 of Solomon having sent to Tyre for coloured linens, and the king of that country sent him a man skilful to work in purple, in blue, and in fine linen, and in crimson. Still nearer the Christian era, Ezekiel (593 B.C.), in his prophecy against Tyre (xxvii. 7), speaks of "blue and purple from the isles of Elahish." The Tyrian dye is supposed to have been obtained from two molluscs, described by Pliny under the names phurna and buccinum. Their colour was durable, but very costly. Pliny states that a pound weight of the double-dipped Tyrian purple was sold in Rome in the time of Augustus for 100 crowns (equal to about £30 of our money). Citizens of Rome wore purple attire until the time of the emperors, when the use of purple was restricted to them; and the manufacture languished until the 11th century, and then became extinct. In the 17th century the art of dyeing purple was revived by Mr. Cole of Bristol, and in the 18th century by M. Reaumur of France; but by this time finer colours had been discovered, and cheaper processes invented. We learn from Pliny that the competitors in the circus were clothed in dresses of green, orange, grey, and white; but the art of dyeing was lost at Rome after the invasion of the northern barbarians in the 5th century. About the end of the 12th century, Florence became celebrated in the art, and in the early part of the 14th century numbered not less than 200 dyeing establishments. The discovery of America supplied Europe with a variety of new colouring matters, such as indigo, logwood, quercitron, Brazil-wood, cochineal, arnottio, etc. Before the introduction of indigo, wood was used in Europe for dyeing blue; and the cultivators of this plant endeavoured to prevent the use of indigo, which, by a decree of the German Diet in 1577, was declared to be "a pernicious, deceitful, eating, and corrosive dye." The introduction of logwood was opposed from similarly interested motives. Its use was prohibited by a statute of Elizabeth, under heavy penalties, and all of it found in the country was ordered to be destroyed. It was not until the reign of Charles II. that its use was permitted. The method of dyeing Turkey-red—one of the most durable of colours—early discovered in India, was afterwards practised in other parts of Asia and in Greece. About the middle of the 18th century, some Greek dyers established dyeworks for this colour in France, and in 1765 an account of the method of producing it was published, by order of the French Government. About the end of the 18th century, a Turkey-red dyehouse was established in Manchester by a Frenchman, who obtained a grant from the British Government for the disclosure of his process, which, however, was not very successful. A better process was introduced into Glasgow by a Frenchman named Papillon; but before this, Mr. Wilson of Ainsworth, near Manchester, had obtained a process from the Greeks of Smyrna, which he made public. Still more recently, in the middle of the 19th century, a discovery by Faraday, and, after him, by other chemists, of a series known as the aniline dyes, has lessened the value of the madders, cochineal, turmeric, and safflower.

India and China furnish all the raw materials for a great variety of colours; and as indigo undergoes a considerable degree of chemical change during its formation, as well as while applied to the dyeing of its blue colour, the people must have early known how to manufacture the several salts which have long been employed as mordants. Mr. Rotole does not think that any durable colours are communicated by natives of India to cotton cloth, except reds and blacks, and modifications of the one; the other; their deep blues, yellows, and other colours are lost to him very fugitive.

The success which the art attained in India is owing chiefly to the abundant supply of materials, whilst the simplest possible form of working these materials has been adopted. The forest products in many places are collected by the dyers or their families. The myrobalan is often left to rot on the ground. The dyers conduct their operations on some river bank, or close to a well with a plentiful supply of water. A fireplace of bricks, and mud utensils of simple make, a large cistern for the principal dye-beek, a hollowed stone for a mortar, and such-like, are enough for the dyer in India, and are what his fathers have used for ages. Yet with these simple means, the Indian dyer, without any great knowledge of chemistry, works with results which were once the admiration of the world, and are even still sufficiently creditable to him. In the west of India, for a time, the Khatri engrossed the art to themselves. But the trade was also taken up by Mahomedans, who are in India designated Rangrez. In the early days of European intercourse with India, the dyed cloths of Gujerat were received with great favour in the Portuguese market of Goa; and colonies of dyers were invited to settle under European protection at Din and Daman, where dyeing was for a time largely carried on. But the dyers of Western India have fallen behind their brethren in Hindustan, especially those in the Panjab, Kashmir, and Sind, the last country having always been famous for its pre-eminent in this respect.

The dyeing industry in the N.W. Provinces is conducted in two distinct branches, each of which is followed by a separate class of Mahomedans. These are the Rangrez, who dye in plain colours, and the Chippies, who are calico printers. The former generally dye cloths which customers send them; the Chipi purchase plain fabrics, which they print and sell. The Chipi sometimes also dye plain colours, such as the khara (coarse red) cloth of Man Ranipur, and the salu, which is a finer cloth, dyed red. The Rangrez also produce varieties of colours by combinations of different dyes.

In the calico printing of India, the apparatus consists of some patterned wooden blocks, and an earthen pot, on which a light convex bamboo
frame-work is fitted. Over this is placed a thick cloth, generally of wool. The cloth to be printed is stretched on a padded board, and the colour is hand-printed on the cloth with the dye, or a mordant only is printed, the colour being subsequently applied by boiling.

The carpet-weavers of Bangalore, in the most simple manner, obtain their various soft shades, from a light greyish-white through brown and dark grays to black, by sorting the natural fleece, and by their combination are produced the harmonious effects observed in the Bangalore carpets. The bags of wool, coming in just as they are clipped, are picked over by women and boys, and the different shades of wool separated, to be spun into different-coloured yarns. These dull colours forming the groundwork of the carpets, are relieved to a certain extent by indigo blues and tumeric yellows, and by a dull green when the two are combined. But the bright purples, reds, oranges, and greens, observable on all but the plainest carpets, are now aniline, and the juxtaposition of these fugitive colours with the absolutely fast shades of the natural fleece is very curious. The aniline colours are floating. In the bright light of India they go in a few months, or even days, if exposed to direct sunlight; but a little bright colour with no increase of prices tempts many purchasers.

Most of the colours used in dyeing are vegetable, a few are from the animal and mineral kingdom. The most vivid and brilliant vegetable colours, such as those of flowers and other parts of plants exposed to the light, are small in quantity, very fugitive, and difficult to separate. The colouring matters of plants capable of being isolated, are mostly yellow, brown, and red. Blue dyestuffs furnished by plants are indigo and litmus. No black vegetable dye has been isolated. Most vegetable colours are soluble in water, and those which are not so can be dissolved in alcohol, ether, or the fixed oils. Vegetable colours are permanent in dry air, but they gradually fade in moist air, especially under the influence of light. The blue of most flowers is converted into red by an acid, and into green by an alkali. The methods of dyeing vary with the nature of the dye-stuff, and also with that of the material to be dyed. Different methods are adopted for cotton, silk, and wool.

In India, the secrets of the mixtures of colours, the methods of extracting the dyes, of the use of mordants, and of producing every variety of tint that may be necessary, descend from father to son. The Indian dyers have no chemical processes, as known in Europe, but safflower, madder, tumeric, indigo, are used to produce the brightest and most delicate tints of scarlet, pink, rose colour, crimson, purple, yellow, orange, and green. The colours are for the most part very pure and beautiful, and the combinations of colours and tints are most ingenious. The people do not admire brilliant or gaudy colours for garments. The tints in these have almost a neutral effect. Sober greys, dull but rich madder and cochineal reds and crinumis, neutral grey, browns, greens, and purples, with dull but rich yellows, are arranged by the dyers so as to produce richness and variety of effect, with the utmost harmony of combination. Bright or gaudy colour is used only sparingly, and then only to produce the contrast which may be necessary.

Whatever may be the colour or tint or pattern used, whether in monotone, striped, or checked, perfect harmony exists, and the effect is never glaring or in bad taste. The dyes are either permanent or temporary. In the former are the yarns for weaving both silk and cotton cloths; in the latter are white cloths, such as muslin; turband, scarfs, and the silks are dyed in the piece, to suit the tastes of their customers. The latter are purposely kept unfixed, as a scarf or turband can be more easily and perfectly washed and retained than a permanently dyed cloth be cleansed from impurities. Goats' dung is largely employed. Women's garments are usually woven with yarns with fixed dyes, as they have to undergo almost daily washing and exposure to the sun in drying, yet the colour almost never fades, but seems to grow brighter and clearer from constant exposure. The strong satins, striped and plain, called mushroom and hemmoo, used for women's trousers and petticoats, as well as by men for trousers and other garments, must needs be of permanent colour, for repeated washing. In most parts of India, Mahomedan ladies wear nothing but this material for their nether garments, which are sent to the wash with as much confidence as if they were cotton, and with as little injury.

The natural patterns of the Panjib, Baluchistan, and Sind, are large and bold, but the colours are harmonious. The favourite artistic Coocandra rugs is one of the most pleasing of the Indian carpets. The short, even-piled carpets of Turkomania and Kerman have a glorious elaboration in colour and design.

The mode of printing in colours is by block printing and knot-dyeing. For the former process, the designs are usually cut out from teak-wood (Tectona grandis), the pattern standing out in high relief, and the hollows being cut very deep. Besides the numerous patterned blocks called bibin, the implements required by the calico printer are, the gadi, which is a wooden tray, in which three or four layers of country woollen cloth (dhabaddi) are laid, and which are kept soaked with the intended colours. Besides, there is a table on which are stretched three or four layers of thick cotton cloth, and on the top a woolen cloth, over which lies the cloth intended for printing. The printer usually squats with the table in front of him, on which he works from morning to night. The engraved surface is dipped in a preparation of the dye, to which a mixture of gum-arabic has given a consistency. When the cloth has to be printed in metallic leaf, the block is dipped in gum and impressed on it, and tin, silver, or gold leaf is then stuck on to the adhesive design. Another way of printing, called 'khah,' is to charge the blocks with putty, and cover the impression with tale.

The calico printed goods of Sind rank the highest, and next to them those of Dina and Baman, whence issue bed-sheets, saris, chotis, and children's cloths of divers kinds. There is often a wonderful combination of colours in the patterns of these goods.

Knot-tying is either done on a plain or coloured ground, according to the kind of pattern required. The lines are printed with an aqueous solution of Indian earth (red ochre), so as to be easily discharged during the dyeing process. The tye
keeps the following nails long, viz. of the forefinger and the thumb of the right, and of the thumb, the forefinger, and the middle finger of the left hand. To tie the cloth, he takes either a thin or thick cotton yarn, according as the design is in fine or large patterned spots. At the place where the spot is to be, the cloth is raised up into a fold by means of the pointed long nail of the middle finger, and the fold is now caught between the long nails of the forefinger and of the thumb of the left, and a knot tied by means of the yarn held between the long nails of the right hand, by passing the yarn quickly four or five times round and round, and finishing the motion with a knot, by which the yarn is secured to its place. This process is repeated on one spot after another with the same thread so quickly, that a practised hand goes over an area of cloth extending 3 feet square in the course of 13 hours. A close pattern is workable during the same time only to the extent of about 1 foot square. The daily earning of the tyer is estimated at 1 rupee a day. After the knot-tying is finished, the silk cloth is taken to the dyer. To produce a black ground, it is dyed red in cochineal. The steeping in the dye-beck is repeated twice, so that the red colour penetrates the thread and fixes itself into the white spots (kanda) covered by the thread. Once steeping fails to allow the penetration. For large spots (kanda) it is necessary to dye red three times. The cloth is now submitted to the indigo vat, then washed and dried. This process appears to have been first devised to overcome the difficulty met with in the production of white spots on a dark-dyed ground. It is largely practised in Gujerat, Cutch, Sind, and Bombay, and is scarcely met with in other parts of India. From this it appears that it had its origin in Gujerat, Cutch, and Sind. Knot-dyed goods, which are generally handkerchiefs, sarees (women's scarfs), bodicas, petticoats, trousers, borders, turbans, etc., and executed chiefly for consumption among the Gujerati and Parsees. They are manufactured either in cotton or silk, the latter kind being common among the Parsees. The patterns produced are either in dotted lines, or in single or grouped spots, the spots varying in size from that of a mustard seed to that of an almond. They are either round or square, according to the way of tying the knot.

Besides these, there is the putting printing, a laborious process, peculiarly Indian in its conception, consisting of designs in putty executed over a dark ground, without the use of the stamper. Then we come to printing in metallic leaf, by which process cloths are printed with gold, silver, copper, or tin leaf. The latter patterns are in Upper India. The process is similar.

Dyeing of silk is carried on in Bombay principally by Hindous, who are natives of Sind. The raw silk comes from China, Bengal, and Persia, the first being the most pure in colour, and is strong and lustrous. In the Panjab and Kashmir, woolen fabrics of beautiful colours are extensively manufactured. Dyeing in ivory is a branch of the art which is practised to only a small extent, in Bombay by Parsees, but in Surat and other places by Hindus chiefly. The process is not so complicated as in the other branches of cotton, silk, or wool, and the colours produced are few, only red, deep green, parrot green, yellow, and black being the colours obtained, but fancy colours may be produced by the application of wax as a resist on the same principle as is done in calico printing.

Europe can no doubt work by cheaper processes. For instance, in the early part of the 10th century, the bandana (bándhna, to tie) handkerchief of India were in great demand, and were there dyed by the knot process. The demand stimulated competition and improved processes in Europe, and presses adapted for them, which could generate a pressure several times greater than 300 tons, so as even to bend the iron sides, which were 6 inches thick. A press cost £1000. They completely superseded the Indian plan of knotting to prevent the colouring matter having access to the cloth.

The following mineral and vegetable dyes are in general use in India and Southern and Eastern Asia:—

Dyes.

DYES.

L. argentea.
L. cinerea.
L. caerulea.
L. dispera.
L. glabra.
L. glauca.
L. helvola.
L. pseudo-tinctoria.
L. tinctoria.

Iron, sulphate of.
L. sequi-oxide.
L. silesia.
L. red oxide.
Iatis tinctoria.
I. indicotis.
Jatropha glandulifera.
Jugland.
Justice.
Ka-bi-ni of Akyab.
Kay-kundraang of Singapore.
K. luxurious of Singapore.
La-dye.
Lajward, ultramarine.
Lapis-lazuli.
Laurea cinnamomum.
Lawsonia inermis.
Lead, chromate of.
L. red oxide of, sandur.
L. white, ceruse.
L. white, litharge.
Lichens, viz.,
Cetaria glaucia.
Chadonia rugferina.
Gyrophora deusta.
Ispidina callica.
Leconara parella.
L. tartarea.
Parnelia borri.
K. pantachaldalis.
K. nepalis.
K. perlata.
K. sordida.
Pertussaria communis.
Physica lencemela.
Rhamma callica.
R. farinacea.
R. vulpina.
R. chlorophorus.
R. demeterorum.
K. mala.
Ratnana lechana.
Rocella fusiformis.
R. montagnel.
R. physopasis.
Salvia erythroselosa.
Usnea florida.
Lime.
Lithopsum.
Lopis-bark.
Maerotoma eurchoma.
Maklura berry of Bankok.
Malloffus Philippinensis.
Mangifera indica.
Mangkudu of Celebes and Java.
Maradensa tinctoria.
Melanorrhoea glabra.
M. uskitissima.
Melaphora fruit.
Meneecyon tinctoria.
Menispernum fenestra-
tum.
Mergui red-wood.
Mecina Borealmaleas.
Miconia cirtalida.
M. bracteata.
M. tinctoria.
M. umbellata.
M. angustifolia.
M. oxerta.
M. tomentosa.
Multani mitti, fuller's earth.
Musa paradisiaca.

Myroa sapida.
Natri.
Nelumbium speciosum.
Nerium tinctorium.
Nipa fruticans.
Nytanthus tristis.
Ochna fistula.
Onosma, sp., the havapiva.
Opuncia.
Orpinum, Hartelt.
Peganum harrna.
Pentacaryon tomentos.
Photinia dubia.
Phyllanthus emblica?
P. officinalis?
Phyllis, sp.
Pitata caballuc.
P. terebinthus.
P. vern.
Polygonum acutivale.
P. barbatus.
P. Chinese.
P. tortuosum.
P. tinctorium.
Potash, impure carbonate.
P. nepalis.
Potentilla Nepalis.
Prussian blue.
Psychotria root.
Pterocarpus santalinus.
Puniare, yezum.
Queros incana.
Q. incan.
Rato of Akyab.
Red-woods of Mergui and Penang.
Redels.
Rhamnus infectiosus, car-
tharis, virgatus.
Rheum emoli.
R. roborofitianum.
Rhzofora.
Rhus.
Rheum, sp.
R. iny, Burma.
Rubia cordifolia.
R. tinctoria.
Ruellia indigotica.
Sagga bank of Singapore.
Saffi.
Salmoniaceae.
Saltpete.
Salvadora oleoides.
Sambucus.
Sapindus emarginatus.
Saponaria, sp.
Somcarpa acanacardum.
Soda, carbonate of.
Soda, sulphate, reh.
Solanter.
Sophora angustifolia.
Soymia febrifuga.
Symplocos catagroides.
S. grandiflora.
S. racemosa.
S. paniculata.
S. tinctoria.
Tagetes erecta.
T. palma.
Tamarica Indica.
Tamarix articulata.
T. diolea.
T. fura.
T. Gallica.
T. orientalis.
Tamarix major.
Taxus baccata.
Terathopias apollina.
T. toxicaria.
T. tinctoria.
Terminalia angustifolia.
T. arjuna.
T. bellierii.
T. catapya.

DYES.
T. chebula.
T. citrina.
T. paniculata.
T. tomentosa.
The-nak bar of Tenasserim.
Ventrica madegasparrattana.
Thespesia populnea.
V. acalyclus.
V. myilung of Akyab.
Wrightia tinctoria.
Toddisia aculeata.
Xanthochoria.

Acacia Arabica, the babli tree; its bark is used for tanning, barking sails, nets, and fishing lines. With sulphate of iron it yields a black colour, and with alum a brown colour, both on cotton and wool.

Of Burmes green dye-plants, the turmeric and the leaves of the soap-acacia, Acacia rugata, afford a beautiful green dye.

Acids obtained from the leaves, flowers, and fruits of the tamarind, mango, the lime and citron, are much employed to assist in fixing the dye on the cloth; safflower is almost always used with an acid of some sort.

Adenanthera pavonina wood dyes red.
Adhatoda vasica leaves in decoration dye yellow.
10 lbs. are bruised, soaked, and boiled in 16 lbs. of water, till half of it evaporate. Alum, lime, and citron juice are the mordants, and the cloth is three times dipped into it. It yields a dark blue with indigo.

Egle mammelus, the brbal, is a cultivated tree; the rind of its fruit is used with myrobalan by calico printers. The rind and the leaves produce bright yellow dyes.

Albizza odorotissima bark is boiled, in Assam, with the leaves of the dagal tree (Tarecholmays pulcherrima), and gives a brownish dye.

Alpinia galanga, the Kulinjan. A decoction of its wood is used along with myrobalan.

Alum is largely used as a mordant with the colours yielded by turmeric and madder. Alumina earth, called chaun in Mysore, is largely used in dyeing cotton cloth in permanent colours.

It is a clay impregnated with alum or soda, or both. Alumina, in combination with a vegetable dye, constitutes the lake class of fast dyes, rendering the original colours more vivid and durable.

Anchusa tinctoria root is the alkanet or dyer's bugloss. In the Panjash, a root to which the name of alkanet is given. It is probably the root of Onosma emoli, Wall., as other species of Onosma, also Echium rubrum and Lithospermum tinctorium are in Europe and elsewhere substituted for alkanet.

Aniline dyes. Faraday's discovery of benzol in 1825 led to the knowledge of the aniline dyes. By the action of nitric acid, benzol is converted into a dense yellow oil, called nitro-benzol; and by the action of nascent hydrogen, this new compound is transformed into aniline. The names of Unverdorben (1826), Runge (1855), W. H. Perkins (1855), Grebe and Liebmann (1868), and Baeyer (1878), are all honourably connected with the subsequent discoveries of multitudinous colours, with a great increase in the beauty and tintorial effect of the dyes obtained, and with a diminished cost of their manufacture. At the present time (1883), every colour, and all tints and shades of colours, are produced from aniline. The processes employed and the combinations formed are very numerous, and the commercial names given to the new dyestuffs may be said to be endless. The aniline dyes are cheaper than those obtained from cochineal, madder, safflower, and
turmeric, and are more easily worked. The aniline
dye is even finer than that of the safflower,
and gives a greater variety of shades. The aniline is,
in Europe, displacing the turmeric, as it furnishes
a great variety of the shades of yellow. In Europe,
the dye from the madder and manjith roots has
been largely displaced. In the year 1877, 69,166
cwt. of these two imported, went into Great Britain,
but in 1881 only 12,892 cwt. Even cochineal
is being displaced, as aniline scarlet is much
cheaper and quite as fine. The imports of aniline
dye into India for the years ending 31st March were—

<table>
<thead>
<tr>
<th>1870</th>
<th>1871</th>
<th>1872</th>
</tr>
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<tbody>
<tr>
<td>1,145,208 oz.</td>
<td>2,507,791 oz.</td>
<td>3,555,310 oz.</td>
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</tbody>
</table>

Arsenic is principally employed in the arts to
produce a vivid and showy shade of green,
which has superseded the less decided tints of
nature. The form in which it is generally
employed in Europe is that of a green powder,
which is commonly known as emerald green,
and to chemists and writers on science as
Scheele’s green, after its discovery. Another
kind is also called Swinifurth green, from a town
in Franconia, where it was extensively manufac-
tured on its early introduction. The chemical
composition of Scheele’s green is arsenious acid,
six parts; oxide of copper, two; acetic acid, one.

Yellow pigment, or hartal, a sulphuret of arsenic,
is used in dyeing a yellow colour.

Artocarpus integrifolia is the jack tree; its
wood is used for dyeing yellow. The yellow
orange colour of the clothes of the phonugye ascetic
priests of Burma is obtained from it.

Baccaria sapida, the letuku of Assam, is a
small tree. Its bark is used as a mordant with
the roots of Morinda angustifolia.

Berberis aristata, B. Asiatica, and B. lycium, all
yield the russet yellow dye.

Bixa orellana yields the arnotto; it is used to
impair a bright orange colour to silk goods, and
to afford a deeper shade to simple yellows.

Bombax Malabaricum is supposed to yield one of
the substances known as mochras, small pieces of
a dark-brown resin-like looking substance, generally
mixed with some fragments of bark. The other
mochras is in large opaque yellow pieces, curi-
ously convoluted, and is supposed to be an exu-
dation from the areca catechu palm.

Borax is occasionally used with turmeric in
calico printing.

Butea frondosa and B. superba yield the tisso
flowers, which are used to dye yellow.

Cassapinia sappendow, adding lac, and with
alum as a mordant, dyes woolen and cotton stuffs
of a dark red and shades of red. The chips are
soaked for two days in water with lac and alum,
and then boiled, and the liquid used as a dye.

Calyssacon longifolium is the suringa of the
Bombay Presidency. Its bark and powdered
roots are used for dyeing. In Kaira and Surat
it is largely used, Surat utilizing 1803 maunds
yearly. Its flowers are employed for dyeing silk.

Carthamus tinctorius has small leaves and an
orange flower. C. oxyacantha, with larger leaves
and a yellow flower, is a native of the Caucasus.
They furnish the safflower of commerce. C. tinc-
torius is cultivated in China, India, Egypt, America,
Spain, and the whole of the Indian Archipelago.
The flowers contain two pigment principles, one
known as safflower yellow, which is extracted
by pounding and washing the dried flowers; the
other is safflower red, or carthamine, which is the
dye of commerce. When a weak soda solution of
carthamine is left in contact with oxygen, it first
becomes yellow and then red, and on saturating
this red liquor with citric acid, red carthamine is
thrown down. The affinity of carthamine for
cotton and silk is such, that when it is recently
precipitated, these substances immediately com-
bine with it, and become at first rose red and
afterwards of a fine red, so that they may be
thus dyed without the intervention of the mordant;
the stuffs so dyed are rendered yellow by the
alkalies, and the colour is to a certain extent
restored by the acids. Carthamine is never used
in dyeing wool. When it is precipitated from
concentrated solutions, it furnishes a liquid paint,
which, evaporated upon saucers, leaves a residue
of somewhat metallic lustre, used as a pink dye-
stuff, and which, mixed with finely-powdered talc
and dried, constitutes common rouge. Safflower
yellow is soluble in water. When the infusion is
evaporated, it leaves an extract very soluble in
water, precipitated by acids and soluble in alkalies.
It is not reddened by oxidizing agents.

Carthamine yields six or seven distinct shades of
red, such as pink, rose, crimson, scarlet, etc. In com-
bination with the flowers of Nyctanthes arbora-bris-
ta (harsinghar), it yields a golden orange, a deep
orange, and a salmon colour; with turmeric it
gives a splendid scarlet and other tints; and when
it is combined with indigo, Prussian blue, etc.,
a series of beautiful purples, a delicate mauve colour,
and a deep purple are produced.

The crimson dye is said to attach without
the aid of a mordant; but otherwise, of all the more
or less beautiful tints produced, scarcely one will
stand washing without being fixed with mordants.

From February to May the flowers are picked
off each day as they appear, leaving the flower-
heads on the stalk. All that is detached is the
fragile-looking corolla, which issues from the
summit of the prickly teats-like flower-head. If
they be intended for sale to the India dyers, they
are simply dried; but if for export to Europe in
the form of the safflower of commerce, the florets
are dried with water and pressed into lumps.
A mat as a strainer is stretched on a wooden
frame; on this the lumps of florets are laid, and
water is slowly poured over them, while a man
stands between them with his feet, supporting himself
on two sticks as crutches. In this way the yellow
colouring is eliminated from the flowers, the
presence of which would detract from the beauty
of the crimson tint for which they are chiefly
prized. When the water comes clear through the
strainer, the process is complete. The flowers are
then made up by hand into round flat cakes, the
water squeezed off, and they are dried in the sun.
In this form they are known as the safflower of
commerce. Exports from India have been:—

<table>
<thead>
<tr>
<th>1874-75</th>
<th>1875-76</th>
<th>1876-77</th>
<th>1877-78</th>
<th>1878-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,707</td>
<td>1,80,711</td>
<td>1879-80</td>
<td>1880-81</td>
<td>1881-82</td>
</tr>
<tr>
<td>8,925</td>
<td>2,933</td>
<td>94,754</td>
<td>94,754</td>
<td>94,754</td>
</tr>
</tbody>
</table>

Cassia auriculata, the avari shrub, is common in
all the south of India. Its bark is largely used
as a tan. It takes the place of oak bark. The
flowers yield a yellow colour, and the bark is used
with myrobalsan as a dye for giving a buff colour
to leather.
Cassia tora seeds are used as a yellow dye. They are said also to form an ingredient in dyeing blue with indigo. About seven immersions are required to fix the colour.

Casterina equisetifolia and C. muricata have been used about 1854 by M. Jules Lépine of Pondicherry, who made an extract from the bark which was treated by bichromate of potash. With alum as a mordant, it gave a reddish mauve, and with iron, a black colour. By simple exposure to the air, a mauve red was produced, which stood the washing well.

Catechu is an extract from the wood of the Acacia catechu. In commerce it is also known as terra japonica, and gambier also is often so named; have been used in India to give a brown dye to cotton; and have been extensively employed in the calico-printing works of England. The salts of copper with sal-ammoniac cause catechu to yield a bronze colour, which is very permanent. The proto-murinate of tin produces with it a yellowish brown. A fine deep brown hue is also produced from catechu by the perchloride of tin, with an addition of nitrate of copper. Acetate of alumina gives a brown, and nitrate of iron a brown-black. For a golden coffee-brown, catechu entirely superseded madder, one pound of it being equivalent to six pounds of that root. It is prepared for dyeing purposes, by being steeped in water with a little lime; the solution is then strained off, and is ready for use. The dyeing principle is catechene, which is insoluble when oxidized, to effect which, in Great Britain, a salt of copper along with sal-ammoniac is used. From 1877 to 1881, Great Britain imported annually about 30,000 tons of catechene and gambier.

Cedrela toona has white fragrant flowers, which yield a sulphur-yellow and orange. The yellow dye is extracted by boiling in water till three-fourths of the water is evaporated.

Chavica betlo is the pan or betle-leaf plant. The leaf is said to be used in Kanoj for colouring the border of chintz made there, called fard-pakhta.

Cinnabar, a sulphide of mercury, the shingar or vermilion of the bazaars, ground and mixed with water, imparts a fresh pink tint to cotton cloth dipped into it.

Cochineal is a foreign dye from the Coecus cacti. The importation into British India of cochineal in 1880-81 was 4182 cwt., and in 1881-82, 2886 cwt. From 1877 to 1881, Great Britain imported about 30,000 cwt. annually. The aniline dyes have not seemingly affected it.

Cocosnut rind produces a dirty brown (khaki) colour. Lime, soda, and alum are used as mordants. The rind is powdered, and soaked for a few days in water, and afterwards boiled. The stuff is washed in this water, and a subsequent wash in lime-water gives the cloth a red tint. For brown tints, lime-water is not used. Dipping in an infusion of myrobalans renders these colours darker and faster.

Copper, sulphate of, is used with lime to produce a shade of light blue, principally in leather-dyeing. Verdigris, a subacetate of copper, the zangar of the bazaars, is occasionally used in calico printing.

Coscinium fenestratum, a climber of the western forests of India, grows wild. Its roots and stems contain a quantity of yellow colouring matter similar in property to that of turmeric, and yields its colour to water; sells at 3 to 5 annas the pound in the bazaars of S. India. It is used also medicinally.

Croceus Cashmirianus of Kashmir yields the saffron. The saffron of C. sativus, as a cosmetic, is largely imported into India from Europe.

Curcuma zerumbet root, powdered and mixed with the powder of sappan wood, forms one of the abir red powders which Hindus throw about during the holi festival, as with the Confetti at Rome.

Cyperus longus and C. pertennis furnish the nagar-motha roots used by dyers to perfume cloth.

Datisca cannabina roots give a yellow dye.

Delphinium ajacis furnishes the aspharg dye; a decoction of the flowers and stalks give a sulphur yellow dye to silk, known as gandhak; also used in calico printing. D. speciosa flowers are similarly used.

 Diospyros mollis. The celebrated shan black vegetable dye is made from its fruit. It grows on the mountains that separate the province of Tavoy from the Siamese territories. Isolated plants may be seen in the gardens of Tavoy and Moulmein.

Earl. A soft, drab-coloured kind of fuller's earth, called Multani mitti, is used in the Panjab for dyeing cotton cloth various shades of buff and brown. It is also used in lieu of soap for washing the hair and body.

Black mud from the bottom of tanks and old rice swamps, with the gum of Acacia Arabica and myrobalans, is used as a dye to produce a shade of blue-black. It is used alike for coarser cottons, blankets, and carpets, and for the finer silks. The fabric is dipped in the mud and a decoction or infusion of myrobalan.

Emblica officinalis produces the Aonla fruit, which yields a blackish dye. It is pounded and boiled with water, and the cloth is dipped into the decoction to obtain the colour called abinsi, a shade of blue-black. When mixed with myrobalan and sulphate of iron, a black colour is obtained. The leaves are used for tanning leather, and cost at Rs. 4 the cwt.

Gardinia jambolana bark is used as a mordant for blue or black dyes.

Euphorbia tirucalli is the milk-hedge plant of Southern India. Its ashes are used as an alkali in dyeing, and form an ingredient of the red dye with clay-root. It is also said to enter into various other dyeing receipts.

Ficus religiosa. The pipal tree roots are boiled in water, and with alum imparts to cotton cloth a very pale pink colour.

Garcinia gambogia. The Toung-tha-lai or Pay-yai-shin of the Burmese, yields a gum-resin which can be dissolved in spirits of turpentine, and affords a beautiful permanent yellow varnish for metallic surfaces.

Garcinia mangostana, the mangoosteen. The rind of its fruit is used for dyeing black.

Gardenia floridana. In Japan, materials for dyeing are taken from a species of Betula, and from the Gardenia floridana.

Glycyrrhiza glabra is the liquorice plant. Its wood is used in calico printing in the Panjab.

Gossypium Indicum, the cotton plant; its flowers are used in the Manipuri district as a yellow dye.
Grisea tomentosa, a shrub of all India, yields the red godari or dhauri flowers, and these and the leaves are used in dyeing—the leaves in dyeing sleepy-skins and leathery red, and the flowers (dhauri) in Northern India, along with morinda bark, also as a red dye. In Kandah the flowers form a considerable article of commerce inland as a dye.

Hedichium spicatum, the Ka-pur Kachri, grows in China and the sub-Himalayan forests. It is made into a decoction along with Charilia, Parmelia Kantschadalis, and Nagor-matha (Cyperus longus), and used in dyeing and calico printing to impart a fragrance to the cloth. It is also used, like camphor, to preserve fabrics from insects.

Hydrotis umbellata of Lamark is the Oldelandia umbellata of Linneaus. It furnishes the chay-roots, extensively used by dyers in the south of India. It has been tried in Great Britain, but has not been successful, owing, as it is supposed, to deterioration of the chay-root during the voyage.

Hibiscus rosa-sinensis, the shoe flower. Its root is a purple, and a purple juice is employed for dyeing a lilac colour, and for blackening leather. It has been found useful as a litmus.

Holigarna longifolia, the Thit-kha-ya of the Burmese, is one of the black varnish trees.

The Indigo of commerce is obtained in different countries from species of Indigofera. Since 1878, an indigo has been chemically produced, but not in commercial quantities. I. tinctoria of India, Mauritius, Madagascar, and St. Domingo, furnishes the largest quantity of indigo. The plants called in India I. anil and I. pseudo-tinctoria are supposed to be varieties of I. tinctoria. It is used principally as a blue dye. From 1850-51 to 1860-61, its export from India ranged in value from £1,734,338 to £2,424,932. In the 7 years 1875-76 to 1881-82, the value of the indigo exported from India has run up to 4½ millions sterling:

- 1875-76, 110,342 cwt. Rs. 2,57,50,053
- 1876-77, 106,394
- 1877-78, 108,405
- 1878-79, 106,651
- 1879-80, 106,829
- 1880-81, 106,555
- 1881-82, 186,500

In the five years 1877 to 1881, the imports into Great Britain ranged from 58,283 to 81,088 cwt. Manilla indigo is a liquid extract. Formosan indigo is an excellent blue dye, but as imported into China it was much adulterated with earth and refuse sugar. In Pech-chih-li, a very good indigo is sold under the name of king-tien.

Isatis tinctoria, the woad of Europe, yields a blue dye; another species, I. indigotica, is named as a plant of Shang-hai and Chusan; and I. tinctoria, under the name of tien-tsing, is also said to be cultivated in China.

Iron oxide, with myrobalans, as with tannin and gallic acids, produces black. Sulphate of iron, in particular, is useful, and it is very extensively used in combination with sugar (charred), and sometimes with myrobalans. It is also used with other substances for various colours. With myrobalans it produces a greyish, purplish black dye.

Iron, impure sesquioxide, in the form of goa or red ochre, is abundant in many parts, and is extensively used by Hindu devotees for dyeing their clothes a dull orange colour; and is used largely by dyers for several other colours. The earth is simply powdered and mixed with water, into which the cotton cloth is fixed. Red ochre of a lighter colour than goa, is known as himji; and yellow ochre (hydrated sesquioxide of iron) is occasionally used as a dye, under the name of ramraj, also called zard or pili mitti.

Jatropha curcas, the physic nut. Its juice or oil boiled with oxide of iron dyes black.

Jatropha glandulifera grows wild throughout India, and its leaves are said to yield a green dye of great beauty for cotton cloths.

Justicea sp. According to Mr. Fortune, near Ningpo, a bastard species of Justicia furnishes much indigo. The plants being thrown into pits in the open field, and filled with water, after the rotting of its herbage, lime is added, and the liquid thoroughly mixed up and beaten; the water is then drawn off, leaving the thick indigo paste at the bottom to dry, preparatory to being packed in bamboo baskets. The froth rising upon these pits of liquid is collected and made into an extract, called tien-hwa or ts’ing-tai, in imitation of a powder formerly brought from Persia, and in great repute as a paint, and a specific medicine.

Ka-bi-ii of Akyab is used to tinge fishing nets a brown colour.

Khandelia Rhedidia of Tavoy; its bark is used to dye cotton thread of a dirty red colour.

Lac. Coccus laca, the lac insect of India, is found on many trees, but the best of its produce is on the Butea frondosa, Ficus religiosa, and the Schleichera trijuga, and Vatica laccifera. When the female is about to lay her eggs, she secretes a peculiar glutinous substance from the margins of her body, which in the end covers the whole insect as with a cell. When hardened by exposure to the air, this substance becomes of a more or less deep red or orange colour, hard, and translucent. This is lac in a crude state, and it often entirely covers a branch. The lac or resinous incrustation is separated from the wood, converted into shell-lac, and cakes of lac-dye formed. It has always had competitors with cochineal and other dyestuffs, but the aniline dyes have now almost driven the lac-dye out of the market. The quantities and values of the exports from India of lac and its products were as under:

<table>
<thead>
<tr>
<th>Cwt.</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875-76</td>
<td>105,553 75,57,474</td>
</tr>
<tr>
<td>1876-77</td>
<td>103,712 58,60,764</td>
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<tr>
<td>1877-78</td>
<td>104,645 56,20,481</td>
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<tr>
<td>1878-79</td>
<td>104,645 56,20,481</td>
</tr>
<tr>
<td>1879-80</td>
<td>104,645 56,20,481</td>
</tr>
</tbody>
</table>

In the five years 1877 to 1881, Great Britain imported from 51,159 to 104,273 cwt. of shell-lac, seed-lac, and lac-dye.

Laurus cinnamomum, tejpat; its leaves are used with myrobalan.

Lawsonia inermis. Mahommedan women in Asia use the leaves and shoots for dyeing their nails red, also the palms of the hand and the soles of the feet. The leaves are beaten into a pulp with rice-water, and in that form applied, and the following morning washed off. The manes and tails of the horse are stained in the same manner; sometimes men dye their hair.

Lichens of the mountains of Ceylon, the Neill-cherries, the Koondah hills, and the Himalayas furnish dyestuffs.

Parmelia perlata, P. Nepalese, a yellow dye, and P. borreti, a deep brown dye. Sticta orygonosse and several other species give a beautiful pink dye. Ramalina farinacea is used for food; Ramalina vulpina yields a fine deep yellow dye.
Lichens of the Koudahs are the Cetraria glauca and another species, Lecanora Tarta, Cygorrhiza deusta, Cladonia rangiferina. At the Exhibition of 1851, the Parmelia perlata sent from the Neighbouries and Ceylon was valued at from £195 to £225 per ton; and the Rocella fusiformis sent from Ceylon at £380 per ton.

The Chulchulicara of the Panjab is a mixture of dye lichens, the Parmelia Kamtschaladis, P. perlata, and its variety P. sorediata; Unsea florida, Ramalina calicaris, and Physicia leucomea. Lime is used in calico-printing in combination with gum as a resist paste. It is also employed with sugar to excite fermentation in indigo, and to convert it into indigo white, in the presence of hydrogen.

Madder dyestuff of Europe and Western Asia is the root of the Rubia tinctorium, and yields the well-known Turkish red. The madder used in India is from the Rubia cordifolia, locally known as the manjith. Turkey madder roots at one time realized about 20s. or 30s. the cwt., and manjith somewhat less. During the 11 years 1850-61 to 1860-61, the value of the manjith exported from India ranged from £10,694 to £34,579. The sale of both these plants has been very greatly affected by the discovery of the online dyestuffs. Great Britain has diminished its imports of them as under, in cwts.:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Imported</th>
</tr>
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<tbody>
<tr>
<td>1877</td>
<td>19,166</td>
</tr>
<tr>
<td>1878</td>
<td>33,061</td>
</tr>
<tr>
<td>1879</td>
<td>21,463</td>
</tr>
<tr>
<td>1880</td>
<td>22,375</td>
</tr>
<tr>
<td>1881</td>
<td>18,129</td>
</tr>
</tbody>
</table>

Mallotus Philippinensis furnishes the kapri or Kamela, extensively used in India as an orange dye, principally for silk and wool. It is in the form of a red mealy powder on the capsules, which are gathered in March, and rubbed together, trodden on, or shaken in bags till the farina separates. Four parts of the powder, one of powdered alum, and two of carbonate of soda, are rubbed well together with oil of sesamum, and then boiled in water, into which the silk is dipped. It is, however, sufficient to mix it with water alone, or with water containing half its weight of carbonate of soda. It does not require a mordant. It also produces in the N.W. Provinces, a rich flame colour of great beauty and permanence. Colonel Beddome says that some of the powder, carefully collected by the Forest Department, brought a high price in England. The bark is used for tanning.

Marsdenia tinctoria, a native of Sylhet and Burma, is cultivated in Northern India. Its leaves yield more and superior indigo to the Indigofera tinctoria.

Mica, in a roughly powdered form, is used by dyers and washermen to sprinkle on cloth to give it a sparkling appearance.

Morinda citrifolia, M. bracteata, M. tinctoria, and M. umbellata are dye plants common in India and eastwards to China. The dyestuff is obtained both from the roots and the bark. M. bracteata contains in its bark two colours, yellow and red, changing to crimson by the application of alkalis. In many places the roots of the M. umbellata are employed instead of choy-root in dyeing cotton yarn red. The colour is neither so bright nor so strong. Dr. Heyne thus describes the process.

Take 4 lbs. pounds of white cotton yarn and soak it in 14 pounds of gingerly oil; a strong lye made of the ashes of the milk-hedge, and the yarn steeped in it for four nights, being dried in the sun during the day; it is then washed in brackish water, and dried in the sun. Or 5 seers (kutch, 134 pounds?) of togora root, M. critifolia, finely powdered, are put into a pot of water together with the yarn, and kept all night over a fire of cow-dung. In the morning it is taken out and dried in the sun. The same process is repeated for two successive days and nights, which completes the process.

The red dye obtained from the roots of the M. citrifolia is in general use for dyeing the yarn of the native cloths, both silk and cotton, and better single colours of the kind are rarely seen. The use of a mineral mordant in the native process is known, and, with the exception of weak lye made from the ashes of some jungle plants, no other application is made beyond the simple solution of the extract from the wood itself. Most of the Madras red turbans are dyed with the bark and root of M. citrifolia; it yields three permanent shades, a bright red, a pink red, and a faint red. The plants are cultivated and come to maturity in three years; the roots are then dug up and sorted into three kinds, according to the fineness of the fibres. The fibres are then cut and beaten down well, and afterwards ground to powder, which latter is used for the dyeing. Morinda umbellata grows wild throughout South-Eastern Asia. The bark of the roots of plants three years old gives the best dye. It is one of the commonest of the red dyes of India; though the colour is dull, it is considered faster than the brighter tints obtained from other substances.

Melanorhiza nisatissima is the black varnish that-say tree of Burma, used to lacquer boxes. M. glabra is similarly useful.

Melastoma Malabathricum and M. macrocarpum are shrubs of South-Eastern Asia; their berries are used to dye black.

Memecylon tinctorium; a cold infusion of its leaves gives a yellow colour. It is used for dyeing cotton cloths and grass mats. It also forms an ingredient of the dyes obtained from sappan wood and myrobalans, and it is likewise used with the choy-root, Heliotis umbellata, as a red dye.

Mangifera indica is a tree of both black and red, but more especially for orange. The colours imparted to silk, with different mordants, were as follows:—

1. Muriate of tin, 3 shades of orange, varying with the temperature of the bark and the time of immersion.
2. Acetate of alumina, 2 shades of flame colour.
3. Acetate of iron, 2 shades of drab.
4. Acetate of iron with a decoction of galls, a fine black of two shades.
5. Mixed with manjith, a variety with red and pink are obtained, but not equal to manjith alone.

Nyctanthes arbor-tristis flowers are dried in the sun and kept for use. They are then boiled in water, 1 pound to 10 gallons, evaporating 9 gallons. The fibre is then dipped into it, and is dyed a fine orange yellow; but it is a fleeting colour.

Parmelia Kamtschaladis, the Chalara fichen of the Himalayas, is used as a perfume in calico printing, price Rs. 5 the cwt. P. caperata, P. perlata, and P. physoedes are known.

Pentaptera tomentosa, a tree of the Cuddapah and Kurnool forests. The bark is used with iron for dyeing black.

Phylanthus emblica bark is used as a tanning
DYES.

substance for barking sails, nets, and lines. Its fruit is used in dyeing black.

Pistacia vera flowers, called buzznak, are used in the Punjab and N.W. Provinces in silk-dyeing, as also are the galls formed on this plant.

Polygonum Chinese, or barbatum, and P. aviculare all produce a beautiful blue colour, much like that from indigo. The leaves are first dried, then pounded, and made into small cakes, which are sold in the shops. Three cuttings of P. tinctoria are obtained in China annually. It has been introduced into Belgium. It has red flowers.

Potash is used in extracting the crimson dye from safflower, and also occasionally in calico printing. It is usually obtained from the stalks of the Penicillaria spicata or bajar.

Psidium guajava or pomegranate. An infusion of the root bark yields a deep blue precipitate with salts of iron; a yellowish-white one with a solution of isinglass; a greyish-yellow one with corrosive sublimate, and potash or ammonia colours it yellow. A light red dye is produced from the flowers. The rind of the fruit is ground and boiled, and the concentrated decoction is used in dyeing cloth a greenish brown or khak-rezi colour. The cloth is simply dipped in the decoction. But it is more generally used along with some other dye as a colour concentrator, in which case the rind is boiled along with the other dye. It is used for fixing the colour of turmeric in yellow and orange shades, and turmeric with indigo for the various shades of green.

Psychotria. The wood of the jack, the root of the psychotria, the bark of the gamboge trees, the flowers of the butea, the rind of the Bengal quince, the leaves of the memecylon and the touk-yat, all produce bright yellow dyes.

Pterocarpus santalinus. Red sanders wood is hard and of a bright garnet red colour, and is employed in dyeing a lasting reddish-brown on wool. It only yields its colour to ether or alcohol. The exports of this wood from Madras in one year amounted to nearly 2000 tons. Price, £6 to £9 the ton.

Quercus infectoria and other species yield the gall or dyers' nut-oak. Q. infectoria is called the gall oak, because the gall or nut-gall is produced on it. It is a native of the countries from the Levant to Kurdistan, and is supposed to yield the product known as Mecca galls, F. I. galls, and Bussora galls.

Randia dumetorum fruit, the main-phil, is used in calico printing as a colour intensifier.

Rhamnus catharticus is the buckthorn of Europe and Asia. Its foliage and bark can be employed for the preparation of a green dye. R. chlorophora, Lindley, and the R. utilis of China, furnish a superior green pigment for silk.

In 1848, M. de Montigny, consul at Shanghai, forwarded to the Minister of Commerce green cottons named Liou-sai (that is, cloth dyed with the tree bion). Father Holot stated that these cottons are commercially known by the name of Sc-lo-pou (green-coloured cloth) when dyed with the bark; Ngheou-lose (water lily green colour) and Ngheou-lo-pou (water lily green cloth), that is to say, dyed of the colour of the leaves of nymphaea, when they have been dyed with the Lo-kao. The cost of dying in green a square metre (39 inches and a fraction) of cotton stuff, either with the bark or the Lo-kao, is about 50 cents (about 6 annas and 6 pies). M. de Montigny sent at the same time 10 catties (about 13 pounds) of Ph-chow-elle (green colour), cost 4800 rupees (about 10 rupees 6 annas), 50 catties (about 60 pounds) of Tong-lob, a green paint said to be prepared from the seed of No-mee, cost 20,800 rupees (about 42 rupees 4 annas).

Rheum Moeroctiftum, the rhubarb root, is used to obtain a yellow on woollen and silk.

Rhizophora mangle, the mangrove bark, in Arakan yields a dye of a chocolate colour. A decoction of a mangrove bark of Penang is said to produce a deep black in material previously dyed blue. Mangrove bark is extensively exported to China as a tenning substance.

Rin-nay, of the Burmese, is used for dyeing phoungye (priests) clothes with yellow orange colour.

Rubia cordifolia supplies the Indian manjith of commerce, and R. tinctoria the madder, both of them yielding a red dye. See Madder.

Rutella comosa, of Assam, the mai-gye of Burma and Tenasserim furnishes the blue-root dye, which is prepared after the manner of indigo. It grows wild. R. indigofera is cultivated in Burma for local use as a blue dye. Its yield is about 8 cwt. per acre.

Saltpetre in solution is used in wool-dyeing.

Saffron, from the Crocus sativus of Europe, is largely imported into India as a cosmetic. Saffron from Kashmir, from its price, is prohibitive as a dye; it is used as a drug and cosmetic.

Semecarpus anacardium is the marking-nut tree; the juice of the nut is used for marking cloth.

Soda salts, in the form of impure carbonate or sulphate of soda, are used as detergents, for washing cloth as a preliminary in calico printing. These salts, efflorescing on the surface of the ground, have rendered tracts of land in Hindustan un cultivable. A carbonate of soda, called rassi, is prepared from the reh efflorescence, by dissolving it in water and allowing foreign substances to settle.

Sajji is a mixture of the carbonates of soda and potash. It is made by dissolving wood-ashes and reh in water, and exposing the solution to the sun for several days. It is used in extracting the crimson dye from safflower; also in bleaching.

Soymida febrifuga is used to produce one of the klaki or dirty browns of which cotton stuffs are oft dyed; it is used also along with more valuable arroto and kapila.

Strobilanthes fuscatus, the rampat of India, is a small shrub. Its leaves and twigs are boiled in water with the yarn to be dyed reh, which, however, is not a permanent colour.

Symposium racemosum, S. confusiflora, S. paniculata, bark and leaves, yield yellow dyes. The bark is used in calico printing and leather-dyeing, and as an auxiliary to other dyes; they are used with madder.

Tagetes erecta and T. patula, the marigolds; their flowers soaked in water yield a yellow dye, when squeezed out by the hand. Common people use it for their house clothing. The shades of yellow are called gendia and champai.

Tamarisk galls, from Tamaris articulata, T. orientalis, and other species, are known to the Indian dyers and calico printers as the main.
DYES.

Tephrosia apollinea, of Nubia, and T. toxicaria, of the Nile.

Terminalia. Several species of this genus produce the commercial myrobalan fruits or nuts, which yield with alum a good durable yellow, and with salts of iron a black colour. Those of T. bellerica are used for dyeing cloth, also in tanning.

The bark and leaves of T. catappa are astrigent, and with salts of iron yield a black pigment.

A decoction of the bark of T. chebula is employed in tanning leather, and is used as a mordant in dyeing. Its nuts, when mixed with alum, yield a dye which chints print and carpet-weavers consider their best and most durable yellow. Along with ferruginous mud, it gives a good and durable black dye; and the outer coat of the rind with sulphate of iron yields a black dye, which is used by dyers and harness-makers. It forms an ingredient in dyeing red, along with sappan wood. All the madder-dyed cloths are first steeped in it.

The dyers pound the outer rind of the fruit, and mix it with water; the cloth is simply dipped into this mixture. The colours obtained are black with sulphate of iron, green with turmeric, dark blue with indigo, and brown along with catechu. It is used more as a concentrator of colour than as contributing much of its own.

The nut of T. chebula is the most valuable. The fruit consists of a white pentangular nut, of which the shell or covering is used both by dyers and tanners.

Terminalia arjuna. The inner bark is broken into chips, and the dye extracted by boiling. It is one of the barks employed in producing the khaki brownish colour on cotton cloths. If the cotton yarn or cloth has been previously dipped in a mordant solution of alum and myrobalans, a darker fast colour is produced.

In 1890-91, India exported 315,628 cwt., value Rs.12,37,057, and in 1891-92, 391,566 cwt., value Rs.14,44,925.

Thit-in-myeng of Akyab dyestuff, yellow, and with oil and lac, a red colour is obtained.

Toddalia acetabulata is a common shrub of the Peninsula. Its root has a yellow wood and yellowish corky bark, which yield their colour to water. It is supposed to be the lopez root formerly famed in Europe. The root-bark sells at 3 to 5 annas the pound.

Turmeric dye is a dirty yellow with an alkaline earth.

Vatica Roxburghiana yields the piney varnish. Ventilago acalyculata is said to be a native of Central and Northern India, and V. maderaspatana is found in Ceylon and the Indian Peninsula and Burma, and is employed by the native dyers to produce an orange-red dye. These two plants were for long confused one with the other, and it is not yet known whether V. acalyculata is as rich in dyestuff as that of V. maderaspatana, which furnishes the popular chukkay of the Tamil and the raktta pita of Bengal. V. maderaspatana is a climber. Its root-bark, combined with Hedysotis umbellata, yields a beautiful chocolate colour or brownish-purple, and with galls a black dye. It sells at 3 to 5 annas the pound. Its colouring matter occurs in the roots and wood of the plant.

It is used in Bangalore by the carpet-weavers. The dye is extracted by boiling the chips of the wood in water. Simple dipping in the solution imparts the dye, but the colour is fleeting. If the cotton yarn or cloth have been previously dipped in a mordant solution of alum and myrobalans, a darker colour, which is fast, is produced.

—Rozh.; Ainslie; Crawford; Mason; Tomlinson; M'cCulloch; Simmonds; Fortune; Exhibitions, 1851, 1862; Birdwood, Veg. Prod.; Maritime Commerce; Stat. Abst.; Poole’s Stat. of Comm.; Ure’s Dictionary; Annual Statement of Trade.

DYNASTIDE. Macf. This insect family of dung-beetles is represented by the genera Orystes, Illyg.; Xylotrephys, Hope; Phleumrus, Latr.; Orphnus, Macf., in India.

DYSOXYLON. One species, of Java, yields a fruit used as garlic. D. championii is a great tree of the central province of Ceylon, found up to an elevation of 4000 feet.—The. D. proceraum, a timber tree of Assam. D. multiplagum, Arn., Guarea paniculata, Rozh., a tree of Chittagong and Tiperah.—Roef. i.e. 240.

DYSOXYLON MACROCARPUM. Bl. Guarea bicinataris, Rozh. | Amora ficiniformis, W. Hill.

A great tree of Ceylon, found in the central province, up to an elevation of 3000 feet, and at Batticaloa.—The. p. 60.

DYZTISCIDE. Macf. This insect family of aquatic coleoptera in India is represented by the genera Cybister, Curt.; Dytiscus, Linn.; Eunetes, Erich; Hydaticus, Leach; Colymbutes, Claire.: Hydroporus, Claire.

DYUPETIR, a name of Indra, seemingly the origin of the name Jupiter, perhaps from Jiva, life, and Pira, father. Dyupetir may, however, be from the words Deo, god, and Pira, father, or from Div, the sky, and Pira, father. See Dyans.

DYUTA. Sansk. Gambling with dice, chess, etc., or betting on cocks, rams, etc. Dyuta-pratigraph, also Dyuta-purnima, in Hinduis, is the night of the last day of the light half and eve of the first day of the dark half of the month Kartik, which is to be spent in gambling in honour of Lakshmi, the goddess of fortune.—Wilson.

DZAT. Burm. An open shed near a Burmese pagoda.

DZU NAWAZ, A.D. 490-525, a Himyariate king of Yemen, who visited Medina (Yathrib), of which half the population were Jews, and he became a convert. He invaded Najran, and destroyed 20,000 Christians, throwing them into a blazing trench.

—Koran Surra, 85; Mair, i. 162.

DZUTU. Tek. The scalp-lock of Hindu men.

E

E. This letter in the English language has three distinct sounds, as in the words here, her, and there. In Sanskrit, the e is always long; and the sound of the Arabic e can be better indicated by the English letter y; but to imitate the sounds of some of the e letters of the languages of South-East Asia, the English e has to be duplicated, thus, ee. To obtain, by means of the English e, its sound as in there, the e is usually accented, as in Veda. In the languages of Southern India, and in Malealams and Tamil especially, the initials e or are very commonly pronounced as if preceded by an initial y, B-A as B-yea.

E character in the Chinese tongue means a barbarian, and is applied by them to all foreigners, as the Hindus apply M'hecha, the Greeks and
EAGLE.

EAGLE.

Latins, Barbaros and Barbarus, as Jews used Gentle, and as Arabs use Ajiam. In the 50th article of the British treaty with the Chinese, it was stipulated that E should not be used to designate the people of Britain. Yuen is another Chinese term for foreigner, the exact meaning of which has not been mentioned; and the term Hung-mou-yin, red-bristled man, was also applied to the British.

EA of the Chaldees is Schalmann, the saviour. Ea is, moreover, the Ommu-2, or giver, of the fragments of Berosus in the sculptures of Assyrian palaces and on cylinders, the Eubannes of Hygin, and the Oes of Helladis.

EAGLE.

Neshr., . . . . . . Chal. Sherza, . . . . . . Hind.
Adler, . . . . . . Ger.

The eagles, the Aquilinae, are arranged by naturalists as a sub-family of the Falconidae, of the order Raptorets, or birds of prey, the Accipitres of Linneus, and the Rapaces and Raptatores of other authors. Dr. Jordan arranges the Aquilinae into five groups, viz. True Eagles, Kite Eagles, Hawk Eagles, Serpent Eagles, and Fishing Eagles. They are birds powerful in flight, and are often named in Scripture. Job xxxix. 27 says:

"Is it at thy voice that the eagle soars,
And therefore maketh his nest on high?
The rock is the place of his habitation.
He abides on the erg, the place of strength.
Thence he pounces upon his prey.
His eyes discern afar off."

1. TRUE EAGLES.

(a) Aquila chrysaetos, Linn., Golden Eagle.
Falco aiger, Gmel. | Aquila adaphina, Hodgson,
F. melanotus, Lath. | A. nobilis, Pallas.

The golden eagle is found over the greater part of northern and central Europe, Asia, and America; it is, however, rare in India, and only in the Himalaya, for in Ould and the N.W. Himalaya it is the hammercutter to which Europeans give the name of golden eagle. It is named Buteo and Buteetus by the Mongols, and the Bearcoote which Atkinson notices in his travels. It is 3 to 3½ feet long; and the Kirghis and other Mongol tribes train it to kill antelopes, foxes, and even wolves. It is carried on a perch between two men, or on a horse.

(b) Aquila imperialis, Bechst., Imperial Eagle.
Aquila moglinik, Gmel. | A. nipalensis, Hodgson.
A. heliaca, Sav. | A. chrysaetos, Jordan.

The imperial eagle is found throughout the Himalaya, is not uncommon in Central India and on the table-land, but is rare in the south of India. It commences to seek its prey about an hour after sunrise, hunting slowly at no great elevation over bushy valleys and ravines, and occasionally over cultivated ground, pouncing on hares, flirkin, rats, lizards, etc., but will eat carrion.

(c) Aquila nebula, Gmel., Spotted Eagle.
Aquila melanotus, Sav. | A. vittata, Hodgson.
Kal-janga, . . . . . . Hind. | The spotted eagle is found throughout India, N. Africa, Western Asia, and the S. of Europe, and is tolerably common in the Karnatic and in Malabar. It prefers the vicinity of cultivated places; it lives on small animals,—rats, squirrels, lizards, and frogs.

(d) Aquila fulvus, Gray, Tawny Eagle.
A. fusca, . . . . . . A. novioides, Blyth.
Wokhab, . . . . . . Hind. | Dholver of the. WAGRI.
Ali., . . . . . . Tam. | Bursawul of the YERKALA.
Alawa, Salwa, . . . . . . Tel. | [This resembles the imperial eagle in miniature. It is found in a great part of India, is very abundant in the Dekhan, but is unknown in Malabar, Bengal, and to the E. of India. It prefers dry open plains. It quests slowly over fields, and feeds on hares, partridges, rats, lizards, and occasionally enters villages and towns and carries off chickens and ducklings. It pursues and robs kites, falcons, and other birds of prey. Its feathers are used for feathering arrow-shafts.]

(e) Aquila hastata, Less., the Long-legged Eagle; Spizaeus punctatus, Jerd.
This eagle is not common. It robs birds' nests.

(f) Aquila pennata, Gmel., Dwarf Eagle.
Spizaeus nullioides, Jerd. | Butaquilla strophias, Hodg.
Aquila minuta, Brehn. | Aquila pennata, Jerd.
Gilhri mar., . . . . . . Oodalat gedda, . . . . . . Tel.

This eagle is found in W. Asia, N. Africa, and S. Europe, and throughout India, frequenting groves of trees, gardens, and cultivated land, and pouncing on squirrels, rats, doves, pigeons, chickens. Hens with chickens readily recognise it, and call their young to them. Crows often pursue it out of their bounds.

2. KITE EAGLES.

(g) Neopus Malatensis, Reinwardt, Black Eagle.
Aquila perdigora, Hodgson. | Nisaeetus crvorius, Jerd.
Hengong, . . . . . . Bhot. | Adavi nella Gedda, Tel.
Lahmong Bong, Telph. | Lahmong Bong, Telph.

This eagle is found in most of the hilly and jungly districts of India, of Burma and Malayan. It is generally seen circling or questing for prey at no great height. Its chief food is obtained by robbing birds' nests of the eggs and the young.

3. HAWK EAGLES.

(h) Nisaeetus Bonelli, Temm.
Nisaeetus nivosus, Jerd. | Nisaeetus intermedius, Bon.

This eagle is about 27 inches long, and is found throughout India in the hilly and jungly districts. It preys on game birds, and peafowl, ducks, herons, and waterfowl, also on tame pigeons. Dr. Jordan thinks it could be trained to hunt hares, antelopes, fawns, and bustard.

(i) Limnaetus niveus, Temm.
This small eagle occurs in Bengal (Sadal), and north to the Himalaya, and easterly into Burma, Malayana, and the Archipelago.

(j) Limnaetus cristatellus, Temm.
Falco Lathami, Tick. | Fabriattus, Gmel.
The crested hawk eagle is found throughout Central India, the Peninsula, and Ceylon, and is said to inhabit the Himalaya, Kamaon, and Bhutan.
It sits on a high tree, and pounces on hares, partridges, young peafowl, jungle-fowl, etc.

(k) Limnactes nipalensis, Hodg., Spotted Hawk Eagle.

Nisaetus nipalensis, Hodg. | Falco orientalis, Temm. N. pulcher, "

Rel, bole... BHT. Kanzha Cheel, ... LRT.

This has been found in the Himalaya, Khasaya Hills, and Ceylon. It kills pheasants, partridges, and other small birds.

(i) Limnactes kieniri, De Sparre, Rufous-bellied Hawk Eagle, Spizaetus alboogularis, Tickell. This is rare in the Himalaya and Central India.

(m) Limnactes caligatus, Horsf., is a dark-coloured bird of Malacea.

4. SERPENT EAGLES.

(a) Circatus Gallicus, Gmel., Serpent Eagle, C. brachydactylus, Meyer.

Sap mail, ... BENG. Pamula-gedda, ... TEL.

Mal-patas, ... CAN. Rawul of the ... WAGI.

Sam-patra, ... HIND. Kendatele of the YERKALA.

The serpent eagle is found in the south of Europe, N. Africa, all over India and Asia, and prefers the open ground, questing like a harrier. It eats any creature, but snakes and lizards are its chief food, hovering in the air, and pouncing suddenly like a stone down. It seizes with its talons the snake by the back of the head, and the snake often twines its body around the bird, and eumenas it.

(c) Spilaris cheela, Daud.

Falco albidus, Cuv. | Circatus nipalensis, Hodg.


Circatus undulatus, Jerd. | B. melanotus, Jerd.

Talij baj, Sab cheeg, BENG. Botta genda, ... GONI.

Fari baj, ... CAN. Murayala, ... MAHI.

Geam, ... ... Nalla pamula golda, TEL.

The crested serpent eagle is found all over India, in Assam, and Burma. It lives on snakes, lizards, rats, frogs, and insects. This is Falco bido of Horsfield.

(p) Spilaris bacha, Daud., from Java and Sumatra; is the Falco bido of Horsfield.

(q) Spilaris spilogaster, Blainv., from Ceylon and S. India.

(r) Spilaris holosphilus, Vigors, is from the Philippines.

5. SEA EAGLES OR FISHING EAGLES.

(a) Pandion haliaetus, L., Osprey; Fish Hawk.

Pandion Indicus, Hodg. | Pandion fluvialis.

Mach moral, Dala, BENG. | Pantang, ... LEPCH.

Mach varia, Verai ali pong, TAM.

Macharyas, ... | Koramin gedda, TEL.

Mach-rang, ... HIND. Heggul of ... YERKALA.

The fish hawk of Europe, Africa, and Asia, is spread all over India; abundant near the coast, and along marine lagoons. It plunges from a great height into the sea, and carries off a goodly-sized fish, but is frequently robbed by the Haliaetus leucogaster. P. leucogaster, Gould, occurs in Australia.

(c) Poliopterus ichthyetus, Horsf., White-tailed Sea Eagle.

Pandion lineatus, Jerd. | Ichthyetus lucarius, Hodg.

Ichthyetus bicolor, Gray. | Haliaetus plumbeus, Hodg.

I. Horshilhi, Hodg. | BENG. Madulaya, ... HIND.

This eagle is rare south of the Nerbada, but common in Hindustan, Burma, and Malaya. It lives chiefly on fish, but will carry off a teak or wounded duck.

(u) Poliopterus humilis, Temm., a miniature of the last; it is found in Malacca and the islands. It is the I. manus of Bhlyh.

(v) Haliaetus furciventer, Viell., Ring-tailed Sea Eagle.

Falco Macei, Temm. | Haliaetus Macei, Blth.

H. albipes, Hodg. | Haliaetus unicolor, Gray.

Macha rang, ... BENG. Koral, ... BENG.

Mach mut, ... HIND. Bala.

Mach korol, ... | Kokna, Uga, of the LOK.

The ring-tailed sea eagle is found throughout the N. of India, along the Ganges and Indus up to Kashmir. It lives on fish, turtle, and snakes.

(w) Haliaetus leucogaster, Gmel., Grey-backed Sea Eagle.

Blagrus leucogaster, Blth. | F. dimidiat, Hofm.

Ichthyetus culturinigis, Bl. | F. maritimus, Gmel.

Falco blagrus, Daud.

This sea eagle is found throughout India, in Burma, Malaya, and Australia, chiefly on the coast and near the mouths of rivers. It lives on sea-snakes, crabs, rats, and on fish which it picks up on the beach.

(x) Haliaetus leucogephalus is of N. America and N.E. Asia.

Aquila neviodius, the tawny eagle, is a native of Asia and Africa, extending into southern Europe. It is nearly allied to the imperial eagle. The white-headed sea eagle is the adopted emblem of the United States of America. The wedge-tailed eagle of Australia, Aquila audax, preys indiscriminately on all animals,—lamb, the kangaroo, bustard. Haliaetus leucogaster is the Australian sea eagle. Batueur eagle, Helotaros caudatus, is of Africa.

The eagle takes a part in the mythology of the Hindus. The allegory of Krishna’s eagle pursuing the serpent Buddha, and recovering the books of science and religion with which he fled, is an historical fact disguised, namely, that of Krishna incorporating the doctrines of Buddha with his own after the expulsion of the sect from India. The Gulf of Cutch, the point where the serpent or Takshak race attempted to escape, has been from time immemorial to the present day the entrepôt for the commerce of Sotula, the Red Sea, Egypt, and Arabia. There, Buddha Trivirama or Mercury has been, and is yet, invoked by the Indian mariners, especially the pirates of Dwarian; and whether Buddha or Mercury came from or escaped to the Nile, whether Buddha Trivirama be the Hermes of Egypt, to whom the four books of science, like the four Vedas of the Hindus, were sacred,—the statues of Nemi, the representative of Buddha exactly resemble in feature the bust of young Memnon, and the Buddhists appeared in the Gujerat Peninsula, and the adjacent Indian continent was the cradle of Buddhism, and in Saunshtra are three of the five sacred mounts of the Buddhist faith, i.e. Gnmnr, Satrunjya, and Abu.—Jerdon, Birds of India : Todo’s Rajashast.

EAGLE STONES. The Greeks believed that the eagle stone or atiles were only found in the nests of eagles. The eagle stone bore some analogy to the toad-stone. Pliny stated that a round perforated stone, if found in an eagle’s nest, will
prove to be a specific against disease, and a charm against shipwreck and other disasters. Eagle stones are the Hajar-ul-akab of the Arabs, who describe them as resembling tamarind stones, but hollow, and found in eagles' nests, and believe that the eagles bring them from India.—King.

EAGLE-WOOD.

Agalugan, ... Dr. B. Ud-i-Bukhooor, H.D., Pers. Lignum. ... B. Ud-i-Kimari, ... Chin-hiang, ... Ch. Ag-r, ... Dukh. Agel-hout, ... D. Lignum. Aloes woods, ... Eagle-wood, Incense wood. Agallocha, ... Lignum. ... Gr. Aasleeg, ... Heiz. Ahel, Ahelim, ... Heb. Ahiloth, ... A. Ud-i-Chini, HIND, Pers. U. Ud-i-Hindi, ... 

A highly-fragrant wood, much esteemed by Asians for burning as incense. It is made into the pastilles called Ud el Hindi in Hindustan. The trees are several kinds of commerce, and supposed to be obtained from the Aloexylon agallochum, Lour., Aquilaria agallocha, Roxb., the Ag. Malaccensis, Lam., and the Aquilaria secundaria. The eagle-wood incense seems to be a resinous deposit in the interior of the tree. It is mentioned in Num. xxiv. 6, Prov. vii. 17, Cant. iv. 14. In Siam, only one kind of tree is known to produce this; it is only found in one tree out of twenty, and labourers often cut up several before finding any of it. It chiefly occurs in the trees on the islands in the Gulf of Cambodia. They have a knowledge of the outward indications, and, feeling the tree, preserve the dark diseased portion, which is sold at ten shillings the pound.—Boering, Siam; Rogers, Ill; O'Sh.; Roxb.

EAKA and Rai are races often included under the name of Limbu, along with the Kirata, or Kirans, and in appearance they are all very much alike.

EAPAY, according to the Karen, the Creator.

EARL GEORGE WINDSOR devoted years of his life to the investigation of the countries and races of the Eastern Archipelago. The principal part of his writings appeared in the Journal of the Indian Archipelago. He also wrote The Eastern Seas, or Voyages and Adventures in the Indian Archipelago in 1832-34, with Observations on the Commercial Resources of the Archipelago, 1837; also Native Races of the East Indian Archipelago Papuans, London, 1853.

EARNEST MONEY, Tirmantha, TAM., is paid down in almost every transaction of India.

EAR-RING. Eoutrum, Gr.; Inaurus, Lant. Mentioned in Genesis xxxiv. 4, Judges viii. 24, Hosea ii. 13; are worn in the ears by men and women in Eastern countries, and other ornaments are worn round the neck like the golden bulla and leather torus of the Roman youth. Phylacteries are mentioned in Deuteronomy vi. 8, 18. The Malay women of Menangkabu, in Sumatra, place a saucer-shaped gold ornament in the ear. The Dyak women of Borneo also do this. Ear-plugs are worn by all the Burmese, male and female, in a perforation made in the lobe of the ear, which is gradually enlarged, until it will admit an orna-

ment of the proper diameter. These are made of gold, silver, pine-beck, horn, wood, rock-crystal, glass, etc., according to the means of the wearer; amber is the favourite and most fashionable material, being worn by the ladies of the court of Ava. An amber pair of ear-plugs cost 100 rupees. Mahomedan and Hindu women in India wear gold ear-rings. The humbler Tamil women insert rolls of palm leaves. The lobe of the ear is sometimes torn by over-stretching.—Local Committee, Rangoon.

EAR-SHELLS belong to the genus Halioptis and family Haliotidae of the mollusca.

EARTH, Globe, World.

Arad, ... ARAB. Zamin, ... Pers. Myay, ... BURM. Bhu, ... SANSK. Terre, ... Fr. Tierra, ... Sp. Erde, ... Ger. Gahru, ... Sansk. Dany, Jahan, Zamin, HD. Toprak, ... Turk. Terra, ... It., Lat.

The surface of the globe has 31,625,625½ square miles, of which the waters are 23,814,121. The surface covered with water is therefore to dry land as 1.2. The islands form scarcely 3 of the continental masses. In astronomy the symbol of the earth (É) is the inverted emblem of life, and probably bears some reference to terrestrial corruption and decay.

EARTH-Bath is a form of medical treatment occasionally adapted on the littoral tract of the Persian Gulf, and eastwards to the Indus. It had a great run in London about the middle of the 18th century.

Earth Goddess, Mrittika. Human sacrifices were made to this deity in the Tributary Mahals.

Earth Nut, Arachis hypogea, ground-nut. In the year 1879-80, the quantity exported from India was 48,455 cwt., value 2,85,519 rupees.

Earth - Oil is found in great abundance in Burma, where deep pits are sunk to obtain it. It is found more or less in almost every residency in Japan, growing on hills dug in certain spots in the ground for it to drain into.

Earts of kinds are largely used in India. A white earth from the hill state of Dehkanal, in Cuttack, locally called Teelak earth, is used for making the marks on the forehead, nose, arms, and breast, particularly by Hindu devotees, but also by high class natives in the Madras Presidency. That obtained from the banks of the Dhumserie Nuddoe is used for making a white paste to plaster over their idols. An earth obtained near Seel-Chitta, in the Jummoonah Nuddoe, in Nowgong Zillah, is used in painting.

The Chamarfo earth of Spiti is of a bright, deep red colour, and used in dyeing.

The Chasarfo is an orange-coloured dye-earth of Spiti.

Mitti-gachi, called also Multani Mitti, or Ghi multan, is a soft sapaneous earth, used for washing the hair, also medicinally. Its white variety, termed Khujru, is eaten. Its yellow variety, termed Kakhri, is used for dyeing cloths. A light-green variety, sabzi matti, is used for washing the hair.

The Gehru and Hirnji, or red ochres, are impure sesquisoxides of iron, used by Hindu ascetics for dyeing their cloths of a dull orange colour. Yellow ochre, or hydrated sesquisoxide of iron, is the dyestuff called ramraj. The black earth of tanks is used for dyeing a blue-black. Reh, an
Impure carbonate or sulphate of soda, is used in
dyeing, as a detergent for washing the cloth.—
Panj. Ezh.; Proctor’s Saturn, p. 197; Maury.

**EARTHENWARE.**

Aardgoed, DUT. Terraglia, IT.
Crockery, ENG. Gliniaus naczynia, POL.
Vaseille de terre, FR. Gorschetschnia polzow,
Poterie, DUT. Poche.
Irdena Waaren, GER. Loza de barro, SP.
Chenikam, GUI. HIND, Pani, TAM.
Stoviglie, IT. Kunda, TEL.

Porcelain, stoneware, flint-ware, deft, ironstone,
china-ware, etc. Earthenware and porcelain im-
ported into India in the six years 1874–75 to
1879–80 ranged in value about 10 and 12 lakhs
of rupees.
Sir George Birdwood says, truest to
nature, in the directness and simplicity of its
forms and their adaptation to use, and purest in
art, of all its habiliments and sumptuous handcrafts,
is the pottery of India;—the unadorned rude earthen-
ware, red, brown, yellow, or grey, made in every
village, and the historical glazed earthenware of
Madura, Sind, and the Punjab. Unglazed pottery
is made everywhere in India, and has been from
before the time of Menu; and the forms of it
shown on ancient Buddhist and Hindu sculptures,
and the ancient Buddhist paintings of Ajunta, are
identical with those still everywhere thrown from
the village hand-wheels. In the sculptures of
Bhuvaneswar, the form of the kalasa or water
jug is treated with great taste as an architectural
decoration, especially in its use as an elegant finial
to the temple towers. In the same sculptures is
seen the form of another water vessel, identical
with the amriti, or ‘nectar’ bottle, sold in the
bazaars of Bengal. . . . The principal varieties of
Indian fancy pottery, made purposely for exportation,
are the red earthenware pottery of Travancore
and Hyderabad in the Deccan, the red glazed
pottery of Dinapur, the black and silvery pottery
of Azimgur in the North-Western Provinces,
and Surajgura in Bengal (Bhagulpur), and imitation
bidri of Patna and Surat in Gujerat, the painted
pottery of Kota in Rajputana, the gilt pottery of
Amroha, also in Rajputana, the glazed and unglazed
pierced pottery of Madura, and the glazed pottery
of Sind and the Punjab. In all these varieties of
Indian pottery is an artistic effect, unconsciously
sought to be produced. . . . The potter’s art is of
the highest antiquity in India; and the unglazed
water vessels, made in every Hindu village, are still
thrown from the wheel in the same antique forms
represented on the ancient Buddhist sculptures
and paintings. Some of this primitive pottery is
identical in character with the painted vases found
in the tombs of Etruria, dating from about B.C.
1000. It is interesting to find that pottery is still
made in India for daily use, which is as ancient
reality older than the oldest remains we possess
of the ceramic art of ancient Greece and Italy.
None of the fancy pottery made in India is equal
in beauty of form to this primitive village pottery,
and most of it is utterly insignificant and worthless.
The only exception is the glazed pottery of Madura,
and of Sind and the Punjab, which alone of the
fancy varieties can be classed as art pottery, and
as such is of the highest excellence. The Madura
pottery is in the form generally of water bottles,
with a globular bowl and long upright neck; the
bowl being generally pierced so as to circulate
the air round an inner porous bowl. The outer
bowl and neck are rudely fretted all over by

**EARTHQUAKES.**

Myas-gyes, BURM. Zabalah, HIND, PERS.
Tremblement de terre, FR. Terremuto, IT.
Erdbeben, GER. Terremoto, SP.

Earthquakes are of repeated occurrence in the
south and east of Asia. Captain Baird Smith, in
a memoir on Indian earthquakes, enumerated
162 of them between the years 1800 and 1842,
and many of these were felt in the delta of the
Ganges. Dr. Tholozan (Comptes Rendus), physician
to the Shah of Persia, examined the records of
earthquakes in the works of the principal
Arabian and Persian historians, from the 7th to
the 17th centuries, and found 111 intense and
considerable earthquakes, in which houses were
destroyed, sometimes entire towns, with loss of
life. Some of these over many days, notably that
of Khorasan in 644. The Musulmans always
fear giving the accompanying meteorological
circumstances, with remarkable precision. High winds
were frequent, and whirlwinds. Persia experienced
earthquakes 52 times during those ten centuries,
—31 times alone, and 21 times together with Syria,
Mesopotamia, Egypt, Turkestam, etc.; Irak, 10
times; Khorasan, 9 times. Mesopotamia was 23
times agitated,—7 times alone, and 16 times along
with neighbouring countries. Egypt was attacked
18 times alone, and 9 times with other countries.
Syria 9 times alone, and 17 times with other
countries. The results of his inquiry corrected
two assertions that have been made. One is that
of Van Hoff, that from the commencement of
the 13th to the latter half of the 17th century, there
was an almost complete cessation of earthquakes
in Syria and Judea; the other, that of the cele-
brated orientalist Quatremère, that the north-
est portion of the red sea, comprising Egypt, has
been nearly always exempt from earthquakes.
In Egypt, 27 earthquakes are recorded in seven
centuries (796–1482). The most extended record
of earthquakes is that by Mr. Walford in the
Statistical Society’s Journal for 1878. In 1881,
Herr Fuchs recorded 244 in Der Naturforscher,
—86 in winter, 61 in autumn, and 56 in summer.

Earthquakes are repeatedly felt at Kabul.
Vigne tells us (Pers. Narrat. p. 212) that there
are usually a dozen in the course of a year. While
the British were besieged in Jalalabad in 1841,
itself walls were thrown down by an earthquake.
The surface of the Sunderbuns has more than
once sunk below the level of the ocean; and evi-
dence of subsidence are on the whole coast from
Cape Negris to Akyab on the eastern side of the
Bay of Bengal; but Reguin, or Flot Island, as
well as all the other islets and rocks on that part
of the coast of Arakan, are undergoing the pro-
cess of upheaval. This fact was brought to notice
in 1840, by means of the nautical surveys of the
brig Childers. The coast from Akyab to Cape
Negris is indented by deep and narrow gulfs
similar to the fiords of Scandinavia, and lies within
the prolongation of the great volcanic band of
the Sunda Islands, which extends from Java to Sumatra,
Barren Island, and Norecondam; and indeed all
the islands on the coast of Arakan bear evident
markings of subterranean fire. In the island of
Cheleba, 300 miles south-east from the Sand-
heds, in lat. 15° 51’ N., and long. 93° 28’ E.,
there are two mud volcanoes which rise to a

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It again, that the same commotion, earthquake, the volcanic eruption of a volcano, by which the sea was driven over the land, and the effects of which were felt as far as the city of Ava. An earthquake is said to have occurred 100 years earlier, and the inhabitants believe that a similar phenomenon occurs every century. In the island of Kyauk Phyoo, 35 geographical miles north, or nearer to the Sunderbuns, a volcanic eruption took place suddenly, east of the station, at 6 p.m. in June 1852. Again, on Christmas eve 1855, the island was illuminated for miles around by a huge column of fire thrown up by the volcano; and in April 1857, about 10 A.M., the volcano was again in commotion. We learn from the Philosophical Transactions (vol. liii.), and from the Journal of the Asiatic Society (vol. x. pp. 351-493), that the town of Chittagong, in Bengal, was violently shaken by an earthquake on the 2d April 1762, the earth opening in many places, and throwing up water and mud of a sulphurous smell. At Bardavon a large river was dried up; and at Bar Charra, near the sea, a tract of ground sunk down, and 200 people with all their cattle were lost. It is said that 60 square miles of the Chittagong coast suddenly and permanently subsided during this earthquake; that Ces-lung-Toom, one of the Mug mountains, entirely disappeared, and another sunk so low that its summit only remained visible. Foul Hills are also described as having been variously rent saunter, leaving open chasms from 30 to 60 feet in width. Towns, which subsided several cubits, were overflowed with water; among others, Deep Gong, which was submerged to the depth of 7 cubits. Two volcanoes are said to have opened in the Seeta Canha Hills. The shock was also felt at Calcutta. While the Chittagong coast was sinking, a corresponding rise of the ground took place at the island of Ramree, Re- guin, and at Cheduba (Johnston's Physical Atlas).

The entire Eastern Archipelago rests on a volcanic base nearly circular in form, commencing from the west coast of Burma, and passing through the great islands of Sumatra, Java, Celebes, and Luzon. In the last island, one of the Philippines, are some violently active volcanoes. The volcanic chain goes round the outer circle of the Eastern Archipelago, and the volcanic action consequently affects the whole group, working along the western end of the Indo-Chinese peninsula, i.e. on the Arakan and Chittagong coast, up to the Himalaya, 1000 miles away. In the Kangra, Kulla, and Lahou districts, the Jwala Mukhi, fires of Kangra, the Mani Karn boiling springs of Kullu, are but two indications of the pent fires which lie beneath.

In 1640, from an eruption at Bulhayan, 180 miles from Zamboanga, in Mindanao, large masses of stone were flung to a distance of 6 miles. The ashes fell in the Moluccas, and in Borneo. Dense darkness covered Zamboanga. Ships at sea lighted their lamps at 8 A.M., but the light should not be seen through the clouds of sand. The noise of the eruption was heard at Manila. The mountain whence the eruption originated disappeared, and a lake was formed and still remains in the locality.

The island of Simo, one of the Batu group, on the west coast of Sumatra, had an earthquake and sea-wave on the 9th March 155—7. Before the occurrence the island had 120 houses, and a population of 1045. On that day 96 houses were destroyed, and 675 of the inhabitants, besides 103 temporary residents, lost their lives. An earthquake was felt at the fall of the evening, shortly before the inundation. All the inhabitants then assembled on the open space in the middle of the campion, but a moment afterwards they tried to make their escape from thence, as they dreaded the fall of the houses, which were already tottering. They were driven back, however, by a rush of water which approached from the back of the campion. Running back from this, they were overwhelmed by another terrific wave, which, out of 292 persons, swept off 206. Two waves met each other at this point, and large masses of rock were carried from the sea for 100 to 200 paces inland, and the water retired with force, sweeping much into the sea. Soon after the earthquake, heavy reports like distant cannon shots were heard, on which was observed approaching at a great distance from the sea, a wave of the height of a full-grown cocoanut tree, and which dashed with furious force on the island. Some saved themselves by flight, the rest were overtaken by the water and swept away. Three such waves succeeded each other.

In the Philippines, the most fatal earthquakes occurred in 1601; again, on the 30th November 1610, 30th November 1645, 20th August 1658, in 1675, 1699, 1796, 1824, 1852, in 1863, and 1869, and from the 13th to the 24th July 1872? On the 20th July a violent shock was felt at 4 o'clock in the afternoon, which lasted 40 seconds, and completed the work of destruction begun by the previous ones. All the volcanoes in the island were in eruption, and in many places the earth opened, throwing up boiling water and sand. At 11 o'clock the same night a fourth shock occurred, lasting 55 seconds, and scarcely a building was left standing in Manila.

In 1645, for two months there was a succession of fearful earthquakes. In Cagayan, a mountain was overthrown, and a whole town engulfed at its foot. Torrens of water and mud burst forth in many places. All the public buildings in the capital were destroyed, 600 persons were buried in Manila beneath the ruins of their houses, and 5000 altogether are said to have lost their lives.

An earthquake of 1796, in the Philippines, was sadly calamitous.

On the 3d June 1862, at half-past 7 in the evening, a flame was seen to rise from the earth and gird the city of Manila, and at the same time a terrific quaking of the earth took place. It lasted for a minute, but in that short space nearly the whole of Manila was reduced to a heap of ruins, upwards of 1000 persons killed, and many thousands injured. The priests, their
Earthquakes.

Choristers and sacrificers, and the Christians who were hearing the vesper of Corpus Christi, were nearly all buried under the ruins of the cathedral and other churches. The flame that surrounded the city was seen from the bay to ascend towards the sky; and another, a triple-snaked one, came from the land over the water to the shipping. On shore the earth everywhere sunk at least 2 feet.

Earthquakes are frequent in the Moluccas, and indeed in all the islands between Sumatra and 125° of E. longitude.

On the 21st December 1846, three shocks of an earthquake were felt in Ternate. The first two were very heavy, and accompanied by a thundering noise, and columns of ashes were ejected, and a lava stream flowed to the north of the mountain without causing any damage. Other two earthquake shocks were subsequently experienced at Ternate, and on the 8th of April 1847, about half past 3 o'clock, a severe earthquake took place, which was felt in a direction from north to south.

In the month of March 1847, a sinking of the mountain Nimenbock (which is three days' distance from Kapang) took place, in consequence of which many houses with their contents were destroyed by great stones that rolled down.

A severe earthquake was experienced in Batavia, and over an extensive region in Java, in 1847. A Mower of ashes fell at Batavia on the night of the 17th October 1847, which came from the Gunung mountain, in the district of Limbangan, residence of Preanger. On Sunday the 17th October, at 11 o'clock p.m., earthquake shocks, following each other in quick succession, were felt at Tjundur. A shower of ashes began to fall the same night, and by the following morning had clothed the earth, grass, trees, and buildings with a brown covering. The earthquakes had not wholly stopped at Tjundur on the 29th October. The shower of ashes reached as far as the frontiers of the residency of Bantam, a distance of more than 80 miles to the westward of the place of the eruption.

The island of Gunung Api, or Fire Mountain, is wholly a volcano, and has caused repeated desolation around it.

In 1856 Japan was shaken by dreadful earthquakes. From the province Sacaza, as far as Miaco, the earth quivered for forty days successively. In the town of Sacaza 60 houses were thrown down. At Nagsama, a small town of about 1000 houses in the kingdom Oomi, the earth gaped and swallowed up one half of that place; the other half was destroyed by a fire. Another place in the province, Facata, much frequented by merchants, and likewise called Nagsama by the natives, after it had been violently shaken for some days, was at last swallowed up by the sea; the water overflowed the coasts, washed away the houses and inhabitants, and left no footstep of that once rich and populous town. A strong castle in the kingdom of Mino, built at the top of a high hill, after several violent shocks, sunk down and disappeared of a sudden in the gaping earth, a lake quickly filling the place where the castle had been. Another accident of the same kind happened in the province Ikeja. Many more gaps and openings were observed up and down the empire.

At Yeddo, at 8 o'clock on the morning of the 27th July 1783, a great wind arose, accompanied by subterranean murmurings, which increased till the 1st August. On that day earthquakes shook the houses, the shocks increasing in intensity; the summit of the mountain was rent open, fire and flame burst forth, showers of sand and stones were thrown high in the air, great chasms rent the earth, into which thousands fell in their flight. The shocks continued until the twelfth day, and were felt over a space of thirty leagues. Twenty-seven towns and villages were destroyed; the rivers overflowing, inundated the whole country, and completed the work of destruction.

On the 234 of December 1854, at 9.45 A.M., shocks of an earthquake were felt on board the Russian frigate Diana as she lay at anchor in the harbour of Simoda, not far from Jeddoo in Japan. In fifteen minutes afterwards (10 o'clock), a large wave was observed rolling into the harbour, and the water rapidly rose on the beach. The town, as seen from the frigate, appeared to be sinking. This wave was followed by another; and when the second receded, which was at 10.15 A.M., there was not a house, save an unfinished temple, left standing in the village. These waves continued to come and go until 2.30 P.M., during which time the frigate was thrown on her beam-ends five times. A piece of her keel 81 feet long was torn off; holes were knocked in her by striking on the bottom, and she was reduced to a wreck.

In the course of five minutes the waters in the harbour fell, it is said, from 23 to 3 feet, and the anchors of the ship were laid bare. There was a great loss of life; many houses were washed into the sea, and many junks carried up—one two miles inland—and dashed to pieces on the shore. The day was beautifully fine, and no warning was given of the approaching convulsion; the barometer standing at 29.87 in., thermometer 58°; the sea perfectly smooth when its surface was broken by the first wave. It was calm in the morning, and the wind continued light all day.

In a few hours afterwards, at San Francisco and San Diego, the tide-gauges showed that several well-marked and extraordinary waves had arrived off the coast of California. The origin of these waves, and those which destroyed the town of Simoda and wrecked the Diana, was doubtful the same. But their birthplace is not known to be near the coast of Japan.

B.C. 505, Earthquake in China.
A.D. 286, In the island of Niphon, a lake 723 miles long by 124 wide formed in one night.
893, In India, 185,000 souls destroyed by an earthquake.
1040, A mountain overthrown, and 50,000 persons killed.
1139, Gausana, in Persia, destroyed, and 10,000 of its inhabitants killed.
1505, Kabul almost destroyed by an earthquake.
1586, Several cities of Japan destroyed.
1703, Jeddoo, in Japan, overthrown, 200,000 persons perished.
1729, 20th June, a fearful earthquake in old Delhi, and shocks occurred for a month and two days.
1727, A mountain overthrown, 77,000 persons perished.
1731, Pekin destroyed by earthquake, 30th November, 100,000 people destroyed.

A great storm and earthquake devastated Calcutta in 1737, described in the Gentleman's Magazine printed in 1738-39. The account runs thus:— In the night between the 11th and 12th October 1737, there happened a furious hurricane.
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at the mouth of the Ganges, which reached 60 leagues up the river. There was at the same time a violent earthquake, which threw down a great many houses along the river-side. In Golgotta (Calcutta) alone, a port belonging to the English, 200 houses were thrown down, and the high and magnificent steeple of the English church sank into the ground without breaking. It is computed that 20,000 ships, barks, sloops, boats, canoes, etc., have been cast away. Of nine English ships then in the Ganges, eight were lost, and most of the crews drowned. Barks of 60 tons were blown two leagues up into land over the tops of high trees. Of four Dutch ships in the river, three were lost with their men and cargoes. 300,000 souls are said to have perished. The water rose 40 feet higher than usual in the Ganges.1

1780, Tabreez was destroyed by an earthquake, 15,000 houses thrown down, and multitudes perished.

1782, A furious cyclone occurred at Surat.

1793, 1st April, an earthquake at Japan, 53,000 persons destroyed.

1804, Hall-storm at Allahabad.

Heyen mentions an earthquake in Mysore in the year 1800, whilst a great hurricane raged between Onjole and Madras.

On the 16th June 1819 an earthquake was felt over a great extent of country, but its centre was in Cutch. It is the most violent recorded in India. The first and greatest shock occurred a few minutes before 7 in the evening of the 16th June 1819. The alarmed inhabitants of Bhojj fled in all directions to escape from their falling habitation, and the violent undulations of the ground, the crash of the buildings, caused dismay and terror. The shock lasted for two or three minutes, and during that brief time Bhojj was almost levelled with the ground, and nearly 2000 persons perished in Bhojj alone. The walls of Bhojj fell about 6.48 p.m. Before 11 p.m. three shocks occurred. On the 17th the earth was frequently in motion, attended with gusts of wind. Until the 1st July there were two or three shocks daily; one daily throughout July, one every three days in August and September, about six in October, and three in November,—about 100 in all. The great shock was felt at Calcutta at 7.6, Cutch time, 18 minutes later than at Cutch; at Chunar, 7.15; at Pondicherry, 8 p.m.; at Ahmadabad, 7.19. At Khatmandu it was felt sensibly in the evening; also in Sind. It embraced a space of 18 degrees of latitude and 20 of longitude.

1827, Fort Kolltan, near Lahore, destroyed by earthquake.

1847, Jahalabad walls thrown down.

On the 11th November 1842 occurred a severe earthquake, of which Calcutta appeared to be the centre of emanation. The shocks extended 300 miles north to Darjiling in the Himalaya moun-
tains, to Chittagong, or 250 miles to the east, and to Monghir, or 210 miles on the west; and it was also felt on board the Agincourt 70 miles south of the Floating Light.

Earthquake shocks were experienced in Travancore in February 1823, 19th September 1841, 20th November 1845.

1852, Manila injured by earthquakes.

1853, Shiraz destroyed by earthquakes, and 10,000 people killed.

About the middle of the 19th century, several earthquakes are recorded to have occurred in British India, but the precise dates have not yet been found.

In July 18 — ? smart shocks of an earthquake were felt at Lahore, Rawal Pindi, Attock, and Wazirabad. The shock of an earthquake was felt at Peshawur on the 16th September 18 — ? about 7 A.M. The vibrations were barely sensible, but the concomitant rumbling noise was well defined. On the afternoon of the same day, the valley was visited by a dust-storm, followed by drizzling rain, which continued throughout the night.

In January 18 — ? there occurred an extended earthquake at Chittagong on the eastern coast of Bengal, and also at the Kangra valley to the north of the Punjab, and in the N.W. Himalayas; the same earthquake was felt in the south at Sholapur, at Bombay, at Mahabaleshwar and other places on the Western Ghata, and in the Madras Presidency at Ramandrug near Bellary. An earthquake about the middle of the 19th century was felt all over Bengal, at Dacca and Silehar in Cachar; as also in Assam on the 14th December, a day previous to the shocks at Chittagong. Dewangiri also was agitated. On the 19th August 18 — ? the same day that an earthquake was felt at Singapore, severe shocks were experienced on the west coast of Sumatra. The Sumatra Courant of the 20th thus described them:—Since noon yesterday, repeated shocks of earthquake have been felt here. At 6 o'clock several movements were observed. Sometimes there were horizontal and sometimes vertical shocks. The shocks fell at 8.45, 10.25, and 11.30 p.m., with a duration on each occasion of from 2 to 3 minutes; at 2.25 the shocks were the heaviest, and lasted fully four minutes. To-day, at about 4.30, 8.30, 11, and 11.45 A.M., these movements were repeated with diminishing severity. Further shocks were felt at Pading on the 25th and 26th August. Udrapura, Batang Kapas, Painam, Rau, and Natal announce heavy earthquake shocks at those places. At Natal the fort was rent to its foundations in several places.

An earthquake was felt on the 26th July 1854 all over Lower Bengal.

1854, Anasace and Simoda, in Niphon, were destroyed by earthquake, and Jeldo much injured.

1855, 11th November, Jeldo nearly destroyed by earth-
 quake, 50,000 inhabitants overwhelmed.

Earthquakes occurred in Travancore on the 17th March 1856, on the morning of the 11th August 1856, again at 4.25 p.m. of the 22d August, again on the 1st September.

An earthquake occurred at Bombay on the 8th December 1857.

Mount Abu is subject to frequent shocks of earthquakes.

An earthquake of the 24th August 1858 was felt in Calcutta and Madras. Proime in Burma, barely 50 miles east of the active volcanoes at Ramree and Cheduba, suffered considerably; many pagodas were shaken down and houses destroyed. At Kyouk Phyoo they had rain all the 23d. Between 4 and 5 p.m. a slight shaking of the floor was first perceptible, suddenly followed by a rumbling noise and a vibratory motion of the ground, till the earthquake became violent. This vibratory action of the earth from E. to W. lasted
of Tibet, on which he entered at Ta-chien-lu, and advancing to Li-tiang and Ba-than, he found that the latter place had been rebuilt, having a few years before been wholly destroyed by a frightful series of earthquakes, which devastated the whole neighbourhood.

On the 24 March 1878, Sinda had a long continued earthquake. It was the third in six months. About the same date a severe earthquake was felt at Peshawur, Rawal Pindi, Lahore, and Murree. A large portion of the inner wall of the fort at Peshawur fell down from the shock.—Curt. M'Murdie in Tr. Inst. L. Sin.; Jameson's Edinburgh Journal, 1820.

EAST.


By the Hindu, who worships the sun, the cardinal points are named with reference to the east: Apara, the front, or the east, to which he turns in his daily morning worship; Apara, behind, or the west; Vana, the left hand, or the north; and Dakshina, the right hand, or the south. By the Mahomedian, who turns his face to the west, towards Mecca, these terms are exactly reversed, and Dachin, which still means the right hand in Kashmiri, is now used to denote the north.

The cast, the Morgenland of the Germans, has been the theme of innumerable writers, on its people and on their customs. Border in its Oriental Customs, Ward in his Hindoes, Harly in his Eastern Monachism, Roberta in his Oriental Illustrations of the Scriptures, Bunsen's Egypt, his God in History, Max Muller's Sacred Books of the East, and the Hebrew Scriptures, have given to the western nations a vast amount of information. The races occupying the south and east of Asia are of Turanian and Mongol origin, Semitic, Aryan, and African, all various in personal appearance, habits, and customs.

The Shemite, says Layard, whether Hebrew, Arab, or Syrian, has a brilliant imagination, ready conception, a repugnance to any restraint that may affect the liberty of his person or of his intellect. He conceives naturally beautiful forms, whether they be embodied in his words or in his works; his poetry is distinguished by them, and they are shown even in the shape of his domestic utensils. This race possesses in the highest degree what we call imagination. The Shemite, says Layard, shows a ready eloquence; his words are glowing and appropriate; his descriptions true, yet brilliant; his similes just, yet most fanciful. These high qualities seem to be innate in him. The best character of the Bedouin, says Burton (Pilgrimage, p. 44), is a gentleness and generosity. The three great monotheistic systems which have divided the civilised world, came forth from nations of Shemite origin; among them arose the priests or prophets of all those nations who hold to the unity of God. In the south and east of Asia are representatives of those three great religions, Jews, Christians, and Mahomedans. The Aryans of the Eastern Asia are in two distinct branches, viz. the East Aryans, a designation given to the Brahmanic Indians who moved into India, to distinguish them from the West Aryans or Persians, who migrated into the northern country of the Zend.

for about 2¼ minutes, and then suddenly ceased. The earth opened in various places, and a peculiar bluish soft sandy matter exuded from them, and the scene closed by an eruption from the volcano. The Proserpine ship was lying in 11 fathoms of water at the time of the shock, and the sensation felt by those on board was like that experienced when running on a reef; the vessel trembled in every part of her.

On the 10th January 1869, a severe earthquake occurred in Assam, Cachar, and Muniipur. At Silehar the ground rose about 20 feet in a long wave, and the river rushed backward for an hour. The earth opened in many places, and volumes of blue sand and water were thrown up, and a similar splitting of the earth occurred at Muniipur. It extended a long distance into Upper Burma. It was very severe in the hills to the N.E. of Muniipur. Even in the hills the ground opened extensively, and water rushed out, with mud; people fell into the fissures and were injured.

In Chittagong and Eastern Bengal, earthquakes have been felt every few years, some shocks being pretty severe. Sita Khood is perhaps the centre of volcanic action in the Chittagong district.

In North Aroat, in 1859, there occurred some shocks in Tripati and Chandragiri. One shock was felt at 5 P.M., on the 24th February 1850, taking its course from east to west. The noise resembled that occasioned by a railway train going at full speed, and was audible for the space of one minute, during which time the ground trembled. The shock took its course from the foot of the Tirumallay Konda, a hill seven miles north of the Chandragiri Kasbah, and travelling southward, terminated at Thorno Kumbala village, seven miles south of Chandragiri. The shock was felt west as far as Pakala, some 16 miles off, and on the north-west as far as Bimavaram, 10 miles distant.

A shock of an earthquake was felt at Trichinopoly on Friday morning of 18—about a quarter before four. The shock lasted nine or ten seconds, passed on from west to east; not a cloud was visible in the heavens, which were beautifully clear.

1867. The town of Djocta in Java destroyed by an earthquake.

1872, 14th and 15th Dec., Lehree, Eastern Cutchee, destroyed by an earthquake, and about 500 persons killed.

Earthquakes occurred at Kulla-jo-Kuhar in Kohistan in 1873. On the 1st July there occurred a very severe shock about noon, and four or five shocks were felt between that and the next morning; most of them were preceded by a noise like that produced by firing a heavy gun.

On the 5th of August there was another earthquake at Kulla-jo-Kuhar. Two landsips took place near Kulla-jo-Kuhar, and slips in the Karo and Kamhu hills also.

On the 14th, at Kulla-jo-Kuhar there was another earthquake between five and six in the evening; and on the 15th there was another shock about the same hour, with similar noise, at Jakro, about two miles from Kulla-jo-Kuhar.

In 1876, in the Philippine Islands, earthquakes were altogether 41 in number, viz. 11 in North Luzon, 8 in South Luzon, 15 in Central Luzon, 1 in Mindoro, 2 in Maabate, 1 in Leyte, and 4 in Mindanao.

Captain W. J. Gill, R.E., travelled in 1877-8 on the western frontier of China, on the borders
The Parsee follow the fire-worship which seems to have been a corruption of doctrines taught by Zoroaster. The East Aryan races in India pursue a worship of nature, of spirits, and of demons; have adopted physiological doctrines as revelations, are worshipping deified mortals and heroes, and are believing in many incarnations of two deities called Siva and of Vishnu. They are spread all over India, and have imparted to its Prior occupants a considerable acquaintance with their religious books. These prior peoples constitute the bulk of the inhabitants of British India, and have merely added on to their own nature, and spirit, and devil-worships some of the legends and philosophical views of the East Aryan Hindu; and amongst them and the professors of Hinduism are a multitude of sects worshipping Siva, or Vishnu, or Brahma, or all of these, or their incarnations, or deified heroes, or a mere vikratham or idol of stone, or wood, or brass, with or without a form.

Another body of religious men, the Sikh, considerable from their activity and their late political power, converts from the Jit or Gete races in the Punjab, have adopted doctrines partly obtained from the monotheistic Mahomedans, and partly from the Aryan Hindu; but though their faith is only about 200 years in existence, they too have broken up into several sects.

The Mongolian, whether Scythian, Turk, or Tartar, is without imagination or strong reasoning powers, but is intrepid in danger, steady in purpose, overcoming all opposition, despising his fellows, a great conqueror. Such has been his character as long as history has recorded his name; he appears to have been made to command and to oppress. We find him in the infancy of the human race, as well as at later periods, descending from his far-distant mountains, emerging from the great deserts in Central Asia, and overrunning the most wealthy, the most mighty, and the most civilized of nations. He exercises power as his peculiar privilege and right—"Legard, Nineveh," ii. pp. 233 to 244; Burton's Mecca, iii. p. 44.

EASTERN GHATS run along the Coromandel coast for about 1000 miles from Balasore, running S.W. to Ganjam, thence to Naggery, near Madras, where they join the range which crosses the country in a north-easterly direction, from the W. Ghats, north of the gap of Palghat. The average elevation of the E. Ghats is about 1500 feet,—Cauvery Hills 4000 feet, Condappily 1700 feet, west of Madras estimated 3000 feet; hills seen from the Moghalbundi, between Point Palmyras and Chilka lake, appearing in irregular scattered groups, 300 to 1200 feet. See Ghats.

EASTERN PENINSULA, a term frequently employed to designate the Malay Peninsula, to distinguish it from the Western or Indian Peninsula.

EASTERN TURKESTAN, Chinese Turkestan, or Little Bokhara, may be described as the country to the east of the Pamir steppes. It is bounded on the north by the Tien Shan range, on the south by the Himalaya and Kousen Lun, and on the east by the great Gobi desert, which stretches away to the confines of China proper. This province was held by the Chinese, but in 1862 an insurrection broke out, and by 1864, Yakub Beg, the leader of the rebel forces, succeeded in completely ousting the Chinese, and seating himself on the throne. He evinced no small powers of governing, was brave, energetic, and prudent, and by his liberal treatment of merchants, and his merciless severity to robbers, did all he could to encourage trade. He was known under the name of the Kushbegi, or commander-in-chief, but he assumed the title of Atalgh Ghazi. He received with honor and distinction Mr. Shaw, who with Lieutenant Hayward penetrated into Yarkand, and he expressed a desire to send an envoy to the Cisjery of India. His brief career ended in his murder. The chief towns in Eastern Turkestan nearest to British frontier are Yarkand and Khotan. Williams in his Middle Kingdom gives the population of Yarkand, 200,000; Kashgar, 80,000; Siaram, 31,000; Aksu, 20,000.

The entire territory of Little Bokhara, assuming it to extend as far as the meridian of 90°, thus including the great lake of Lob, is sterile in the extreme, but relieved by large and fertile oases,—a feature common to the continuation of the desert eastward, where it becomes the great desert of Gobi or Shamo. The most important and best known oases are those of Kashgar, Yarkand, and Khotan. Of these, the first named lies at the foot of the southern spurs of the Tien Shan range, and consists of a well-watered tract, on the principal river of which, called by the same name, is the city of Kashgar. This was for many centuries the seat of an independent prince, but, after a rebellion in 1826, was reduced by the Chinese authorities to a secondary position in the district of Iii, of which Yarkand is the capital, and to which Khotan has also been attached. Kashgar city is in lat. 39° 25' N., and long. 74° E. (approximately); and the river on which it is situated, after a course of 300 miles, unites with that of Yarkand to form the Tarym, which, after a further course of 250 miles, falls into the great lake of Lob-nor. Both these streams are famous for the jasper and jade-stone which are found in their beds. Yarkand is situated in lat. 38° 10' N., and long. 76° 30' E., on a river of the same name. It is walled, but has an extensive suburb and has a population variously estimated at from 40,000 to 200,000. It has belonged to China since 1757, and is governed by Mahomedan and Chinese officials alternately. The environs are highly cultivated, producing wheat, barley, rice, fruits, and silk, and there is extensive pasturage. Yarkand is known to the Chinese by the name of Ya-lo-kiang. Khotan lies to the eastward of Yarkand, and is situated in an oasis said by the Chinese to be about 1000 li or 350 miles in circumference, immediately to the north of the Kara-korum pass. It is watered by a great number of streams, almost all of which flow into the Lob-nor. It contains the six towns of Khotan, Yurun-Khash, Kara-Khash, Djira, Keria, and Takhabin. Khotan city is situated in 37° N., and 80° 39' E., a position which very nearly corresponds with the site assigned to it as immediately to the N.E. of the Kara-korum pass. It is the Illi-ichi or Ho-tenant of the Chinese, and is supposed to contain about 50,000 inhabitants. It was originally a Hindu colony, and is supposed to have been founded about the 2d century, but the magnificent Buddhist temples and monasteries were all destroyed by the Mahomedan conquerors. The northern portion of Little Bokhara, under the
The **English East India Company** obtained their first charter from Queen Elizabeth in 1599. Their second charter in 1661, from Charles II., was extended in 1665. In 1702, Lord Godolphin united the old company with a new one that had been established in 1698, and renewed their charter in 1773, with a grant of a monopoly to China. When renewed in 1813, it was with permission for other merchants to trade; but a fresh charter in 1833 disconnected them wholly from commerce, made them entirely a political body, and permitted British subjects to settle in India. In the beginning of 1857, on a sudden moving of the martial races, the native army of Bengal revolted, and the predatory races in great portions of Northern India rose in a rebellion, which was only suppressed with much loss of life and at great expenditure of money; and it was then deemed advisable for Her British Majesty in 1858 to assume the direct government of the country, and to rule through a Viceroy, the first of whom was Lord Canning. On the 1st November 1858, it was proclaimed throughout India that its government had been transferred from the East India Company to the British sovereign.

The English East India Company, formed in 1599 by royal charter, had a capital of £30,133. Their first adventure of goods was to the value of £37,000, in five vessels under Captain Lancaster, and in the first fifteen years their profits were to the extent of two hundred per cent. In 1613 they were allowed by Jahanigir to settle in Surat. In 1634 Shah Jahan gave a firman for two English factories to be formed in Bengal; and subsequently, in gratitude for the benefits derived by one of the ladies of the zenana of prince Shuja, from them, he accorded to Mr. Doughton Shah Jahan granted the privilege to the English of free trade in Bengal. The first factory of the company was at Masulipatam, but in 1625 it was removed to Armegon, and subsequently (1639) Mr. Day removed it to a village in the territory of the raja of Chandragiri. Here he erected a factory, which was first called Fort St. George, but afterwards known as Madras. In 1662, Charles II. ceded Bombay to the company. In the time of James II., the company, in 1690, obtained the King's permission to send Admiral Nicholson with 12 ships of war, 200 pieces of cannon, and 600 men, to seize and fortify Chittagong, and establish a kingdom; but this proved a failure, and fresh troops were sent out under Captain Heath, who burned down Balsore, and proceeded to Chittagong. But, finding this too strong, he sailed to Madras, which, with Bombay, were the sole possessions remaining to the English. But at this time Amurzgeb had accepted the terms of peace which the English offered, and allowed them to return to trade. Accordingly, Mr. Job Charnock, on the 24th August 1690, landed on the left bank of the Hoogly, and laid the foundation of Calcutta. In 1698, the three villages of Calcutta, Chuttanuitti, and Govindpore were purchased for Rs. 16,000, and shortly after, during the reign of William III. of England, the fortress of Fort William was erected. About this time, 1698, a rival English company had been started, from which much injury resulted to the English interest; but on the 22d July 1702 these two companies were amalgamated, under the title of the United Company of Merchants trading to the East. In 1715
1561. Mr. Muir, in a tract published in 1621, estimates the quantity of Indian commodities imported into Europe, and their cost when bought in Aleppo and in India, as follows:—

<table>
<thead>
<tr>
<th>East</th>
<th>Cost when brought into</th>
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<tbody>
<tr>
<td>India</td>
<td>Europe via Aleppo</td>
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<td>£60,000 pepper, 3,000,000 6d.</td>
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<tr>
<td>1602.</td>
<td>16,875 6d.</td>
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<tr>
<td>1500.</td>
<td>5,000 6d.</td>
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<tr>
<td>1600.</td>
<td>4,000 6d.</td>
</tr>
<tr>
<td>1650.</td>
<td>1,000 6d.</td>
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Cost in the East Cost when brought into

£60,000 pepper, 3,000,000 6d.
16,875 6d.
5,000 6d.
4,000 6d.
1,000 6d.

1652-53, 27th February. English massacred by the Dutch at Amboyna. 1654, Dutch paid £2615 to the king.

1655-66. English abandoned as unsuited for commerce, Fort St. George, the nucleus of Madras, founded by Francis Day in 1639, was E. I. Co.'s earliest territorial possession, properly so called, in India. The land on which it stood, with an area roughly equal to that of England in length, by 1 mile in breadth, was purchased from the Raja of Chandragiri, and the factors at Armagoan were removed to it. The factory at Hoogly was established in 1644, and at Balasore in 1645. In 1665, a council of professional services rendered by Mr. Gabriel Boughton, surgeon of the Hopecell, to the Emperor Shah Jahan, additional privileges were granted to the company.

1646. The Governor of Bengal, who had also been professionally attended by Boughton, made concessions which placed the factories at Balasore and Hoogly on a more favourable footing.

1647. Original company and Sir W. Courten's association.

1653. Madras raised to a presidency.

1655-66. Land Cromwell £50,000, and obtain acknowledgment of their rights.

1655-66. First factory in Bengal of E. I. Co.

1657-58. Unite with merchant adventurers, and form a new joint stock.

1657. Charter of company renewed by Cromwell, and in 1661 confirmed by Charles II.

1658. Charter of company published at a factory at Kasimbazar (spelt Castle Bazaar in the records).

1659. 3d. April. Charter by Charles II. (Extended 1665.)

1661. Bombay was ceded to the British crown as part of the dower of Catharina of Braganza, but was not delivered up until 1665. King Charles transferred it to the East India Company, for an annual payment of £10, in 1668. The seat of the Western Presidency was removed to it from Surat in 1684-97.

1662-66. Sivaji founded the Maratha rule.

1664. The English I. Co. formed, and their capital built in 1674 at Pondicherry.

1664. In a work, "Treasure by Foreign Trade," p. 59, Mr. Thomas Mun, a director of the E. I. Co., was the first regard paid as an article of commerce.

1667-8, 24th January. The first notice of tea in the company's records. In a despatch to their agent at Bantam of that date, he is ordered to send home 100 lbs. of tea at the best he can get.

1667. Charter renewed ares, and authority to establish a mint at Bombay.

1667-75. Prohibit seamen from settling at Bombay.

1680, 28th October. St. Mary's Church, foundation-stone of the present St. Mary's at Madras.

1681. Sir Josiah Child published a treatise, in which it appears that the company then had 566 partners, 36 ships of from 100 to 775 tons; that the customs duties on the trade amounted to £90,000 or £70,000 a year.

1682. Benoist, settlement in, by E. I. Co. (Ceded to the Dutch, 1823.)

1684. Attempt to check interlopers.

1685-86. Resolved to prosecute interlopers in England; on account of hostilities against Moghul and Nawab of Dacca.
EAST INDIA COMPANY.

1786–87. Resolve to establish a mint at Madras.
1786. An attempt, projected by Sir J. Child, to acquire territorial empire in India failed.
1787–88. Obtain a charter to make Madras a corporation.
1788. Charnock, Job, settled at Calcutta 1690; died 10th January 1692.
1789. Fort St. David purchased by E. I. Co. 1758, surrendered to the French.
1790. Company’s agency transferred from Hoogly to Calcutta.
1793, 7th October. Obtain a new charter, and undertake to export £150,000 of British manufactures. 11th November, obtain an additional charter, for acquiring their stock.
1794–95. Obtain an additional charter.
1798–99. An English East India Co. started as rivals, and copy the constitution of the London E. I. Co.
1799 to 1802. Irgible rivalry between the two companies; but in 1802–1803, by Lord Godolphin, the London and the English Company come to terms, and concluded in 1797–1798, under the title of the United Company of Merchants of England trading to the East Indies.
1803. Governor acquired a grant from Azim, grandson of Aurangzeb, of Calcutta and two adjoining villages, with leave to exercise judiciary powers over the inhabitants, and erect fortifications. These were given the name of Fort William.
1797. Mir Jafar Kothio, Governor of Bengal, also called Jafar Khan.
1797. Aurangzeb died.
1798. An embassy went to Farokh Qahin, and in 1797 they got the island of Dia, 37 townships in Bengal, which was given to the executor of the will of another grantor S. of Calcutta, and had the villages restored to them, near Madras, which had been formerly given by the Arcot ruler and resumed. See Hamilton.
1799. 4th January ending with 1800, the total value of British products annually exported was £29,410, 12s. 6d., and of bullion £515,102, 11s.; total, £617,513, 3s. 10d.
1801. Average of the 3 years ending in 1791, the annual value of British products and bullion exported was £37,944, 4s. 7d.
1802. Seven years ending with 1748, the exports valued amounted to £188,176, 16s. 4d.
1732 to 1818. Warren Hastings born 1732.
1749. A writer in India.
1753. Revisited Eng.
1759. 2d seat in Madras Council.
1772. President of Bengal Council.
1773. Governor-General of Bengal.
1786–57. After return to England, impeached on four charges; trial lasted from 13th August 1788 to 23rd April 1795, on which date he was acquitted.
1796. The E. I. Co. granted him £400 annually.
1818, 22d August. Died.
1789. Death of the Dutch.
1740. Ali Vazir Khan usurped the kingdom of Bengal; died 1766, and was succeeded by his grandson, Suraj-ud-Dowlah, aged 18.
1746. Madras captured; restored, 1749.
1743. E. I. Co. lend one million to Government at 3 per cent., to have their charter renewed to 1780.
Clive, Robert, born 29th September 1725.
Arrived at Madras, 1747.
Ensign’s commission, 1747.
Captured Coromandel, 1748.
Took Conjeeveram, 1751.
Defeated French at Cawnporey, 1751.
Captured Covelong and Chingleput, 1792.
Revisited Eng., 1792.
Returned to India, and Governor of Fort St. David.
Retook Calcutta, 1750.
Overthrew Suraj-ud-Dowlah at Plassey, 23d June 1757.
He had 700 Europeans, 570 sailors, 1400 sepoys, and 8 pieces of artillery. The Bengal Viceroy’s army was 3500 foot, 15,000 horse, and 50 cannon.
Defeated the Dutch at Chinsurah, 1759.
Left India, February 1760.
Returned to India as Viscount and Governor-General, 1764.

Obtained from Shah Alam the Dewani of Bengal, Behar, and Orissa, April 1765.
Suppressed officers’ conspiracy, 1766.
Abolished private trade, January 1767.
Quitted India, January 1767.
A committee of Parliament formed to examine charges against him, 1767.
Directed himself, 2d November 1774.
Tatta, factories at.
Circars. The six northern were granted to the French, 1769. In 1769 Clive seized them, and they were secured by treaty in 1765.
1755. Commodore James and Maharrat army took Severn drug and Banocoe from Conajl Angria. 11th February 1756, Clive and Admiral Watson took Gheral.
1764. Dacca ceded to E. I. Co. by Shah Alam.
1767. Ali Vardi Khan, Nawab of Bengal, died.
1766, June 20. Suraj-ud-Dowlah attacked and took Calcutta. 146 British thrust into a small guard-room; only 23 came out alive next morning. Re-taken by Clive and Watson, 2d January 1775.
First territorial possessions in Bengal.
1769. Angria taken, and forts destroyed.
1767 to 1783. Sir Eyre Coote’s victories.
1781. Major Hector Munro took Mathe. 1763, restored.
1761, 7th January. Panipat, battle of.
1743. April. Nawab Mir Kasim Ali took up arms against E. I. Co.; was defeated at Bhangulpur, and fled.
1743, 3d May. Shauja-ud-Dowlah, Vizir of Oudh, defeated at Corah, near Allahabad.
1769. English besieged the Circars to E. I. Co.
1765, 12th August. Emperor grants E. I. Co. the Dewani of Bengal, Behar, and Orissa, and confirms the jagir to Clive.
1767. Hyde’s rules for Mysore.
1780, 21st July. Hyder invaded the Karnatic, and placed Muhammad Noor in Conjeeveram; and 10th September destroyed Colonel Baillie’s detachment at Perambakam.
1781, 15th February. Hyder destroys Colonel Brathwaite’s force on the banks of the Colerne, 40 miles above Chinsurah.
1782, 7th December. Hyder, aged 80 years, died at Chinsurah.
1764. Motion on account of money claims.
1766, 12th December. Double batta abolished, and officers mutinied.
1771. May. Dehli emperor places himself under Maharrat protection; in Maharrat hands he became a nominal sovereign.
1773. Act of Parliament made Madras and Bombay subordinate to Bengal; appointing a Court of Directors for four years, with a Governor-General in Bengal, upon an annual salary of 2 lacs of rupees, with a Council of four members on one lacs each.
1801, 3d Sept. Madras Supreme Court of Judicature created.
1827, 9th July. Natives of India authorized to sit as juroirs.
1773. Value of British goods exported was £459,803.
1786. £264,828.
1772. Net returns, Bengal, Behar, Orissa, £2,126,766.
1785. £2,072,968.
1772. £2,072,968.
1797. " of India £8,099,000.
1805. £15,403,000.
1784. £150,000.
1797. " of £16,408,000.
1761. Philip Francis, a member of Council, Bengal.
1780, wounded in a duel with Warren Hastings.
1774, 23d April. 40,000 Rohillas under Hafiz Rahmat defeated by army under Colonel Champion.
EAST INDIA COMPANY.

1775, 1st January, Salsette taken.
1775, Alexander Wynne, governor of Madras, recalled.
1776, 1st March, Treaty of Purnundur.
1778, Bhopal Nawab aided General Goddard, 1818, a protecting treaty formed.
1778, First printing in Bengal.
1800, Kasim Khan murdered.
1780, 4th August, Captain Popham detailed Captain Bruce, who took Gwallor. Again taken, 1804. Granted to Sindia.
1780, Press printing in Calcutta. (Censorship abolished, 1784, August 12th, restricted, 1786; Freedom, by Sir Charles Metcalf, 15th September 1833; again restricted, 13th June 1857; again free, 13th June 1858.)
1786, 11th December. Bassein surrendered to General Goddard.
1781, Nawab Muhammad Ali assigned the Karnatic revenues to E. I. Co. 1801, title became nominal. 1855, last Nawab died.
1781-1816. Three Mahratta wars.
1st. , 12th Jan. 1799 to 13th Oct. 1805.
1782. Tipu succeeds his father.
1782, 15th May. Tipu descended the Ghats. 1790, first campaign under General Abercrombie; 1791, second campaign under Lord Cornwallis; Poddah of Bangalore assaulted, 7th March 1791; Bangalore taken, 21st March 1792. 1792, third campaign, 9th February, lines of Seringapatam attacked and won, and peace declared 24th February 1792. Tipu ceding half his territories, paying 3 krors and 30 lakhs, and Tipu surrendered two sons as hostages; they were restored 1794; again surrendered 5th May 1799, on the fall of Seringapatam.
1799, 9th May. General Harris, in command of army, entered Mysore.
1800, 4th May. Seringapatam stormed.
1782. Lieutenant Lawrence led forlorn hope of left column of H.M. 74th at storm of Seringapatam; father of Sir Henry M., of Lord, of General A. W., and of G. St. P. Lawrence; Tipu fell.
1782, 20th January. General Mathews occupies Bednore, and obtained about £801,000, but surrendered to Tipu 30th April, and sent to prison in Mysore. In 1768, Hyder took it, and obtained £27,000,000.
1783, 20th May. Negapatam bought from Holland.
1784, E. I. Co. Directors placed under Board of Control; a Committee of Directors formed; Tanjore conquest disapproved.
1793, 23rd March. Proclamation declaring the permanent settlement of Bengal, Behar, and Orissa, enacted in Regulation 1 of 1st May 1793.
1783, 15th May. Lord Mornington (afterwards Marquis Wellesley) reached Calcutta as Governor-General.
1789, Major General Baird commanded the assault on Seringapatam, 4th May.
1790, Tanjore administration undertaken by the E. I. Co., 20th October.
1791, Expedition to Egypt.
1791, Treaty with Oudh; Allahabad ceded to the E. I. Co.
1802, 25th March. Peace of Amiens.
1802, 20th August. Sacrifice of children at Saugor prohibited.
1802, 1st January. Marquis Wellesley sent in his resignation, but was requested to remain.
1803, 17th July. Third Mahratta war; their armies 250,000 strong, and 1000 guns, under Gen. Perron.
The following were events:
1803, 29th August. Lord Lake (born 1772); victory over Perron at Aligarh. 14th September. Carried the fort at Aligarh. 12th , Battle of Dehli, and released blind Shah Alam. 18th October. Lake took Agra. 1st November. He won battle of Laswari. 1st November. To peace with Persia.
1792, defeated Holkar at Farrakhabad. 13th November. Won battle of Dacoog. 24th and 20th December. Deog fort taken.
1803, 25th November. Tipu surrendered to Light; awarded 21st, 22nd February, lost 29th; failed. (1826, 18th January, taken by Lord Combermere.)
1804, 7th November. Lake created Viscount.
1804, 10th. General Elphinstone's campaign. 1805, 3rd to 15th October, Colonel David Ouchterlony defended Dehli.
1807, 1st to 3rd June, Broach ceded by Sindia to E. I. Co.
1808, 30th December. Bulundahar ceded to E. I. Co.
1809, Fort William College established by Marquis Wellesley; (abolished, 1834).
1811, Sir George. Colonel Gillespie suppresses Vellore mutiny.
1807, Lord W. Bentinck recalled from Madras 11th September.
1807, 17th September. Sir John Cradock, Commander in-Chief, Madras, recalled.
1809, Mutiny of Madras officers, and at Chittodurg of native regiments.
1809, 13th February. Ajygarh surrendered.
1809, M. Elphinstone's embassy to Kabul.
1810, April. Treaty with Ranjith Singh, who died July 1839.
1809. Governor-General, 20th March 1835 to 4th March 1836. 13th Governor N.W. Provinces, May. 1836. Quitted India, 15th February. Governor of Jamaica; Governor-General of Canada; died 3rd September 1846.
EAST INDIA COMPANY.

From his time up to the present, the wars on the N.W. Frontier have been continuous.

1835, 4th Feb. Medical College, Calcutta, established.

1836, 27th January, Regm Sumroo died at Sirdhana, aged 87.

1836, 29th September. Chamber of Commerce formed at Madras.

1834-1841. Keane, Lord, an officer of the British army, born in 1812, was the 13th Commissary-in-chief, Bombay army, from the 21st July 1834 to 14th February 1840. Created a Baron of the empire, December 1839. Died 24th August 1844.

Afghanistan.

1839, 5th May. Shah Shuja replaced on the throne.

1839, 23rd (12th) July. Ghazni stormed. 6th August 1839, Kabul occupied. 15th November 1839, Kafir taken.

1840. Dost Muhammad Khan surrenders. 1841, 3d November. Mogulkhan at Kabiul. 1841, 11th December, British agree to evacuate Afghanistan. 1841, 23rd December, Sir William Macnaghten assassinated. 1842, 6th January, British begin to retire. 1842, 13th January, 4000 fighting men and 12,000 followers totally destroyed; Dr. Brydon alone reached Jalalabad. 1842, 6th April, Khaibar pass forced. 1842, 5th September, Afghans defeated at Juggulak.

1842, 7th April. Sale defeats Akbar Khan at Jalalabad.

1842, 16th September. General Pollock reoccupies Kabul. 1842, 29th September, Istalif taken. 1842, 17th December, British army returns to Firozpur.

1839. Bukkur fortress temporarily ceded to E. I. Co.

1843. End of campaigns.

Viscount Gough—

1837. Commands Mysore division.


1840, 5th July. Chusan captured.

1841, 10th May. Canton taken.

1841, 1st October. Chusan recaptured.

1841, 1st October. Chusan captured.

1842, 13th October. Ning-po captured.

1842, 10th May. Cha-poo captured.

1842, 21st July. Chinkiang captured.

1842, 17th August. Peace.

1843. Commander-in-chief in India.

1845, 20th December. Defeated Maharrattas at Mahatur.

1846-47. Sikh campaign.

1845, 18th December. Moodkee.

1845, 21st December. Firozshah.

1846, 29th January. Aliwal.

1846, 10th February. Sobraon.

1846, 21st November. Ramnagar.

1846, 3d December. Sadoolpur.

1849, 13th January. Chillianwalla.

1849, 29th February. Gujerat.

1849, 24th March. Sikh army surrendered at Rawal Pindi.

1845-46, at Moodkee, Firozshah, Aliwal, and Sobraon, 6263 of all ranks killed, wounded, and missing.

1848, 49, at Ramnagar, Sadoolpur, Chillianwalla, Multan, and Gujerat, 10,785 killed, wounded, and missing.

1857. Lawrence, Sir Henry—

Poll and desert, Afghanistan, 1842.

Resident at Amur, 1853.

Resident at Oudh, 1857.

Died at Chillianwalla, 30th June 1857.

1850-1851. Lawrence, John, Lord—

Arrived in India, 1850.

Chief commissioner, Panjub, 1854.

K.C. B. in.

G.C.I. in.

Harriet.

Raised to the peerage.

Governor-General and Viceroy, 1854-1859.

EAST INDIA COMPANY.

1843. 17th February. Meeanee won by do.
1843. 18th March. Univalley won by do.
1844. 5th May. Lord Ellenborough, Governor-General of India, dismissed their service by the Court of Directors.
1845. Balsore sold by the Dutch.
1845. 8th December. Sadulahpur battle.
1848, January, to 1856. Dalhousie, tenth Earl and first Marquis, Governor-General of India, arrived 14th January 1846; 2d Panjab war on the 29th March 1849; annexed the Panjab, created Marquis, 1849; annexed Satara, 1849; annexed Pegu, 29th December 1852; annexed Nagpore, February 1855; annexed Oudh, 7th February 1856; annexed Tanjore and Karmatic, 1856; left India, 6th March 1856.
1851. Railways begun in India.
1851. December. Telegraph lines opened.
1854, 24th March. Electric telegraph opened in India.
1854, 22d April. All real and personal property of Honourable East India Company vested in the Crown (which becomes liable for all claims, debts, contracts, etc.) since 1793, but is managed by the company. Dividend is 10% per cent., and may be redeemed any time after April 1784. Company stock at £2,000,000.
Law of residence, and right to employment, etc., 3 and 4 W. iv. c. 85, ss. 87-90. No native of the said territories, nor any natural-born subject of His Majesty resident therein, shall by reason only of his religion, place of birth, descent, color, or race, be disabled from holding any place, office, or employment under the said company.
1855. Civil service thrown open to competition.
1857. 15th July. Massacre at Cawnpur.
1857. 2d July to 10th October. Agra besieged by Nemmuch mutineers.
1857. 29th September. Sir Henry Havelock, Baronet, relieved Lucknow; created a baronet 26th November 1857; died 24th November 1857.
1858. Jhansi annexed by E. I. Co.
1858. Andaman Islands a penal settlement.
1858. 1st November. At a grand darbar held at Allahabad, was sent forth the royal proclamation, which announced that Queen Victoria had assumed the government of India, and thus closed the E. I. Co.'s career.
1859. 1st Nov. Dwarks recovered from the Waghirs.
1860. Sir Charles Edward Trevelyan, Governor of Madras, recalled.
1877. 1st January. Queen Victoria was proclaimed Empress of India at a darbar of unparalleled magnificence held on the 3rd December, on the memorable day of the 14th of August, which was set apart by His Majesty, the 26th of November, and by us, for the purpose of celebrating the establishment of the new dynasty.

From the date of that small factory grant in 1613 at Surat, the English East India Company grew, in India, up to the year 1857. In that interval they decided the fate of kings, emperors, and rajahs, and had drawn under their direct rule 150,000,000 of people, with 70,000,000 more under allied sovereigns. Their dominion was at length in 1858 absorbed under the administration of the British Crown, consequent on a great revolt of the native sepoys army of Bengal, during which the predatory races of the north, and the dissatisfied and discontented of the south, took the opportunity to plunder and strive for independence, and during their efforts much innocent blood was shed, and many horrors enacted. In the century of their rule, however, amongst the servants of the company, there had been many great statesmen, many eminent commanders, and many learned men. For one hundred years large parts of India had been under their sway. During their rule they put down predatory warfare everywhere.

They established security of person and property from governmental aggression.
They introduced civil and religious liberty, instituted colleges, schools, museums, and polytechnic institutions for the introduction of a pure and rational philosophy, and the dissemination of knowledge.
They instructed the young in a knowledge of the medical science of the West.
The English language was made known to them. They formed and introduced the Hindustani language as a lingua franca. Molesworth's Maharatta Dictionary, and the works translated and published by Colonel Jervis and others, Morris's Telugu Dictionary, Campbell's Telugu Dictionary, Gilchrist's Hindustani Dictionary and Grammar, Shakespear's Hindustani Dictionary, have been published; Richardson's Burmese Dictionary, Morrison's Chinese Dictionary, and works on botany, natural history, medicine, and physical science.
They established printing and newspapers, and gave the freedom of the press.
They translated into many languages—the Bible, a book of pure morals.
They abolished mutilation and sanguinary punishments.
They abolished slavery in most parts of India.
They abolished sati, human sacrifices, and infanticide.
They put down thuggi and its kindred iniquities.
They placed the remotest parts of India in communication with the whole civilised world.
They abolished transit duties.
They formed roads and bridges on a scale unknown to India under any previous government.
They gave India the benefits of steam communication on its shores and rivers, and of railroads.
They introduced agricultural and horticultural societies for the improvement of cultivation and produce.
They established commercial chambers and banks, and displaced the innumerable coins of its former rulers by a new coinage.
They formed great dams on wide rivers, and excavated great canals for irrigation and traffic.
The English East India Company began as peaceable merchants, but, as is the custom of the East in all countries without police, they retained armed guards over their factories, which led on the one hand to defensive and aggressive acts, and, on the other, tempted needy soldiers of fortune to try to plunder them or to seek their aid,—acts which led them by degrees to the acquisition of their vast territorial possessions.
They formed a great and cheap army, about 300,000 strong, from amongst the conquered races, and with them they made conquests in India, in China, in Sind, in the Panjab, in Afghanistan, in Aden, in Burma, in Assam, in Arakan, and Tenasserim, and twice took Egypt.
They formed a powerful navy, which gave to the Company the great influence over the lawless tribes that fringe the coasts of the Red Sea and the Persian Gulf, and the east coast of Africa. Their work was partly war, partly political, and partly scientific, and they did thoroughly and well whatever fell to them to perform.
Their Courts of Sadr and Foujirdar Adalat, their Supreme Courts of Judicature, with Judges and Session Judges throughout the land, administered
to each race their own laws, and a great body of
magistrates, and Courts of Small Causes, furnished
the people with the means of obtaining justice,
and gave the Government the means of repressing
crime, with the blessing of internal peace and
progressive civilisation.

The service of the state was opened to every
Indian race, it having been provided by Acts 3
and 4 W. iv. c. 85, p. 87, 'That no native of the
said territories, nor any natural-born subject of
His Majesty resident therein, shall, by reason only
of his religion, place of birth, descent, colour, or
any of them, be disabled from holding any place,
office, or employment under the said company.'

EAST INDIAN is a term which has been
adopted by all classes in India, to distinguish the
descendants of Europeans and native mothers.
European and Indian were for a short time in
use, but have ceased to be employed, and other
names, such as Half-caste, Chatikar, and Chi-chi,
by the Hindus and Mahomedans of India, are
derogatory designations. Chatikar is from Chitta,
trousers, and Kar, a person who uses them. The
Mahomedans equally wear trousers, but concealed
by their long outer gowns. The East Indians
are also known as Farangi, a person of Europe,
similarly as Hyderabadis, Bengalis, and Hindustanis
are employed for natives of Hyderabad, Bengal,
or Hindustan. The humber East Indians, if asked
their race, reply that they are Wallandez or
Ollanday, which is a modification of Hollandais,
the name having been brought down through the
seventeenth and eighteenth centuries from the
Dutch, who were amongst the first who trafficked
with the East. East Indians have, in India, all
the rights and privileges of Europeans, and might
advantageously be so styled. They are of French,
Dutch, Danish, Spanish, Portuguese, and British
descent; but many of those of mixed Portuguese
origin—Xaviers, De Castellas, etc.—are merely
descendants of converts to Christianity or of
household slaves of Portuguese officers. East Indians
are chiefly employed as clerks in public offices in
all the subordinate civil departments of the British
Indian Government.

East Indian is a commercial term applied to
distinguish many vegetable products of that region
from others of similar character of other countries.
East Indian arrowroot, bird-pepper, copal, ebony,
galls, gum, indigo, myrrh, screw tree, tagamahacca.

EAST INDIES. This geographical term is used
to distinguish the tropical countries in the eastern
parts of the world, from the West Indies,
composed of the islands lying in the tropics
between North and South America. The term is used
by the British, the Dutch, French, Portuguese,
and Spaniards, to indicate their respective territorial
possessions in the East. The West Indies belong
principally to Great Britain, but to possess the
East Indies has been an object of ambition to
western races from prior to historic times. The
first great inroad of strangers into what is now
British India, was that of the Eastern Aryans,
about 3000 to 1500 years before Christ, who now
form the brahmical tribes of British India,
—intellectual men, but without territorial posses-
sions. Semiramis, B.c. 1200, moved with a
great army, and entered India from the N.W., but
was defeated and driven back with great slaughter.
Alexander of Macedon approached India from a
similar N.W. route, but he stopped short in the

Punjab, moved southwards along the right bank
of the river Indus, and then crossed the Baluchistan
desert to Babylon, where he died. Many Scythian
races, of whom, however, little is known, appear
to have advanced in India to the neighbourhood
of Gujerat, in the early centuries of the Christian
era. The Arab khilifs who succeeded Mahomed,
Mahomedans from Ghuzni, from the vicinity of
the Oxus, and from Persia, obtained possession
of great parts of the country now designated British
India, the British being the present rulers over
much of the lands which previous conquerors
obtained.

The Dutch East Indies, or, as that nation calls it,
Nederlandsche Indie, Netherlands India, are com-
promised in the great islands of the Eastern Archi-
pelago from Sumatra eastwards. They are the
rulers or paramount power of five-sixths of the
whole Eastern Archipelago.

The Spanish East Indies are chiefly the Philip-
pine Archipelago. The chief town of Manila was
founded in A.D. 1581, and they have continued in
undisturbed possession ever since.

The Portuguese, who of all the Europeans were
earliest in the field of conquest, now hold only
1086 square miles in the small settlements at Goa,
Daman, Diu, and Macao.

The French, who in the 18th century strove for
supremacy with the British, now hold Pondicherry,
Mahe, Chandernagar, Karikal, and Yanaon, with
Annam in Further India.

The Danes, until early in the 19th century, had
small patches of territory at Serampour, Negapatam,
and Chinsurah. There are many Rajput, Hindu,
and Mahomedan rulers in British India. Ceylon
is a British colony, and Burma, Siam, Acheen, and
other states are under independent rulers. See
British India; India.

EASTWICK, EDWARD B., of Bombay Army,
Assistant Political Agent, Kattyawar, Sind, 1839-
1842, was Professor of Hindi, Hindustani, and
Mahrati, at Haileybury. Author of Vocabulary
of the Sindi Language;—Dry Leaves from Young
Egypt, London 1847-1852;—Translator of Bopp's
Comparative Grammar, and of various standard
Hindustani and Persian works;—Editor of the
Autobiography of Lutfullah;—On the Revenues
of Khypoor; On the Pedigree of the Amirs of
Sind, published in Parliamentary Paper;—trans-
lated the Kissah-i-Sanjian, also the Zartash-nanah;
—wrote on Alore and Rohri;—translated Schiller's
Revolt of the Netherlands, Memoir of Pir Ham-
rao Khan, Bagh-o-Bahar, Anwar-i-Seheli, Gulis-
tan;—Author of Handbook of India, in four
volumes, and of the Kaisar-nanah-i-Hind, in three
volumes folio;—was private secretary to
Lord Cranborne when Secretary of State for
India; was Member of Parliament for Penrhy
and Falmouth, 1868–1874.

EASTWICK, CAPTAIN WILLIAM JOSEPH,
was born in 1808, and went to Bombay in 1827;
was with the field force under General Welsh at
Colnhpar, and in the S. Mahtram country. He was
the Political Officer attached to the army of Lord
Keane in 1858, and accompanied it through Sind.
He was entrusted with the negotiation of the
treaty of 1859 with the Amirs of Hyderabad,
by which the Indians was thrown open to commercial
enterprise, free of all imports and vexations inter-
ference. He held political charge of the districts
at the foot of the Bolan pass, constituting the
EBONY.

Loose of British military operations in Afghanistan. He was appointed Acting Resident in Sind. In 1847 Captain Eastwick was elected to a seat in the East India Direction, and in 1858 was appointed to the office of Deputy Chairman.

EBONY.


A black wood, exceedingly hard and heavy, of great durability, and susceptible of a high polish. It is exported from Upper Egypt, Abyssinia, Zanzibar, Madagascar, Mauritis, Ceylon, India, and Jamaica. The ebones of South-Eastern Asia are obtained from several species of Diospyros, Dalbergia, and Bauhinia, growing in the Mauritis, Ceylon, in several parts of the Peninsula of India, as Coimbatore, Malabar, Canara, the Dekhan, in the Circars, Ganjam, Cuttack, and Gunjur; also in Assam, the Malay Peninsula, in Penang, Siam, and eastwards through the Asiatic Archipelago to the Philippine Islands. True ebony is of so deep a black, as to be used to personify blackness.

But woods sold under this name have also reddish, greenish, or yellowish hues, and are distinguished in commerce as red, green, and yellow ebones, though these are in much less esteem than the ebones which are jet black, free from veins, and close-grained. Mottled ebony is furnished by some species of Exoreccora, Nectandra, and Jacaranda. The jet black kinds are employed for ornamental furniture, cabinet and turnery work, for rulers, handles for doors, knives, piano-forte keys, philosophical, musical, and surgical instruments, mosaic work and inlaying, though cheaper woods, dyed black, are frequently substituted. It is much affected by the weather, on which account it is seldom used in the plank solid. It is mentioned in Ezekiel xxvi. 15, but in the plural, when the men of Dedan are described as bringing horns of ivory and ebony. Herodotus (iii. 97) mentions ebony as part of the presents brought in considerable quantities to the king of Persia by the people of Ethiopia; and Dioscorides describes two kinds, one Ethiopian, which was considered the better, and the other Indian, which was intermixed with whitish stripes and spotted. Diospyros eburnum, Retz, affords the most valuable ebony of Ceylon; but other allied Indian species, as D. melanopanax, afford excellent cabinet wood. D. quaesita of Ceylon affords the beautiful calamander wood. Other Indian species, however, yield ebony, characterized by its extremely dark colour and hardness, the heart-wood (duramen) of the tree; the sap-wood (alburnum) being white and not durable.

The ebones of the Mauritius, Ceylon, and the south and east of Asia are equal to those of any other part of the world. The ebony in the south of the Peninsula of India is chiefly obtained from Coorg and Canara, from various species of Diospyros, and takes of a superior description, being perfectly black in colour. Smaller pieces are procured from Cuddapah, Salem, Nuggur, etc., but there is no steady demand, though for ornamental cabinet work it is peculiarly fine-veined.

That of Ceylon, from the Diospyros ebenaster, is of great value. And another heart-wood, that of the Kadoen beriyie, or bastard ebony of western Ceylon, also from species of Diospyros, is occasionally met with of extraordinary beauty. The ebones of the Palghat and Combutare districts are supposed to be from species of Diospyros, ebanaster, and Bauhinia. In none of the trees is the entire bole black, only the heart-wood, the outer and white wood being the tendua of the Mahrrats. The ebony tree of the Malabar forests, Diospyros melanoxylon, is also found growing in those of N. Canara below the Woolwa Cliffs, and near Meerjan inland. Ebony is procurable of a very superior quality in the hill stations of the Eastern Ghats, and in the annexed districts of the Northern Circars, particularly in the Ganjul district; also inland from Ellore in the Musilupatam district. Logs of Diospyros ebanaster yield an ebony richly variegated with bright brown stripes and mottled, similar in appearance to calamander wood, and also which is from species of Diospyros. The Karens have distinctive names for four different species of Tenasserim ebony trees, the salt water swamp ebony, the water ebony, the yellow ebony, and the true ebony. Under the Burmese term yendika, the wood of two different trees is sometimes seen,—one a species of ebony, and the other a leguminous tree, which, according to the descriptions of the Karens, is a species of dalbergia, and the wood resembles the blackwood of Hindustan. There is an inferior kind of ebony often seen at Moulein, from a species of Diospyros. A similar wood at Payoy is often denominated iron-wood. The Burmese ebony, known as tan, is found in the direction of Shoony-Gen, but is very scarce.

The ebony used in China is chiefly imported from the Straits, but Diospyros melanoxylon and D. eburnum grow in the island of Hainan, Yung-peh-ting in Yunnan and in Kwang-si. An inferior kind of ebony, known as camagon in the commerce of China, is supposed to be a product of the D. tomentosa. West Indian ebony is furnished by Brya ebenus? A. de C., a small tree of Jamaica. It takes a beautiful polish, and is used for making walking-sticks, inlaying, etc. Bastard ebony of the Brazil is the Jacaranda mimosifolia. Ebony sells in England at £5 to £10 a ton. The exports of it from India from 1874-75 to 1879-80 ranged in value from Rs. 3558 to Rs. 15,917.—Med. ; Smith, Chn.; Drs. Gibson, Wright, Mason, Tredgold, Holzgang, Faulkner, Cruafurd, Thevates, Voigt; Captain Dance; Mr. Rohde; Eng. Cyc.; F. v. Mueller.

ECBATANA. Lay near the Zagros mountains. It was also called Achemetha, and was the chief city of Media. According to Herodotus, Ecbatana was built near the close of the 8th century B.C., by Dejobes, the founder, or (as other authors say) the restorer of the Median monarchy. But, according to Diodorus Siculus, orientals not only described it as the capital of the first Median monarchy founded by Arbebas, but also as existing prior to the em of Semiramis. That queen in her royal progress arrived at Ecbatana, a city situated in a plain, and there built a magnificent palace. Alexander deposited in it the treasures taken from Persopolis and Pasargada; and one of the last acts of his life was a visit to Ecbatana. Williams (Essays, p. 9) affirms that the ancient Ecbatana is the modern Isfahan, the capital of Irak.
Ajami. But Sir William Jones and the chief French orientalists place Ecbatana at Tauris; and Galilius, who has been followed by D'Anville and later geographers, at Hamadan. Media for the most part is high and cold; such are the mountains to the east of Ecbatana, the mountains near Rhage and the Caspian Gates, and thence to Matiana and Armenia. It is usually now thought to be the modern Hamadan.—Williams' Essays, pp. 2-67; Strabo, xi. 13.

ECHALAT, Khassya, is the Nernium piscicidum, Roxb., the Wrightia piscicida, G. Don. Its bark yields a useful fibre. Steeped in water, the fishes die. — Voigt.

ECHENESIUS NAUCRATES, the Indian sucking fish. E. remora, Linn., the remora or sucking fish, is usually found attached to the shark. They are 6 to 12 inches long. Magnellivray says (pp. 237-8) that E. remora caused much annoyance to the fishermen by carrying baits off hooks, and appeared suddenly on the alert, darting out in a bow of 20 or more feet before the ship's bottom, when any offal was thrown overboard.

ECHINOCARPUS DASYCARPUS, Benth. A timber tree of Darjiling hills.

ECHINOPS ECHINATUS, Roxb. Oontka-tara, Hind. Camel thistle. Very common in Rajwara; canals consume it readily. Said to be also a native of Mysore. Dr. Hoffmeister says this plant occurs among the flora of the villages from the Errenghal pass to Shikpie in Chinese Tartary. — Roxb.

ECHITIS, a genus of shrubs and trailing plants of the natural order Apocynacae. Dangerous lacetaceous plants, of no known use.

ECHIUM GRANDIFLORUM, one of the Boraginaceae. E. simplex is the bugloss.

ECITON, a genus of ants. E. rufonigrum, worker, length about 11-24ths of an inch; is very common in the Karnatic; makes its nests in boles of trees, old palings, bamboo rafters, and such like. It does not care for sweet; is never seen on flowers, but devours dead animal matter. It stings very severely. E. nigrum, worker length 9-24ths of an inch, rare in Malabar, but tolerably common in parts of the Karnatic; same habits as the last. Females winged. E. rutipes, worker, length 11-48ths of an inch. E. minutum, worker, about 1-6th of an inch long, is found in the Karnatic and in Malabar on trees. — Jerdon.

ECLIPSE.

Munkhas; Munkhasif, Ar. Ecclesiis, . . . Fr.
Girhan, . . . Hind. . . .

Of Sun—Nay-kyat-hgying; of Moon—La-kyat hgying.

Celestial observations were made at Babylon B.C. 2234. The Chinese wrote of 96 eclipses, of which two are uncertain, but of the others there is no doubt, according to the missionary Gaubil, and the first mentioned by them was observed B.C. 2175. Varaha-mihira, a Hindu astronomer of the 6th century A.D., correctly described eclipses of the moon and of the sun. He says, 'In an eclipse of the moon, she enters the shadow of the earth; in a solar eclipse she obscures the sun by her shadows. Hence the commencement of a lunar eclipse does not take place from the west side, nor that of a solar eclipse from the east.' But at the present day, amongst ordinary Hindus, an eclipse is still considered to be caused by a snake's endeavouring to eat up the luminary. The Hindu myths on this point vary; but usually the Iraku or black, and Keatun or red, snakes, two giants with snake heads who seized the ambrosia, are mentioned. Another myth relates that Rahu, once a chief of the Asuras, who, from having obtained some of the ambrosia, now dwells immortal in the sky, but from time to time darts out on the sun or moon and seize them. These myths are connected with the myth of the vaishnava Hindus about the churning of the milk-sea ocean. When the Deva and the Asura, with Mount Mandara as a churning rod propped on the god Vishnu as the tortoise Kurma, and using the serpent Sesa as a whirling thong, produced the Chauda-ratna, fourteen precious products called gems. Of these fourteen products was one of which Rahu by stealth obtained a portion, and became immortal. Another product was the poison, or medicine, which the god Siva, to protect mankind, drank up. On the occurrence of an eclipse, modern Hindus, to escape from the poison, everywhere bathe themselves. On the morning of the eclipse of the sun in 1868, the Lucknow train conveyed into Cawnpur no less than 27,000 passengers to bathe in the Ganges. The learned amongst the Hindus are perfectly acquainted with the causes of eclipses. See Ketu; Rahu.

ECLEPTA ERECTA, Bhangara, dodak, nigmat, bamaro; juice used to dye hair black, also used in elephantiasis.—Powell, i. p. 359.

EDAGAI, Edagai Kula, also Edangai, meaning the Left-hand race, or successors, is, amongst the Tamil and Teling people near Madras, a social classification of certain traders and artisans, who in the early part of the 19th century assumed an importance demanding the care of the police. The sections are nine in number, viz.:

1. Pancheala, comprising five subdivisions, viz. Kammarunu, or blacksmith; Badage, or carpenter; Kanagar, or brazier or copper-smith; Kaluriga, or mason; Akasale, or goldsmith.

2. Berisith, traders.

3. Devangada, weavers.

4. Ganiagar, oil-makers.

5. Gollur, accountants of treasuries.

6. Palivan and Palawan? two tribes of cultivators, perhaps for Palligavva, a villager, a peasant.

7. Bedar, an aboriginal race of Mysore and Central Travancore.

9. Maniga, a worker in leather, a tanner, a shoemaker. The last is generally most active in contests with the Right-hand castes.

EDDANGALLI or Yeddangali. Maleal. A dry grain measure in use in Malabar, cylindrical in form, 2½ inches high, 6½ inches in diameter, or 56 cubic inches. It ought to contain 57,000 grains of kahna nuts, a kind of rice.

EDEN, a Hebrew word signifying pleasure or delight, and which was made the name of several places remarkably fruitful in their soil. The first is that province which the prophet Amos seems to notice (i. 5), when he divides Syria into three parts, viz. Damascus, the plain of Aven, and the house of Eden, called Celsius-Syria, or the hollow Syria, because the mountains of Libanus and Anti-Libanus enclose it on both sides, and make it to resemble a valley. A second place wherein several learned men have sought for the country of Eden of the Scriptures is Armenia, between the sources of the Tigris, the Euphrates, the Araxes, and the Phasis, which they suppose to be the four rivers specified by Moses (Genesis ii. 10, etc.). A third place which some have fixed on as the country of

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EDICTS.

EDEN.

Eden, is Chaldean, not far from the banks of the Euphrates, a country remarkable for its extreme fertility (Joel ii. 5). Chaldean tradition located it and placed it in the city of Eridhu, whose position corresponds with the modern town of Rata. Babylon has also been so named; also Ceylon, with its Adam's footmark, peak, and bridge. The Eden mentioned by Ezekiel (xxvii. 23) as a great commercial place, is supposed by some to be the modern Eden, but it presents no signs of ancient grandeur. Eden is also supposed to have been in High Asia, between the common sources of the Jihun and other grand rivers, where there was abundance of the Ficus Indica or burr-tree, sacred to the first lord, Adinath or Mahadeva. Milton (Paradise Lost, book ix.) uses this tree to describe whenAdam and Eve 'Both together went Into the thickest wood; there soon they chose The fig tree; not that kind for fruit renowned, But such as at this day, to Indians known, In Malabar or Dekhan, spreads her arms, Depending so broad and long, that in the ground The bended twigs take root, and daughters grow About the mother tree, a pillar'd shade High overarched, and echoing walks between. There oft the Indian herdsman, shunning heat, Shelters in cool, and tends his pasturing herds. Those leaves They gathered, broad as Amazonian large.'—Rajasthan, i. 25; Robinson's Travels, ii. 337.

EDEN. Sir Astley Eden, a Bengal civil servant who rose to the high offices of Chief Commissioner of British Burma, Lieutenant-Governor of Bengal, and Member of the Council of the Secretary of State for India. When the ryots of several districts in 1800 revolted against the hereditary cultivation of indigo, because it had never repaid them, he was the first to point out that every tenant-proprietor in Bengal was the virtual owner of the soil, and ought to be allowed to sow it with rice, or, under contract, to cultivate indigo or any other crop; but that this supposed freedom of contract had been overridden for two or three generations by the influence and power of the planters, backed by the wealth of merchantile houses. It remained for the Indigo Commission, for Sir J. P. Grant, the Lieut.-Governor, and for Sir Charles Wood, then Secretary of State, to refuse assent to all projects for compelling ryots to sow indigo under any law making a breach of contract a criminal offence, and to cancel a temporary enactment passed with this object. As Lieut.-Governor, the education in Bengal, the jails, the roads and railroads, the finances, all received his care. He displayed some of the best characteristics of a paternal administrator, while skillfully and surely educating the people to do something for themselves.

EDENTATA, an order of mammals, so named because some have no teeth, and others none in the jaws. They are divided into two groups, the Tardigrada or sloths, peculiar to America, and the Effodients or burrowers, comprising the armadillos of S. America, Cape, and New and Old World ant-eaters. Of these, the pangolins, of the family Manidice, of the genus Manis, occur in British India, China, Burma, Malay Peninsula, and Java. See Manis.

EDESA, now called Orfa, was the Ur of the Chaldees whence Abraham removed to Haran. It is a city on the Euphrates, where Christian, Jewish, and Buddhist tenets were discussed. Here Ephraem Syrus taught, and Syriac translations were made of the Greek and Christian works, which have preserved to us the original.—Max Müller. See Orfa; Sarug; Semitic Races.

EDGWORTHIA BUXIFOLIA. Fale. Yields an edible fruit in Kâbul, unknown in England. It is the Reptonia buxifolia, A. de C. E. chrysantha grows in great abundance in China. E. Gardneri, Meisson, is a beautiful shrub with globes of waxy, cowslip-coloured, deliciously-scented flowers. This plant is allied to daphne, from the bark of which the Nepal paper is manufactured, and is similarly utilised. E. papyrifera, Mitsu, Jap.; its bark is made into one of the papers of Japan.—Hooker, Him. Journ. i. 205; Sir J. E. Reid, p. 43.

EDIBLE BIRD NESTS are made by the Colloca bivirestris, M'Clelland; C. nidifica, Gray. The nests are found in the caverns of the limestone cliffs in the Peninsula of India, and are well known in the commerce of the Archipelago. In Java they are sold at from £500 to £589 per pikul of 1384 lbs. avoid. See Bird's Nests.

EDIBLE SEA-WEEED, Plocamia candida. Yonk puen, . BURM. Agar-agar, . MALAY. A sea-weed abundant on the Tenasserim coast, and valuable for its nutritious and medicinal properties. It was brought to notice by Dr. O'Shaughnessy as the edible moss of the Eastern Archipelago, and referred by him to the genus Fucus. The fructifications, however, being in small tubercles, the Rev. Mr. Mason considered it as a species of Agardhs genus, Sphercococcus, which now constitutes a member of the genus Plocaria. It is an allied genus with the Ceylon moss (Gigartina lichenoides), first described as Fucus amyloceleus by Dr. O'Shaughnessy, the Plocaria lichenoides of Mr. Mason; also with a species found on the coast of Devonshire in England, Pl compressa, with the Corsican moss of the Mediterranean, P. helminthochorton, also with the Agar-agar, Pl. tenax, but differs from the Irish moss or Chondrus crispus. It is not of the same natural family as the Iceland moss, which is a lichen, the Cetraria islandica. The Tenasserim moss is said to be superior to all others, as it is wholly free from the bitter principle which renders other fucil so objectionable. 100 parts contain—sulphate and muriate of soda, 9.5; sulphate and phosphate of lime, 1.0; iron, a trace, 1.47; vegetable jelly, 54.5; true starch, 15.0; wax, a trace, 0.57; ligneous fibre, 18.0.

For use, steep it for a few hours in cold rainwater, next dry by the sun's rays, and grind to a fine powder; to 250 grains add 125 of water; when hot, pass through muslin or calico, strain, and boil down till a drop placed on a cold surface gelatinizes sufficiently. With milk and sugar, and flavour with lemon-juice or sherry.

EDICTS. Asoka, the first great Buddhist regal convert, carved many edicts on the rocks at Cuttack, in Gujerat, and on the banks of the Upper Indus, besides engraving them on pillars all over the country. From these we learn that Asoka's first care after his conversion was to send missionaries to proclaim his new faith in the neighbouring lands. It does not seem, however, that they penetrated beyond Kâbul or Balûk westward. The most interesting record is that contained in the thirteenth edict of the rock-cut inscriptions, where he mentions having formed
EDOM. The patriarch of the Edomites was Esau, and they dwelt on the Dead Sea, from which they were driven by an earthquake. They were a warlike, unsettled race of Arabs, whose property was in their cattle, their waggons, and what their waggons could carry. They did not cultivate the soil, nor had they any respect for a landmark. The Nabateans were at an earlier time the tribe called Edomites. But they lost that name when they carried it to the southern portion of Judea, when called Idumeans; for when the Jews regained Idumaea, they called these Edomites the desert Naboth or Nabateans. The Nabateans professed neutrality between Antigonus and Ptolemy, the two contending powers; but the mild temper of Ptolemy had so far gained their friendship, that the haughty Antigonus, though he did not refuse their pledges of peace, secretly made up his mind to conquer them. Petra, the city of the Nabateans, is in a narrow valley between steep overhanging rocks. Not more than two horsemen can ride abreast through the chasm in the rock by which it is entered from the east, while the other entrance from the west is down a hill-side too steep for a loaded camel. Their temples and huts were cut out of the live rock, and hence the city was by the Jews named Selah, the rock, and by the Greeks named Petra, from which last the country was sometimes called Arabia Petraea. The existence of rock-cut viharas or monasteries at Petra, in the dominions of Antiochus, is of similar excavations at Cyrene, so far to confuse and elucidate this; for, though travellers have hitherto called every excavation a tomb, there can be no doubt that many of those at Petra and Cyrene and elsewhere were the abodes of living ascetics, and not burial-places.—Bunsen's Egypt, pp. 314-431; Sharpe's Egypt, i, pp. 250-51.

EDIRSI, a Nubian geographer who visited the court of Sid Râd Jye Singh, the ruler of Ahalwara Puttan, A.D. 1094 to 1145. Edrisi states that Jye Singh was then a Buddhist. Edrisi lived A.D. 1099-1186. He mentions porcelain, and the fine cotton fabrics of Coronamel, the pepper and cardamons of Malabar, the camphor of Sumatra, nutmegs, the lemons of Mansura (near the old course of the Indus, N.E. of Hyderabad), on the Mekran (Indus), the asafetida of Afghanistan, and cæbebs, as an import of Aden. He names the Konkani as the country of Saï, i.e. of the sag or tiger-jeer. Marsdon says that Edrisi is improperly called the Nubian geographer, that he dedicated his work to Roger, king of Sicily, in the middle of the 12th century, and that he describes the island of Al-Ramî; but the particulars so nearly correspond with those given by the Arabian traveller, as to show that the one account was borrowed from the other.—Marsdon's Sumatra, p. 4.

EDUCATION.


Education in the village schools of India is usually conducted in the vernacular of a house, or in the open air. School for which there are three sections are held under trees in Bengal, and children who are beginning to learn, write the letters of the alphabet in the dust. This is the old oriental custom, and is alluded to in John viii. 6, when Jesus stooped down, and with his finger wrote on the ground. A general mode in India of teaching writing, is to write with a pencil of soapstone on a wooden board, or on thick pasteboard stained black. The writing board in Sind, called a furaha, is a thin board made of hard fine-grained wood, stained red, black, green, or yellow. The ink contains no mineral substance, and is therefore easily washed off, the board being smeared with a thin layer of clay and water. When the pupil has become somewhat skilful in the management of his pen, he lays aside the board, and uses a papier-mâché material called daftari. It is made of several sheets of writing paper pasted together, strengthened with a composition of verdigris, and glossed with a material which is a finishing or coating made of steel, so that it may be washed when dirty (Burton's Scinde, p. 396). In the Peninsula of India, the ground, the writing-board, and the pasteboard are written upon, in the schools, but the ordinary material is the olay or dried palm-leaf, which is written on with an iron style. The education of the Brahmins of India in the vernacular of their district, has usually been conducted along with a knowledge of Sanskrit. Since the middle of the 19th century, many of them have acquired a knowledge of English. The lower caste Hindus have restricted their acquirements to the vernacular languages of their district. Numbers of them know English; very few know Sanskrit. The Mahomedan throughout India learn Arabic, Persian, and a small number know English. The Lubbâh Mahomedan has the Koran in the Tamil tongue. Some of the Tamil women have been learned, one was an authoress, and many of their girls are now being sent to school. On the 29th July 1859, the Bethune School for Native Girls was founded at Calcutta. The English East India Company resolved to introduce a national system of education in a despatch from the Board of Control 19th July, No. 49 of 1854. The most important feature in the despatch was the measure of grants-in-aid. It offered to all schools, already existing, or that might hereafter be established, provided they were found efficient, pecuniary aid to an amount in each case not exceeding the sums arising from local sources, subject to conditions that in no way interfered with the perfectly free action of the managers of such schools, and only requiring that they should be submitted to Government inspection, with a view to ensure the secular instruction therein furnished being of a satisfactory character. It in fact threw open the field of Indian education to any one who chose to cultivate it, offering on the part of the Government to bear half the expense. The missionaries, with few exceptions, received the proffered aid, submitting without a dissentient voice to the conditions imposed.
EEDGAH.

Up to that year, 1854, during the rule in India of the English East India Company, only small and local efforts had been made by the state to educate the people, and even these had languished. The college of Fort William, established during the Marquis Wellesley's administration, was again abolished in 1853. But in 1881, Calcutta, Madras, and Bombay cities each had a university, with professors, and granting degrees in arts, medicine, law, and civil engineering. In the ten years 1872 to 1881, there had been 56,547 candidates for matriculation, of whom 21,182 had passed.

In 1881 there were 79,953 institutions for youths, and 2,590 for girls, with 2,195,614 scholars, of whom 120,365 were females. At the B.A. examination at Calcutta University in 1888, for the first time in the history of that body, two young Bengali ladies appeared as candidates, and were declared to have passed. The two girls graduates are named Chandramukhi Bose and Kadambini Bose. They were educated at the Bethune School in this city. The receipts in 1881 were Rs. 1,65,91,016, and expenditure Rs. 1,75,95,329. In 1882, during the Earl of Ripon's administration, Dr. W. W. Hunter was placed at the head of a commission to investigate the position of the Indian Government towards the people, in connection with the questions of high education and primary education.

During Hindu and Mahomedan supremacy, except in a few rare places, the education of their subjects was left to the benevolent efforts of learned men, who taught gratuitously such pupils as sought instruction; and this practice is continued to the present time. Since the arrival from Europe of Portuguese, Dutch, Danes, Italians, French, and British, their Christian missionaries of all sects have striven to spread education amongst the people, and there are Christian schools and colleges in which the English language is the medium of instruction, which compete successfully with the institutions established by the Indian Government.

Education in China is very general, and is largely encouraged by the state, but few women are educated. Children at six years of age are sent to school. The successful competitors for the literary degrees of M.A., B.A. and others are congratulated. Papers bearing Chinese characters are greatly venerated. See Han-lin.

EDWARDES, Sir HERBERT, K.C.B., K.O.S.I., born January 1820, died 1868, an officer of the Bengal army. He served under Sir Hugh Gough at Sobraon and Moodkee; served under Sir Henry Lawrence in the Panjub in 1848 and 1849. He subjugated the valley of Bunnu in 1848; and in May 1848 he defeated Murulj, aided in the settlement of Kashmir and establishing the authority of Gulab Singh, and aided in the rescue of the British prisoners at Multan. In the revolt and rebellion of 1857–58–59, he served in the Panjub along with Sir John (Lord) Lawrence, Generals Nicholson, Cotton, and Chamberlain. His views extended to ruling India as a Christian country, and his purse and pen were ever ready to aid in extending Christianity. The Indian Council decreed a monument to his memory.

EDWARDSIA HYDASPICA, E. madraspatana, and E. mollis are shrubs of the natural order Fabaceae. It is doubtful whether these be different species. The flowers of E. mollis are pretty, and is supposed to be the second kind of argawhan (see Bantuha variegata) mentioned by Baber (or his translator) as growing at Baber's tomb at Kâbul. It grows in the Panjub and on the Sutlujan range, up to 8000 feet. Run, Rohen, and Malan are the Pushtu names for E. hydaspica.—Dr. J. L. Stewart.

EDYE, JOHN, wrote on the Native Vessels of India, Ceylon, Malabar, and Coromandel coasts, Lond.; also on the Timber Trees of Ceylon and Malabar, As. Trans. I. 1–15; and a Description of Seaports on the Malabar Coast. Ibid. ii. 324. By a residence of five years in India, as His Majesty's master shipwright in Ceylon, he had singular opportunities of becoming perfectly informed on the subjects of which he treats in his memoirs. He describes in a clear and concise manner the various vessels of the coasts of Coromandel and Ceylon. He was afterwards employed in the department of the surveyor of the navy.

—J. R. As. Soc., No. i. of 1834, pp. 1 to 14.

EED, ARAH. There are five eed or religious festivals held annually by Mahomedans. The two principal are the Ramzan or Eed-ul-Fitr, and the Bakr-eed, which are farz and sunnum, i.e. commanded both by God and Mahomed to be observed. The other three are, Muharram, Akhri-char-sham-bah, and Shab-i-Burat, and are only sunnum, or commanded by Mahomed. The Eed-ul-Fitr, or Ramzan-ki-Eed, is held on the first day of the tenth month, Shawal, on which Mahomedans put on new clothes, make congratulatory visits, and make charitable offerings, farz or sadka. All of them move in procession to the Eedghah, where the khutbah is read. The Eed-ul-Fitr means the festival of breaking the fast, and follows the Lent of the Ramzan. The Bakr-eed is also called Eed-i-az-ha or Eed-ul-Kurban, the festival of sacrifices, and is held on the tenth day of the month Zil-haj.

EEDEE are holiday presents, given in Mahomedan schools at the several festivals by masters, who receive a small gift from each scholar in return, at the festivals of the Kurban, Shab-i-Burat, and Ramzan. They are sometimes a verse relating to the eed (or feast), written on coloured or illuminated paper. The custom is followed in Hindu schools at the festivals of the Holi, Basant panchami, and other similar religious festivals.

EEDGAH, a place of festival or of prayer; a building raised by Mahomedans of India, generally without the walls of a town, often amidst gardens. It is erected on a platform or a pediment three or four feet above the level of the ground, and on an eminence, consisting of a straight wall with two or more minarets, and having in the centre, on a level with the ground, three steps, which forms the minbar (or pulpit), from which the khutbah (or sermon) is read on particular occasions, or on particular feast days, such as those of Bakr-eed and Ramzan-ki-Eed, which occupies from an hour and a half to two hours. It is said that Mahomed, in addressing the congregation, stood on the uppermost step; Abu Bakr, his successor, on the second; Omar, on the third or lowest; but Osman, observing that at this rate we might descend to the bowels of the earth, fixed upon the middle as the one from which to deliver the sermon; since then it has continued so. This building is merely intended as a signal post for people to assemble at, to hear the khutbah read. A bamboo or any other post might answer the same purpose,
but a brick building is usually preferred, as being more durable, and affording individuals an opportunity of handing down their names to posterity, by being at the expense of erecting them. It is by no means a sacred edifice.—Herk.

EEITA-AKU. Tet. The leaf of Elata sylvestris; Eeita khallu, the toddy; Eeita pandu, the fruit.

EEK, also Eekh. HIND. Saccharum violaceum. Sugar-cane, a sugar-cane field. Eek'hraaj, also Ook'hraaj, is the day on which sugar-cane is planted, and which, in Northern India, is performed with some rural ceremonies.—Elliott.

EEE-GYWOT-SHA, a bast of Arakan; strips five to six feet in length, composed of several layers, of which one side is smooth and compact, and the layers on the other side thin but cancellar; all having a considerable degree of toughness.

EEES or Isa. Arab. Jesus. Eesa-ul-Masih, Jesus the Christ. Hazrat-Eesa, the Lord Jesus.

EEESA-KHAIL, an Afghan clan whose country extends to within 30 miles of the province of Delhi Ismail Khan. It is a strong and mountainous strip of land. The mountains of the Eesa khail and Khusur rise so abruptly from the Indus, that for the access to this country on other sides, it might make successful resistance.—East India Papers, Cabool and Afghanistan, 1859, p. 22.

EEESAWITAI or Isawiyah, a sect of Mahomedans in N. Africa, who take their name as disciples of Sidi Mahomed-ibn-Isa, a Maghribi. They are known to Europeans as the dancing darwesses, of whom there are a number in Cairo, almost all of them Maghrabi Arabs of Northern Africa. Mahomed-ibn-Isa was a native of Moqinay in Morocco. His followers at Kairwan are guilty of fanatical self-torturing. A writer in the Times of 18th November 1859, describes a circle of musicians in the centre of a room, playing a slow monotonous tune on earthenware drums and tambourines, gradually increasing in cadence until most of the devotees commenced to bow their heads and shout a refrain, swaying to and fro in time to the music. Suddenly one after another threw off their clothes and shouted discordantly. A Tunisian soldier slashed his stomach with a sword; a second forced a long iron prong against his side, which another drove in with a mallet; and others pierced their cheeks with iron skewers and their shoulders with daggers. One crunched glass; a sheep was killed, and torn and eaten raw and bleeding.

EESHWRA. Sansk. From Eesh, to be grand, hence Eeshwara, the glorious; Eeshwari, feminine of Eeshwara.

EGERTON, Mr., a Bengal civil servant, who wrote an account of his journey through Spiti, London 1874. In 1877 he was appointed to be Lieutenant-Governor of the Panjabs, was created in 1875 a C.S.I., and in 1878 a C.I.E.

EGGS.

DAZ, Baja,...... ARAB. Uovo,......Lt.

Matte, Tetts, Gadda, CAN. Ovum,...... LT.

KC-Iwan,...... CHN. Huevo,...... ST.

KC-kz, Ktaman,...... TNL. Mat,...... TAM.

GEefs, ...... FN. Gadda,...... TEL.

Betzm,...... HBD. Zimurta,...... TEL.

unda,...... HIND. Beeshwa,...... TEL.

Eggs as food articles are in varied estimation in the East Indies. Hindus have a religious objection to eggs. Their sacred books class both fowls and eggs in the category of unclean things, and no strict Hindu will touch anything so unholy, on any possible pretext. With Mahomedans they are largely eaten, usually in the form of omelet. The Europeans in the East Indies adhere to the customs of their race. Eggs are used in worship by the women of the Kuchari, and in divinations by the Khassyrrane. Fowls' eggs are largely consumed by the Chinese couriers or postmen, who take them nearly raw; in China they are seldom boiled and eaten as in Europe.

Hatching of fowls' eggs and eggs of fishes is largely practised by several nations. Ducks' eggs are artificially hatched in China in large quantities, particularly in Chusan at Fa tee, and Poce-taihne and Nam-tong near Canton.

In Chusan, every spring, thousands of ducks' eggs are hatched by artificial heat. The establishment is situated in the valley on the north side of the city of Ting-hua. The hatching house is a kind of large shed, with mud walls, and thorp, in which it is hatched with straw. Along the ends and down one side of the building are a number of round straw baskets, well plastered with mud, to prevent them from taking fire. In the bottom of each basket there is a tile placed, or rather the tile forms the bottom of the basket; upon this the fire acts,—a small fireplace being below each basket. Upon the top of the basket there is a straw cover, which fits closely, and which is kept shut whilst the process is going on. In the centre of the shed are a number of large shelves placed one above another, upon which the eggs are laid at a certain stage of the process. When the eggs are brought, they are put into the baskets, the fire is lighted below them, and a uniform heat kept up, ranging from 95° to 102°; but they regulate the heat by their own feelings, and it will therefore vary considerably. In four or five days after the eggs have been subject to this temperature, they are taken carefully out, one by one, and a door in which a number of holes have been bored, nearly the size of the eggs; they are then held against these holes, and the Chinsmen look through them, and are able to tell whether they are good or not. If good, they are taken back, and replaced in their former quarters; if bad, they are of course excluded. In nine or ten days after this, that is, about fourteen days from the commencement, the eggs are taken from the baskets, and spread out on the shelves. Here no fire heat is applied, but they are covered over with cotton and a kind of blanket, under which they remain about fourteen days more, when the young ducks burst their shells, and the shed teems with life. These shelves are large, and capable of holding many thousands of eggs; and when the hatching takes place, the sight is not a little curious. The natives who rear the young ducks in the surrounding country know exactly the day when they will be ready for removal, and in two days after the shell is burst the whole of the little creatures are sold, and conveyed to their new quarters.

In the East, during the hot summer months, some of the pond fish estivate in the mud, where they await the advent of the succeeding year's rains. As soon as the monsoon bursts, the ground becomes saturated, and fish are perceived dispersing in all directions. In a very few days fry are also discovered in every little piece of water, while the time which elapses between the commencement of the rains and the appearance of the little fish does
EGYPT.

and third, the dominions under native Egypt include the provinces of the country from the Sambulir salt lake in Rajputana, which overflows during the rains, and when the waters subside, a deep inerustation of salt is deposited on its shores for several miles around. In the water of the lake is a peculiar form of crustacea, said to be Artemia salina. These are about half an inch in length, are provided with numerous feet, while between the body and tail there exists a small sac full of eggs. These vary in colour from a pale fawn to a brilliant crimson; and as the brine approaches saturation they die off, but before dying they deposit their eggs, which are carried by the water to the edge of the lake, where immense layers, upwards of an inch in thickness, are found. These layers of eggs are subjected to the intense heat of the hot season, and are hatched at the commencement of the annual rains. — F. Day.

EGG-SHELL CHINA, a manufacture in Japan, in the provinces of Fozen and Setsamua.

EGRET, the common name of several species of the Cullrostres tribe and family Ardeidae of birds,—Herodias alta, H. egrettoides, H. garzetta, Demi-egretta asha, Buphous coronandus, and others. In Australia, what, in India, are called white paddy-birds, and in Britain are the much-prized egrets, have come to be denominated cranes; and the real crane of that country is known as the native companion. See Birds.

EGYPT, in the highway from Europe to the East, is ruled by the Khedive, a hereditary viceroy under the emperor of Turkey. The Egyptian dominions are equal in extent to Russia in Europe; its population, 53 millions. But Egypt proper, the Balad-ul-Misr (the Misraim of the Bible), though 550 miles in length, is, as distinguished from the surrounding deserts, the narrowest country in the world. The area of its cultivable tract, which has remained unaltered since the remotest antiquity, is about 11,342 square miles, the Delta measuring about 6550 square miles; and the Egyptian valley of the Nile and the Taghum, 4992 square miles. The Nubian portion of the valley of the Nile, 980 miles in length, does not exceed 1050 square miles of cultivable area. Lower and Upper Egypt are arranged into seven provinces (Mudiriyeh), the Fayum forming a county by itself. The seaports on the Red Sea are under a Governor General, Khedive: and the Sudan have sometimes had one or two separate Governors-General, and Gordon Pasha for a few years ruled in the Sudan. The total amount of land under cultivation, roughly speaking, is 5,000,000 feddans, the feddan being equal to three-quarters of an acre. Of these, 1,000,000, or one-fifth, belong to the Khedive; one-tenth, or 500,000 feddans, are held by other large landed proprietors; while the remaining seven-tenths are in the hands of the fellaheen,—these latter being subjected to taxation varying in amount from thirty to seventy shillings per feddan.

Egypt has been much resorted to by Asians and Europeans from the most ancient times, but it is only since the middle of the 19th century that its more ancient history has been traced. The skulls of the mummies prove that Egypt has been peopled with a variety of tribes; and physiologists have divided them into three classes,—first, the Egyptian proper, whose skull is shaped like the heads of the ancient Theban statues and the modern Nubians; second, a race of men more like the Europeans, and these mummies become more common as we approach the Delta; third, is an Arab race, and is like the heads of the labourers in the pictures.

Egyptian chronology now runs back to B.C. 5004 according to Mariette, and to B.C. 3892 according to Lepsius; and the earliest monuments which belong to the close of the third dynasty are therefore more than 6000 years old by one calculation, and more than 5000 by the other. The ancient Egyptians excelled in making glass, linen, and in dyeing, and they had a knowledge of metallurgy.

In the 19th century A.D., Count de Lesseps successfully completed a canal from the Red Sea to the Mediterranean.

Three times during the 19th century the British have invaded Egypt, but since Cambyses, son of Cyrus, king of the Medes, led his hordes of Persians and Phoenicians against the last of the Pharaohs, and reduced him to the position of a Persian satrap, Egypt has been subject to alien races. The first invasion of which we have exact details, and the most successful with the least materials, was that of Amru, general of the Khalif Omar, 639 A.D., which won Egypt from the Greek empire for the Mahomedans. Amru entered Egypt from Syria in the month of December with 4000 men. The reduction of Pelusium fortress, close to the present Port Said, took him a month. He then marched straight upon Memphis, but was kept for seven months before Babylon, near the modern Cairo, notwithstanding that the nation rose in his favour, detesting its Greek rulers. But when, at length, in August, partly through treachery, Babylon surrendered, the country was practically won. The Greeks, though defeated in a pitched battle, after twenty days' fighting, made good their retreat to Alexandria. Alexandria held out for fourteen months, and only in December 641 the garrison finally abandoned Egypt to the Mahomedans. Many efforts for its recovery were made by Christians, the most strenuous and most disastrous being that under Louis ix. in 1250. He arrived at Damietta on 5th June with 700 knights, out of 2000 with whom he had started from Cyprus, representing probably a force of some 7000 men. The next day he defeated the Saracen, and took possession of the town. Here he wasted his time till the 6th of December, when he moved on to Mansurah, where he stayed two months more. On the 6th of February he attacked the enemy, now strongly reinforced, was hopelessly defeated, and taken prisoner with his whole army, being only ransomed by the surrender of Alexandria, and the total evacuation of Egypt.

Napoleon Bonaparte reached Alexandria with some 30,000 men on the 1st of July 1798. Next day he was in possession of the town. On the 13th he fought a bloody battle at Ramaniach with the Mameluks. On the 21st he became master of the country by the total defeat of Muray Bay, with 6000 horsemen and 20,000 foot, in the battle of the Pyramids. On the 29th he entered Cairo.

1082
When Nelson arrived on 1st August at Alexandria, notwithstanding his total destruction of the French fleet in Aboukir Bay, he could not shake the position of Napoleon, now firmly planted in possession of the country. A year afterwards, notwithstanding his loss at Acre, on the 11th of July, Napoleon totally defeated the Turks at Aboukir. Repeated British bombardments of Alexandria had no effect, and on the 2d of March 1801, Abercromby, with 17,000 men, cast anchor in Aboukir Bay. On the 8th he effected a landing, and on the 21st he won the battle of Alexandria against 27,000 French, and lost his own life. Rosseta was taken, but the British troops hesitated to advance for two months. At length, in May, when some paltry reinforcements had arrived, they moved onwards, and again defeated the enemy, and took Ramania on the 7th, and Cairo capitulated on the 20th.

Meanwhile General Baird had started from Bombay in the end of December 1800, but only arrived at Kossir, on the coast of Upper Egypt, on the 8th of June. In nine days, with a force of 6400 British and native troops, he traversed 140 miles of desert to the Nile, and reached Cairo on 10th August with hardly any loss. The united force then marched down on Alexandria, and on 31st August Menon capitulated, and the whole French army evacuated Egypt.

The next British expedition to Egypt was in 1807. The Turks had declared war, and in March a force of 5000 men was despatched under General Fraser to Egypt. They arrived off Alexandria on the 15th, landed on the 18th, and took it on the 21st. On the 22d a fruitless attempt with a small force was made on Rosetta.

Next month, General Stewart besieged Rosetta for thirteen days, and on 22d April he fought his way back to Alexandria, with a loss of 1000 out of 2500. On 23d September Alexandria was surrendered to the Turks, and Egypt evacuated. As on this occasion the Mameluks and the country were in our favour, the failure can only be attributed to the want of vigour in the attack.

In 1822 the British for the third time invaded Egypt. Their army disembarked at Alexandria, and occupied the line of the Suez Canal, and a contingent of British and Native Indian soldiers from the armies of India embarked at Bombay for Suez, and Ismailia and Alexandria were the headquarters. The Egyptian army was checked by General Wolseley at Kassassin; utterly defeated, on the 13th September 1822, at Tel-ul-Kabir; Cairo was occupied by the British and Indian troops on the 14th, and Egypt won. The army and leading civilians had combined against the Khedive, because all posts of value were being given to foreigners.

Some of the numbers were—Germans, 41, with salaries amounting (monthly) to £E18; Americans, 8, £E508; Englishmen, 174, £E678; other British subjects, 94, £E1208; Austrians, 101, £E2369; Belgians, 12, £E32; Dane, 1, £E96; Spaniards, 12, £E252; French, 326, £E908; Greeks, 115, £E1469; Dutch, 9, £E340; Italians, 348, £E5011; Norwegians, 2, £E106; Roumanians, 3, £E34; Russians, 5, £E341; Swedes, 1, £E96; Swiss, 14, £E210; European policemen, 59, £E368;—total, 1325 persons, with monthly salaries amounting in the aggregate to £E31,588. This list comprises both the administrations which exist in virtue of special conventions, such as the Public Debt Department, Domains, Daira, Sanieh, and international courts, and also the State Administrations properly so called. The latter employ 970 foreigners. Altogether, 3,114,241 piastres per month, equal to £E373,704 a year, were spent in salaries to foreign officials, or £264,000 a year, if the Domains, Dairas, and international courts are excluded.

The population of Egypt proper is 5,250,000, or about 463 to the square mile. The total population under the sway of the Khedive is between 16 and 17 millions.

**Fellaheen** (peasants) form the bulk of the population of Egypt proper. They are Mahomedans.

**Copts** amount to about 300,000. They are mostly dwellers in towns. They profess Christianity.

Turks in Egypt form an aristocracy. They number barely 100,000 souls, and are supposed to be diminishing.

In 1822 Egypt sent to India merchandise to the value of Rs. 4,81,964, and took Rs. 1,68,42,831 of Indian produce. The E. coast of Africa sent to the value of Rs. 30,51,623, and received Rs. 23,54,896 of Indian produce, and Rs. 22,95,396 of re-exported foreign goods.

**EGYPTIAN BEAN,** a name sometimes given to the bean fruits of Nelumbium speciosum, *Wild.,* from the notion that they were the beans which the disciples of Pythagoras were forbidden to eat.

**EHRAHIM** or Iram, Arab., meaning any sacred or holy thing or place. It is applied in Egypt to the peculiar dress worn by pilgrims during the performance of the required ceremonies in Mecca, and until the completion of the pilgrimage. It consists of two pieces of cotton or linen or woollen cloth without seam or ornament, one of which is wrapped round the loins, and the other thrown over the shoulders. The instep and heel of each foot and the head must be bare; but umbrellas are now used by many of the pilgrims.

**EHRETIA,** a genus of shrubs of the natural order Boraginaceae. *E. aspera* and *E. buxifolia,* small trees of the south of India; *E. internodia,* a tree of the Mauritius; *E. levis* and *E. serrata,* trees all over India; *E. arenaria,* *Griphi,* is one of the sand-binding plants of the Indian coasts; *E. Wallichiana,* *H. f. et Th.,* grows in the Darjiling hills. The root of *E. buxifolia* (Kuruvivi vagy, *Tam.,* Pale ke jar, *Hind.)* is given in decoction as an alterative in syphilitic cachexia, and its fruit is eaten. Wight gives Ehretia aspera, cuneata, levis, ovalifolia, umbellata, viminea, Wightiana.

**EHRETIA ARENARIA,** *Griphio,* found between 12° and 28° N. lat.; binds together loose sand in a minor degree. It may be the same as *Ehretia Cuneata.*

**Wight Icon. iv. t. 1385, which grows on sands banks in the beds of all our rivers.**

—Cleghorn. See Sand-binding Plants.

**EHRETIA ASPERA.** *Robz.* A small tree of the Panjap plains, Siwalik Hills, and Salt Range. In times of dearth, its bark is said to be ground, mixed with flour, and eaten. Its wood is valued for its hardness.—*J. L. Stewart.*

**EHRETIA BUXIFOLIA.** *E. Cordiaretusa,* *Vahl.*


—Visser-pallam maram. *Dravid.*

—Bapana-buvi.

A shrub of the Peninsula of India, and abundant in the hot, drier parts of Ceylon. Fruit eaten by the poor; some part of the plant taken internally in a cathartic state of the body.—Thce.
EL. 

EHRETIA LEVIS. R. Beurrieria levis, G. Don.

Peda pulinera, Circars. [Secrada, ... Tel. Paldantam, God., Tel.]

A pretty large tree, common in the drier parts of Ceylon, and in the Peninsula of India; is a native of the Cercar mountains; grows in Hindustan, in the Dehra Doon, Kamaon, Kheeere pani, and in Bengal. It furnishes a hard, valuable small wood, which in the Circars is used by the hill people for many purposes; might be used in turnery.—Ainslie; Thur.; Cleghorn; Beddome.

EHRETIA OVALIFOLIA. W. I.

Gundan, ... Mahi. Naraga maram, ... Tam.

In the Coimbatore district, a common but generally small tree, and found about towns on the Bombay side, never in forests. The wood is said to be of no account.—Wight; Gibson.

EHRETIA SERRATA. Rozb.

E. pyrifolia, D. Don. Nulishma, ... Nip. Kala aja, Ben. Puna, ... Purhu.

A small tree growing in Bengal, Chittagong, the Khassya mountains, Napal, Bhutan, Kamaon, and the Dehra Doon. It furnishes a tough, light wood, easily worked and durable, made into sword handles.—Rozb.

ELAK. Turk. The term given by the pastoral Daurani to their summer residence,—Kishlak, also Turki, being that of their winter station.

EIMLIEE, a subdivision of the Tuga tribe dwelling in Husumpur, Dhubari, Dlaka, and Oojhari, in the zillah of Muradabad; many of these are Mahomedans.—Elliot.

EIN-SHE-MEN. Bum. Lord of the Eastern House; the distinctive appellation of the declared heir to the Burmese throne.

EIN WIN. Bum. A tree of Moulinne, used for all ordinary purposes of building.—Cat. Cat.

E-JIN or Ee- gin of Malaca, a grain from, seemingly, one of the Leguminosae. In 100 parts,—moisture, 12-90; nitrogenous matter, 29-06; starchy matter, 59-40; fatty or oily matter, 0-89; mineral constituents (seh), 4-05.

EJOO or Ejaa, also Gomuti, a strong black horsehair-looking fibre obtained from the Arenga saccharifera tree. This fibre is much esteemed for making rope, especially cables, for which purpose it is peculiarly adapted, from not being liable to injury if stowed away below when wet with salt water.

EK. Hind., Pers. One. It enters into many compound words, as Eka, Sansk., chief. Ekatasha, also Ek-bara, in distillation, the spirit once passed over. When re-distilled it is called Dotatsha or Do-bara, double-distilled; Shiva-atasha, or thrice distilled.

Ekachhatra, also Chhatrapati, a vaulted horizontal umbrella, always reserved exclusively for royalty. It is the source of the word Satrap.

Ek-fardi, also Ek-faali, land yielding one crop annually.

Ekhartha, a one-wheel well. A domals or dolah well has two wheels.

Ekha or Yaka, a slight carriage drawn by one horse.

Eksutti, coarse, thin, single-thread cotton cloth, Eka-chakra, the modern Arrah. The Pandavas dwelt in it for a short time during their exile.

Eka-danta or Eka-danshtra, from Eka, one, and Danta, a tooth, a name of the Hindu god Ganesh.

Eka-dashi, literally one and ten, the 11th day of the moon's increase or decrease. It is one of the Hindu fast days, or Bart.

Eka-dasi vrata, fasting on the 11th lunation.

EKALBIR. Hind. Datisicus cannabinus. Its root is a dyestuff; also Verbasum thapsaee.

EKAMRA or Ekamra Kanana, a forest in Oriessa (Utikala), which was the favourite resort of Siva, and became the great seat of his worship, at the city of Bhuvaneswara.—Dowson.

EKLINGA, a celebrated Saiva temple in the defiles of the Vindhya. The most antique temples are to be seen in such spots, within the dark gorge of the mountain, or on its rugged summit, in the depths of the forest, and at the sources of streams, where sites of seclusion, beauty, and sublimity alternately exalt the mind's devotion. In these regions the image of creative power appears to have been the earliest, and at one time the sole object of adoration, whose symbols, the serpent-wreathed phallus (lingam) and its companion the bull, were held sacred even by the children of the forest. In these silent retreats the Mahadeva long continued to rule triumphant. The temple of Eklinga, ascribed in one of the narrow defiles leading to the capital, is an immense structure, though more sumptuous than elegant, it is built entirely of white marble, most elaborately carved and embellished. The brazen bull, placed under his own dome, facing the sanctuary of the phallus, is nearly of the natural size, in a recumbent posture. It is cast (hollow), of good shape, highly polished and without flaw, except where the hammer of the Mahomedan had opened a passage in the hollow flank in search of treasure. Amongst the many temples where the brazen calf forms part of the establishment of Bal-Cesar, there is one sacred to Nanda alone, at Naen, in the valley. This lordly bull has his shrine attended as devoutly as was that of Apis at Memphis, nor will Eklinga yield to his brother Serapis. The changes of position of the Apis at Naen are received with indignity, as the fruitfulness of the seasons, though it is not apparent how such are contrived.

The physiological worship of the god Siva, with his emblem the lingam, priapus, or phallus, and his vahan, the bull Nandi or Basava, seems to have entered India on its western border. But it is now very general, and Nandi, in stone or brass, is to be seen everywhere; perhaps half a million of them are in India, generally couching, looking to the lingam.

EKOJI, the first of the Maharra rulers of Tanjore. He was the son of Shah-ji (A.D. 1644), a subahdar of the Kurnatic under Aurangzeb, who gave Tanjore to Ekoji as a jaghir. The last of the Tanjore rulers died in 1855, and the country was annexed to British territory.

EKSHA MAIL, a Nepal ruler, who in A.D. 1600 divided Patam, Khatmandu, Banepa, and Bhagatang between his daughter and his three sons. His full name was Jaya Eksha Mail, also written Jye-Kush Mail.

El, the Arab-Egyptian pronunciation of the article Al, answering to 'the.'

EL. Heb. The strong. Many Jewish names are compounded with this name of God, as Daniel, Ezekiel, Gamaliel, Urieil, Elion, the highest. Several nations, in addition to the Hebrews, used this name, in one or other mode, as relating to the Supreme Being. El, also named Kronos of the Egyptians, according
to the doctrine of Byblus, was the son of heaven and earth. He conspired against his father Ouanos. El is the root of Elohim. Bethel of Genesis xxviii. 19 is a compound word,—Baith-El, the house of El, meaning God's house. El of the Greeks (Yl in Hebrew and Phoenician), i.e. God, the strong; whence comes Elohim, literally, the gods, and the Greeko-Phoenician Betyla, or sacred stones supposed to have fallen down from heaven, perhaps aërolites, which were honoured and held sacred on account of the divine power supposed to be inherent in them. Jacob, as he rose from his dream, exclaiming (ver. 17), 'How holy is this place: this is none other but the house of God (Baith-El). ... And Jacob ... took the stone that he had made his pillow, and set it up for a pillar, and poured oil upon the top of it, and called the name of the place Beth-el.'—Huxely, iv. 242-3. See Betyla; Bait.

ELAGNACEAE. E. oleasters, a small natural order of plants, consisting of trees or shrubs whose leaves are either opposite or alternate. Several species of the genus Elagnus occur in the south and east of Asia. Thunberg enumerates eight in Japan. E. parviflorus, Royle, valuable as a hedge plant, grows from the Himalayas to China. E. hortensis and E. orientalis bear a brown fruit about the size of an olive, which is brought to market in Persia under the name of Zinzyed; in quality it is like a jujube. The red drupes of E. conferta, the large olive-shaped ones of E. arborea, and the pale orange-coloured ones of E. triflora, are eaten in India. The ripe berries of E. angustifolius are eaten in Kashmir, as also are those of E. dulcis, E. hortensis, and E. orientalis. E. Moorcroftii has ornamental flowers. The wood of E. conferta is the winter fuel of the people of Iskando; and the honey gathered by bees from the sweet flowers of E. orientalis is much esteemed. E. latifolia, Linn., is very common in Ceylon up to 5000 feet. It is very sweet and is the same species as conferta, and parviflora, Roxburgh, and the ferruginea, Kologa, Thwaitesii, and Wallachiana of Schlegel.—Mueller; Stewart; Roxb.; Wight; Hooker; The.

ELAGNUS ORIENTALIS. Sanjit, Sanjad. ... Pers. ... Sanzilloh, ... Pers. ... Zindul. ... Pers.

Grows along the banks of watercourses in Afghanistan and Persia. The trees are remarkable for their silvery lepidote and aromatic foliage. The fruit is eaten fresh, or boiled with rice, like the apricot. It sells at Peshawur several seers for a rupee.—MacGregor; Powell.

ELAIIS GUINEENSIS is the oil-plant, or Maba of the natives of Congo. It is common all along the west coast of Africa, and might with advantage be introduced into India. The fruits afford the important product palm-oil, of which upwards of 1,000,000 cwt. were imported in 1871. The oil is obtained by bruising the fleshy part of the fruit (and not the kernel, as sometimes stated), and subjecting the bruised paste to boiling water in wooden mortars; an oil of an orange-yellow colour separates, which concretes when cool to the consistency of butter, and has when fresh the smell of violets or of the root of Florentine iris, with a very slightly sweetish taste. The oil is used by the Africans in cookery and for anointing the body. In Europe it is chiefly employed in perfumery and medicine. The Elais occidentalis of Swartz, the thatch-tree of Brown's Jamaica, and the Avoira of Amblet, are probably all identical with the Maba or oil-palm, of the African coast.

ELAEOCARPACEAE. E of Lindley, an order of plants comprising species of Elaeocarpus, Ganitrus, and Monocera. Dr. Roxburgh describes E. aris-tatus, fruticosus, ganitrus, lanceaefolia, lucidus, robustus, rugosus, serratus, and tuberculatus; and E. cuneatus occurs in Malabar, Quilon, and Ceylon. In Japan are E. japonicus and photiniefolius. E. amennis, Thu., a very beautiful tree, is common in the central provinces of Ceylon up to 4000 feet, and is also cultivated in gardens. E. ferrugineus, Wight, the Monocera ferruginea, Wight, Icones, tab. 225, is a good-sized tree, very common on the Neelgierries, Animalayas, and Pulneys, at the higher elevations. The margins of the leaves are always convoluted, rendering the leaves quite boat-shaped. The timber is used for building purposes. Wight figures the ovary as four-ocell'd; but in several flowers that Colonel Beddome dissected it is three-ocell'd. E. lanceaefolius, Roxb., is a tree of the Darjiling Hills. E. venustus, Bedd., a fine large tree, only observed in the Muti Kulivayal, South Travancore, at 4500 feet elevation; in flower in August. It is truly beautiful when covered with its snow-white large flowers, which it produces in great abundance. E. robustus grows on the Khassya Hills. E. longifolius, Bl., is of Java and Burma. E. Indicus, R., and E. lucidus, R., are trees of Chittagong. E. montanus is a middle-sized tree of Ceylon. In Burma are several species, undetermined, which the Burmese name Taun-mang-ye, Than-lwen, and Wa-hso-ben.

Elaeocarpus ganitrus, Roxb. Ganitrus aphasis, Gurtin.

Utrasmum head tree, Eng. ... Radura-kai. ... Tam. ... Radourasha. ... Sansk. ... Radura-chali. ... Tel.

A tree of Java. The seeds, about the size of marbles, are worn as necklaces by Brahmans and ascetics; they are commonly called Utrasmum heads. Elaeocarpus hisnus, the binau of New Zealand, is a large timber tree. Its berry is edible, though taste harsh.

Elaeocarpus lanceaefolius, R. Ootaradique manke, Dukh. ... Utrasmum? ... Tam. ... A tree of the Khassya Hills, Assam, Moulinme, and Java. The seeds are very rough, and about the size of small nutmegs. Saiva Brahmas and Pundurums, religious devotees of the Saiva sect of Hindus, who live by alms, wear strings of them round their heads and necks, and form them into rosaries. This small tree is covered over with a profusion of white flowers.—Mason; Ain.; Roxb.

Elaeocarpus oblongus, Gurtin., Kassow, Dukh., is a handsome tree of the Dekkan; flowers in May, petals beautifully fringed; the foliage is frequently tinged with red, giving an autumnal appearance to the tree. Elaeocarpus tobovatus, Ainicie, E. coriacus, Hook. This tree grows at Newera Ellis and other elevated parts of the island of Ceylon, at an elevation of from 6000 to 8000 feet.—The.

ELAECARPACEAE. Elaeocarpus tuberculatus, Roxb.

Monocera tuberculata, ... E. serratus, Roxb. ... W. Jc. ... E. bilocularis, Roxb.

Radura-kai, Radurach, Tam. ... Raduracha, Raduracha, Tel.

This truly magnificent tree is very common in Coorg, the Animalayas, Malabar, and Travancore, up to an elevation of about 4000 feet. Very large trees of it may be seen about the foot of the Neelghierries and Makurty Peak; and the seeds
are worn as ornaments, also as rosaries by Vaishnava Brahmanas and by fakirs.—Mr. Rohde, MSS.; Royce; Thuc.; Riddell; Ward, p. 371; Beddome, Fl. Sylv. part x. p. 113.


ELBOCOCA VERRUCOSA. Ad Juss. Dryandra cordata, Thunb. | D. oleifera, Lam. The Ying-tze-tung or Yu-tung of the Chinese, is a tree of China and Japan and the Mauritius. It grows plentifully in the valley of the Yang-tze river. Its seeds or nuts furnish the wood-oil (tung-tse-yu) of Chinese commerce. The fruits are very acrid.—Hogg, p. 461; Smith.

ELBODENDRON, a genus of plants belonging to the Celastrina, growing in Ceylon, Berar, Garhwal, Darjiling Teral, and Burma. The wood of E. Roxburghii weighs about 55 lbs. the cubic foot.

ELBODENDRON INTEGRIFOLIA. M Cl. Hsoak and Jouk-bin, Burma. This is a very plentiful, strong, fine timber tree found throughout the forests of L. Tounghoo and Pegu districts, as well as about Rangoon. It is adapted for fancy work and cabinetmaking.—Dr. M'Clelland.

ELBODENDRON PEIRSICUM, a tree of Burma. Its leaves form the principal ingredient in the hla-pet or pickled teak.—Imp. Gaz.

ELBODENDRON ROXBURGHII. W. and A. Neerija dichotoma, Roxb. | E. glaucaum, Wall. Bleed, paniculatum, W. A. Tamrooj, ... Can., Mahr. Irukuli, ... Tam. Merandu, Padraam, Panj. Karkava, ... Jamos, ... | Nirija, Neradi, ... Tel.

This tree is not uncommon in the eastern part of the Siwalik tract E. of the Ravi. It is found in Garhwal, throughout the Madras Presidencies, Bombay, Bengal, and it is very variable. In the dry Sermoon the site of the city of Elam, its wood is found of immense girth; and in the moist forests of the Animallays, at 2000 feet elevation, it is a very large tree. Again, in the Combatore plains it is met with as only a shrub, with sharply serrated leaves, but differing in no other way. The wood is not very strong or stiff, but is tough, close, and even-grained, and the surface beautifully curlcd and flowered, and of a reddish-brown colour, and suited for cabinet work; it is used by the natives for the manufacture of combe, etc., and is suited for picture frames, etc. A cubic foot unseasoned weights 60 to 65 pounds, and 46 pounds when seasoned; and its specific gravity is 736. The root and bark are used medicinally by the natives.—Dr. J. L. Stewart; Drs. Wight and Gibson; F. r. Mueller; Beddome, Fl. Sylv.

EL AJAM. Ajam, in Arabic, literally means foreign; but in the southern parts of Arabia, El Ajam is applied to the opposite parts of the coast of Africa.

ELAKOLA or Yelakola. M ALEAL. A form of accounting in which words are used in place of figures; each syllable has a numerical value, and the whole is read backwards.

ELAM or Susiana was the country on the east of the southern portion of the Tigris, south of the Luristan mountains, and was the cradle of ancient sovereignty. Berosus mentions a legend to the effect that the first dawn of civilisation was there, and that the teachers of mankind came from the shores of the Persian Gulf. Susiana was known as Elam, and all the Babylonian and Assyrian dynastic arrow - headed inscriptions, hitherto deciphered, refer to Susiana as the cradle of sovereignty, where the ruins of great cities were discovered by Sir H. Rawlinson. The Elamites were a powerful nation in the early days of Abraham, before either the Assyrian or Babylonian governments rose into power. Chedoraemon, king of Elam, held Cauna and Arabia Petrea in subjection.—Bunche, iii. 352. See Iran; Jud.

ELABAM. Tel. Its Sanskrit name is Sahakara, a fragrant kind of mango; hence the name from Ela, cardamom, fragrant.

ELAND, an antelope of Africa, the Oreas canna. In shape and general aspect it resembles a Gujerat ox, not unfrequently attaining the height of 19 hands at the withers, and weighing from 1500 to 2000 pounds. It might be introduced into India. It breeds readily in confinement.

ELANUS MELANOPTERUS, the black-winged falcon or claret, is a pretty little hawk of Asia, Africa, and S. E. Europe.—Jardine.

ELAPRUS DAVIDIANUS, Smith. Su-puh-siang, ... Chin. | Chau; T'lu-huh, ... Chin.

This is found in the eastern part of Manchuria, the S.W. of Koko-Nor, the district of Tarbagatay on the frontiers of Ili, and the northern parts of Sze-chuen province. The tail is used by the Taoist monks as a fan.

ELAPIDE,E, a family of venomous colubrine snakes. See Reptiles.

EL ARAM, mentioned in the Koran as the Sail-ul-Aram, or Flood of ul-Aram, is the dam of Mareb, built by Queen Balkis above the city of Saba. It burst a.d. 120. See Mareb.

ELARAMU. Tel. A root employed in tropicall affections, supposed to be that of Opbixylon serpentinum.

ELATER. See Firefly: Fulgora: Insects.

ELASTER NECTILCUS, one of the lantern flies. There are over 70 species of Elater in tropical America.

ELATERIUM, the Ku-kwa-chih of the Chinese.

ELATINACEE. Lindley. Water pepper tribe of plants, comprising two species of Bergia.

ELA-VANNIAR of Telingana, a caste of cloth merchants.

ELAYNE, a town of Nejid in Arabia, the birthplace of Mahomed-ibn-Abdul-Wahab. He founded the puritan Wahabi sect. He was born A.D. 1691. See Wahabi.

EL BAKIA, the companions of Mahomed, the Astuwannat-ul-Asbab, the column of companions, are buried at El-Bakia.—Barton's Mecca, iii. 396.

EL BEIT, a town founded by Tobia-ul-Akram (A.D. 90 - 140), grandson of Shammir Yeraesh. Shammir, in an invasion of China, perished with his army in the deserts of Tibet. Tobia, to revenge his grandfather's death, marched from Yemen, rebuilt Shammir, and according to Shammir, carried war into China, where he built El-Beit, in which he left a colony of 30,000 Arabs, who continued a distinct people when Hamadou wrote in A.D. 553. See Samarcand; Shammir; Yemen.

ELBURZ. The mountains of Elburz, at the foot of the southern slopes of which the town of Teheran is situated. They extend from the plains of Kazvin on the west, to the town of Demavoud.
EL-CHASAI.

ELEPHANT.

EL-CHASAI or Elkesais, called also Mugh tasilah, or washers, a sect found in the 1st century of the Christian era.

ELCHEE. PERS. An ambassador.

ELCHI, according to the maps Hitai, is the city known to older travellers as Khoten.

EL-DOZ. After the death, in A.D. 1205, of Mahomed of Gour, his kingdom was divided amongst his generals, and Kebul and Kandahar in Afghanistan fell to his slave El-Doz. He was, however, soon dismissed by a prince of Kharmas, whose successor, Jadal-Din, was compelled to yield to Chengi Khan.

ELECAMpane ROoT.


Elecampane root has an aromatic and slightly fetid odour. Formerly prescribed in dyspepsia, pulmonary complaints, and palp. — O'Sh.

ELECTRICITY is evolved abundantly in tropical Asia, at the beginning and close of the monsoon rains. The close of the S.W. monsoon is often attended with much electric disturbance. The N.W. storms at Calcutta are always attended with a great evolution of electricity. The art of sending information by means of electric currents passed along wires, was early perfected in India by Sir William O'Changhnesey, and all British India is communicat, and in connection with Europe and America. Electric lights are often seen in the swamps of India, and in storms on the masts and spars of ships at sea.

ELEMENTS. In the philosophy of the Hindus, as stated in the Puranas, the elements enumerated are the same as given by Empedocles and Pythagoras. The order of Empedocles was ether, fire, earth, water, air. Pythagoras arranged them into fire, air, water, earth, and ether. In the Hindu Puranas are ether (akas), air (ayu), fire (tejas), water, and earth. The Chinese name them earth, water, fire, metal, and wood, each denoting five innate essences, and the nature of each essence is indicated by its corresponding form of matter. The Chinese consider that health or sickness depends on the proportions in which the five elements are present in the body.

ELEMI. Lan-hiang, CHIN., occurs in yellow transparent masses, which readily soften by the heat of the hand, and have a strong aromatic odour, and a hot, spicy taste. It is a gum-resin, and is said to be the concrete resinous exudation from one or more genera of plants, Amyris, Balsamodendron, Canarium, Elphrium, and Icica. The Elphrium elemiferrum, Royce, yields Mexican elemi. Canarium commune, Lan. (synonym of Canarium zeyherinum, Rumph.), of the Spice Islands and Ceylon, also C. balsamiferum of Ceylon, are said to yield a resin which in odour and general appearance strongly resembles elemi. The resin called arbol-abrea at Manila, which somewhat resembles elemi, is considered by some to be the product of Canarium album, a Philippine tree. Brazilian or American elemi is, from the Icica Icicariba, Marcy, and the resin of Courina from I. ambrosica. It is abundantly produced from a Canarium in the forests of the Philippines, where it often assists in giving a cheerful blaze to the fire of the traveller. It is also exported from Manila as a drug. This gum-resin forms an essential ingredient in many of the finest varnishes. — Waterstone, Franklin; Clegh.

ELECHOARISTUBEROUS, or Scirpus tuberosus. A kind of arrowroot is prepared by the Chinese from its tubers.

ELEPHANT.

Heen, ... BUM. Hasthi, ... SANSK. 

Olyphant, DUT., SCOTCH. Fiel, ... SCAND. 

Elephas, GR., LAT. Gallah, ... SING. 

Hathi, ... HIND. Elephante, ... SP. 

Elephantes, ... IT. Ani, ... TURK. 

Elephantus, ... LAT. May, ... ETH. Veil or Venugula, ... PER. 

Fel, ... AR., PERS. Tel, ... TURK. 

Pil, Gaja, ... PUSHTU.

The source of the word elephant is doubtful. Sir J. E. Tennant supposes it to be the Hebrew Eleph, an ox, and Hindi, Indian. Pietet derives it from Airavata or Airavana, the elephant vahan of Indra, from Airavata, son of the ocean. Burton says (Pilgrim, i. p. 275) it is from Pilu, in Sanskrit, or, as we now have it in Pushtu, Pil, in Persian Fel, which in Old Persian becomes Fil, and, with the Arabic article, el-fil, turned to Elephas in Greek. Lassen thinks it may be from the Arabic al, and the Sanskrit Ihabanta. The elephant is mentioned but two or three times in the Big Veda, by the name Mrigo-losiit, the beast with a hand, and in such a way as to show that he was still an object of wonder and terror. In the Arthavara he occurs also, only rarely, under the name Hastin (the mirga now left off), and is exalted as the mightiest and most magnificent of animals. Nothing appears there to show that he had been reduced to the service of man. In the Syrian armies, anciently, the elephant seems to have been much employed. According to the Apocrypha (1 Maccabees vi. 33, 37), Antiochus, when warring against Judas Maccabaeus, had in his army elephants guided by Indian drivers, each
stated to have had on his back a strong wooden tower, containing thirty-two fighting men. But this would amount to about 2½ tons weight, quite beyond what any elephant could easily carry.

The African elephant is not now known to be tamed, but there is no doubt that the Carthaginians availed themselves of the services of this species. Also, on the stupas at Bharhut, at least 2000 years old, there is a representation of a captive untamed elephant being led off by monkeys.

The elephant is the largest of terrestrial mammals. Though the Sumatran has been considered to differ, there is, according to most authors, only one African and one Asiatic species. The Asiatic species, *E. indicus*, is found in Ceylon, in the southern and western parts of the Peninsula of India, in the forests at the feet of the Eastern Himalaya, in Nepal, in the sal forests, Tipemh, Chittagong, Burma, the Malay Peninsula, and the larger islands of the Eastern Archipelago. There are differences: the elephants of the same locality even vary in form and character. They attain their full height when 18 or 24 years of age, and range from 7 feet to 10 feet in height, up to the top of the shoulder. Twice round its forehead gives nearly the exact height of an elephant. Elephants of Ceylon do not average above 8 feet in height, and never exceed 9 feet; yet Wolfs says he saw one taken near Jaffna which measured 12 feet 1 inch, of course to the arch of the back. The Ceylon elephants are not so large as those of other parts of India. Mr. Corse says the greatest height ever measured by him was 10 feet 6 inches. He met this elephant belonging to the Nawab of Dacca, which was said to be 14 feet high. The driver assured him that the beast was from 15 to 18 feet, yet when carefully measured it did not exceed 10 feet. The skeleton of an elephant in the museum at St. Petersburg, which was sent to Peter the Great by the Shah of Persia, measures 10 feet 2 inches in height, and probably this is the tallest authentic instance on record. In Ceylon an elephant is measured at the shoulder, and 9 feet at this point is a very large animal. The African elephant is perhaps not inferior to that of Pegu. Major Denham, in his expedition into Central Africa, met with some which he guessed to be 16 feet high; but one which he saw killed, and which he characterized as 'an immense fellow,' measured 12 feet 6 to the back. The fossil remains of an elephant discovered at Jubulpur measured 15 feet to the shoulder.

In India they are classed according to their outer forms, viz. the Kumariah or princely, a strong-bodied animal; the Mirghi or deer-bodied; the Sontarhiah, or mixed breed between the Kumariah and Mirghi; and the Mirghabali, approaching the Mirghi. The Dantela is the tuskered elephant. The Munka has a head like that of the female, with comparatively small straight tusks. The elephant with nicely curved tusks is called the Polang (or bed) dant; and a one-tuskered elephant is the Ek-dant or Ganesh, after the Hindu god of wisdom, who is represented with the head of an elephant, and one tooth.

The Kumariah is the most valuable, and is marked for the smallness of its head, the stoutness of its body, and the hardness of its nose, lifting its foot no higher than is sufficient to clear intervening obstacles. The Mirghi has a large head, and long legs in comparison to the size of its body; its paws are high, and rather clumsy. The cross between the Kumariah and the Mirghi is called Nasl, and partakes of the qualities of both. The Munka is a tuskless male of either variety. They are large and strong animals, having been longer able to suck. Not more than one in three hundred has tusks; the others are merely provided with short grinders. Those with tusks are usually males.

Elephants are gregarious, averaging in a herd about eight, although they frequently form bodies of fifty and even eighty in one troop. Each herd consists of a very large proportion of females, and they are constantly met without a single bull in their number. Baker has seen some small herds formed exclusively of bulls, but this is very rare. The bull is much larger than the female, and is generally more savage. On each side of the elephant's temples is an aperture about the size of a pin's head, whence in the season of rut a secretion exudes, which is called mada or dama. Whilst it flows the elephant is called motta, and at other times nirmada. The odour of this fluid, frequently alluded to in Hindu poetry (see Wilson's Meghaduta, i. p. 132), is compared to that of the sweetest flowers, and is supposed to deceive and attract the bees.

White elephants, either lepers or albinos, possibly in both of these conditions, are occasionally found; and the kings of Burma and Siam take, as one of their titles, the appellation of Lord of the White Elephant. Indeed, the presence of a white elephant in Siam is considered as a palladium for the kingdom. The king of the Peninsular state, Patan, would not permit of the sight of a white elephant; while Crawford saw six in the king's stables. In Enaen, in eastern Central Africa, a white elephant is reverence. When Jaya Chandra of Benares and Kanouj was defeated and slain by Shahab-ul-Din, Mahomed Ghoir, in A.D. 1194, on the banks of the Jumna, between Chandwar and Etawa, a white elephant was captured; which is related to have refused to make obeisance to the sultan, and had almost killed its rider who endeavoured to force the animal to comply. In the time of Mahomed's grandfather, when Abrahah, the Christian king of Himyar, advanced against Kenanah in Hijaz, to revenge the pollution of the Christian church at Senna, he was seated on an elephant named Mahmoud, distinguished by its bulk and skin of pure white.

Elephants rarely breed in captivity. They are becoming scarce in S. India; and in 1868 the Madras Government began to preserve female elephants. They frequent hilly and mountainous districts. They are met with in Ceylon at heights of 7000 and 8000 feet, and in the south of India at about 4000 and 5000 feet. In the Ceylon forests they come forth to feed about 4 P.M., and they invariably retire to the thickest and most thorny jungle in the neighborhood of their feeding place by 7 A.M. In these impenetrable haunts, says Baker (Rifle, pp. 10, 11), they consider themselves secure from aggression. The period of gestation with an elephant is supposed to be twenty months or two years, and the time occupied in attaining full growth is about sixteen years. The whole period of life is supposed to be a hundred years, but Baker would increase that period by fifty.

These great mammals have been trained to take
part in theatrical representations. At present the elephant is usually employed for the transport of large tents and other articles of equipment, beyond the power, or of size inconvenient to be carried by camels or bullocks. Its load for steady work varies from about 15 to 20 cwt., exclusive of the pack or pack saddles. With this it travels at the rate of 5 miles an hour, and four from 16 to 20 miles per diem; but it can perform and bear longer marches for some time without injury. On an emergency, a riding elephant can travel at the rate of 5 miles an hour, and will go about 40 miles in a day; but for a continuance its performance will not much exceed that of the baggage elephant. In India there are elephant batteries of heavy artillery needed for sieges, and the nobles of the Dekhan Hyderabad use them largely for riding.

The Agadir swordsmen of the Hamram Arabs hamstrung the Abyssinian elephants with swords. The Abyssinsians still eat the flesh and that of hippopotami, as described by Strabo (lib. xvi. p. 772, and Diod. Sic. lib. p. 161).

In India, at the present day, the herds driven into the kraal or kheddah are sometimes very numerous. In January and February 18—? Mr. Sanderson captured 106 in the comparatively small forest tract near Dacca; and immediately afterwards, 28 more near the Garo Hills; and in 1879 (1st July) he captured 53 of an elephant in Mysoor.

The Ceylon elephants are found in all the uncultivated parts of the island, but their favourite haunts are near to the farms, to which they prove so destructive, that the colonial government paid 7s. 6d. for every tail of the animal which was brought to the authorities. Mr. Talbot paid £200 during one year for tails, which would give 600 as the number of elephants destroyed. One officer actually killed, during his residence on the island, no less than 600 of those gigantic animals. They are ordinaryst shot with a rifle. The sportman approaches his game in front, so that he may aim at either of the only two vital parts upon which a rifle ball will have any effect, one being directly in the forehead, through which the brain is penetrated, and the other behind the ear.

The catching and taming of elephants furnish a large source of revenue to the Nepal government. The Tharoos use a number of traps to catch elephants, such as 'the wild herd of 300 or 400 elephants, about 200 Tharoo collect together, mounted upon elephants, and accompanied by two large 'taking elephants,' highly fed, and thereby kept always must (sensual). The herd of wild elephants having been started, they get away trumpeting and whistling into the thickest part of the forest, hotly pursued by the mounted Tharoo, each of whom is provided with three or more nooses, called the moosack, which is made of very strong raw hide, well soaked in oil, and so ingeniously contrived, t hat when once attached to the elephant, the hind legs are gradually drawn together at every step it takes, until it is brought to a complete stand-still. The chase continues frequently for 20 miles at full speed, until in fact the wild herd becomes blown, and is brought to a stand. The danger then commences, for the wild ones dashing at their pursuers, in their turn causing the most intense excitement during half an hour, until the arrival of the two must elephants, whose bulk prevents their keeping up with the more active ones ridden by the Tharoo. These two elephants, each having three keepers upon their backs, dash into the herd. Their appearance, accompanied by the powerful nauseous odour emitted by must elephants, creates an immediate panic among the wild ones, and soon paralyses their efforts of resistance. The active little Tharoo now come down from their steeds, and, under cover of one of the must elephants, who pushes himself forcibly against the wild ones, selected from the herd, in a most dexterous and daring manner slip the moosack on to each of the hind legs, which performance occupies about three minutes. The noosed elephant is then allowed to depart, and he goes off evidently delighted; but as the moosack becomes contracted at every stride, he finds his intended flight brought to a close at a distance of sixty or seventy yards. After operating upon about fifty wild elephants in a similar manner, the Tharoos permit the remainder of the herd to abscond, and employ themselves in fastening the noosed elephants to separate trees, where they are detained from two to three weeks under the careful charge of the takers. If any of the captured show symptoms of violence, they are immediately punished most severely by two of the large tame elephants, who belabour themmercifully with their trunks. Two such thrashings effectually cure the most insubordinate, and at the expiration of six weeks the once free and independent denizen of the forest has a keeper on his back, and becomes as quiet as if he had been in a state of subject to all his life. The full-grown female elephants of Nepal seldom exceed 7½ feet in height, but the males of forty years old, at which age they are considered to be full grown, average from 9 to 11 feet.

Elephants are captured in Siam by loosing female elephants in the forests at certain seasons, when the wild males return with them, and are captured.

In Ceylon, the Peninnauls of India, Cachar, and Assam, the capture of herds is effected by driving them into a kraal or kheddah. In Travancore, the state and private persons have about a thousand pits as elephant traps. The pits are 8 feet square, rounded off towards the bottom, from which, with the aid of tamed elephants, the animal is raised and tamed. The tamed elephant is guided by the ankus (Ankasa, Sansk.; Arpe, Greek; Cuspis, Latin; Ihndoo, Singh.), a goad and guiding rod, in shape resembling a small boat-hook. It is figured in the medals of Caracalla of the identical form in use at the present day in India.

In August 1880, Mr. Sanderson delivered before the Viceroy at Simla, a lecture on the elephant. Out of many hundreds which Mr. Sanderson had measured in the south of India and Bengal, he had only found one male of 9 feet 10 inches vertical height at the shoulder, though the raja of Nahum had a tusker which measures 10 feet 6½ inches. Few female elephants attain 9 feet at the shoulder. A dead elephant, one that has died a natural death, is so rarely if ever seen, as to have given rise to the belief among some wild tribes, that wild elephants never die; whilst others believe that there is a place unseen by human eye, to which they retire to end their days. Mr. Sanderson had never seen the remains of an elephant that
had died a natural death, and had never met any one among the jungle tribes or professional hunters who had. The Singhalese have a superstition that on feeling the approach of dissolution, the elephant retires to a solitary valley, and there resigns himself to death. There is a similar belief in India.

Elephants are expert swimmers, though they cannot jump a trench 8 feet wide. Large numbers of them are annually sent across the Ganges between Dacca and Barrackpur, and are sometimes six consecutive hours without touching the bottom. Mr. Sanderson had seen an elephant swim a river 300 yards wide with his hind legs tied together. They are sometimes drowned.

At that lecture Mr. Sanderson gave the opinion that there is no diminution in the numbers now obtainable in Bengal; and that in Southern India elephants are annually appearing in places where they had never been heard of before. But the diminution of the forests, the increase of population, the destruction of the weaker by the stronger males, the captures of such great number, the deaths during the capture, and the cessation of breeding amongst the captives, cannot but greatly diminish the numbers of the free elephants. Out of the 33 driven into the kheddah in Mysore on the 1st July 1874, no fewer than 9 died before they could be tamed.

During the three years previous to Mr. Sanderson’s lecture, 508 elephants had been captured by the Dacca kheddah establishment in a tract of country 40 miles long by 20 broad, in the Garo Hills, whilst not less than 1000 were met during his hunting operations. Baber states that in his time elephants abounded about Calpi, and in Karrah and Manipur; and Akbar fell in with a herd near Colhua, in the east of Malwa.

Under Mr. Sanderson’s arrangements, when an elephant chases the takers, they betake themselves to the shelter of tree trunks, bamboo clumps, or long grass, and it is astonishing to see how they frequently escape uninjured. He had known many cases of men standing against a tree, or hiding in tufts of long grass, within a couple of yards of elephants that were passing in indecision, without being discovered, though the elephants were evidently aware of their close proximity, as they kicked up the ground in anger, and then made off. In such cases the slightest movement would have led to the hunters being instantly trampled to death. Men are frequently killed, but they are almost always young hands who are learning. He saw one such make a narrow escape. He ran from an elephant and climbed a tree; the elephant butted the trunk, and the man fell down, but his pursuer was so astonished at the sight, that she fled at once. Sometimes drives are conducted by torchlight, and these seldom fail, owing to the elephant’s fear of fire. The scenes on these occasions are exciting beyond description.

The African elephant is usually less in size than the Asiatic species. The head is rounded, the front is convex instead of concave, the ears are much larger, and the general physiognomy is quite different from that of the Indian elephant. The tusks of the adult males of this species are very large, and of great value. They are imported into England in great quantities from different parts of the African continent, in the unexplored interior of which this huge animal is still met with in great abundance.

The elephant has, besides the tusks, only grinders, twenty to twenty-three on each side of the jaw. The milk grinders, four in number, one in each side of either jaw, are completed soon after birth, and are said to cut in about eight or ten days. The tusks may be 8 or 10 feet long, or only as many inches. They may weigh 225 lbs. the pair, or they may not reach as many ounces. In rare instances a considerable portion of the tusk is found to have been injured by a musket ball, the iron or leaden bullet being enclosed in it. Two instances, if not more, have occurred in which these bullets were of gold, showing that the shot was fired by royal hands, for it is the reputed custom among Eastern potentates to use gold or silver bullets in their sports. Some of these golden bullets is stated to have been cut through by a comb maker in dividing a tusk. The portion of the tusk thus injured is generally useless for any ornamental purpose for many inches each way around the ball; but cases have occurred in which a ball, and even a spear-head, has entered at the thin part near the skull of the animal, and become embedded without injury to the external surface.

The elephant has been discovered fossil in the strata of the Nerakka and in Burma. Amongst the remarkable remains brought from the Siwallik Hills in Northern India by Captain Cauley and Dr. Falconer, were the remains of several species of the genus Elephas and other proboscidean animals. This fossil fauna is composed of representative types of mammalia of all geological ages, from the oldest of the tertiary periods down to the most modern, and of all the geographical divisions of the old continent, grouped together into one comprehensive assemblage. Among the forms contained in it, there are, of the Pachydermata, several species of mastodon, elephant, hippopotamus, rhinoceros, anoplotherium, and three species of equus; of the Ruminantia, the colossal genus swithaurum, which is peculiar to India, with species of camelus, bos, cervus, and antilope; of the Carnivora, species of most of the great types, together with several undescribed genera; of the Rodentia and Quadrupms, several species; of the Reptilia, a gigantic tortoise (colossochelys), with species of enyms and trionyx, and several forms of galrials and other crocodiles. To these may be added the remains of struthiones and other birds, and also fishes, crustacea, and mollusca. The genus Elephas, in the collection which has been desposted in the British Museum, includes six species or varieties, viz.:

E. planifrons, distinguished by the flatness of the forehead and the intermediate character of its molar teeth.
E. namadicus, with a great development of the cranium, and teeth closely allied to those of the Indian species.
E. bryndicus, with a turban-like vortex of the skull and teeth, whose structure approaches that of the African elephant.
E. Gansea is the most remarkable of the Siwallik species. A skull exists, with remains of the other species, in the British Museum. The total length of the cranium and tusks is 14 ft; length of the skull, 4 feet 2 inches; width of the muzzle, 2 feet length of the tusks, 10 feet; circumference of the
ELEPHANTA.

Tusk at the base, 26 inches. The other two species are named E. insignis and E. bombifrons. Besides these, the Bengal Asiatic Society's Museum had one called E. Cliftii. — Owen's British Fossils; Falconer and Cautley, Fauna Antiqua Sceletis; Elephantina; Crawford, Embassy; Beng. As. Soc. Cat.; Smith's Nepal; Yale, Emulsion; Yale; Cathay; Gosse, Nat. Hist.; Teeman's Sketches; Birkmore, Trav.; Wallace, Archip.; Aide, Memoire; Studies, pp. 24–26; Williams' Story of India, p. 195.

ELEPHANTA, or Gharapuri, is an island about six miles from Bombay, and four from the mainland. It was named Elephanta by the Portuguese, from a large stone elephant, 13 feet 2 inches in length, and about 7 feet 4 inches high, that stood near the old landing place on the S. side of the island. The most striking of the sculptures are the lingas and colossal three-faced busts on the trimurti, or tri-form figure. The central face is mild; on its right is that of Rudra (Siva), and on its left Vishnu. — Ferg. and Burgess, 465, 568.

ELEPHANTA, the designation which the October storms bear, all over the western side of India, is conferred on them as occurring about the time when the sun is in the constellation Hasthil, the Sanskrit for elephant. But as they reached Bombay from nearly due east, their name is there not unnaturally imagined to have been conferred on them from the celebrated island Elephanta, or Gharapuri. The elephantas commonly makes its appearance a fortnight or so after the S.W. monsoon weather has fairly cleared up, when showers have almost ceased to fall, the barometer has become high, the sky bright and clear, and the alternating sea and land breezes have set in. For three or four evenings before its appearance, superb piles of thunder-clouts are seen to accumulate about 9 o'clock, or on the evening or after the Ghats; they soon ascend some way in the air, advancing apparently against the sea-breeze, — that is, the upper and lower strata of air move opposite ways to each other. Magnificent displays of lightning, with low growling thunder, prevail as twilight sets in; an hour or two after sunset the sky resumes its serenity. At length the clouds grow darker and more watery, the thunder becomes louder, the lightning more brilliant; they tumble up the sky, rolling in vast masses over each other, till a sudden squall bursts, and a deluge of rain follows. This scarcely ever occurs earlier in the day than 3 P.M., and it very seldom continues till dawn, though after three or four hours it is sometimes resumed before noon the next day. When once the gloaming over, the sky in general clears up, the clouds vanish, the alternate winds resume sway, the hot days and dewy nights succeed, and the settled season commences. From 1840–1857, Bombay was five times without a squall from the east, with rain and thunder; it has usually happened between the 7th and 10th October. — Bombay Standard and Chronicle of Western India.


ELEPHANTIASIS.

Dav'A Fel., ARAB. Goni-parangi, SINGH. Hapa'ii-ka-paon, DEHK. Ani kal, TAM. Gaj'a-pada, SANSK. Yenuga-kalu, Tel. 3u 1041

ELEPHAS INDICUS.

This disease generally attacks the legs and feet; but the arms, the skin of the scrotum, are sometimes affected by it.

ELEPHANT MOUNTAIN, five miles N.E. from Madura. It is a block of granite, 2 miles long, a quarter of a mile wide, and about 250 feet high. A porch and a temple have been hewn out of one side of it.

ELEPHANTOPUS SCABER. Linna. Shamshulun, ... BEN. Hishi kaaska, ... Tel. Samdalun, ... HIND. Eungu bira, ... Ani soupali, MAL. TAM. Eddu malike chuta.

This plant grows in the Peninsula of India, and its leaves are used in medicine.

ELEPHANT ROCK. In Ceylon, Allagalla, Etagalla, and Goomeragalla, all signify the Elephant Rock. The former—the grand mountain up whose precipitous sides runs the railway incline of 1 in 45 for 13½ miles—is simply the Allia (Untusked Elephant) Rock. The rock which, like an elephant couchant, guards Kornegalle, Etagalla, is the Tusked Elephant Rock; and the strange massive block which towers over and gives its name to one of the finest estates in the Knuckles, is the Goomeragalla, Speckled Elephant Rock. The rock at a distance gives the outline of an elephant, and the patches of cryptoganas which spot its precipitous sides has led to the specific name, — the Goomer elephant being a semi-leprosous one, in an advanced stage of the cutaneous affection.

ELEPHANT'S TAIL, Hair of Hath'i-dum-ka-bal, DUKH. Ani kal myr, ... TAM. Beram rambut, MALAY.

Of this article, Yenuga toka ventraneuhi, Tel., rings, bracelets, and other female ornaments are made in India. — Mis. Mat. Med.

ELEPHANTS' TEETH are obtained in South Africa, India, Ceylon, Burma, Siam, and Cambodia. They should be chosen without flaws, solid, straight, and white; for if cracked or broken at the point, or decayed inside, they are less valuable. Every specimen, however, is useful to a greater or less degree, and can be entirely used. The largest and best delivered in China weigh from 5 to 8 to a pikul, and decrease in size to 25 in a pikul. The number of articles which the Chinese make of it, and the demand for them on account of their exquisite workmanship, render the consumption very great. The circular balls which the Chinese make of ivory, as well as their miniature boats, fans, chequers, boxes, and fancy articles of all descriptions, are specimens of carved work unequalled in any other part of the world. From a quantity of ivory not weighing over three pounds, they will make toys worth a hundred dollars. The largest teeth are sometimes valued at 120 dollars a pikul, but the article usually ranges from 50 to 80 dollars per pikul. A large proportion of the ivory brought to China is re-exported in fancy carved ware. — Morrison, Co. D.

ELEPHAS INDICUS. Cuv.

Asi. CAN., TAM., Tel. | Hath, DUKH.

The elephant occurs in Ceylon, in the south of the Peninsula of India, at the foot of the Himalayas, in Burma, and in the Eastern Archipelago.

Elephas primogenus, the mammoth. One was discovered in 1799 by a Tungus, near Lake Oucool in Siberia.
The various vernacular names and the botanical synonyms will show that both the scientific and the unscientific world have believed that the round and conical-seeded cardamoms are the products of two species; but Mr. Thwaites, after a careful comparison of growing specimens, was satisfied that the plants producing respectively the round and the long cardamoms of commerce are not distinct species, but merely two varieties of the present species. In every essential particular the structure is similar in the two plants, the only difference being that var. \(a\), which produces the round cardamom, is a little taller, with rather narrower and less firm leaves, and that its fruit is more aromatic as well as different in form from that of var. \(b\). The seeds of both varieties are used by the Singhalese to chew with their betel, and as medicines. The long cardamom, called Easal in Ceylon, grows wild in the Ceylon forests up to 3000 feet; but the round cardamom is there only a cultivated plant, and is called by the Singhalese Ambal or Ambi. The wild or natural cardamom is of no less value in the market than those of Malabar. In the Travancore forests they are found at elevations of three or five thousand feet. The mode of obtaining them is to clear the forest of trees, when the plants spontaneously grow up in the cleared ground. Before the commencement of the rains in June, the cultivators seek the shadiest and woodiest sides of the loftiest hills; the trees are felled, and the ground cleared of weeds; and in about three months the cardamom plant springs up. In four years the shrub will have attained its full height, when the fruit is produced, and gathered in the month of November, requiring no other preparation than drying in the sun. The plant continues to yield fruit till the seventh year, when the stem is cut down, new shoots arising from the same root. The seeds are gathered from the fruits. Cardamoms are much esteemed as a condiment, and great quantities are annually shipped to Europe from Malabar and Travancore. In commerce there are three varieties, known as the short, short-long, and the long-long. Of these the short are more coarsely ribbed, of a brown colour, and are called the Malabar cardamoms or Wynad cardamoms. They are reckoned the best of the three. The long-long are more finely ribbed, and of a paler colour. The seeds are white and shrivelled. The short-long merely differ from the latter in being shorter or less pointed. It is usual to mix the several kinds together when ready for exportation. Some care is required in the process of drying the seeds, as rain causes the seed-vessels to split, and otherwise injures them; and if kept too long in the sun, their flavour be comes deteriorated. In Travancore they are chiefly procured from the high lands overlooking the

Dindigul, Madura, and Tinnevelly districts. In these mountains the cultivators make separate gardens for them, as they thrive better if a little care and attention be bestowed upon them. Cardamoms are a monopoly in the Travancore State, and cultivators come chiefly from the British provinces, obtaining about 200 or 210 rupees for every caddy delivered over to the Travancore Government. The average number of candies for the years 1845-54 was about 300.—**H. D.**; *Thc. E. Pl. Zeyl.* p. 318. See Cardamoms.
ELEUSINE INDICA.

ELEUSINE INDICA. Grev.
Cynosurus Indicus, Linn. | Panicum compress, Forsk.
Grows throughout India. Tufts of it are conspicuous everywhere among other grasses of Tussariser.-*Mason.*

ELEUSINE STRICTA. Radd.

This species is larger in size and more productive than *E. coracana.* It is cultivated in *S.* India to a large extent, and, like Dolichos uniflorus, yields in favourable seasons more than a hundred-fold. The spikes are straight and large, and their great weight bends the head down in a horizontal direction.

ELEUSIS. The mysteries of Osiris and those of Eleusia were of the same character, commemorative of the first germ of civilisation, the culture of the earth, under a variety of names, Ertha, Isis, Diana, Ceres, E. In the terra-cotta images of Isis, frequently excavated about her temple at Paestum, she holds in her right hand an exact representation of the Hindu lingam and yoni combined; and on the Indian expedition to Egypt, of 1862, Hindu soldiers deemed themselves amongst the ancestors of our own goddess Iswara (Osiris), from the abundance of their amorous representations.-*Tod.* See Earth; Mirttika.

ELEUTH, a tribe of the Kalmuk, dwelling in Zangaria. See Kalkas.

EL-FYN. Arab. The evil eye.

EL-FATTAH, a town at the southern opening of the Hamrin Hills, at which the Tigris makes its exit from the hills.

ELGHAR or Yelghar. Pers. The forced march of an army, or sudden incursion, or raid.

ELGIN. The Right Honourable James, Earl of Elgin and Kincardine, K.T., G.C.B., and G.M.S.I., succeeded Lord Canning as ViceroY of India on 12th March 1862. He was born in London in 1811, and died and was buried at Dharmasala in the Kangra valley of the N.W. Himalaya on the 26th November 1863. In April 1857 he was appointed Ambassador to China; and in August 1858 he concluded a treaty at Tien-tsin. He subsequently concluded a treaty with the Japanese at Jeddo, and he returned to Great Britain. In March 1860 he was appointed Ambassador to the Emperor of China, and a treaty was signed at Pekin. The French convention was signed the following day.-*Toch, Narrative of Events.*

ELIJAH, also called Elias, a Hebrew prophet of Tishbeh beyond the Jordan, in Gilead. The Ali Ilii sect of Karund revere him as an incarnation of the deity. A makan or resting-place of Elias exists on the borders of the Kassan and Suleiman governments of Kurdistan. The Mahomedans believe that Elias never died, but is still on earth, awaiting the second coming of Christ. These views they derive from the Jews, some of whom even took Christ for Elias. The Syriac and Arabic identify Elias with Bokhsh Khaz. A well and a chapel in the ascent to Mount Sinai are named after the prophet Elias, whom the Scriptures state to have sought refuge from the persecutions of Jezebel in the solitudes of Horub (see 1 Kings xix.). Its presence in this situation, mentioned also by Edrisi, seems to be an argument for the identity of Jabil Musa with the Sinai of the Scriptures.-*Hamilton's Sinai,* p. 28. See Karund.

ELIM, mentioned in Numbers xxxiiii. 10, "they removed from Elim, and encamped by the Red Sea."—Wellsled (Tr. ii. p. 44) supposes to be Girandel, where there is still water and palm trees.

ELIJUN, also Helian, the Most High God of the Egyptians,—Hightanah kabiri.

EL-KADA. Arab. Trichelia emetica, Poir. A tree 60 to 100 feet high. Its fruit is fragrant, and is an ingredient of the abhr or beaten, with which the Mahomedans often wash their hair.—*Hogg.*

EL-KASS, a lofty, extensive, but disturbed mound in Babylonia, supposed by some to have been the site of the royal palace of Nebuchadnezzar, and the hanging gardens of his queen Amytis.

EL. KUSH, an ancient town of Babylonia; its ruins are 11 miles E.E.S. of Felujah. The ancient kingdom of Babylonia comprehended a narrow tract along the river Euphrates, extending from the neighbourhood of Erekh, or from about the modern town of Shink-el-Shuyukh, to Babel, a distance of about 164 miles in a direction westward of north, and continuing from thence 287 miles further in the same direction to Calneh, on the Khabur. The kingdom extended eastward till it joined Assyria, including Akkad and two other cities no less remarkable. One of them bears the name of El Kush, extensive ruins about the miles E.E.S. of Felujah, and the other is the supposed site of antediluvian Sippura, Sircrah of the Arals (Lient. Lynch), which is within the Medina wall, near the southern extremity.

ELU.


The ell measure is taken from the length of the forearm. Aratni, SANSK., is the short ell measure.

ELLA, in Hindu mythology, is the earth personified,—the Eartha of the Saxons, Ard in Hebrew. She is sometimes described as the daughter, sometimes as the sister, of Ishwacu. In Hindu mythology, according to Colonel Tod, the serpent (Buhas) ravished Ella, daughter of Ishwacu, the son of Men, whence the descent of the Pharaohs, his descendants in the East, Manus, or men. He says that in Portiess there is a lingam entwined with a brazen serpent, brought from the temple of Isis at Pompeii; and many of the same kind, in mosaic, decorate the floors of the dwelling-houses; and that there are wreaths of lingams and of the yoni over the doors of the minor temples of Isis at Pompeii, while on another front is painted the rape of Venus by Mercury. The Lunar race, according to the Puranas, are the issue of the rape of Ella by Buhas. See Eleusis; Il.

ELLA KUDA, a term given to the Eastern Ghats, from Vella, white, Konda, mountain.

ELLAMMEN, one of the Grumma-devata in Southern India. She has been identified by Hindus with Renuka, the wife of Jamadagni, father of Parashurama.

ELLENBOROUGH, EARL OF. ELLENBOROUGH, EARL OF.

ELLENBOROUGH, EARL OF, Governor-General of India from the 28th February 1842 to the 29th July 1844. He had been President of the Board of Control during the Duke of Wellington's administration. While holding the office of Governor-General, he moved armies into Afghanistan to recover the positions which had been lost during
his predecessor Lord Auckland's time, by the retreat and destruction of a division of the British Indian army. And the officers who won distinctive in this forward movement were Pollock, Nott, Sale, Dennic, Montech, Broadfoot, Fenwick, Mayne, Havelock, Pattison, and Oldfield.

During his administration, General Sir Charles Napier defeated the Amirs of Sind, and that country was annexed, and slavery abolished. After the death, without heirs, of the Maharaja Sindia, in December 1843, the Maharani, with the approbation of the Indian Government, adopted the deceased's nearest relative, a boy named Jungi Rao Sindia, who assumed the title. But in the dispute which occurred as to a regent, Dada Khango Selchul obtained power, and was opposed to the British, and an army under Lord Ellenborough moved against Gwalior, and two battles were fought on the 29th December 1843, one at Maharajpur by Sir Hugh Gough, the other at Punniar by General Grey. The Gwalior fort was then surrendered. In April 1844 Lord Ellenborough was recalled by the Court of Directors, under the provisions of Mr. Pitt's bill of 1784.

ELLICHPUR, a town in East Benar, of considerable size, though greatly decayed. A military cantonment of the Hyderabadi contingent is near. The town is in lat. 21° 15' 20" N., and long. 77° 29' 30" E., and has about 27,017 inhabitants.

ELLIOT, CHARLES MORGAN, Captain Madras Engineers, obit 1853? brother of Sir Henry Elliot. He was employed from 1846 to 1849 in the Magnetic Survey of the Indian Archipelago. In this duty he visited Moulucin, Madras, Nieoer, Sambungin, Penang, Pulo Dinding, Borneo, Celebes, Pulo Penang, Singapore, Carim, Pulo Buaya, Sumatra, Batavia, and the Kokos or Keeling Islands.—Magnetic Survey.

ELLIOT, SIR HENRY MIERS, K.C.B., one of fifteen children of Mr. John Elliot of Piniclo Lodge, Westminster. He was born in 1808; was educated at Winchester School and Oxford, from which he passed into the civil service of the E. I. Company in Bengal, and twice filled the post of Foreign Secretary. He published, in 1846, a Supplementary Glossary of Indian Terms. In 1849 he published the first volume of his Bibliographical Index to the Historians of Mahomedan India. He collected many manuscripts, Persian, and Urdu manuscripts for a History of India, as told by its own Historians, but he died, aged 45, in 1863, at the Cape of Good Hope, before he could write more than the first volume. His widow finally entrusted the completion to Professor John Dowson, M.R.A.S., of the Staff College at Sandhurst; and in the ten years 1867 to 1877 that learned man produced eight volumes, containing extracts illustrative of Indian and Central Asian history from about 200 authors. The eight large volumes gave detailed accounts of 143 historical works, with extracts from their contents in English. Besides the original text of nearly all these works, he collected a large number of local histories, biographies, collections of letters, geographical treatises, etc., illustrating Indian history, and some works on other subjects. It consists of 421 manuscripts, chiefly Persian, and a large quantity of unbound papers, partly notices on historical manuscripts preserved in various Indian libraries, and partly translations of historical works prepared for him. He was possessed of a vast store of information, which his early death prevented him giving to the public.


ELLORA, in lat. 20° 2' N., and long. 75° 11' E., in the Dekhan, N.W. of Aurangabad. The entrance to the caves is 2064 feet above the sea. It is called by the people Yerula, and Ballor, and Varula, and is near Roza in the Dowlatabad province of the Dekhan. The plateau of Roza, in the face that looks into the valley of the Godavery, is scarped, and the porphyritic greenstone amygdaloid rock has been excavated into great caves and temples, and dwellings about thirty in number. They are partly Buddhist, partly Jaina, and partly Brahmanical.

The Buddhist group of cave-temples occupies the southern extremity of the crescent in which the caves of Ellora are excavated. Later on, the northern horn was taken possession of by the Jains, who excavated there a remarkable series of caves. But between these two, at an intermediate age, the Brahmanas excavated some 15 or 16 caves, rivalling those of their predecessors in magnificence, and exceeding them in richness of decoration. The series culminated in the Kailasa, which is the largest and most magnificent rock-cut temple in India, and is the one in which their Brahmanical authors emancipated themselves from the influence of Buddhist cave architecture. The most northern there is a magnificent temple, known as Sita's Nani or Dunnar Lema; others are Ravan ka Khai, Raunswara, Nilakantha, Teli-ka-Gana, Kumharwara, Janwasa, and the Milkmaid's Cave, the last near a high waterfall.

The Ellora Buddhist caves are the Dherwara, Do Thal, Makarwara, Tin Thal, and Viswakarma chaitya.

The Brahmanical caves are Dasi-Avatara, Dunnar Lema, Kailasa monolithic temple-caves between Kailasa and Raunswara, Raunswara, Nilakantha, Teli ka Gana, Kumharwara, Janwasa, Milkmaid's Cave, and small caves above the scarp.

The Jaina caves are Chota Kailasa, Indra Sabha, and Jaganath Sabha.

The chief structure, called the Kailasa, is a perfect Dravidian temple, complete in all its parts. It is one of the most wonderful and interesting monuments of architectural art in India. It is a model of a complete temple such as might have been erected on the plain. In other words, the rock has been cut away externally as well as internally. It measures 138 feet in front, 247 feet in length by 150 feet in breadth, the height in some places being 100 feet. This temple is said to have been built, about the 8th century, by Raja Edu of Ellipich, by whom the town of Ellora was founded, as a thank-
offering for a cure effected by the waters of a spring near the place. The lofty basement of the temple has a row of huge elephants and sardulias or lions, griffins, etc. It is surrounded with figures also of Vishnu, and the whole Puranic pantheon.—Fergusson’s Eastern Architecture, p. 384: Ferg. and Burg, p. 450. See Architecture.

ELLORE, a town in the Godavari district of the Madras Presidency, in lat. 16° 42’ 35” N., and long. 81° 9’ 5” E., with 25,487 inhabitants; it is to the west of the Kolar lake in the Northern Circars. It is but little elevated above the sea, and is a civil station of the Madras Presidency. It is called by the natives Upu (or salt) Ellore, to distinguish it from Rai (or stony) Ellore, the Vellore of the madras.

EL-M-BARK is the Yu-pi, Fen, or Tsien-yeh-yu-pi of the Chinese. The liber of the banks of Ulmus Chinensis and U. pumilla are used in China medicinally.—Smith.

ELOHIM, God, the eternal Lord, is sometimes so called in the Bible, the meaning being Godhead or Gods; also called Jahvah (pronounced Jehovah), but the word was not spoken.—Adonai, the Lord, was used instead. Gen. ii. 3 alone uses Jehovah.—Bussens, iv. p. 379. See Elin.

ELPHINSTONE, the Honourable Mount-Stuart, a civil servant of the East India Company, who went as ambassador to Shah Shuja-ul-Mulk, king of Afghanistan. In 1802 Shah Mahmud was driven out by Shuja-ul-Mulk, the younger brother of Zaman Shah, and Shah Shuja was still in possession of the undivided empire of Ahmad Shah at the time of Mr. Elphinstone’s mission in 1809. This mission was sent for the purpose of connecting with Shah Shuja the means of mutual defence against the threatened invasion of Afghanistan and India by the Persians, in confederacy with the French. He proceeded through Bikanir, Bahawulpur, and Multan, and reached Peshawur on the 25th February. The expenditure was lavish, and on the 14th June the mission left Peshawur on its return. He had scarcely left Kábul ere Shah Shuja was driven out by Shah Mahmud, with the aid of Futté Khan. He was afterwards Resident at Poona, while the last Peshwa, Baji Rao, was ruling the Mahrrata states, and subsequently was Governor of Bombay. He wrote—Account of the Kingdom of Caubul, and its Dependencies in Persia, Tartary, and India; History of India, Hindoo and Mohammedan Periods; Report on the Territories conquered from the Paishwas. He is the most judicious and impartial of all Indian historians.—Dr. Burton’s Catalogue.

ELPHINSTONE, Lord, Governor of Madras 1836 to 1840; Governor of Bombay at the period of the revolt of the solildery of Bengal, during which some of those of Bombay also were implicated. Died 19th July 1860.

EL-SHAM-I-SHARIF, also Sham, the eastern names of Damascus.

EL-SHARK (Us-shark), the East, the popular name in the Hejaz for the western region as far as Baghdad and Basra, especially Najd. The latter province supplies the Holy Land with its choicest horses and camels.—Burton’s Mecca, ii. 4.

ELTAZAI, a branch of the Kambarati tribe, who occupy Baghan in Baluchistan.

ELTHAM, descendants, more or less pure, of Rajputs, and other Kshatriyas of the plains, who sought refuge in the Nefal mountains from the Mahomedans, or took military service as adventurers. The Elthamians speak only the Khas language.

ELUKA JIDI CHETTU. Tel. A plant resembling mimint, eaten in times of dearth; perhaps Hydrocotyle rondifolia or Marsilea dentata.

ELUTH, also called Sangarium, a Mongol tribe, whose mode of life, in habitations, food, and drink, resembles those of the Kirghis. Along with the Torgot, Kalkas, and Khoit, they occupy the country about Lake Koko Nor. See Kalkas.

ELYMAIS, according to De Bode, the modern Tengu-Sakul in the province of Pars. The name, according to Professor Max Muller, has been derived from Aliana, a supposed corruption of Airyana. The Persians, Medians, Bactrians, and Sogdians all spoke, so late as the time of Strabo, nearly the same language, and claimed for themselves one common name, in opposition to the hostile tribes of Turan. And when, after years of foreign invasion and occupation, Persia rose again under the sceptre of the Sassanians to be a national kingdom, we find the new national kings the worshippers of Masdanes, calling themselves, in the inscriptions deciphered by De Lacy, ‘Kings of the Arvian and Asian races’; in Pehlevi, Iran wa Aniran; in Greek, Αραυαοι και Αραυαοι. Colonel Chesney says that Elymais or Sosriata was the capital of the province from which the hardy Cossai spread their conquests over Susiana and the districts eastward. The Elymaeans inhabited Mount Zagros, which is on the southern confines of Media, and overlooks Babylon and Susiana.—Chesney: Max Muller’s Lectures, i. 226; De Bode. See Turban.

ELYTRA, or wing-sheaths, of several of the beetles of India are highly lustrous, and are articles of trade. See Beetles; Insects.

EMBELIA, a genus of plants of the natural order Myrsinaceae. E. baseal, nutans, ribs, robusta, and villosa are known. The leaves and berries of E. baseal of the W. coast of India are used in medicine (Roxb. i. 587). E. pentandra, Ambut, Dukh, is a scaldent shrub with alternate polished leaves; flowers in the cold season; fruit red; size of a currant.—Riddell.

EMBELIA RIBES. Burm. E. glandulifera, Roxb. | E. ribesoides, Linn.

Babirung, Bai-barung, BHS. | Visha-al. | MALEAL.

Kar-kunnii of | BOMBAY. | Vayu velagamu. | Tel. | Vishal, Veilai, | TAM.

Wai-warung. | Yavn velungamu. | Tel.

A scaldent shrub growing in the Peninsula of India and at Sylhet. Its berries are pungent, and used to adulterate black pepper. They are stated to be anthelmintic and cathartic.—Roxb. i. 586.

EMERIZINE, a sub-family of birds of the family Fringillidae. They comprise the genera Emberiza, Euphiza, and Melophus, the buntings, ortolans, corn buntings, and reed buntings. Three or four visit India during the winter.

Emberiza pittyornis, Pallas, white - crowned bunting.

E. cia, Linn., white - browed bunting of S. Europe, is common in the W. Himalaya.

E. pusilla, plentiful in Sikkim, has occasionally been observed in Europe, even so far west as Leyden.

E. fucata of N. Asia, Japan, and common in the W. Himalaya, occurs sometimes in considerable numbers in Lower Bengal.

E. melanocephala of S. Europe is common in parts of India.
EMBROIDER S. "EMBROIDER Y."

EMBROIDERY. - F. miliaria, the common bunting of Europe, W. Asia, Arabia (Schlegel), Barbary. F. citrinella is the yellow bunting of Europe, to beyond the polar circle; and is replaced in the W. Himalaya by F. pithyornis, an inhabitant also of Siberia, which occurs rarely in W. Europe.—Blyth. EMBROIDERY OFFICIAL. Geirn. Phyllanthus emblica, Linn. | Myrobalanus emblica, B. Amola, Amola, ... Beng. Kakodong, ... Malay. Embile myrobalan, Eng. Embile, Ambila, ... Panj. Myrobalan u. Ang, Gl. Umriti, Amalaco, Sansk. Amalika, Amalika, ... Hind. Anuessa nelli, ... Singh. Aruhi, Aungara, ... N. Tam. Malay. Malai, Malai, ... Malai.

A crooked tree, almost the thickness of a man’s body. It grows in Ceylon, in the southern part of the Peninsula, in Ceylon, the Southern Mahtratta country, the Konkan, the Dekhan, in the forests of the Godavery and Ceylon, in Bengal, on the banks of the Jumna, the Panjab, all over the forests of Kamnaon, in the outer Himalaya, and eastwards in the Malacca. The wood is hard and durable, is used for boxes, and for veneering. It is good for well rings, does not decay under water, and is well adapted for turning. The strongly astringent bark is used as a tanning material, and in dyestuffs and diarrrhea. The myrobalan fruit can be pickled or preserved in sugar. Native women consider the powder they use to possess cologne properties, and to be good for the hair, and use it mixed with either water or milk. The fruit is also used for making ink, and to obtain a black dye.—Beddome; Mr. Rohde; Cleg. Rept.; O’Sh.; Stewart; Honigberger.

EMBROIDERY.

Tatia, ... Arab. Chikawado, ... Hind. Brodie, ... Fr. Chikankari. Stickerei, ... Ger. Ricamatura, ... It. Kashida Zarodo, ... Hind. Bordado, ... Sp.

The art of embroidery is one consonant with the habits of the people of India; their patience and delicate handling render success certain, and there is scarcely a town or city where creditable embroidery on silk is not found. Those who have ever been celebrated for their skill in the art of embroidery, which appears to have been practised in Assyria, and introduced from thence into India. Pliny, however, mentions that it was a Phrygian invention, and in Rome embroiderers were called Phrygiones. The art of embroidery was known and practised with great skill in ancient times, in Egypt, Assyria, and Persia. The Israelites learnt the art before their exodus; the Babylonians were famed for their rich tapestries; and the Assyrian monuments display richly embroidered robes and trappings. In Babylon, clothes were woven of different colours, and called Babylonica. During the early part of the middle ages, Europe obtained its most important embroideries from Greece and the East. In the present day, the embroidery of Kashmir, Lahore, and Delhi is the most beautiful. Sikh embroidery has a character of its own, and it is very re cognisable. In India, embroidery is done on muslin, silk, velvet, merino, or cloth, in gold or silver thread, in a variety of styles, and very elegant and ingenious designs, on shawls, scarfs, jackets, bottle-stands, tablecloths, tablecovers, footstools, chess cloths, cushions for chairs, mats, bags, slippers, dresses of women, aprons, parasols, and book covers. In the embroidered fabrics of India, it may be mentioned, as a principle, that their patterns and colours diversify plane surfaces without destroying or disturbing the impression of flatness. They are remarkable for the rich diversion shown in the patterns, the beauty, distinctness, and variety of the forms, and the harmonious blending of several colours. Embroidery in gold and silver is an art which furnishes some of the most gorgeous, and expensive manufactures for which India has been long celebrated. In the taste and judgment evinced in the blending of brilliant colours, and contrasting them with gold and silver on grounds of velvet, satin, silk, or muslin, India in this manufacture stands unrivalled. Some are very gorgeous shaminahs and elephant saddle cloths. The gold and silver fancy fringes of Hyderabad are deserving of mention. Small samples of solid silver wire fringes and ornaments from Madura were deemed worthy of notice, but they are surpassed by the silver thread of Hyderabad. The embroiderers of India, though bringing into use, especially on her thinner textiles, a great deal of tinsel, the articles do not look tinselly, and the tasteful application of foil, tinted in various colours, often lends great beauty. Long deep borders and large centres embroidered in gold and silver are wrought with much skill, and the admirable contrasts made by the mingling of silver with gold, as well as the happy way in which the dispersing is managed, is well worth the attention of European embroiderers. The artistic judgment with which the golden embroidery is tastefully encrusted by finely executed scrolls done in silver, while the bright scarlet flowers lend and receive back brilliancy from the golden ground, out of which they are made to sprout, as well as the admirable dispersing itself of the gold, ask for, and ought to win, the notice of Europe.

Delhi is a great place for embroidered fabrics, both in silk and gold threads. In Lahore and Amritsar, the manufacture of kalabatsu, or gold thread, is extensively carried on. And Benares has long been famed for gold and silver threads, and especially its cutwork and embroidery. ‘From Dacca,’ says the Abbé du Goyon, writing in 1744, as quoted by Dr. Taylor, ‘come the finest and best Indian embroideries in gold, silver, or silk, and those embroidered neckcloths and fine muslins which are seen in France.’ There has always been a demand for such scarfs for the markets of Bussora and Java. In the present day, they have silks and woollens, muslins and nets, Kashmir shawls, European velvets embroidered with silk or tasar, that is, wild silk of either floss or common twisted silk thread, or with gold and silver thread and wire in great variety. The cloth to be embroidered is stretched out on a horizontal bamboo frame, raised about a couple of feet from the ground, and the figures intended to be worked or embroidered are drawn upon it by designers, who are generally Hindu painters. On woolen cloths, however, the outlines are traced with chalk, and then by needle and cotton, and the body of the design copied from coloured drawings. The embroiderers, seated upon the floor around the frame, apply the needle by pushing it from instead of towards them. In place of scissors they commonly use a piece of glass or chinaware to cut the thread. Among the embroidered articles at the Exhibition of 1851, those from Dacca and from Delhi were probably the best known. In Delhi, small shawls
EMBROIDERY.

and scarfs are chiefly embroidered both with floss and twisted silk. In Dacca, both nets and muslins with floss silk of various colours. But Dacca is also famous for its embroidery of muslins with cotton, which is called chikan kari or chikan dodi. One kind is formed by breaking down the texture of the cloth with the needle, and converting it into open meshes. Dr. Taylor states that Kashida is the name given in Dacca to cloths embroidered with muga silk or coloured cotton thread, and, though generally of a coarse description, gives occupation to a number of the Mahomedan women of Dacca. Though the scarfs of both Dilli and of Dacca are much admired, muslins or nets, worked so as to be suitable for making ball dresses, would probably be in demand, as those which are now sold in Britain for such purposes are very inferior in taste and elegance to the Indian embroidery. The beetle-wing embroidered exhibited in 1851 from Madras was particularly elegant; and the velvet awnings, musnad covers, hook and carps, elephant trappings, embroidered with gold and silver, chiefly at Murshidabad and Benares, were admired as well for richness as for the skill with which the groundwork was allowed to relieve the ornaments. The embroidered saddles and saddle-cloths and floor-coverings from Patiala, Multan, and Lahore were of the usual style of what are called the works of that famed valley, and which was conspicuously shown in the dresses, caps, and slippers from Kashmir itself. But that the skill and taste are not confined to one part of India, was also to be seen in the tablecovers from Tatta in Sind, and in the embroidered boots from Khyrpur, which Mr. Digby Wyatt illustrated.

In Southern India this art is practised, chiefly at the towns of Tanjore, Madras, and Secunderabad on lace, tussah, silk lace, muslin. The Tanjore and Madura web-stories are very superior in quality, and consist of a variety of elegant articles, particularly pocket-handkerchiefs, worked muslin dresses, scarfs, which show great taste in the patterns and beautiful finish.

The Chinese are famous for their skill in silk embroidery, and in Canton are shops for its sale. Buddhist nuns largely embroider silk. The skill of the Chinese, says Mr. Williams (Middle Kingdom, ii. p. 123), in embroidery is well known, and the demand for such work to adorn the dresses of officers and ladies of every rank, for embellishing purses, shoes, caps, fans, and other appendages of the dress of both sexes, and in working shawls, tablecovers, etc., for exportation, furnishes employment to numbers of men and women. The frame is placed on pivots, and the pattern is marked out upon the plain surface. All the work is done by the needle, without any aid from machinery. There are many styles of work, with thread, braid, or floss, and in one of the most elegant the design appears the same on both sides, the ends of the threads being neatly concealed. This mode of embroidery seems also to have been known among the Hebrews, from the expression in Deborah's song (Judges v. 50), 'of divers colours of needlework on both sides,' which Sisera's mother vainly looked for him to bring home as spoil. In China, books are prepared for the use of embroiderers, containing patterns for them to imitate. The silk used in this art is of the finest kind and colours; gold and silver thread is occasionally added to impart a lustre to the figures on caps, purses, and ladies' shoes. A branch of the embroiderers' art consists in the formation of tassels and twisted cords for sedans, lanterns, etc., and in the knobs or corded buttons worn on the winter caps, made of cord inter-twisted into the shape of a ball. Spangles are made from brass leaves, by cutting out a small ring by means of a double-edged stamp, which at one drive detaches from the sheet a wheel-shaped disc; these are flattened by a single stroke of the hammer upon an anvil, leaving a minute hole in the centre. Another way of making them is to bend a copper wire into a circle and flatten it. The needles are very slender, but of good metal. In sewing, the tailor holds it between the forefinger and thumb, pressing against the thimble on the thumb, to push it into the cloth.—J. B. Varis, Masterpieces of Industrial Art, Etr. of 1862; Williams' Middle Kingdom, ii. p. 123; Royce, Arts of India, etc., pp. 508, 507; Rev. Casuals.


In the northern province of Ceylon, its timber is used for common house buildings, and the juice of the fruit is used to rub over fishing lines for the purpose of hardening and preserving them; also for paying the bottoms of boats. A cubic foot weighs 45 pounds, and it is esteemed to last twenty years.—Mr. Meudis; Dr. Cleghorn.

EMERALD.

Zamarrud., ARAB, PERS. | Panna. HIND. Emeraude., | Smeraldo, IT. Smarrag., | Permaetej, MAL. Smarragdon., | Esmeralda, SP. Smarraglus., | Fetteche kallu, TAM. Nies Frouge., | HEB. TEL. This precious stone is mentioned in Exodus xxviii. 18; in Tobit, Judith, Ecclesiastes, and Ezekiel. The famous emerald mines in Jabl Zararab in Egypt—the Samarrudus Mens of the ancients—were worked 1560 B.C., in the time of the great Sesostris II., and by extensive galleries. They were again worked in the early part of the reign of Muhammed Ali, and about 1876 a British company undertook them. The mines (Bunsen's Egypt, ii. p. 303) were on the Kosseir road from Koptos to Aennum (Phileoteras). It is the rarest of all gems, of a beautiful green colour, unsurpassed by any gem. When of a deep rich grass-green colour, clear and free from flaws, it sells at from £20 to £40 the carat, those of lighter shade from 5s. to £15 the carat. The finest occur in a limestone rock at Muuz, in New Granada, near Santa Fé de Bogota, 5° 28', at Ondolchelon in Siberia, and near Arv. From ancient times many stones have been famed as emeralds, which can only have been jasper or other green mineral, such as the emerald pillars in the temple of Hercules at Tyre, the emerald sent from Babylon as a present to a king of Egypt, four cubits in length and three in breadth, and the emerald obelisk described by Herodotus, were all doubtless green jasper. The book of Esther describes the hall of king Ahazarus as paved with emeralds. De Carne mentions (p. 125) an emerald statue of Buddha, a cubit in height,
valued at £40,000, now in the pagoda of the king of Siam. It was carried off in 1777 from a pagoda in the city of Vien-chan in Upper Laos. In the United States very large beryls have been obtained, but seldom transparent crystals; they occur in granite or gneiss. One in the imperial collection of Russia measures 4½ inches in length and 12 in breadth. Another is 7 inches long and 4 broad, and weighs 6 pounds. Mr. Powell had seen a flat tablet of emerald, full of flaws, but otherwise of good colour, nearly 2½ inches square, worn as an amulet, and engraved all over. The maharaja of Kapurthala possesses a large oblong emerald of this kind, and the maharaja of Patiala has a round emerald of enormous size. A crystal in the cabinet of the Duke of Devonshire measures in its greatest diameter 3½ inches nearly; its lesser diameter barely 2 inches; its 3d diameter, 2½ inches; the extreme length of the prism is 2 inches. It contains several flaws, and is therefore only partially fit for jewellery. It has been valued at more than 500 guineas. A more splendid specimen, weighing 6 ounces, belonging to Mr. Hope, cost £500. Aquamarine includes clear beryls of a sea-green, or pale-bluish, or bluish-green tint. Hindus and Mahomedans use them pierced as pendants and in amulets. Many of the stones used as emeralds in India consist of beryl. Prismatic corundum or chrysoberyl, says Dr. Irving, is found among the Tora hills near Rajmahal on the Bunus, in irregular rolled pieces, small, and generally of a light green colour. These stones are considered by the natives as emeralds, and are called in Panjabi Panna. The most esteemed colours are the Zababi, next the Saidi, said to come from the city Saidi in Egypt; Raihani, new emeralds; Fastiki, old emeralds, that is, such as have completed their 20 years; Salkki, Zangari, colour of verdigris; Kirasi and Sabuni.

Most of the emeralds commonly in use in India are smooth, cut and bored like beads; they are always full of flaws.—Powell, p. 49; Tavernier's Tr. p. 144; Bausen's Egypt, ii. p. 308; Wellsted's Tr. ii. p. 323; Irvine, Med. Top.; Tomlinson.

EMERY.


This substance is greatly used in the arts for grinding and polishing hard minerals and metals. Corundum, emerald, ruby, topaz, sapphire, and emery are only surpassed in hardness by the diamond. Emery is regarded as granular or amorphous corundum, coloured with iron, and is not known to occur in India, where corundum and garnets are used by the people in its place. It was, however, sent to the Exhibition of 1862, from Monghir; and Callastry, near Madras, is also named as a site, also Ongole. In the mixed corundums of Greece and Turkey the iron seems equally diffused through the mass, imparting to it a bluish-grey colour; but in specimens which reached the Madras Museum from Southern India, the corundum and ore of iron, though occurring together, are not mixed, but remain apart, segregated, the corundum forming one side of a mineral, and the oxide of iron, in a lump or lumps, on the other side; and all such masses are magnetic, and possess polarity. In the arts, that of Naxos is preferred, as it is more uniform in its quality than that from Pulah and Gunuch. That from Naxos is of a dark grey colour, with a mottled surface, and with small points of a nicaceous mineral disseminated in the mass. It frequently contains bluish specks or streaks, which are easily recognised as being pure corundum. When reduced to powder, it varies in colour from dark grey to black, but the colour of its powder affords no indication of its commercial value. The powder of emery examined under the microscope shows the distinct existence of the two minerals, corundum and oxide of iron. The specific gravity of emery is about 4, but its hardness is its most important property in its application to the arts. The only difference in corundum seems to be the absence of oxide of iron. There could be no difficulty in preparing corundum powders of the requisite degrees of fineness. The selling price of corundum in London has ranged from £10 to £25 a ton. There seems no reason why the picked corundums should sell for less than the finest emeries; and Captain Newbold mentions that the corundums near Gram, when sorted into the three sorts known in commerce, viz. the red, the whites, and the scups, of these two are sold to the Arab merchants at Mangalore and Tellicherry at prices from 12 to 15 or 30 rupees the candy, equal to £4, £6, and £12 a ton.—Madras Museum Report. See Corundum.

EMIGRATION from British India and China is in a large and gradually increasing rate. From 250,000 to 350,000 of the Tanjore, Trichinopoly, Tinnevelly, and Madura districts, find employment every year in Ceylon. In the ten years 1872 to 1881 inclusive, 188,712 embarked from Calcutta, Madras, and French ports for the British, French, and Dutch colonies.

EMILIASONCHIFOLIA. D. C.

Emilia purpurea, Cos. | Crassocephalum son., Less. 
Cassalia sonchifolia, Lion. | Seneceio sonchifolia, Mench. 

In Southern Asia it is used in medicine. In China its leaves are used as salad.

EMODUS FLAVESCENS. Gray.

Monitor flavescens, Gray. | Varanus Pipiroti, Dum. 
M. exanthematicus, var. | and Bibb. 
Indicus, Schlegel. | V. Russeli, Schlegel. 
Indian empagasia, Eng. | Kabaara, . . . SINGH.

The colour of this reptile is olive, with yellowish cross-bands. Head-shields sub-equal; eye-brows with a central series of larger plates. It is found in Nepal.

EMU. Emu, or Enew, the Dromaius Nova Hollandiae of Australia, is generally dispersed over the whole interior of the continent. They are strictly monogamous. The whole duties of incubation, as well as the care of the young bird when hatched, devolve upon the male bird. This is believed to be the case with all other struthious birds.

EMYDIDÆ, a family of reptiles. See Reptiles; Tortoises; Turtle.

ENAM. HIND., Pers. Gifts or gifts, generally of land, and commonly in perpetuity, for charitable purposes. A jagir is usually an assignment of lands for service, or as a pension. Altungha is
ENAMEL.

An enamel in the arts is an artificial vitreous mass, the same as a paste, ground fine, then mixed with gum water, and applied by a brush, and fixed by fusion. The art of fixing colours by melting in fire, says Dr. Royle (Arts of India, p. 475), is of very ancient date. It was practised by the Egyptians, and carried to a high degree of perfection in Persia. The art is known in every part of India, and some exquisite specimens were sent to the Exhibition of 1851 both from Central and from North-Western India. It is chiefly employed in ornamenting arms and jewellery, not only in gold, but also in silver. In general, in India, ten parts of lead and three parts of tin are oxidized by continued heat and exposure to air. From the melted oxides add ten parts of powdered quartz, and ten parts of coarse salt, and melt in crucibles. Thus is obtained a white enamel, and the basis of coloured enamel, metallic oxides being added. Oxide of lead or of antimony produces a yellow enamel; reds are obtained by a mixture of the oxides of gold and iron. Oxides of copper, cobalt, and iron give greens, violets, and blues, and a variety of intermediate colours by mixtures. The workmen of Behar are stated to make two enamels, which are applied to the surface of some of the rings. One is yellow. Five parts of lead are melted in a shallow crucible, and to these is added one part of tin, and the alloy is calcined for four or five hours. It is then heated to redness in the crucible of the glass furnace. One part of white quartz is next added, and the mass stirred about for three hours. It is then taken out with a ladle, poured out on a smooth stone or iron, and cooled in water. They then take one part of their palest green glass, and add a fourth part of the other materials, to make the yellow enamel. The green enamel is made in the same manner; and to the melted glass is added, not only the prepared lead and tin, but a small portion of the black oxide of copper. In Mysore they make a bright yellow enamel, by first calcining five parts of lead and one of tin, then adding one part of zine, calcined in a separate crucible. When these begin to adhere, they are powdered in a mortar. When the maker of glass rings is at work, he melts some of this powder, and, while the ring is hot, with an iron rod applies some of it in powder to the surface of the glass.

The finest enamelled work of India is produced at Jeffery, and is considered of great artistic merit. The enamellers there came originally from Lahore. Their enamel is a kind of glass made in earthen vessels, and when fused, the colouring matters are added; the whole is then allowed to cool, and in this state is kept for use. Only pure silver or gold articles are enamelled. From the silver the enamel may come off in course of time, but it never does from the gold. All good enamel is consequently only applied to gold, which must be free from alloy, or otherwise it would tarnish by contact with the enamel in the great heat to which it is subsequently exposed. The gold is first carved of the required pattern; the enamel, having been ground to an impalpable powder, and made into a paste with water, is then placed on the exact spot required by the pattern. The article is then strongly heated, much skill being required to take it out at the precise moment when the enamel is thoroughly fused, but before the colours begin to run into one another. As soon as removed, the workmen then exert the full power of their lungs in blowing upon it as quickly and as violently as possible. The hardest colours are first placed in the furnace and fused, and then those which melt more easily. Afterwards, the whole is ground and polished. The translucent enamels for which Jeypore is famed, are enamel colours on gold or gold leaf, which gives light and brilliancy to the colours. Lord and Lady Mayo exhibited from Jeypore a cup, saucer, and spoon made in fine gold, and designed in most elegant forms. Each of these forms was heightened and defined by enrichment made by incisions into the metal in beautiful conventional ornament, subsequently filled in with transparent and opaque enamel pastes, but principally the former. After the work is perfectly dry, a second surface is heightened yet further by setting in diamonds in various ornamental forms. The result was a specimen of goldsmith's work as lovely (although, of course, in a very different style) as anything Colline or Caradosso ever did. Artisans form a small family, and the real process of enamelling is kept by them as a secret, which descends from father to son like an heirloom.

The Panjab is famed for its blue and green enamels. It is said that Kashmir has long served as a great field for artists emigrating from Persia; and a careful comparison of Persian with Kashmirian products leads one instinctively to the impression that Kashmir must certainly owe much of her delicate perception of the beauty of colour and floral form to her proximity to, and intercourse with, the time-honoured land of the Sun.

Enamelling, as applied in India to jewellery, consists of an extremely fine pencilling of flowers and fancy designs in a variety of colours, the prevailing ones being white, red, and blue, and is invariably applied to the inner sides of bracelets, armlets, anklets, necklaces, ear-rings, sapech, tiara, and all that description of native jewellery, the value depending upon the fineness of the work, and often exceeding that of the precious stones themselves. In general the cost is moderate, as the finest specimens are only made to order. The best come from Benares, Delhi, and the Rajputana states. In the south of India, the manufacture of enamels on articles of domestic use like the above is almost entirely restricted to Hyderabad. It presents no varieties, but in general consists of a blue coating interlined with white on a surface of silver, and is applied to rose-water sprinklers, spice-boxes, basins, and such-like articles. The merit of the manufacture lies in the simplicity of the enamel itself, and in the lightness of the silver article to which it is applied. Though pleasing, it is the coarsest enamel produced in India. At Indore in Central India, the manufacture does not constitute a regular trade. It is invariably applied to articles of personal decoration, such as necklaces, armlets, brooches, ear-rings, etc., which are set by native jewellers, according to the taste of the purchaser.
ENTEOMOSTOMATA.

The number of fish caught is never below 70,000 to 80,000 of all kinds, the principal belonging to species of the genera Circa, Cyprinus, Gobiob, Labes, Cunclodus, Cirrhinus, Cyprinodon, and Silurus. The largest specimens weigh about 55 lbs. each. Crocodiles of all sizes are found in the drag-net, but no casualty has been known to have been caused by them. Some 8000 to 10,000 persons are engaged in the taking and disposal of the fish, of which about 40 tons are annually sold on the spot.—Imp. Gaz.

ENGRAULIS ENCRASTICOLUS, Anchovy. Anchois. 

The anchovies of commerce met with in India are wholly imported. It is a small fish, about 4 inches long, with bluish-brown back, and silver white on the belly, very abundant in the Mediterranean, where, though occurring in other seas, they are chiefly caught at night by nets, their heads immediately taken off, their entrails removed, and pickled. Another Mediterranean species, E. melotta, is largely substituted for and mixed with the true anchovy. A species is said to occur in the Bay of Bengal, and is one of the fish made into faladanghy.

ENKIANTHUS QUINQUEFLORUS, a flowering plant of China, on mountains from 1000 to 2000 feet above the level of the sea, fixing itself in the crevices of the rock, in situations with very little soil. At the Chinese New Year its flowers are in great request in the south of China for: the decoration of the houses, boats, and temples, just as those of the Nandian are in the north with camellias, coxcombs, magnolias, and various plants which flower at this season. The enkianthus is brought down from the hills with the buds just expanding, and, after being placed in water for a day or two, the flowers come out healthy and fresh. At New Year’s day in Canton, the budding stems of the flowering almond, narcissus, plum, peach, and the Enkianthus reticulatus, or bellflower, are forced into blossom to exhibit, as indicating good luck in the coming year.—Fortune’s Wanderings; William’s Middle Kingdom, p. 286.

ENNORE or Katipak, in lat. 15° 14’ N., long. 80° 50’ E., 9 miles N. from Madras, a small hamlet on the southern end of the Falikat Lake, a marine lagoon.


An immense climbing shrub, forming elegant festoons, legumes from 1 to 5 feet long and 4 or 5 inches broad, formed of a series of joints, each containing one seed. They are roasted and eaten; enter into the native Matera Medica as an anti-febrifuge; are emetic, and used to wash the hair. Its gigantic pods excite astonishment in passing through the forests. Its seeds are made into boxes.—Cat. Ex. 1852; Tennant; Riddell; Moseley.

ENTOMOLOGY. See Insects.

ENTOMOSTOMATA OF De Blainville, a family of molluscs, in which are included the genera cerithium, planaxis, subula, teresba, eburnea, buccinum, nassa, harpa, doliom, oniscia, ricinula, cancellaria, and purpura. See Mollusca.
EQUIDÆ.

EQUIDUS, according to the Periplus, an island, the seat of the pearl fishery; it is the modern Mannar.

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Equisetum Hyemale.

Equis hemipappus, Is. Geoffroy, inhabits the countries to the west of E. onager, viz. Syria, Mesopotamia, North Arabia, etc. The voice is like the bray of the common ass. This is considered by Blyth to have been the hemionus of the ancients.

Asinus teniopus, Henglin, onager of the ancients; Equis, asinus, wild ass. This species occurs wild in N.E. Africa and South Arabia.

Equis hemionus, Pallas, the kiang or dzightai of Tibet and Central Asia, is met with across the snowy Himalaya, in Ladakh, and other parts. It is much darker in hue than the Gor Khar or E. onager, Pallas, Blyth, E. Cuv., the upper parts being of a dull ruddy brown.

The zebras and quagga, genus Hippotigris, are of Africa. The horse has been found fossil in Ava.—Cat. Mus. Ind. Ho.; Jerdon, pp. 236-9. See Horse.

Equisetum Hyemale. Smith. Muh-tshih, Chin. This species of the horse-tail tribe of plants grows to a considerable height in marshy places in Kan-suh and Shen-si, and with E. arvenese is used to polish wood. A large quantity of silex, arranged in a beautifully regular manner in the calcareous structure, confers this property E. debile, Rosz., is a plant of India and Burma.

ERIA. See Chronology.

ERAGrostis, panicum, pennisetum, poa, rothella, saccharum, vilfa, are the grasses of the Deah. Several species of Eragrostis grow in the Panjeb, where they are called chinka, kur, lamb, and mirukar, and are considered good pasture grasses.

ERAN, a village of a tract of the same name in the Sagar (Sangor) district, Central Provinces, 48 miles west of Sagar town, in lat. 24° 5' 30" N., long. 78° 15' E., population (1870) 446; its monumental remains are attributed to Raja Bahrat. The chief of these is a rudely-shaped image of Vishnu in his boar avatar. The tip of the projecting tongue supports a human figure erect. The breast bears an inscription, and, as at Oodeghur (Odaigah), a young female hangs by the arm from the right, task. On one side of Vishnu stands a four-armed deity, above 12 feet in height, with gilt loins, a high cap, and round to his neck and reaching to his feet a thick ornamental cord. On the columns before this statue are seen figures weaving the sacred thread, with twisted snakes, elephants, nude female figures, seated Buddhas, faces of satyrs, and other devices. Besides these and other remains, there are three figures of crouching lions.—Imp. Gaz.

ERANDI. Hind. The castor-oil plant, Ricinus communis. The small plant is called Choti erandi; the larger, Barri erandi. It is the name of a tasar silk-moth, so called because it feeds on the castor-oil leaves.

ERANNOBAS, the same with the river Sone or Heranya. See Pataliputra-baha.

ERECH of Scripture, the modern Warka, near the Euphrates. It was founded under the second ruling dynasty, of the date B.C. 2286. See Karsa.

EREMURUS SPECTABILIS. Bieber, Pott's, Beng., Chineb. Shih, etc. Jhelum.

This magnificent plant grows in the Panjeb to 5 or 6 feet high, with close spikes of white flowers to half that length. It is common at places on the Upper Chnab and in the Jhelum basin, at from 6000 to 9000 feet. The leaves when young are much eaten, both fresh and dry, cooked as a vegetable, and are excellent treated as spinach.—Stewart.

ERI. as in the Madras suburb Vepery, means a tank, a large reservoir or piece of water. It is a Tamil word, sometimes a prefix, sometimes a suffix; Vepery means the Vepa tree (Azadirachta) on the tank.

ERIA. Hind. A silk fabric used in Assam, manufactured from the cocoon of a wild moth. In Assam each household reaps, spins, and weaves his own cloth, and the holiday attire of the Assamese is usually of silk. In Durrung, a than of good silk, measuring 10 yards, can be purchased for from 5 to 10 rupees, according to the fineness. The cloth is occasionally coloured, but the Assam-se silks are usually of the natural colour as wound from the cocoon.

ERICACEEE. De Candolle, the heath tribe of plants, comprising the genera Andromeda, Cassiope, Gaultheria, Rhododendron. Gaultheria fragrantissima, Wall., grows in Nepal, and there are several beautiful species of rhododendron in the Himalaya.

ERIGERON, a genus of plants of the order Compositae; several species occur in India. In Italy large bundles of E. viscousum, Linn., a viscos species, are dipped in milk and suspended in the rooms, to attract the flies.

ERIKA-YADU, the Yerkal race in the Peninsula of India, called also Yera Keddi. See Eruku. ERINACEIDEE, the hedgehog family of the mammalia. Species of the genera Erinaceus and Tupinca occur in India and the Archipelago.


This middle-sized tree is common on the Konkan ghat; flowers yellow, in terminal panicles, appear in September and October; fruit triangular, covered with bristles; angles somewhat winged; has a pleasing fragrance; bark is used for making ropes.—Jeffrey; Beddome.

ERINYS of the Hindus has been identified with the Greek Erinys; the word means the fleet runner.

ERIOBOTRYA JAPONICA. Lindl. Loquat. Mesplius Japonicus, Thumb. Yung-mai, Yang-ma, Chin. Kin-ling-taze; . . . Chinn. Lu-kiah, Kin-lin-tze, " P.F.P.. • • " This small tree of Japan and China has been introduced all over the Dekhan, the Panjeb, and also in Bengal, where it is much cultivated on account of its excellent fruit, the beauty of the tree, and the exquisite fragrance of its flowers. In the Botanic Gardens at Calcutta it blossoms twice in the year, but bears fruit only once, viz. in February and March. It also grows in great perfection in New South Wales, and bears fruit twice in the year, and is highly esteemed both for desserts and preserves. The finest fruit is produced at the second crop, at the end of the cold season, and requires protection day and night, from birds in the former, and flying foxes in the latter. The fruit is of a yellow colour, with thin skin, a sweet acid pulp, one or two seeds in the centre, sometimes more. The seeds grow easily, and the fruit appears to be capable of great improvement. In Ajar it is cultivated in gardens, but does not thrive well. A close connection between Chinese loquat and Chinese fig with peaches, plums, oranges, the Chinese gooseberry, Averrhoa carumbola, the wangi, Cookia punctata, the longan and longehen.—Rox.
ERIOCAULON CANTONIENSE.

The genus \textit{Eriocaulon}, the largest of the family, is also distributed in other parts of the world, especially in the southern hemisphere, and the eastern and western parts of the Indian Archipelago. It is known under the names \textit{Eriocaulon Ctenophorum} and \textit{Eriocaulon Pataginum}, which are found in the eastern and western parts of the Indian Archipelago, and in the eastern and western parts of the Indian Archipelago, respectively.

The genus \textit{Eriocaulon} is characterized by the presence of a slender, erect, and sometimes branched stem, which is covered with small, scale-like leaves. The flowers are small, greenish, and arranged in a raceme or spike, which is enclosed in a sheath of the leaves. The fruit is a small, dry, and seed-like body.

ERIOPHORUM CANNABINUM. Royce. The cotton grass, or bahur of Hindustan, grows throughout the Panjab Sivalik tract, and outer hills to 5000 feet; in the Salt Range most of the baggar or bahur rope appears to be made of Andropogon involutus; but part of the cordage for bedsteads, Persian wheels, etc., is made of this. Its seeds are clothed at their base with a cotton-like substance, with which pillows are stuffed and candle wicks made.—Royce; Stewart.

ERUVIAN, in lat. 40° 10' N., long. 44° 30' E., and 5107 feet above the sea, a town in Russian Armenia, of which it is the capital. It has been repeatedly taken by Turks, Persians, and Russians. From the time of Nadir Shah in 1748, it was in the hands of the Persians till taken by the Russians in 1828. The province of Erivan is watered by a network of canals, by the Karasun, the Zangi, Aharan, and the great Arpa Chai. It contains 408 villages.—Porter's Travels; Macgregor, p. 195.

ERRUKU.

Sinsic, \textbf{Arab.} | Ermelino, | \textbf{Ir.} | Horme, | \textbf{Fr.} | Gornostai, | \textbf{Rus.} | Hermelin, | \textbf{Gel.} | Armino, | \textbf{Sp.}

The prepared skin of a weasel, largely used by the wealthy of Europe and China.

ERNAAD, a naad or district on the western side of the Neihgherries.

ERRODE, or French rocks, 5 miles N. of Seringapatam, a military cantonment. It was a station for a French settlement in the time of Tipu.

ERTHA, the German goddess of the earth, whom Colonel Tod supposed to be the Hindu Eila. The German Ertha had her ear drawn by a cow, under which form the Hindu typifies the earth (Prithivi).—Tod's Rajasth. i. 574. See Euleius.

ERTOGHRIU, father of Usman, the founder of the Turkish empire. He was the leader of a little band, a fragment of a tribe of Oghuz Turk, which, under Ertogrul's father, Suliman Shah, had left their settlements in Khorasan, and journeyed for a time in Armenia. After a few years they left this country also, and were following the course of the Euphrates towards Syria, when their leader was accidentally drowned in that river. The great part of the tribe then dispersed; but a little remnant of it followed two of Suliman's sons, Ertogrul and Dukdar, who determined to seek a dwelling-place in Asia Minor, under the Seljuk Turk, Ala-ud-Din, son of an old chief. The adversaries, from whose superior force they delivered Ala-ud-Din, were a host of Mongols, the deadliest enemies of the Turk race. Ala-ud-Din, in gratitude for this eminent service, bestowed on Ertogrul a principality in Asia Minor, near the frontiers of the Bithynian province of the Byzantine emperors. The rich plains of Sagota along the left bank of the river Sakaria, and the higher district on the slopes of the Ermeni mountains, became now the pasture-grounds of the father of Othman. The town of Sagota or Segut was his also. Here he and the shepherd-warriors who had marched with him from Khorasan and Armenia, dwelt as denizens of the land. Ertogrul's force of fighting men was largely recruited by the best and bravest of the old inhabitants, who became his subjects; and still more advantageously by numerous volunteers of kindred origin to his own. The Turk race had been extensively spread through Lower Asia long before the time of Ertogrul. Quitting their primitive abodes on the upper steppes of the Asiatic continent, tribe after tribe of that martial family of nations had poured down upon the rich lands and tempting wealth of the southern and western regions, when the power of the early kialis had decayed like that of the Greek emperors.

ERU. Hind. Minoru.

ERYKA BOW. This and E. Javanica and E. scandens of Jussieu grow up to 3000 and 4000 feet in the N.W. Himalaya. The flowers have a sweet fragrance, and the woody fruit is used for stuffing pillows.—Stewart.

ERYUKU, also called Erkal, Yerkalvadu, Erika-ud, and Yerakelli, a homeless migrating tribe in the Peninsula of India, occupying themselves ostensibly as basketmakers and in fortune-telling.
But they are notoriously predatory, and steal girls, whom they devote to prostitution. They are found in mat huts on the outskirts of towns, in the border districts of the Teling, Tamil, and Cenarese countries.

ERYULAR, a Dravidian race occupying the skirts of the forests at the base of the Neigherry Hills. They dwell in the clefts of the mountains, and in the little openings of the woods. They arrange themselves into two clans, the Urali and Kurutale, meaning rulers and serfs. The word Eurali means unenlightened or barbarous, from the Tamil word Eral, darkness, and is the term applied to them by their neighbours. They speak a rude Tamil dialect. They sacrifice he-goats and cocks to Mahri, their deity, which is a winnowing fan; and they have minor deities, mere stones, that they call Moishani and Konadi Mahri. They inter their dead in great pits, 30 or 40 feet square, thatched over and planked across, with an opening about a cubit square in the centre of the planking. Across this opening are laid pieces of wood, on which the dead are placed, and covered with earth, and are left so till another person die, when the former remains and the earth are turned into the pit, and replaced by the newly dead. They are in small scattered communities, practising a rude system of agriculture, which scarcely furnishes them with sufficient food. They make use of animal food of every description, even vermin and reptiles. They collect the jungle produce. They hunt and take game of every description, with great cunning and audacity. The other Neigherry Hill tribes do not recognise the Eural as inhabitants of the Blue Mountains, and do not hold much converse with them. The following is the result of the weight and measurements of an average of 25 men, age 26-68 years:

<table>
<thead>
<tr>
<th>Height</th>
<th>61-75 in.</th>
<th>Hands</th>
<th>6-50 in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head cir.</td>
<td>19-83</td>
<td>Breadth of hands</td>
<td>3-25</td>
</tr>
<tr>
<td>Neck</td>
<td>11-50</td>
<td>Length of legs</td>
<td>34-70</td>
</tr>
<tr>
<td>Chest</td>
<td>29-94</td>
<td>Feet</td>
<td>9-90</td>
</tr>
<tr>
<td>Arms</td>
<td></td>
<td>Breadth of feet</td>
<td>3-25</td>
</tr>
<tr>
<td>Thighs</td>
<td>15-17</td>
<td>Weight (avoir.)</td>
<td>96-20 lbs.</td>
</tr>
<tr>
<td>Length of arms</td>
<td>30-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

They are superior in physique to the Kurumbar, and in some respects even to that of the Kotar. They do not recognise the Toda as lords, nor do they pay them good. The women are strong and stoutly built, and very dark skinned. Their feet, of all the S. Indian races, are the most beautifully formed. They wear heaps of red and white beads about their necks, thin wire bracelets and armlets, with ear and nose rings. The women wear a double fold of a wrapper cloth, which extends from the waist to the knees; the upper part of their bodies, with their bosoms, are nude.

At one time the Eural rarely held communication with the other natives, living isolated lives in secluded places and unhealthy localities, and eking out a precarious existence. Their villages were small, seldom exceeding five or six huts, and cattle pens scattered far apart, mostly located in groves of plantain and other fruit trees, and built somewhat after the Kurumbar huts, surrounded by the usual filth and dirt. They are more numerous in the southern than in the eastern parts. But of late years they have improved wonderfully, by mixing with others and taking employment on plantations, and working by side by side with other natives. They give satisfaction to their employers.—Dr. Short, E.G.S.

ERYTHRINA ARBORESCENS.

ERYTHRINA, Erythrina hirsuta. Willd. Lentil.


This is found in the Sutlej valley, between Rampur and Sungnam, at an elevation of 5000 feet, grows in corn-fields in northern India, and is cultivated for fodder.——Clegborn.

ERYTHRINA LENS. Linn. The lentil.

Adas, Aâr, | Arab. Masur parupsa, | Tam. Chiri sangalda; | Tel. Marsura, | Sansk.

This pulse is grown all over India, and is eaten as a dhal in food, but is said to be heating, and to cause eruptions if too much indulged in. By a slight change, Erythrum lens became the Evaletum; and another person, with another little change, sold the same article as Revalenta, adding the term Arabic to denote its Asiatic origin. Its flour is now used all over England by all classes to make a good wholesome soup without meat, though meat, soup, and vegetables can be added. The knowledge of this has rapidly spread.

Stewart; Hogg.

ERYTHRINA CAMPESTRE of Europe grows in Kashmir and Kashmir. E. giganteum and E. Perowskianum are ornamental garden plants, and E. planum grows in Kashmir.——Stewart; Honig; Riddell.

ERYSIMUM PERFOLIATUM is cultivated in Japan for its oil-seeds.——O. S. p. 187.

ERYsiphe taurica is one of the fungi of the Himalaya.

ERYTHRAS, son of Arius, a satrap of Phrygia. Erythras was banished by Darius to Kishin island, and Nearchus was told that Erythras had given his name to the adjoining sea.

ERYTHEAN SEA (Pliny, lib. vi. caps. xxxiii. and xxxiv.) was applied to the Indian Ocean, as well as to the two gulfs which it forms on each side of Arabia. Herodotus includes the Arabian Sea and part of the Indian Ocean under the generic name of Erythraean. And Pliny styles the Persian Gulf a bay of the Red Sea. Greek and Roman authors, however, generally used the term Persian Gulf; but it appears also among them as the Babylonian Sea and the Erythrean Sea, and this has caused a confusion with the Red Sea. The Persian Gulf by many is described as the Green Sea, also in Eastern manuscripts as the Sea of Fars or Pars, of Oman, of Kirman, of Katis, of Basrah, deriving these and other names from the adjoining provinces and remarkable places on its Arabian and Persian coasts. See Red Sea.

ERYTHROXYLUM, a genus of tropical trees and terebinthaceous herbs, with clusters of very large, long flowers, which are usually the brightest red, whence their name of coral trees. Moore, when describing the Indian islands, notes the.

'Gay, sparkling loories, such as gleam between
The crimson flowers of the coral tree
In the warm isles of India's sunny sea.'

Frequently their stems are defended by stiff prickles. Voigt notices 11 and Gamble 8 species as known in India.——Voigt, p. 287.

ERYTHRINA ARBORESCENS. Roxb.

Purulaa, | Bras. | Gul nall dar, | Panji, Thab.
| Girmah, | Gilur, Gadorwa, | Ravi, | Gu, nam.
| Panji. | Budara, | Sutleri.

Grows up to 7000 feet in the Outer Himalayas,

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from the Ganges and Bhutan, also in the Khassya Hills; wood spongy.

**ERYTHRINA INDICA.** Lam. Coral tree.

**ERYTHRINA INDICA.** Lam. Coral tree.

**ERYTHRINA INDICA.** Lam. Coral tree.

**ERYTHRINA MODICA.** Benth. & Hook.; K. and B.; Eng. Ker. This is the large tree of all India and the Archipelago, flowering at the beginning of the hot season, its seeds ripening in June and July. Its place in the forests is generally taken by *Erythrina subemarginata*. It supplies a soft white wood, as easily worked as the pine, commonly used for light boxes, scabbards, children's toys, rafta, fishermen's floats, and is hollowed out and made into canoes. The wood used for this purpose in Upper Hindustan is the Bombax eculus. This is the Muchi wood of Madras, and the varnished toys from the Northern Circars are made of it. For sword scabbards it is a first-rate material. It is eaten by white ants eagerly. This tree is employed to support the black pepper vine, being of quick growth from cuttings, with firm, permanent, smooth bark, which never peels off, and gives firm hold to the roots of the vine, and they are full of leaves and very shady during the hottest months of the year, which shelters the vine from the intense heat of the sun, and keeps the ground moist. As soon as the hottest weather is over, the leaves drop, and expose the vines to the sun and weather during the cool season.

**ERYTHRINA RACHYACANTHA.** Roxb. This is a large tree very common on the western side of the Madras Presidency; the wood, as in all the other *erythrainas*, is soft, light, and spongy. It is employed as a substitute for deal, is much in use in the manufacture of toys, trunks, etc., and is afterwards varnished, its large pores admitting and retaining the varnish better than almost any other wood; the wood is not liable to warp, contract, or split. It is also used for the scabbards of weapons.

**ERYTHRINA SUBEROSA.** Roxb. Muni, Motaia, . . . TAM. ; Modugas, . . . Tel. A small tree of all India, growing in every soil and situation; leaves deciduous during the cold season. Flowers in February and March, soon after which the leaves appear; the trunk is generally crept from 8 to 12 feet to the branches. The trunk is covered with deeply cracked, corky bark. It is famed for its wood and is used by the Tartars in 1241. It is the capital of the pashalic which bears the same name, and is about ten days' journey from the Persian frontier. It is built on an elevated plain about 6000 feet above the level of the sea. The soil there is, in December, and lasts usually from September till May. Lying on the high road from Persia to Constantinople, it is the resort of many merchants and caravans; but it has not recovered the Russian occupation in 1829, when its fortifications were dismantled, and many of its most opulent and industrious inhabitants, the Armenians, were in-
danced to emigrate. One of the branches of the 
Euphrates flows at a short distance below the city. 
ES or CEs, according to the translator of the 
Eddas, is the name for God with all the Celtic 
races. So it was with the Tuscanis, doubtless 
from the Sanskrit, or rather from a more pro-
vincial tongue, the common contraction of Esu-
wur, the Egyptian Osiris, the Persian Syr, the sun-
god. Thor is called Asa Thor, the Lord Thor; 
and Odin is also called As or Lord; the Guals 
also called him CEs or Es, and with a Latin ter-
mination, Hesus, whom Lucas calls Eams. Eswara 
is a usual title of Siva.—*Edda*, ii. pp. 45-6; *Tod's 
Questions*, p. 567.

ESKAHIL, an Afghan tribe on the Pan-
jub frontier, who, along with the Shahi Turis and 
the Jaji, dwell on the daman or skirt of the 
Sullimani range. The Esa Khail occupy the 
banks and islets of the Indus in a valley contain-
ing 45 villages. It is a narrow oblong strip 
between the Indus and a long spur of the Khuttak 
range, that runs southward into the plain.— 
Rec. Gort. of India, No. 11.

ESCHICHOLTZIA, one of the Papaveraceae, a 
very beautiful, very delicate little flower, of a 
deep yellow orange colour. E. cristata, *Tatarine*
, the Hiang-ju of the Chinese, is a fragrant plant of 
China.—Smith: *Richbell*.

ESCUAPUS, amongst the Greeks and Romans, the 
deified mortal to whom the care of 
medicine and health pertained. Esum, the 
snake-god of the Phoenicians, is identified by 
Bunsen (iv. p. 259) with the Egyptian Hermes, 
called Tet and Taantes in Phœnician. Esum is 
strictly a Phœnician god. He was especially 
worshipped at Berytus. At Carthage he 
was called the highest god, together with Astarte and 
Hercules. At Babylon, Bel corresponded with 
him. According to Jamblichus and the Hermetic 
books, the Egyptian name of Esclapius was 
Kamoph (Bunsen, iv. pp. 256-7). The Aswini-
Kumara, the sons of Surya, amongst the Hindus, 
correspond with the western Greek and Roman 
Esclapius; but Dhanwantari, a physician, is also 
the analogue. The Esculapian rod has been sup-
posed by some to be a stem of a Bambina plant. 
It is probably, however, the form serpents assume 
when in congress, and which is represented at 
every Hindu serpent shrine. The Hindu Escu-
apius has no rod.

ESDAILE, Dr., ob. 1859 at Sydenham, a 
Bengal medical officer, the eldest son of the Rev. 
Dr. Esdaile, was born at Monrose 6th February 
1808. He devoted himself to the study of 
mesmerism. His first trial was casual. Seeing a 
felon in agony after a surgical operation, he 
thought he would try to mesmerize the sufferer, 
who presently exhibited the phenomena which 
were witnessed in England. After this time Dr. 
Esdaile performed a very large number of surgical 
operations some of them absolutely gigantic  
without pain. In 1846 he removed 21 tumours, 
some weighing 50 lbs., one 40 lbs., and one 112 
lbs.; in 1847-18, one of 40 lbs., and another 
of 100 lbs. in weight; in 1848, 34, some of very 
great size and weight. In 1848 he removed 10 
some very large. In 1849 he performed 62 capital 
or operations. After 100 capital operations, with 
insensibility, only two patients died within a 
month, one from cholera, and the other from 
lock-jaw.

ESKAR. *Can.* A village servant. 
ESPARTO, a valuable paper material of N. 
Africa, in use since the middle of the 19th cen-
tury. See Stipa.

ESSENIANS, a sect amongst the Hebrews, who 
every day saluted the rising sun. 
ESSENTIAL OILS, called also volatile oils, the 
Atr of the Arabs and Hwa-lu of the Chinese, 
are obtained from various parts of odoriferous 
plants, chiefly by distillation, but also by the 
chemical perfuming process of enlithering. The 
best known volatile oils are those of almonds, 
asied, bergamot, cajaputi, chamomile, camphor, 
caraway, marjoram, cinnamon, citronelle, cloves, 
juniper, lavender, lemons, lemon-grass, mint, 
nutmeg, orange, peppermint, pimento, rhodium, 
rosemary, roses (otto), savine, sassafras, mint, 
but in India, sandal-wood, jasmine, nutmegs,  
indeed, every odoriferous plant is by the perfumers 
made to yield perfumed oil. The chambelli-kia 
of Lucknow, extracted from the petals of 
Jasminum grandiflorum, sells at 2 rupees per 
tola. This plant is extensively cultivated in 
gardens in Lucknow for the sake of its flowers. 
Motiah or Belak-kia-atr of Lucknow, Jasminum 
sambac, also extracted from the petals, sells at 
2 rupees per tola. It is cultivated extensively in 
gardens in Lucknow for the sake of its flowers, 
and is coloured red by means of dragon's blood. 
The essential oils of cinnamon, citronelle, and 
lemon grass are made chiefly in the neighbour-
hood of Gallic, in the southern provinces of 
Ceylon. The oil of cinnamon is also made largely 
at Colombo from the broken or inferior pieces of 
bark rejected in packing the bales of spice. 
The Andropogon muriatcum, Jasminum grandiflorum, 
J. sambac, Lawsonia inermis, Pandanus odorat-
tissimus, and the rose flowers are all utilized. 
Common mustard oil is often scented with mall-
agussa, and sold as an essential oil. See Atr; 
Oils; Otto.

ESTHER. In the centre of Hamadan is the 
tomb of All bin Sina (Avicenna), and not far 
from it are those of Esther and Mordecai, which 
are held in great veneration by the Jews of 
the town, and kept in a perfect state of repair. 
On the dome over these tombs is an inscription to 
the effect that Eliaz and Samuel, sons of Kachan, 
finished building this temple over the tombs of 
Mordecai and Esther on the 15th of the month 
Adar, 4474. The tombs are made of hard black 
wood, which has suffered little from the effects of 
time during the 114 centuries they have existed. 
They are covered with Hebrew inscriptions, still 
very legible, of which Sir John Malcolm has 
given the following translation:—*At that time 
there was in the palace of Susa a certain Jew of 
the name of Mordecai; he was the son of Jair 
of Shime, who was the son of Kish, a Benjamite, 
for Mordecai the Jew was the second of that 
name under the king Ahasuerus, a man much 
distinguished among the Jews, and enjoying great 
consideration amongst his own people, anxious 
for their welfare, and seeking to promote the 
peace of all Asia.’ The traveller, unless told, 
would never recognize them as tombs. The entry 
is by a low door, and the tombs occupy the whole 
of the internal space to the ceiling, leaving 
only a very narrow passage for walking round 
the huge stone-like construction in the middle. 
Literally not an inch is left on the whitewashed
walls on which the Jewish pilgrims of a thousand years have not inscribed their names.—Ed. Ferrier, Journ. p. 37.

ESWARA, a title of Siva, who is also styled Mahadeva, the great god; Maheswara, the great lord; Bhuvananwara, the lord of the earth; Brahmswaro, is the lord of lords, or the lord of the first creative energy. See Es.

ETA, an unclean race in Japan, curriers, tanners, about three millions.

E.TAH, a revenue district in the North-Western Provinces of India, lying between lat. 27° 0' 45" and 28° 1' 39" N., and long. 78° 27' 20" and 79° 19' 23" E. Area, 1512 square miles; population in 1872, 703,527. From the 6th to the 10th century, Etah appears to have been held by Ahir and Bhar, and then to have been occupied by the Rajputs. The Rajputs are 57,025, the Banyas or trading castes, 13,056. The Chamars are the most numerous tribe, forming the landless labouring class throughout the whole Doab.—Imp. Gaz.

ETAMU. Tel. Pikota, Tam. A lever for raising water.

ETAWAH, a revenue district in the North-Western Provinces, lying between lat. 26° 21' 8" and 27° 0' 25" N., and between long. 78° 47' 20" and 79° 47' 20" E. Area (1878), 1619 square miles; population (1872), 668,641 persons. The Chamars, 96,923, are agricultural labourers; Ahir, 75,035, come next, and have some landed property of small value.—Imp. Gaz.

ETHER, the air, the atmosphere. In India, amongst the Aryan Hindus of the Vedic times, adoration was offered to Ether as Indra (Zeus), with the sacrifice of milk and the fermented juice of plants. See Elements.

ETHER, medicinal substances obtained by distilling alcohol with an acid. There are several others; they are very inflammable.

ETHERSEY, Lieut., Indian navy, in 1834-36 made an excellent but incomplete survey of the Gulf of Cambay; and the coasts to the westward were surveyed by Lieuts. Whitelocke and Constable and Mr. Jones. Between 1844 and 1852, Lieuts. Saunders, Rennie, Taylor, Constable, and other officers, surveyed other portions of the west coast, and Lieut. Selby completed the off-shore soundings on the west coast.

ETHIOPIA, a country mentioned in the Scriptures, corresponding to the present kingdoms of Nubia and Abyssinia. It was also called Saba, also Meere. It was at one time occupied by Arabs, under a settled form of government, who corrupted Nubia and harassed the Thibans. During the earlier Christian centuries the Arabs were conquered by the Egyptians.—Sharpe, i. 101.

ETREK, a considerable river, about 300 miles long, which drains a wide valley lying between two ranges of hills. It runs nearly N.W. from near Meshed to the Caspian Sea, into which it discharges at its E.E. corner. Its lower course is through wide and fertile plains, over which the Yomut Turkomans roam. They have a village on the left bank.—Collett, C. As.

ETWAR. Hind. Abbreviation of Adityavara, Sunday.

ETYMANDER, of the classics, is the river Helmand.

ETZEL, known to Europe as Attila, was the leader of the Hiong-nu, a pastoral tribe who had been expelled from the borders of China by the powerful dynasty of Han, and formed one of the tribes who roamed in the lands from the Altai to the walls of China. The Hiong-nu, after their inroad on the Gothic empire of Hermanrich, made their way, under Etzel, into the heart of France. Hordes from the same regions, under Togral Beg, and Seljuk, and Mahmud, and Chengiz, and Timur, and Othman, have since then overwhelmed the khilafat and the empires of China, of Byzantium, and Hindustan; and lineal descendants of the shepherds of High Asia still sit on the throne of Cyrus and on that of the great Constantine.

The eucalyptus, a genus of trees, is found in Australia, where the numerous species occur in great profusion, and, with the leafless acacia trees, give a most remarkable character to the scenery. Several eucalyptus have been introduced into India, and are growing on the Neilgherry Hills. Their Australian names—blue, grey, spotted gum trees, etc., iron-bark, stringy bark, blood-wood, box, peppermint, swamp ash, mahogany trees, etc.—are terms which vary in each district. Many of them yield a timber tougher and more durable for shipbuilding than either oak or teak, and not liable to injury from salt water or white ants. An essential oil is extracted from the leaves of one variety, the E. robusta, which was pronounced not unlike cajaputi, and very fragrant. All the varieties tried on the Neilgheries have succeeded, on every description of soil, from the swamp to the poorest clay, at all elevations, but also with a rate of growth little short of miraculous, viz., a foot per mensem, whereas hard woods in Britain progress at the rate of one foot annually. Householders on the Neilgheries are now covering their compounds with the eucalyptus, and with that pretty Australian favourite the Acacia melanoxylon, which is so invaluable as a source of fuel; for, like the perennial grasses, the more it is cut the better it grows. E. acmenoides, amygdalina or white peppermint tree or ash tree, botryoides, calephylla or red gum tree, citriodora, coriacea, cornuta or yate tree, corymbosa or blood-wood tree, diversicolor or karri, doratoxylon or spear tree, Eugeniodes, ficifolia, globulus or blue gum tree, gomphocarpa or toosar, gomioalyx, Gunnii, hephalena or box tree, leucoxylon or iron-bark tree, lexephelea or York gum tree, macrorhyncha or stringy bark tree, mancutula or spotted gum tree, marginata or jarry or mahogany tree, melanoplia or iron-bark tree, meliodora or yellow box tree, microcorys or stringy bark tree, microtheca, obliqua or stringy bark tree, olecea or mallee, paniculata or white iron-bark tree, phoeicis, pilularis or black butt tree, posthlyphra, polyanthemus or red box, ravertiana grey gum tree or iron gum tree, reduca or white gum tree, resinifera, robusta, rostrata or red gum tree, salmonoplia or salmon-barked gum tree, saligna or white or grey gum tree, salabris or ginnala, wood or fluted gum tree, sideroxylon or wooria or white iron-bark tree, Stuartiana, tereticornis or red gum tree, terminalis or blood-wood tree, tesselaria, virgata or manna gum tree, viregata or stringy bark tree. The useful products to be obtained from these trees are very numerous, and include, in addition to timber and potash, oils, tars, acids, dyes, and tans.

E. globulus has acquired a high reputation for rendering habitable localities which were previously

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the unhealthy seats of malaria. In Algeria and Portugal are valleys which only a few years since were most unhealthy, but which have been rendered salubrious by the planting of some of these trees; while a striking example of their fever-preventing properties is furnished by the re-planting of a deserted cluster of vineyards in the midst of the Ostia, in the Tuscan seaboard, where some thousands of the inhabitants are said to have been cured of yellow fever. — Wallis, p. 389. See Beetles; Insects.

EUCHARIS, a genus of beetles, one of the Lamellioseous, said to have similar habits to its congener Lecanus cervus. Euclirrus longimana, the long-armed chaffer of Ambonya, drinks the sap of the sugar palm. It is a sluggish insect. — Wallace, p. 329. See Beetles; Insects.

EUCHEUMA LUXURIANS. Durien. Afodder grass of Guatemala; has been introduced into Northern India.

EUCRATIDES, a Bactrian king, B.C. 185, who ruled over Bactria, Ariana, Patelian, Syrastrene, Larice, Nisa, Gandharitis, Puekhelots, and Taxila. While still ruling, Antimachus Nicophorus seized part of his dominions, and, after the parricide murder of his Heliocles of Eucratidés, his countries remained in the hands of Antimachus Nicophorus and Apollodotus. The Āryan was held as a character adopted first on the coins of the Greek kings, from Eucratidés down to the barbarian king Hermaeus. Eucratidés was the earliest of the Greek Kings of Bactria, Kabul, and Arya who adopted bilingual inscriptions on his coins. It is supposed he did so consequent on his conquest of the Paropamisus after the annexation of the title of Great King. On his murder by his son Heliocles, his wide dominions are supposed to have been broken into several independent kingdoms. His parricide son ruled for a few years over Bactria and Paropamisus, under the title of Eucratidés B.C. According to Cunningham (Hist. Panj. i. p. 57), Eucratidés invaded India B.C. 165, and annexed the Panjab southwards to Patala, in Sind, the modern Hyderabad, which he destroyed fell to Memander or Apollodotus. A list of kings, he says, had been obtained from recently discovered coins, of Greek origin, bearing Aráyan inscriptions on the reverse, ranging from 150 to 120 B.C., who are supposed, upon good grounds, to have been sovereigns of the Panjab, the valley of the Indus, and Kabul.

— Thomas Prinsep; History of the Panjáb, i. p. 57.

EUDEMOS, a Greek ruler in the Panjab, who, along with Taxiles and Porus, was named by Alexander to succeed Philip, on the murder of the latter by the mercenary soldiery. The Greek colonists in the Panjab had first been placed under Philip, while the civil administration remained in the hands of Taxiles and Porus. After Alexander's death in B.C. 323, Eudemos made himself master of the country by the treacherous assassination of king Porus. A few years later, in B.C. 317, he marched with 3000 infantry and 5000 cavalry and 120 elephants, to the assistance of Eumenes, and did good service at the battle of Gabiene, but during his absence Chandragupta roused the nation, and slaughtered and expelled the Greeks. See Chandragupta.


The male bird is greenish black through and the female is glossy dusky green, spotted with white above. Like the cuckoo, the koil lays its eggs in the nests of other birds. The nest of the seven brothers, the saithi, is selected occasionally, and it is a curious sight to see these social birds unitedly feeding the young koil that has been hatched in their nest. Because the koil's song is especially heard at the season of spring, it is called the friend of love—
EUGENIA CYNTHIACANTHA. 

EUGENIA TRISTIS, Griff., and E. truncata, Griff., Bartam, Malay, palms growing on the hills about Ching, Malacca, and Penang. E. truncata, Griffiths, is a stemless palm, growing in thick tufts, which are surrounded by the debris of the old leaves. Leaves numerous, the outer ones spreading, fifteen to twenty feet in length. It is very common, and in Penang is much used in making mats for sides of houses, for thatch, and for the same purposes as those of Nipa fruiticans.

- Griffiths' Palms.

EUGENIA, a genus of plants named in honour of Prince Eugene of Savoy. It still contains nearly 200 species, though numbers have been removed to the genera Nelitris, Jossinia, Myrcia, Syzygium, Caryophyllus, and Jambosa, in which are now contained the clove-tree, the rose-apple, and jamoon of India, formerly included in Eugenia. This genus is confined to the hot and tropical parts of the world, as Brazil, the West Indies, Islanda, and Sierra Leone, and extends from the Moluccas and Ceylon in the south to Sylhet and the foot of the Himalayas in the north. Some of the species secrete a warm volatile oil in their herbaceous parts, abounding in tannin, yield good wood, and a few have fruits which are edible, though not very agreeable, from being impregnated with the aroma of the oil. Dr. Wight gives, in his Icones, 66 species of the E. Indies; and Duthie and Gamble name 77 species. Dr. Thwaites enumerates several species in Ceylon. The generally accepted names of the species are—

acuminata. 
balibora. 
alternifolia. 
amplexicaulis. 
angusta. 
areolata. 
argentea. 
argyrophylla. 
asclepias. 
hemisphérica. 
Heyneana. 
inophylla. 
jambo. 
Jambolan. 
Javanica. 
Jossinia. 
Khasiana. 
Kerr. 
Kunth. 
lacte. 
lanceolata. 
leucophylla. 
liptosperma. 
Aphyllos. 
microcarpa. 
microserpula. 
Malabaria. 
Malaccensis. 
Malaya. 
Mooreana. 
Moringa. 
Mori. 
Moro. 
Myrtifolia. 
Nerur. 
notabilis. 
obtusifolia. 
occlusa. 
operculata. 
pachyphylla. 
painia. 
Palau. 
polyantha. 
polyphyllos. 
polygaltes. 
ramosa. 
revoluta. 
Rottleri. 
rubens. 
rubinioda. 
rubricaulis. 
Sangampanniana. 
Sass. 
Scoil. 
tetragyna. 
thum. 
todda. 
tristis. 
venusta. 
Wall. 
Walthia. 
Wynandia. 
Zeylanica. 

EUGENIA ALTERRIFOLIA. 

EUGENIA CARYOPHYLLATTA. Thu. 

Caryophyllus aromaticus. 
Myrtus caryophyllus, S. 
Lavanga. 
E. caryophyllus, tab. 294. 
E. multiflorus. 
E. nucifera. 
E. caryophyllifolia, Lam., Wight Icones, 553. 

EUGENIA JAMBOLANA. 

Lam., Rox. 

E. fruticosus, tab. 294. 
E. nucifera. 
E. caryophyllifolia, Lam., Wight Icones, 553. 

EUGENIA JAMBOLOANA. 

Lam., Roxb., W. Ic. 

The clove tree of the Moluccas, cultivated in Ceylon, the Malay Peninsula, in the south of India, in Travancore, also in Mauritius and Bourbon. The clove (laung karanful) of commerce are the unopened flowers, the flower-buds. It is hardly found on the Bombay side north of the Savitree. South of that river it is found only in Resses or greenwood jungles, and about temples. The wood appears quite equal to that of the common jambul, the Eugenia jambolana.—Roxb.; Gibson; Voigt.

EUGENIA CARYOPHYLLIFOLIA. 

Roxb. 

Calyptranthes caryophyllifolia, Ains. 

Chote jam, 
Beng. 
Nawal maram, 
Tam. 
Thab-yeh-ga. 
Birm. 
Neredu manu, 
Naradil Vriha. 
TAN. 

It is a native of various parts of India, growing luxuriantly in almost every soil and situation. Flowering time the hot season; bears a round berry, black when ripe, the size of a pea. The wood is very strong, close-grained, hard, and durable.—Roxb.

EUGENIA CYLINDRICA. 

W. Ic. 

Jambosa cynthia, Thu. 

In flower, a middling-sized Ceylon tree, section Jambosa, very beautiful, at 3000 feet elevation.—Beedle.

EUGENIA FLOCCOSA. 

Bedd. 

This is a good-sized and most beautiful tree, section Eugenia, very common in the dense moist woods on the South Tinnevelly ghat above Calcut, at 3000 to 4000 feet elevation, flowering in August and September.—Beed. Flor. Syl.

EUGENIA FORMOSA. 

Wall. 

An evergreen moderate-sized tree of the Sub-Himalaya and Tenasserim, with very handsome large flowers and large fruit.—Wall.

EUGENIA HEMISPHERICA. 

W. Ic. 

A very handsome, large tree, is common in the mountain forests from South Canara down to Cape Comorin at about 3000 feet elevation; is abundant in Coorg, the Animalays, and Tinnevelly ghat, and is also found in Ceylon up to 4000 feet. The timber is used for a variety of purposes.—Beddome.

EUGENIA JAMBOLANA. 

Lam., Roxb. 

Syzygium jambolana, D. C., W. I., W. Ill., W. and A. C. s. caryophyllifolium, D. C. 
Eugenia caryophyllifolia, Lam. 
Calyptranthes jambolana, Wildc. 
C. caryophyllifolia, Wildc. 
Myrtus cuminii, Linn. 

Kalo jam, 
Beng. 
Kotti nagar maram, Tam. 
Rajamun, Jambool, Hind. 
Pula, Neredu, Naranagull, Tam. 
Pera-nagal, Sina-nagal, Tam. 

It grows in Coimbatore, Ganjam, Gumsur, Bengal, and Kamaon. About Madras this tree is generally much destroyed by the carpenter bee. Dr. Gibson says the wood makes excellent beams, but on account, probably, of its brittleness, is never cut up for cabinet purposes. The bark affords a large supply of a kino extract.—Dr. Wight, Gibson, Voigt, Claybro; Captain Macdonald.

EUGENIA JAMBOLANA. 

Lam., Roxb., W. Ic. 

E. fruticosus, tab. 294. 
E. nucifera. 
E. caryophyllifolia, Lam., Wight Icones, 553. 

Syzygium jambolana, D. C. iii. 259. 

Jambool, 
Beng. 
Maddan, 
Sing. 
Narala, 
Can. 
Nawal, Nawar, 
Tam. 
Jamun, 
Hind. 
Naregar, 
Tel. 

This large and beautiful tree is found almost everywhere throughout the plains of India, whereas most of the other species affect the mountains. It is much planted in trees and avenues in the Madras Presidency, but it ascends the mountains to 4000
or rarely 5000 feet elevation. It is also indigenous in the Archipelago and in Australia. The bark is strongly astringent, and dyers excellent durable brown, and it yields an extract like the gum kino. The jaman fruit is eaten; and that from some of the larger fruiting varieties (when it is as large as a cherry, or much larger) is very agreeable. The fruit of the very small fruiting variety (E. caryophyllifolia, Lam.) is not eaten, and is not larger than a pea.—Beddome, p. 197.

EUONYMUS MALABARICA, Bedd., is very common in the Wynn in Malabar, at 2000 to 4500 feet elevation, generally in swampy places, and also occurs in the Animalias.—Bedd. Fl. Sylc.

EUONYMUS ZEYLANICA. Wight, Ill.


This tree is of the Aecema section of Eugenia. It is common on the South Tinnevelly mountains up to 3500 feet, where it generally affects beds of rivers, and in Ceylon, where it is called morang; it is very beautiful when in full flower.—Bedd. Fl. Sylc. p. 262.

EU-HO, called also the Yun-lian-ho, a river of China, a tributary of the Pei-ho river. At the junction is the town of Tien-taing-fu, a place of great trade.

EUOPHIA CAMPESTRIS, Lindley, is found in Oudh, Rohilkhand, in the Siwaliks of the Gangetic Doab, and in low land by the Ravi, close to Lahore. E. herbacea, Lindley, occurs in Southern India and the Outer Himalaya, near the Jumna; and E. vera, Royle, occurs near the Jhelum river, in the Panjub, Himalaya. The tubers of all three are used as selap.—Dr. J. L. Stewart.

EUOPHIA VIRENS. R. Br.

Limodorum virens, Roxb.

Khassiat us Salih, ARAB. Goru chettu gadda, Tel. Whitlow root, _Eng_. Raye duru dumpa, Sake; Salep misri, _Tel_. Orka, Sataryum, YUNAN. Verdularu gadda, _Tel_. Turphylla, . . .

The tubers form part of the saleb misri or salep of commerce. Most of the rhizomata of the family Orchidaceae yield starch in a peculiar form, and are used under the name of salep as an article of diet. The same use is made of the rhizomata of the species of Eulophia.—_Lindley; Birdseed; Hoggy; Voigt, 629._

EUMETA CRAMERII. Westc.

Sack trager, _Ger_. Kundi puchi, _Tam_. Dalmo-kattea, _SINGH_. Muluka rasari, _Tel_.

This is one of the wood moth’s or wood carriers of Ceylon. The insect gathers a bundle of thorns or twigs about it, binds them together by threads so as to form a case. The male, at the close of the pupal rest, escapes from one end of the case, but to the females it is a covering for life. Another species is _E. Templetonii._—_Tennent’s Ceylon._

EUNUCH.

Eunique, . . . _Fr_. Eunusco, . . . _Sp_. Verechitstiane, _Ger_. Khadam, . . . TURK. Khajah, Khoja, _HIND_.

Eunuchs are employed in the households of the Mahomedans and Hindus of Egypt, Persia, Arabia, India, and China. We learn from Herodotus (lib. 6) that the Persians in remote times were waited upon by eunuchs, and some attribute to them their introduction. Ammianus Marcellinus (lib. 14) ascribes the origin to Semiramis. Burton says that they are unknown in Arabia at the time of Mahomed; but in the chapter of the Koran on Nur or Light, men who have no need of women are spoken of as persons before whom women may appear; the learned, however, do not agree as to who these were there meant. Burton also (Pilgrimage, ii. 74 to 155) mentions eunuchs coming to the prophet’s tomb. Nearly all the slave-hunters in Abyssinia, when they catch a young lad, mutilate him completely, and send them over to Mecca; and lads are still said to be mutilated in Rajputana and in Aurangabad. Dr. Wolff (Bokbara, vi. p. 217) mentions that in his time several of the eunuchs were married to several wives, and he instances Manujar Khan, the governor of Isfahan; others of them have wives. Sir John Malcolm had known only two or three instances of eunuchs being employed in situations of trust during the reign of the king of Persia, to whom he went as ambassador. He, however, observed that they were treated with uncommon attention and deference. In Hyderabad, in the Dekhan, eunuchs are few. Eunuchs in India have the title of Agha, also of Khajah, or Khojah. The eunuchs employed in the imperial harem of China sometimes rise to positions of eminence.—_Malcolm’s Persia_, ii. p. 438, 155, n.; _Burton’s Mecca_, iii. p. 408.

EUONYMUS, a genus of plants belonging to the natural order Celastraceae. About thirty species, mostly small trees, are known to occur, in the south and east of Asia. _E. cinnabaris_ of Nepal is a shrub or climber. _E. glaber_ occurs in Chittagong; _E. grandiflorus_, and _E. Hamiltonianus, Wall._, in the Dehra Doon; _E. grossus_ in Nepal; _E. dioctotonus_; _E. Goughii_, and _E. acutangulus_, in the Peninsula. In Japan are _E. japonicus_, _Sieboldianus_, _Thunbergianus_, _subfruticosus_, _Hamiltonianus_, _latifolius_, _Roxb.; Voigt._

EUONYMUS CRENULATUS. Wall. A small tree, common on the Neighberges, Pulneys, and higher parts of Western Ghats of the Madras Presidency. The wood is white, very hard and close-grained, and answers for wood engraving, and is about the best substitute for boxwood in the Madras Presidency; the wood of the other species is very similar.—_Beddome, Fl. Sylc._

EUONYMUS FIMBRIATA.

Saki, Sikh, Papar, HIND. | Bar-phuli, Batal. | HIND.

Wood hard and useful; it is beautifully smooth and white.

EUONYMUS GARCINIFOLIA. Roxb. i. 628.

Nooce of. | NEPAL | Mori of. | STILLET.

A small tree, growing near the Bombay ghats in the upper country to the south. It seems to be often cultivated in Canara, on account of its straightness, as applicable for house rafters. It does not reach a size sufficient to fit it for general purposes.—_Beddome._

EUONYMUS JAPONICUS, the Tu-chung and Muh-mien of the Chinese. It grows in Honan, Shen-si, and Shan-si. The leaves are eaten when young; fruit is astringent; wood used for making pattens. On breaking the bark, a delicate, silvery, silky fibre is seen.—_Smith._

EUONYMUS REVOLUTUS. Wight, Ill. A middle-sized tree of Nawara and other very elevated parts of Ceylon.—_The._

EUONYMUS TINGENS. Wall. The bark in the inside is of a fine yellow colour, similar to that of rhamnus. It is used to mark the tika on the forehead of the Hindus, and is considered by the natives to be useful in diseases of the eye.—_Rogly; O’Sh._
EUPATORIUM TRIPLINEERVE.

EUPATORIUM TRIPLINEERVE. Vahl.
E. ayapanasc, Vent. | E. aromaticum.

Ayapana, | BENG., HIND.

The dried leaves and twigs are used in medicine. An infusion is a very agreeable diaphoretic and mild tonic, and is a favourite remedy among the native practitioners. There are several exotic species, E. Guaco, E. odoratum, E. perfoliatum, and E. rotundifolium, or bone-set, is possessed of greater bitterness and less aroma than E. triplinerve, and is stated to be employed with much success as an antipertussive in the intermittent fevers of the United States of America.—O'Sh.

EUPHORBIACEAE, the Euphorbium tribe of plants, consists of trees, shrubs, or herbs, many of them abounding in an acrid juice. The number of species has been estimated at 1500, and Dr. Roxburgh describes 120 in India. The general property of this order is that of exciting, varying in degree from mere stimulants to the most dangerous poisons. The application of heat is sufficient to destroy the stimulating principle, as seen in the instance of the Jatropha manihot or cassava, which when raw is poisonous, but when roasted becomes a nutritious article of food. A caoutchouc, tursoil, and farliyun are useful products of the order. The more important genera in the East Indies are agynes, aleurites, acalypa, Bridelia, buxus, cercidostachys, coca, clauscia, croxophora, croton, codicium, cumbica, claconia, excocca, euphorbia, flugaea, glochidion, hura, jannipa, jathropa, macaranga, phyllanthus, plute- netia, poincetia, rotteria, ricinus, saphin, stipul- lingia, siphon, sarccococa, stylosicus, xylophylla. Williams says (Middle Kingdom, p. 107) that in China a strong oil is derived from the seeds of two or three plants belonging to the euphorbiaceaus family, for mixing with paint, smearing boats, etc. Voigt enumerates 31 species of Euphorbiium as known in India, viz.:
aculs. | ligularia.
antiquorum. | linearis.
arboreascens. | lophogona.
bojera. | maculata.
buplerfia. | mellifera.
chamaseyce. | nivula.
dracunculoides. | parviflora.
exigua. | peltata.
hirta. | pieta.
hoyafolia. | pieta.
lactea. | uniflora.

In February and March, women are to be seen wherever the milk-bush prevail. They apply the milk to their bodies and limbs, and then stick the places over with tufts of raw cotton. It produces a hot and slightly prickly feeling, and a small degree of blistering. It is considered good for the health, and is supposed to ensure fecundity. The exhibitions seen at this season, in applying the milk, are often indicative in the extreme. The Euphorbiurn plant is sacred with the Kachari. It is the represeatation of their goal Batho, and is worshipped by them.
The gum euphorbiurn plant of Morocco is the E. resinifera. The juice issues from incisions made with a knife. The people who collect the gum tie a cloth over their mouth and nostrils, as the small dusty particles produce incessant sneezing. The branches are used by the tanners, and to it probably the morocco leather owes its reputed pre-emience. Iron coated with the juice of some of the euphorbium does not rust, even though long immersed in water. To this end the gum is dissolved in spirits, and applied as a coating for ships' bottoms, and for ironwork generally, the spirits evaporating, and the gum being left on the surface of the metal. The composition has also been successfully tested in Africa against the ravages of the white ant.

EUPHORBIA ANTIQUORUM. Linn.

Eup. saj. | BENG., Tharu.
Nara sa. | HIND.
Shadra kalli, | MALAI.
Triangular spurge, | ENG., Shadre kalli,|

Euphorbia antiquorum. A common plant in the south of Asia. The inapposited milky juice of this species is said, in common with that of other succulent euphorbias, to produce the drug euphorbium. In India this is mixed with sesamum seed oil, and used externally in rheumatic affections, and internally in cases of obstructive constipation. It is worshipped by Hindus as Manusa, the serpent goddess.—Roxb.; Atinile.

EUPHORBIA CANARIENSIS. Linn.

Eup. saj. | BENG., Tharu.
Sudusudu, | MALAI.
Firfyoon, | Furbinne.,
Shia-dao, | MOCCOBO.
Sheer-darakh-zekoone, | ENG.
Canary spurge, | Pers.

In the Canaries, on volcanic soil, this and E. laphylla form great bushes, with arms like candelabras.

EUPHORBIA CATTIMANDU. W. Ell.

Eup. saj. | BENG., Tel.; Kattimandu, |

Euphorbia cattimandu. In Telugu, literally 'knife medicine,' because used to fix knives in wooden handles. The juice of this plant is used in Telugunga in cementing iron with other substances. At the Madras Exhibition of 1855, Mr. Elliot exhibited a basin, ewer, and tumbler made of cattimandu gum, moulded with the hand, without any preparation. The fresh juice is used as a vesicant.

EUPHORBIA CHAMESYCE. Linn.

Eup. saj. | BENG., Shek young.

Euphorbia chamesyce. Ti-kin, | CHIN. | Tsolbh-ri-nge-tan.,
Grows in Ch'uh-chau in Nган-lwu in China. Juice purgative; also applied externally in skin diseases.—Smith.

EUPHORBIA LATHYRIS.

Eup. saj. | BENG., Sudab.

Euphorbia lathyris. Spurage, | HIND.
Caper spurge, | Eng.

The seed of this euphorbium contains yellow fixed oil, stearine, acid brown oil, crystalline matter, brown resin, an extractive colouring matter, and vegetable albumen. The seeds purge, and cause violent vomiting; they are used in dropsy.—O'Sh. p. 565; Powell, i, p. 376.

EUPHORBIA LIGULARIA. Roeb.

Eup. saj. | BENG., Sha young.

Euphorbia ligularia. A plant sacred to Mums or Manusa, the goddess of serpents. The root, mixed with black pepper, is employed for the cure of snake-bites, both internally and externally.—Roxb. ii, 465; O'Sh.

EUPHORBIA LUNULATA. Smith.

Eup. saj. | CHIN. | Miu-yen-tau.

Euphorbia lunulata. Tsch-tsib., | CHIN.
This is called cat's-eye euphorbium. Its young shoots are edible; used also like E. chamesyce.—Smith.

EUPHORBIA NIVULIA. Buch, W. Ic.

E. mellefolia, Linn., Roeb., Rheede.

Euphorbia nivulia. A plant sacred to Muns or Manusa, the goddess of serpents. The root, mixed with black pepper, is employed for the cure of snake-bites, both internally and externally.—Roxb. ii, 465; O'Sh.

EUPHORBIA NIVULIA. Buch, W. Ic.

E. mellefolia, Linn., Roeb., Rheede.

Pattan, Pat, Sj., Eng. | Elle kalli,|

Euphorbia nivulia. Branches round; juice used by the natives as a
purgative; externally, mixed with nimmer oil, as a stimulant in rheumatism and contracted limbs; leaves diuretic. Grows all over the rocky parts of the Dehkan. Abundant over all the hills within some miles of Ajmir. It has a whitish, dead appearance, except during the rains, and forms a capital fence round fields. etc.—I. E. Stewart, M.D.

EUPHORIA ROYLEANA. Bois. Shakarpitan, Hind. Grows wild in the Siwalick tract; is used as a hedge plant, growing on a dry rock. By boiling down the juice of this euphorbia, adding dates, and again boiling and skimming, a gutta-percha-like material was obtained, better fitted for cementing iron than that from the Ficus indicus or F. religiosa, etc.—J. E. Stuart, M.D.


This little annual plant is common in the south of Asia. Its juice and flowers are purgative, and given in worms. — Rozz. O'Sh. Honig.


Natives of India suspend in their houses a few branches of the milk-hedge to attract flies. On the Bombay side it is used as a dammage material for the flat roofs of houses. The root of old shrubs is adapted for gun-stocks, but plants of sufficient age are seldom met with. On the Godavery it grows to a tree, and the wood seems hard, but is not used there. The plant is much used for hedges. It grows best either upon a bank, or wall of large stones laid loosely for the purpose, having a good cover of earth upon it. Any cuttings will grow, and the plant, if by itself, will attain the height of 20 feet or more. The wood makes the best charcoal for gunpowder. A parasite of it is to be seen in large white, and leafless (the Cassity filiformis), is very destructive to it, and will totally destroy a tree or a whole hedge in a short time, if not removed. The milk, mixed with flour, in doses of a drachm daily, is used to bolster, an Indian specific in syphilis. The inspissated milk is a violent emetic and purgative.—Rozz. O'Sh. Wight. RiddeI.


A concrete gum-resin, obtained from Euphorbia Canariensis of N. Africa and the Canaries, E. officinarum of Arabia and Africa, E. antiquorum of Arabia and India, and E. tetragona. That found in the Indian bazaars is from E. antiquorum and other species. King Juba of Mauritania is said to have called it after his physician, Euphorbus.

EUPHORIA LONGANA. Rozb, Lam.

Seytale longana, Rozl. Nephelium longanum, Comb.


A rather large, handsome tree, common in Ceylon in all the jungles, up to 3000 feet, on the west side of the Madras Presidency, in South Canara, the Animallays, Timneckley mountains, the Sivagerry Hills, Courtallum, in Mysore, Bombay, Eastern Bengal, and China. The wood is said to be hard, close-grained, and white, and worth attention. The succulent aril of the seed is an agreeable acid, and something like the Litchi. As a genus it should not, Col. Beddome thinks, be kept distinct from Nephelium.—Bedd. Pl. Syu.

EUPHORIASIA OFFICINALIS, euphrasy, eye-bright, a native of the heaths and pastures of Europe, of the Himalaya, Kashmir, and all the north of Asia. It is a pretty plant, slightly bitter and aromatic; once celebrated as an application to weak eyes, but now seldom or never employed.—O'Sh. Hogg. Honig.

EUPHRATES, in Arabic and Persian Forat or Forath, in the Hebrew language Pethah or Phrath, words which mean to frustrate or to fertilize. The elevated plateau which extends from the base of Mount Ararat into Northern Armenia, Kurdistan, and part of Asia Minor, contains the sources of four noble rivers, having their estuaries in three different seas. One of these, the Euphrates, rising near the shores of the Black Sea, and in its course to the Persian Gulf almost skirting those of the Mediterranean, at one time formed the principal link connecting Europe commercially with the East. It has two great sources in the Armenian mountains, and the most northern of these sources is situated in the Anti-Taurus, 25 miles N.E. of Erzerum. The branch from thence takes at first a westerly direction, and, after passing through 8 miles of the capital of Armenia, is joined by two small feeders. Its first large tributary, however, is the Mahmah Khatum, which runs into it down the plain of Tejran. From hence the river, which is now a considerable stream, known by the name of the Kara Su, makes a circuit, winding through the mountains and over rapids, into the plain of Erzinger, through which it flows in the same general direction, close to the town of that name. At Erzinger it is fordable only at a few places even in the dry season. As it nears the ancient Hit, with its bituminous fountains, the stream has an average width of 350 yards with a depth of 16 feet, and a current of three knots per hour in the season of the floods, when there are fourteen islands, on some of which are small towns. About 70 miles lower down is the modern castle of Fulujia, situated 220 miles W. 2° N. of Beyhadh. The average width in this part of the river decreases a little, being only about 250 yards, with an ordinary depth of 20 feet; and there is a current of less than 24 miles per hour in the flood season, when the river forms thirteen islands without wood. About Fulujia, at 54 miles N. 60° W. from it, the deviation, or channel, called the Saklawyeh, takes place; this stream crosses Mesopotamia by a tortuous eastern course on the north side of Akar Kuf, and enters the Tigris at a point 5 miles below Baghdad, but, until altered by Daud Pasha to avoid the danger of inundations, it joined the Tigris a little above the city. The distance from river to river (by the course of the Euphrates steamer, in passing, under Lieut. Lynch, in 1838) is about 45 miles. Near the junction of the Euphrates and Tigris in lat. 31° N. and long. 47° E., after a course of 390 miles,
EUPHRAITES.

is the walled town of Kurnah, containing about 800 houses, disposed along the right bank of the Tigris and the left of that of the Euphrates. The Euphrates and Tigris from this form one tidal channel, almost half a mile wide, and which takes nearly a straight course S. 37° E., under the well-known appellation of Shat-el-Arab, and when 5 miles beyond Kurnah, their united waters receive those of the Kerah or Kerkhah, which, coming from the mountains of Ardelan through an extensive tract of country, passes a short distance westward of the ruins of Susa, and likewise of the town of Hawizah. After receiving this accession, the Shat-el-Arab flows through date groves and near several villages, chiefly on the left bank, and at length arrives opposite Basrah, which is 39½ miles by the river, and 36 miles S. 34° E. direct from Kurnah. Basrah is built on both sides of a creek or canal, and contains about 6000 houses, which commence nearly at the edge of the main stream, and on its right bank. Below the city, this majestic river sweeps a little more to the eastward; its width is about 700 yards, its ordinary depth 30 feet, and it forms three large islands between this place and the small town of Mohamarah, that is, within a distance of 22½ miles by water, or 24½ miles direct S. 70° E. Here the Karun enters it, after a long course from the Koh-i-zard, through Shushtar, Ahwaz, and other places. After this great accession to its waters, the Shat-el-Arab inclines a little more towards the south. During the remainder of its course it passes many large villages, and almost continuous belts of date groves, and at length it reaches the sea, which at the bar is 40 miles from Mohamarah. Between this last place and the sea its average width is 1200 yards, and its ordinary depth 30 feet.

The permanent flooding of the Euphrates is caused by the melting of the snow in the mountains along the upper part of its course. This takes place about the beginning of March, and it increases gradually up to the time of barley harvest, or about the last days in May, when it is usually at its greatest height. The river continues high, and its course very rapid, for 30 or 40 days; but afterwards there is a daily decrease, which becomes very rapid towards the autumn. From the middle of September to the middle of October the river is at the lowest. Lieut. Rennie found the quantity of water discharged by the Euphrates at Hit to be 72,804 cubic feet per second; and the quantity discharged by the Tigris at Baghdad to be 164,103 cubic feet.

The Euphrates and Tigris valleys are considerable strips of good land, hemmed in closely by a barren desert. They have long ceased to lie on the track of commerce. They contain no place of importance, with the exception of the pilgrim shrines of Kerbela and Meshed All, and the decayed city of Baghdad, and a few villages, depending for their subsistence on the date palm, the disforesting of the hills in the upper part of their course having rendered both the Tigris and the Euphrates subject to sudden freshets, which overflow the bank and wreck the labours of the husbandman. For 150 miles the latter river passes through a barren desert, succeeded by unprofitable marshes, while the Tigris from Mosul to Baghdad boasts but three inconsiderable villages, and from Baghdad to Busora about six. Iraq, the ancient Babylonia, is now either a swamp, or an unproductive desert covered with reh, the result of over-irrigation in ancient days. Owing to rapid alternations of flood and drought, this vast plain, once so fertile, is neither habitable nor cultivable at the present day. The great irrigation works constructed by captives have fallen into ruin, and the miserable Arab population that now does the work of Iraq, is useless for any kind of sustained labour. So late as the 12th century, Upper Mesopotamia contained several flourishing towns, dependent, however, for their existence on the traffic between Eastern Asia and Europe. As trade declined, these different stations gradually disappeared, and, under the terrible effects of Mongol and Othoman conquests, Western Asia was rapidly depopulated, and reduced to its present condition. South-Western Persia is at present destitute even of nomadic and pastoral tribes, with the single exception of a tract of cultivated land lying between Dizful and Shushtar, and another between Dilam and Bushire. Nevertheless the region will ever be of interest. The valley of the Euphrates and Tigris is the home of man's earliest traditions; and Babylon was on the Euphrates, Nineveh on the Tigris. The Euphrates was crossed by Abraham. The crossing of the Tigris, the passage of which is noticed as Heber (Ether), occurred p. 165, in 5000, subsequent to Nimrud. The mountainous lands at the sources of this river formed the primeval seat of the Semitic races (Bun. iii. pp. 413-460). The western side of the Euphrates, and stretching towards Feliuja, is a tract pregnant with interest; for between the last-named place and the bitumen springs of Hit, the battle of Cunaxa was fought, in which the younger Cyrus lost his life, and whence Xenophon made a retreat more brilliant than victory.—Mignan's Travels, pp. 254, 326; Porter's Travels, ii. p. 252; Skinner's Journey, ii. p. 185.

EUPLEIA MIDAMUS, a very beautiful butterfly of the Malay Archipelago. It is exactly mimicked by two rare papilios (P. paradoxus and P. xenigma). The even more beautiful E. rhadamantia, with its pure white bands and spots on a ground of glossy blue and black, is reproduced in the Papilio camaus.

EUPLECTELLA ASPERGLIUM, a superb sponge found in Japan, the Moluccas, and Philippine Islands. The strangest, as well as the most beautiful, inhabitants of the deep-sea ooze are the glassy sponges, in which the skeleton is composed not of horny fibres, as in the sponges of our dressing-rooms, but of flexible flint, often more delicate than the finest spun glass. The best known of these is this Venus's flower-basket, or Euplectella, which lives embedded in the mud of the seas of the Philippines, supported by a glass frill standing up round it like a Queen Elizabeth's ruff. In Europe it may be now bought into curiosity shop, and is one of the most exquisite, both in form and texture, of all natural objects; it is often seen as a drawing-room ornament.

EUPODOTIS EDWARDSII. Gray.


This noble bird is 4½ to 5 feet long, and extent
EURYALE FERROX. Salis.  
Nymphasatellata, Wildde. | Annenea spinosa, Roxb.  
Machana, Machana, Hind. | Nallani padman, tel.  
A water-lily with a small bluish purple flower, covered everywhere with prickles, and so closely allied to Victoria regia as to be scarcely generically distinguishable from it. It grows in all S.E. Asia and in Japan. The discoverer of Victoria called the latter Euryale Amazonica, and these interesting plants grew side by side in the new Victoria house at Kew; but the Chinese species has been erroneously considered different from the Indian one. In China the plant is said to have been in cultivation for upwards of 3000 years. It is much cultivated there for its stems, rhizomes, and seeds, all of which contain much starch, and are eaten by the Chinese, who also prepare a kind of dry biscuit, called kien-shih-kau, from the meal of the kernels. These biscuits are sold by confectioners, and given to children suffering from the kau disease. The fruit is large, of the size of a small orange, pear-shaped, and indescent; its interior is white, hard, and starchy, and contains from 8 to 15 round black seeds as large as peas, which are full of flour, and are eaten roasted in India. This plant is common in the lake of Kashmir. Its broad round leaf lies on the water like that of the lotus, its under surface being covered with numerous hard, sharp, and hooked spicules. — Mrs. Hervey, Tartary; Royle, Him. Bot. p. 65; Hooker, ii. 255; Thu; Voigt; Smith.  
EURYANGIUM SUMBUL. Kaufman. A plant of Central Asia; yields the true sambul or musk root.

EURYCLIS AMBOINENSIS. Salis.  
Copa sylvestris, Rumph. | Pancratium Ambienense, L.  
Crinum nervosum, L. Her. | Prophyis Ambienensis,  
La-men; Nemen, . . . | Burn. 
This plant, one of the commonest of the Eastern lilies, is peculiar to Madagascar, and from its generic name has been called Bunga Si-kudup. By the Dyaks of the southern branch of the Sarawak river, amongst whom it is held in great esteem, by the Si-boysah sea Dyaks it is called Si-kenyang. By the Dyaks of the southern river the bulbous roots of this plant are preserved with jealous care, being always taken up when the rice is ripe, and preserved amongst it in the

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EUSUFZAI.

granaries, to be planted again with the seed—rice in the following season. It bears a beautiful crown of white and fragrant flowers, which rise about a foot above the bulb.—Louv's Narasimuck, pp. 273-304: Mason.

EUSUFZAI, an Afghan tribe whose territory is bounded on the E. by the Indus, N. and E. by the Swat mountains, and W. by the Kâbul river and the Mehrâ or desert plateau between it and Hushanggur. The tract is intersected on the E. by oaks from the Swat mountains, but in other parts it is a perfect plain. The inhabitants are proud, warlike, and extremely sensitive in all matters connected with family custom. In the Peshawar district the Eusufzai are of political importance. As soldiers, they are not inferior to any of the independent tribes. They are the most martial of all the British subjects on that frontier, and the history of many generations attests their military exploits. Partieipators in every war that has convulsed the Peshawar valley, and always the rauous subjects of the Sikhs, they have now literally turned their swords into ploughshares, and are right good subjects of the British. Their customs have been respected, the allowances of the chief and their village headmen have been confirmed. Though constantly tempted with the Swat government to rebel, they only gave yield to temptation. At the battle of Tere, which gave the sovereignty to Peshawar to the Sikh, the Eusufzai formed the strength of the Mahomedan army, which, numbering 30,000 men, withstood a Sikh force of equal numbers, supported by guns and headed by Ranjit Singh himself. The Eusufzai are democratic and in small communities, with patriarchal government. They are agricultural, lying in warm and fertile valleys, touching the Indus on one side and the Punjorka on the other, extending on the south to Kâbul, occupying the northern part of the plain of Peshawar, Bunir, Swat, Punjorka, and Chumla. The Swat, Bunir, Punjorka, and the Eusufzai part of the Kâbul valley, are the lands of the Akkozai, the Mulzezi, and the Lawezai. The clans of the Eusufzai and Mahmudzai have a system of periodic interchange of lands, called Waish. The usual government of the Eusufzai are the Brahman at from 700,000 to 900,000 souls, and are of Afghan, Indian, and Kashmir blood, with the old occupants of the land, the Dehkanie and Swati. Many Eusufzai have fair complexions, grey eyes, and red beards; are stout and brave, quarrelsome and proud, and those in the plains are very immoral.

The Eusufzai were expelled from Garra and Nushky about the end of the 13th or beginning of the 14th century of the Christian era, and soon after settled in the neighbourhood of Kâbul. Ulugh Beg, whose power was at that time strengthened by the accession of many Moghuls, to rid himself of his troublesome allies, began by fomenting dissensions between the Eusufzai and Gugggeeani (for the Khukki has been broken into independent clans), and he soon after attacked them at the head of that tribe and his own army. He was defeated at first, but, having cut off all the chieftains of the tribe at a banquet, during an insidious peace which he had the art to conclude with them, he plundered the Eusufzai of all their possessions, and drove them out of Kâbul. The Eusufzai, reduced to extreme distress, took the way to the neighbourhood of Peshawar. That country was then in a very different state from that in which it is at present. The tribes who now possess it were then in Khorasan; and the plain of Peshawar, with several of the neighbouring countries, was occupied by tribes which have since either entirely disappeared, or have changed their seats. Lachmann was in the hands of the Turko-Pathan, who are now in Bâgour; the tribes of Khaibar and the Bungush had already occupied the present lands, but all the lower part of the valley of Kâbul, the plain of Peshawar, with part of Bajour, Chuch, Hazareine, and the countries east of them as far as the Hydaspes, belonged to the Afghan tribe of Dilkazak, which is now almost extinct. The country between the Dilazak and the range of the Hindu Kush, on both sides of the Indus, formed the kingdom of Swat, which was inhabited by a distinct nation, and ruled by sultan Oveiss, whose ancestors had long reigned over that country. On the first arrival of the Eusufzai, they threw themselves on the generosity of the Dilazak, who assigned them the Doabeh for their residence.

Living among a conquered people, like Spartans among Helots, and enjoying entire independence on all around, every Eusufzai is filled with the idea of his own dignity and importance. Their pride appears in the gravity of their manners, and in the high terms in which they speak of themselves and their tribe, not allowing even the Daurani to be their equals.—Elph. Caboul; Rec. Gort. Ind., No. ii. Parl. Pap. E. I., Cabool and Afg. Suyh.

EUTHYDEMUS has been noticed at p. 222, Bactria. He led the Syrian army through Bactria, i.e. by the route N. of the mountains, to the Kâbul valley and across the Indus, in B.C. 206. There Antiochus made peace with Sophagassenus (Asoka), which that sovereign recorded by edicts on rocks and pillars in various parts of India, in characters exactly resembling those on the coins of Agathocles. In B.C. 205, Antiochus returned by way of Arachotia. The translation of the edicts of Asoka is in the Asiatic Society’s Journal for 1838, and that on the Ginnar rock names Antiochia as Antioch and Asoka as Asoka. son of Euthydemus, obtained possession of Arachotia, and a large portion of Persia; he also made conquests in India, and was in possession not only of Lower Sird, but also of the coast of India, further to the east. He seems, however, to have been excluded from Bactria, of which Eucratides remained master. After the death of Euthydemus, Demetrius made an unsuccessful attempt to dispossess his rival, and in the end lost all his Indian conquests, which were seized by Eucratides.

—Elph. p. 245.

EYAPORATION.

M. Lamanieres mentions that the engineers in the Madras Presidency allow for a large rate of water in irrigation by evaporation, of 3 inches daily per square yard of land irrigated. In the Red Hill tank, near Madras, in the five months April to August the water went down 75 inches, in spite of 8 inches of rain, in all 83 inches. Of that, 53 inches were lost by evaporation, and 30 inches used in irrigation. In the years 1864-65, in the same months, at Pondicherry, the mean daily evaporation was 0.329 inch; at Red Hill tank, Madras, in the tank, 0.374, and in the open, 0.469. The depth of the waters, the prevalence of dry winds, and the degree of tree shelter for the waters, exercise great influence over the rates of evaporation. It
EVE.

The evil eye alluded to in Proverbs xxviii. 22 and Mark vii. 22, is still a subject of dread in all Eastern countries, as well as in many of those of Europe. The Irish and Scotch as much believe that their cattle are subject to an injury from the blight of the evil eye, as did Virgil's shepherd when he exclaims, Nescio quis teneor occlusus miliati fascinae agnos. The Greeks of the present day entertain the same horror of their Kako mazi as did their ancestors in their Baskanos ophthalmos, and the Mal occhio of modern Italy is the traditional fascinatio of the Romans. Mr. Buckingham relates that, when in Persia, being ill, his companions attributed his sickness to the ill-wishes of a malignant enemy; to remove which, a fakir took some rags from his body and deposited them in the new-made graves of some holy personages, believing that they thus acquired a virtue potent enough to dispel the supposed evil influence. The Arabians and Turks believe in it, and apologise for the profusion of jewels with which they decorate their children, on the plea that they are intended to draw aside the evil eye. The Mahomedans suspend objects from the ceilings of their apartments for the same purpose; and the Singhalese and Hindus place whitened chatties on the gable ends of their houses and in fields, to divert the mysterious influence from their dwellings and crops. The Mahomedans hang round their children's necks, and suspend in their houses, or place over the lintels of their doors, charms consisting of verses of the Koran, which are inscribed by holy men, or incantations by pretended exorcists, written on paper, or engraved on potstone, silver or gold, to guard against the evil eye. And Hindus resort to their temples to make offerings to their deities for the same object. Hindus and Mahomedans alike think that jewels on children tend to attract on the jewels the evil eye. Hindu mothers, when they suspect that the evil eye has fallen on their child from home, on returning to their house, take some chillies and salt in their hands, and describe a circle round the infant's head, and thereafter place the chillies and salt in a well or in the fire, to destroy the evil eye and its charm together. Pretending exorcists, both men and women, also exorcise those blighted with the evil eye, by reciting a charm over cow-dung ashes, and rubbing it on the forehead and body of the child. In Italy, Pope Pius ix. is supposed to have had the evil eye. Popular superstition has generally divided them into two classes,— those who involuntarily and innocently possess the fatal power, and are unconscious of its exercise, and those who knowingly acquire it, and take a delight in exercising it against all who offend them. The maleficent power has been known by several English words. It is to 'eye-bite,' to 'overlook,' and to 'take.' The French and Italians simply call it fascination in the evil sense of the word; the Germans, the Scheelenauge, or squint-eye, ascribing the power to a squid; and the Zauberklick, or enchanted glance. To 'take,' in Shakespeare, means to blast or blight by witchcraft. In King Lear, act ii, scene i, occurs the imperative, Strike her young bone, you taking airs, with lameness.' He says of Herne the Hunter, in The Merry Wives of Windsor, that he 'blasts the tree and takes the cattle, and makes milch kine yield blood.' In Hamlet, speaking of Christmas time, he says,—

EYE.

'The nights are wholesome, then no planets strike, No fairy takes, no witch hath power to harm, So hallowed and so gracious is the time.'

And this meaning, somewhat modified, still holds good amongst English women.

Pliny speaks of 'those among the Triballians and Illyrians who with their very eyesight can kill those whom they look wistfully upon for any long time,' and Plutarch states, on the authority of Philaretus, that 'the Thibyens who inhabited Pontus were deadly not only to babes but to men grown, and whomsoever their eye, speech, or breath would reach, were sure to fall sick and pine away.'—Buckingham's Travels, p. 172; Miller's Seven Churches, p. 120; Burton's City of the Saints, p. 129; Somnerat's Voyage, p. 89; Sir J. E. Tennant's Ceylon. See Somal.

EXEVULUS ALSINOIDES. Linn., Roxb.

Sankh pushpi, . . . HIND. | Vishnu kranta, . . . TEL. | Vishnu kariand, . . . TAM.

This, the F. hersutus, Lam., is common in many parts of India. The different parts of this plant are used in medicine.—J. L. Stewart, M.D.

EXACUM BICOLOR, Roxb., has long been used as a bitter tonic. It grows in Cuttack, at Mangalore; rare on the Neilgherries below Kottagerry, and abundant a mile below Neduwuttam, where it flowers during the autumn months, and enamors the Ghat Ghats with its beautiful blossoms. It has the same bitter stomachic principles for which the Gentiana lutea is so much employed. It is sold in Mangalore at 1 anna 6 pice per pound, and is used as a substitute for Andrographis paniculata.


EXACUM TETRAGONUM. Roxb. Purple cherryta.

Koochuri, . . . BEN. | Ooda cherryta, . . . HIND.

A very elegant plant growing throughout British India. Its large flowers are beautifully blue, with gold-coloured anthers. Other species are E. carinatum, pedunculatum, and teres.— Roxb. i. p. 398.

EXEOCARIA AGALOCHA. Linn.

Arbor excoecans, Rumph, Amb. ii. 179. 

Ugaru, . . . BEN. | Gengwa, . . . HIND. 

Ya tau, Ka yau, BURN. 

Bute bay-a-zu, . . . Tella keeriya gass, Singh. 

Bute baya-za, . . . Tella chettu, . . . TEL.

This small tree grows in Ceylon, where it is very common in salt swamps near the sea. It grows freely in the Sunderbuns, is plentiful in the Rangoon and Tounghoo districts, and grows through the Eastern Archipelago. The Bengal name, Ugaru, indicates a belief that it yields the fragrant aloeswood of commerce, but this does not seem to be the case. Dr. O'Shaughnessy at one place says (p. 668) that its wood is knotty, grey or blackish, smooth and resinous. But Dr. M'Clelland describes it as white-coloured, and adapted to every purpose of house-building. The sap is described as extremely acrid, and as causing great agony, if, in cutting down the tree, any of it fall into the eyes. Hence Rumphius' name, Exoecans, or blinding; and this is probably correct, as Rumphius himself became from some cause blind at the early age of 44.—Thee; M'Cle; O'Sh.

EXEOCARIA JAMETTA. Spreng.

Tiger's milk tree, . . . ESC. | Kametti, . . . MALAE. 

Grows on the western coast of India. It abounds in an acrid juice, from which a good kind of caoutchouc may be prepared.—Druy.

EXEOCARIA OPPOSITIFOLIA. Jack. This is E. cremulata, Wight. It is a small tree growing in Malabar, on the Anamallay Hills, and common in the central province of Ceylon at an elevation of 4000 to 6000 feet.—Thur.; Jack, Cal. J. Nat. Hist. iv.

EXEOCARIA SEBIFERA, J. M., syn. of Sapium sebiferum. This is the Chinese tallow tree. The white pulp round the seeds give the Chinese tallow, which is separated by boiling in water, and used in China and Japan for candles; it melts at 104°. The seeds yield an oil, and the leaves a black dye. Wood hard, used for printing blocks.

Other species included are E. acerifolia, bacata, Cochin-chinemis, holophylla, and virgata. The acrid juice or milk of E. insignis, E. Indica, and E. agallocha is poisonous, and the seeds of E. Indica are used to poison fish.

E. insignis is a tree of Kangra, and E. Indica a tree of the Sunderbuns.—Rozb.; Gamble; Kurz; EXIDIA AURICULA JUDE. Fries. Jew's ear fungus, one of the thallogens, of most universal growth, and used medially. E. hispida is one of the edible fungi of China.

EXOCARPUS, an inferior kind of sandalwood, the produce of Exocarpus latifolia, is met with in the Percy Isles, Repulse Bay, Cape Upstart, Palm Islands, etc.

EXOCEUTUS, a genus of fishes belonging to the abdominal Malacopterygii, forming part of the family Exocidæ. Their pectoral fins are very long, nearly equal to the length of the body. The fish, to escape its enemies, rises into the air, and its pectoral fins vibrate while wet, and re-vibrate as often as they pass through a crest wave, wetting the fins afresh. Some of the fish proceed from 70 to 250 yards. There are several species of the flying fish: Exocetus volitans, Linn.; E. stenopterus; E. evolans; E. exilienis; E. mesogaster. The E. stenopterus has usually 10 or 12 inches long, but attains to 15 or 20 inches. Thirty-two or more seconds is the greatest length of time that their flight has been observed, and distance accomplished 250 yards. They are captured by torchlight in the West Indies.—Collingwood; Bennett's Gatherings of a Naturalist; Bikmore.

EXOGAMY, the custom of selecting a wife from a different tribe. Exogamy prevails throughout Western and Eastern Africa, in Circassia, Hindustan, Tartary, Siberia, China, and Australia, as well as in North and South America.—Lubbock, Orig. of Civil. p. 99.

EXORCISM is practised very frequently, more especially by the Shanar race of S. India. See Charns; Divination; Evil Eye; Ordeal.

EYES PAINTING, mentioned in 2 Kings ix. 30, Jeremiah ix. 30, Ezekiel xxiii. 40, and tiring of the head are still common in every Eastern country. In painting the eyes, Mahomedans use two substances, lamp-black (kohl) and grey oxide of antimony; the latter the men use, and the women use lamp-black. But thoughout India plumbea is substituted for antimony.

EYRE. General Sir Vincent Eyre, C.B., K.C.S.I., born 22d January 1811; died 1881, at Aix les Bains, Savoy. He served in the Bengal Artillery, 1828. He was at Kabul in the Afghan insurrection in 1841, when he commanded a
EYUB.

This is a page from a book about various topics including history, agriculture, and flora. The page contains text about the history of Babylon, the beginning of the war between the Assyrians and Egyptians, and the capture of the city. It also mentions the use of certain plants and their properties. The text is dense and technical, with references to biblical figures such as Ezra and Ezekiel. The page ends with a discussion on the cultivation of trees and their uses in various cultures.
was introduced into Europe by the crusaders; and in many parts of France, where it is commonly grown, is called Saracen corn. So much is it esteemed in Belgium, that M. Bory St. Vincent says he was shown the tomb of the person who is reported to have first brought it into that country.


**FAGREA**, a genus of plants of the natural order Loganiaceae, *Lindl.* F. lanceolata, *Bl.*, is a tree of Penang and Java; *F. Malayana, Mart.*, is a tree of Penang. Dr. Wright in his Icones figures the three species, Coronandelliana, Malabarica, and Zeylanica.

**FAGREA COROMANDELIANA.** *V. l. c.* A small tree, with very large showy flowers, common throughout the western forests of the Madras Presidency, from the level of the sea to nearly 6000 feet. It is well worth cultivating for ornament.

It may be *F. obovata, Wallich*, a tree of Khasaya and Singapore. Gamble notices six species.

—Beddome, *Fl. Sylc.* p. 244.

**FAGREA FRAGRANS.** *Roxb.* i. p. 460.


This evergreen tree grows in Martaban, inland up the Attaran river, is very abundant in Amherst, Tavoy, and Mergui, and in the islands of the Tenasserim coast. Its maximum girth 4 cubits, and maximum length 20-25 feet, but is of so slow growth that the Burmese refer to it in a proverb. When seasoned it sinks in water. It is a compact, yellow, and very beautiful wood, a very hard and excellent timber. It bears a breaking weight of 400 to 500 lbs., and its chief value as a timber is its imperishability when exposed to water or land. It takes stain well and not attack it. Neither heat nor moisture will warp or rot it. It is impervious to the attacks of ants; and the posts of a wharf at Tavoy, which for several years had daily, as the tides flowed and ebbed, been partly dry and partly wet, continued untouched by the worm. It is used for building houses, kyoungz, yats, etc., as posts for Buddhist edifices, piles for bridges, wharves, etc., but for lay purposes only by the British, as the Burmese regarded it as too good for the laity, and say it ought to be confined to sacred purposes. Hence, as the phonnycas or Burmese priests look on it as a sacred tree, it has been more preserved in the forests of Amherst, Tavoy, and Mergui, than any other valuable wood.

It is scattered thickly over the alluvial plains together with Stryclhnoz nux vomica. It has been recommended for railway sleepers.—Mason; Capt. Dance's Rep.; *M'Clelland's Report; Roxb.*

**FAHAM TEA.** A name given in the Mauritius to the dried leaves of the *Angraecum fragrans,* a fragrant orchid which owes its odour to the presence of coumarin. The infusion is drunk to promote digestion, and is useful for certain diseases of the lungs.—*Simmonds' Diet.*

**FA HIAN,** a Chinese Buddhist traveller in India, Khotan (Yu-than), and Tibet, along with Hocq King and other Chinese pilgrims. They reached Yu-than or Khotan in A.D. 399-400. Fa Hian then travelled by Tu-bao and Yu-ho and over the Tau-Ling mountains southwards to Kie-Chha, the modern Lalahk, where he rejoined Hocq King. From Kie-Chha the pilgrims proceeded westward to Tso-ly, which they reached in one month. He passed successively through Kashnir, Kabul, Kandahar, and the Panjab, into the central parts of India, and the country of

1069
Mathura was one of the first in which he entered (Cal. Rev.). He left China A.D. 399. He was six years on his route to Central India, residing at places on his way. He passed six years in India, visited Ceylon, and sailed from there to Java, and returned to China A.D. 415. The silence of Fa Hian and Hiuen Thsang regarding Dehli is a proof of the insignificance of that city from A.D. 400 to 640. His usual place of residence was Chang-an, in the province of Shen-si. On his return he wrote an account of his travels, called Fo-kue-kì, or an account of the Buddhist countries. His journal is very concise, and is chiefly taken up with the description of the sacred spots and objects of his religion; but as he usually gives the bearings and distances of the chief places in his route, his short notices are very valuable. At the time of his visit, Buddhism was still the dominant religion, though Vaishnava doctrines were gaining ground. T-Ising gives a history of fifty-six Chinese Buddhist priests who visited India during the early part of the T'ang dynasty.—Cal. Rev.; Travels of a Hindu, p. 109; Cunningham's Ancient Geography of India. 

FAILI, a tribe of Kurds, also called Bakhtiar, who dwell in the mountainous part of Kirman-shah. See Kurdistan.

FAILI, zamín, amongst the Rajputs, security for good behaviour. Hazir zamín, security for re-appearance.

FAIR, called in India a mela or assemblage, is held periodically at many places. The system exists in full force in Turkestán, north of Hindu Kush. It is not unknown in some parts of the Kâbul dominions, and has long been familiar to the natives of India. At the great Dehli fairs, 50,000 persons assemble, some of them from 500 miles' distance. In 1861, at the great solar eclipse, 200,000 persons assembled at Thaneswar in Ambala, some from 1000 miles away. About 150 fairs are held in the Panjab, and the Hindu custom of assembling at shrines, and taking the opportunity of displaying merchandise prevails throughout India. In Asia they flourish as the only means by which nations distant from each other, and the population of which is often widely spread, can be readily supplied with articles of home and foreign produce. The merchants who carry on the trade from India to Kâbul are principally the Povindah or Lohani Afghans, whose country lies westward of the Indus between Dehra Ismail Khan and Kâbul. They make annual journeys to and from these places, bringing with them the productions of Afghanistan, and taking back those of India and Europe. They are a race, and require no protection but their own arms. They leave the rugged mountains of the west at Drabund, and assemble at Dehra Ismail Khan, where they dispose of some of their property; others proceed lower down the Indus to Dehra Ghazi Khan, or cross to Multan and Bahawalpur, where their wants in a return supply of goods are sometimes to be procured. Failing this, they pass into the India, and even to Calcutta and Bombay. The Lohani and other traders descend from Bokhara and Kâbul about the month of November, and set out on their return in the end of April. In the Russian empire, fairs have been founded in the memory of man, at which business to the amount of 200,000,000 of roubles, or about £10,000,000 sterling, is now transacted, and this is even on the increase. The removal of the great fair of Maccare to Nijni has only served to give commerce a greater impetus.—Burns, in East India Priests, School and Afghanistan, p. 103.

FAIRY HAIR. Exg. Adiantum capillus Veneris. The Persians give the name of Mu-Fari, or Hair of the Fairy, to Saxifraga stenophylla. 

FAIZABAD, the capital of Badakhshan. The people are purer Iranians than the Tajik.

FAIZABAD, a town in Oudh, situated in lat. 26° 46' 45" N., and long. 82° 11' 40" E., on the left bank of the river Gogra, 78 miles east of Lucknow; adjoining it to the west is the modern town of Ajodhya, both towns being on the site of the ancient city of Ajodhya. It gives its name to a revenue division or commissionership of Oudh, with a population (1869) of 2,648,070 Hindus; Mahomedans, 315,604; Christians, 1410. The district consists of a densely populous, well cultivated plain of great fertility, having an average elevation of 330 feet above sea-level. The principal river, and that which affords the chief means of communication between Faizabad and the Gangetic Plain, is the river Sarul, and the early history of Faizabad is that of Ajodhya, of which kingdom it formed a part. Faizabad, two miles and a half in length by one mile in breadth, is built chiefly of materials extracted from the ruins of Ajodhya. The two cities together occupy an area of nearly six square miles, just about one-half of the probable size of the ancient capital of Rama. In Faizabad the only building of any consequence is the stuccoed brick tomb of the old Bhaq Begum, whose story was dragged before the public during the famous trial of Warren Hastings. Faizabad was the capital of the first Nawabs of Oudh, but it was deserted by Asaf-ud-Dowlah in A.D. 1775.—Tod's Rajasthan; William Na. 

FAIZI, the literary title of Shaikh Abul Faiz, son of Shaikh Maharak, and elder brother of Abul Faiz, who lived in the reign of Akbar, emperor of Hindustan. Faizi was presented to Akbar in the 12th year of his reign, and introduced Abul Faiz six years later, in A.D. 1574. The brothers soon became the intimate friends and inseparable companions of their sovereign. They not only were the confidants of all his new opinions in religion, and his advisers in his patronage of literature, both in foreign countries and in his own, but were consulted and employed in the most important affairs of government. Faizi was sent on a special embassy to the kings of the Dekhan, prior to Akbar's invasion of that region, and Abul Faiz lived to attain the highest military rank, and to hold the office of prime minister. At midnight, when the news was brought to Akbar that Faizi was dying, he hastened to his room, and called out to him, with a familiar term of endearment, 'Shaikh-Ji, I have brought All the physician to you; why do you not speak?’ pressing no further, he threw his arm round the dying man, and kissed the strongest expressions of sorrow. On recovering his composure, he went to Abul Faiz, who had withdrawn from the scene of death, and remained for some time endeavouring to console him, before he returned to his palace. Faizy was the first Mahomedan who applied himself to a diligent study of Hindu literature and science. By the aid, and under the direction of the emperor, he conducted a systematic inquiry into every branch of the
knowledge of the Brahmins. He translated from the Sanskrit the Nala and Damayantu, an episode of the Mahabharata; he made a version of the Bijja Gana and Lilawati of Bhaskara Acharya, the best Hindu books on algebra and arithmetic. He wrote a great deal of original poetry and of other works in Persian, and he superintended translations made by other learned men, including one at least of the Vedas, the two great historical and heroic poems the Mahabharata and Ramayana, and the history of Kashmir, the only specimen of that sort of composition in Sanskrit prose. He was directed to translate the Evangelists. He seems to have been more studious and less a man of the world than Abul Fazl. When Abul Fazl was assassinated, Akbar was deeply affected, and passed two days and two nights without food or sleep.—Elliot: Elph. p. 468; Sandatkh k Tawarikh.

FALKHAT, a grey colour, probably from Falkhät, HIND., a dove.

FALCONER, HUGH, a Bengal medical officer, a distinguished palaeontologist. He was born at Forbes in 1808, and went to India in 1829. He was one of the first botanists who visited Kashmir and Little Tibet, Kamaon, and the Punjab, where he formed magnificent collections, illustrating his specimens with voluminous notes and details of their structure and affinities. He was superintendant of the Botanic Gardens of Saharanpur and Calcutta. He returned to England in 1856 or 1857, and died 31st January 1865. In the latter half of his life, he devoted his time to the study of mammalian palaeontology; and, after his death, two volumes of his palaeontological memoirs and notes were published by Dr. Murchison. He and Sir T. P. Cautley examined the fossils of the Siwalik Hills; Fauna Antiqua Sivanesia, or the Fossil Fauna of the Siwalik Hills, Cautley and Falconer, Lond. 1845-1846, folio. He wrote an Account of Fossil Bones at Hurdwar, in Bl. As. Trans. 1837, vi. 233; On Elastic Sandstone, ibid. 240; On the Geology of Perim Island, Gulf of Cambay, in Lond. Geol. Trans. 1845, i. 365. Of the many varied subjects treated of in the palaeontological memoirs, there are several of great interest even to the general reader. His investigations have shown that, at a period geologically recent, the present Peninsula of India was a triangular island, bounded on each side by the Eastern and Western Ghats, converging to Cape Comorin, while the base of the triangle was formed by the Vindhya mountain range, from which an irregular spur (forming the Aravalli mountains) extended northwards; while between the northern shore of this island and a hilly country, which ran along the Himalaya mountains, ran a narrow ocean strait. The coast of this strait became covered with débris from the adjacent Himalaya on its northern shore, and with this débris became entombed and preserved many and various animal remains. The present condition of the country has been produced by an upheaval of the land, so that what was the ocean strait forms now the plains of India,—the long, nearly level valleys in which flows the Ganges and the Indus. Besides this, a great upheaval along the line of the Himalaya has elevated a narrow belt of the plains into the Siwalik Hills (determined to be but of tertiary age), and added many thousand feet to the height of the Himalaya. In the Siwalik explorations, Dr. Falconer and Sir T. P. Cautley discovered the sivatherium, a gigantic four-horned ruminant-like animal, considered by Dr. Falconer to have been furnished with a trunk like the tapir; also certain fossil apes, the first ever discovered, and a gigantic tortoise, Colossocyclus atlas, a description of which was communicated to the Zoological Society in the year 1844.

FALCONERIA INSIGNIS. Royle.
Exocerca insignis, Mull.
This tree only extends scantily along the Panjāb Siwalik tract as far as the Beas. The wood is occasionally employed for domestic purposes, but is of no special use. F. Mahabara, Wight, is a synonym of F. insignis.—Royle, Ill.; Stewart.

FALCONEIRA WALLIICHIANA, Royle, a tree of Nepal.
FALCONIDÉ, a family of birds of the order Raptora, comprising the sub-families Accipitriné, Aquilina, Buteoninae, Falconinae, and Milvine. With five or six exceptions only, the whole of the European diurnal birds of prey are met with in India, many of them being much commoner in that country, and they are associated with numerous other species unknown in Europe. The true Falco peregrinus is common in India, together with F. peregrinus, which would otherwise be regarded its Indian counterpart. The shangar of Indian falconry seems to denote it as a bird of excessively rare occurrence in the Panjāb. The Falconinae are the True Falcons, and those of the south and east of Asia are as under:—

1. Peregrines, viz.
   Falco peregrinus, Gmel., peregrine falcon, Bhaire.
   F. peregrinus, Sundevall, the Shakhan or royal falcon.
2. Lanners, viz.
   Falco sacer, Schlegel., the Saker or cherrug falcon.
   F. jugger, Gray, the Laggar falcon.
   F. Balyolonicus, Gurney, red-headed lanner.
3. Hierofalco, ap. of Kaup, the Shankar or Shanger; is brought from northern countries.
   F. Falco.
   E. vespertinus, Linn., the red-legged falcon.
   Hierax erythrogenys, the white-naped pigma falcon.
   H. melanoleucus, Blyth, from Assam.

FALITA. HIND. A slow match; also, amongst Mahomedans, a lamp charm. Slow match is made generally, if for matchlocks, of the air-roots of the Bar tree; and if for cannon, of thread soaked in powder and spirits of wine.

FALLOPIA NERVOSA. Lour. The Kapiou-yeh and Hau-shan-ch'a of the Chinese, a tall shrub of Macao and Canton, furnishing a tea-leaf.

FALOMahomed, a kind of antelope.

FALODEH. PSITRO. A white jelly strained from wheat, and in spring-time, in Kabul, drunk with sherbet and snow.
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FALSA.

FALSA. Hind. Grewia Asiatica; also its acid berry, used to make a sherbet.

FALSA. Hind. of Kota. Fibrous ginger, the inferior sort.

FALSE. Ar., Pers., Hind. A small copper coin, of varying weight and value, current in Arabia and Persia. Sometimes applied to the paisa of India. Also a copper coin formerly current in Madras, equal to five kas or cash.—W.

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Carestia. . . . Ir.

Famines have repeatedly occurred in S. Asia and in India, owing to the failure of rain, but occasionally aggravated by wars, necessitating an interruption to agricultural operations, and rendered longer distressing by succeeding swarms of insects and rats.

The Rev. Robert Everest seems to have been the first who adduced facts to show that unfavourable seasons in India are periodical. In the report on the Bengal famine of 1860-61, Colonel Baird Smith recommended irrigation, and remarked on the rough periodicity of famines, and it may be said that local famines recur in one part of the country or other every 5, 10, or 15 years, and greater famines occur in successive centuries, at intervals of 50, 100, and 150 years. Dr. W. W. Hunter, about the year 1877, mentioned that the years of famine in the Madras Presidency had been 1811, 1824, 1833, 1854, 1866, and 1877, there being deficient rainfall in preceding years. The years 1810 and 1825 were years of minimum sun spots; 1853 was the third, and 1865 and 1876 were the second, years preceding minimum sun spots. The average rainfall in Madras from 1813 to 1876 was 48-51 inches, and in all the famine years the rainfall was far below the average. And, from the occurrence of sun spots and of rainfall, between the years 1813 and 1876, he arrived at the conclusion that the minimum period in the cycle of sun spots has been a period of regularly recurring and strongly-marked drought in S. India.

In the past 109 years, 21 famines and scarcitys are recorded, making a proportion of two bad seasons to seven good. Of the greater famines there have been eight at intervals which have reached 12 years. Five have afflicted the 19th century, and have affected 202 millions of people. The practical result is that the Indian Government must be prepared for a drought followed by severe distress every twelve years, though an extreme famine may not ravage any one province oftener than once in fifty years. There seems some tendency for a bad year in the north to follow immediately a bad year in the south.

Great famines devastated the N.W. Provinces in 1770, 1783, 1803, 1819, 1887, 1861; and 1877. Droughts of less importance visited the same regions in 1738, 1744, 1752, 1790, 1818, 1826, 1883, and 1873. The less serious droughts occurred at intervals of 6 or 8 years; but at intervals ranging from 13 to 24 years the failures of rainfall have been sufficient to involve a bad famine. Each of the great famines was preluded by years of climatic irregularity, especially noticeable in the case of the famines of 1803, 1837, and 1861; the same phenomenon announced the advent of the dearth in 1877 in the N.W. Provinces.

Famines have been recurring in Asia from the most ancient times. That one mentioned as of the time of Abraham, was about B.C. 2247; that in Genesis xlii., which led to the sojourn of the Israelites in Egypt, was about 500 years later. 505-143 B.C.? In India, during the reign of the emperor Jyé-éland, there was great pestilence and famine. 331 B.C. a bushel of wheat was sold for 400 pieces of silver.

336. Syria, famine and plague.

351. Antioch, famine and plague during reign of emperor Theodosius the Great.

1052. India, during the reign of Masaood i., great drought followed by famine; whole countries depopulated.

1052-1060. Seven years' drought in Ghora; the earth was broken up, and many men and animals perished.

1215. Famine of a severe kind is said to have lasted from Samvat 1204 (A.D. 1148) to Samvat 1215.

1291. A terrible famine about Dehil, from drought.

1299. Persia ravaged by pestilence and famine.

1357. China, a famine and plague.

1342. Famine in Dehil, very severe.

1344-45. Famine over all Hindustan; very severe in the Dekhan; the emperor Muhammad was unable to obtain the necessities for his household.

1412. In the Ganges, Jumna, Doab, great drought, followed by famine.

1471. Famine in Orissa. There is vague mention of great famines in the 13th, 14th, and 15th centuries, notably one in 1471.

1491. A great famine in Hindustan about this date.

1521. A very general famine in Sind.

1540-43. A general famine in Sind during these years.

1581. Persia desolated by famine and plague.

1598. In Pegu, very severe.

1630. The records of the East India Company mention a severe famine in Surat in A.D. 1630.

1631. Famine in India general by drought and war, and throughout Asia.

There can be no doubt that one of the great historical famines affected India about the year 1631, in the reign of Shah Jahan. During the wars in the Dekhan which that ruler carried on against the Murtaza Nizam Shah of Ahmadnagur, Muhammad Adal Shah of Bijapur, and Kutub Shah of Golconda, a destructive famine desolated the Dekhan. It began from a failure of the periodical rains of 1629, and was raised to a frightful pitch by a recurrence of the same misfortune in 1630. Thousands of people emigrated, and many perished before they reached more favoured provinces; vast numbers died at home; whole districts were depopulated, and some had not recovered at the end of forty years. The famine was accompanied by a total want of forage and by the death of all the cattle; and the miseries of the people were completed by a pestilence, such as is usually the consequence of the other calamities.

1661. A.D. Dow mentions a severe famine in the Moghul empire in A.D. 1661, caused by drought.

1703. In the Thar and Parkar districts of Sind.

1753. In the N.W. Provinces.

1795. Dehil and neighbourhood.

1754. In the Nara, Thar, and Parkar districts.

1770. Bengal suffered in the year 1770 from famine, more widespread and terrible than any which had ever beforefallen any other British possession, and which Colonel Baird Smith deemed to have been the most intense that India ever had experienced, and one-third of all Bengal lay waste and silent for twenty years.
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The crops of December 1768 and August 1769 were both scanty, and prices became very high; and throughout the month of October 1769 hardly a drop of rain fell. The usual refreshing showers of January to May also failed in 1770, in which year until late in May scarcely any rain fell. The famine was felt in all the northern parts of Bengal as early as November 1769, but by the 4th January 1770 the daily deaths from starvation in Patua were up to 50; and before the end of May, 150. The tanks were dried up, and the springs had ceased to reach the surface, and before the end of April 1770 famine had spread desolation. In Murshidabad, at length, the dead were left uninterred; dogs, jackals, and vultures were the sole scavengers. Three millions of people were supposed to have perished. It is also said that within the first nine months of 1770, one-third of the entire population of Lower Bengal perished for want of food. According to Grant, one-fifth of the entire population perished; according to Miss Carolus, two-thirds; while Ward and Marshman state one-third. The year 1770 corresponds to the Bengali year 1276, and it is known to this day amongst the people as the Che'hattar Saler Durbiyka Manwantar. It was during the governorship of Mr. Carter; his Government did nothing to help the people, and the Company's servants trafficked in grain. The executive civil administration was conducted by native officials, who temporarily remitted 8,000,000 of rent. Another famine occurred in Bengal in A.D. 1783, and again in 1788.

1781-83 A.D. Famine and scarcity in Karnatic and Madras districts, caused by the incursions of Hydro Almas. During 1789 and in October 1783 a terrible famine occurred in all the countries from beyond Lahore to Karunmara, the western boundary of Behar. The famine had been already felt in all the western districts towards Delhi; to the north of Calcutta, the crops had been nearly burned up. 1785. A million of people are said to have died of famine in the Panjab. 1787-88. Famine prospects in Behar and N.W. Provinces from excess of rain and floods. Export of grain prohibited. There have been four famines in Ganjam within historical recollection; the first, 1789 to 1792; second, 1799 to 1801; third in 1836; and the fourth in 1865-1866. Of these, the first was the most severe, far surpassing in intensity that of 1866. In the third period of scarcity in Ganjam, in 1836, cholera was very prevalent, and many of the cattle also perished. The great famine which desolated Bengal, 1770-72, did not extend to Ganjam. The extent of the famine of 1791-92 is not anywhere exactly given. 1790-91 A.D. A very severe famine in Baroda and adjoining districts; many people emigrated, others destroyed themselves, some ate their own children. 1791. In Cutch, a famine was caused by innumerable black ants, which almost destroyed vegetation. 1790-92. Serious dearth in the northern districts of the Madras Presidency from November 1790 to November 1792; many deaths from starvation; grain exports from Tanjore prohibited, and Government distributed rice.

1802-4. Famine in the Nizam's dominions. In Cutch, the crops were destroyed by locusts; in Pulicat, Rewa, Khunds, and Gour, by inundations; in Hyderabad, Belgaum, and Ratnagurh, by want of rain. Kandesh was overrun by the armies of Holkar and the Pindaris, and famine raged in Ahmednagar, Poona, and Sholapur; and in Satara, Kolhapur, Dharwar, and Kolaba, a great multitude of starving immigrants caused scarcity.

1804-7. In the Bombay Presidency, 1804 was an unfavourable season, and the following year a general failure of crops occurred; famine was severe about Poona, Ahmednagar, and the scarcity did not cease till October 1807.

1812-13. In 1810 flights of locusts had appeared in the Bengal provinces, from which they passed through the southern parts of Hindustan, and in fifteen months arrived in Cutch. In 1811 the annual rain failed in Marwar, and the locusts entered Patan, in the N.W. of Gujerat, and from thence followed Kattyawar, and on one occasion they appeared as far south as Broah, but they disappeared with the beginning of the monsoon of 1812. The destruction was deplorable, and the mortality amongst the Gujerat people and the immigrants from Marwar was immense.

1812-13. Famine prevailed in parts of Cutch, Palanpur, Ahmadabad, Mahikanta, Kattyawar, and Broah. In Cutch and Palanpur and Broach it was aggravated by locusts. In Kattyawar it was followed by a plague of rats; Ahmadabad was overrun by starving immigrants, and the Gujerat was increased by the exportation of grain.


1813-14. In many parts of the Agra district the 1812 autumn crop failed, and the spring harvest of 1813 was indifferent, and this was followed by excessive rains.

1819-20. Bundelkhand kharif crop failed, and frost nipped the spring crops of 1820.

1820. Failure of crops in Ahmadabad and Sawuntwari, caused by excessive rains.

1820. In Nagpur, the price of jowari rose from Rs. 5 to Rs. 30 per catty (As. Journ. 1820, ix. p. 79).

1822. Partial drought in Upper Sind, causing famine.

1824. Famine in parts of Behar, Delhi and neighbouring provinces of Hindustan, in the Karnatic and western districts of the Peninsula.

1825-26. In the N.W. Provinces, Saugar, Nerbailla, from want of rain, caused by blight and thunder-storms.


1833-34. In some of the N.W. Provinces; in Ajmir not one shower fell in 1832. In 1833, drought swept in Bundelkhand and Cawnpore.


In 1824, 1830, and 1831, Madras town suffered from dearths, approaching to famine. In 1766 the British had acquired possession of the delta of the Kistna or Krishna river, and from that time for eighty years famines repeatedly occurred, destroying the people. That which occurred in Guntur in 1833 was described by Captain Best. In this famine 150,000 human beings died of starvation, also 74,000 bullocks, 150,000 milk cattle, and 300,000 sheep and goats. The loss of revenue occasioned to Government during the 15 following years exceeded two and a half millions sterling (Mad. Lit. Trans. 1844, No. 30, p. 186; As. Journ., new series, vol. xii.). The famine of 1833 extended southwards to Madras, where its severity
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was intensified from January to September 1833 by the arrival of thousands, and at one time 59,817 starving people were fed.

1834. In Cutch, Ahmedabad, caused by locusts.

1835. In Broach, caused by excessive rain.

In 1838 a famine occurred in the N.W. Provinces. In 1837 the autumn harvest was scanty, owing to insufficient rainfall, and the spring harvest wholly failed from want of rain, and many emigrated, and the cattle perished. Government alone gave in cash Rs. 44,000, but remitted and abandoned revenue to 17 lakhs.

In the famine year of 1837–38, the gross value of the crops saved by the waters of the Jumna canal was estimated at £1,402,800, of which about one-tenth was paid to Government as land and water rent, while the remainder supported the inhabitants of nearly 500 villages.


1839–54. Great scarcity in Bellary district, caused by failure of 1839 rains.

1860–61. In 1859–60 the Delhi territory suffered from want of rain; the 1860 rains completely failed between the Jumna and the Satlej, from Peshawur to Cawnpur, a range of 800 miles, and an area of 25,000 square miles. Great Britain subscribed £108,800.

1861–62. Scarcity in Cutch and other Bombay districts from failure of 1861 rains, and short fall in early part of 1862.

1866. Awful famine occurred in Orissa from drought, and the lower parts of Bengal and Behar also suffered.

The rains of 1865 were scanty throughout the lower provinces of Bengal and on part of the Madras coast, and in Orissa they ceased on the 14th September. In Orissa the total fall was much below the average, and prices rose to famine rates, and in Balsore and Midnapur grain robberies became frequent. Orissa, 200 miles long, has an area of 8518 square miles, and before the famine its population was estimated at 3,015,826, of whom 814,469 perished and 115,028 emigrated. The deaths were 27 per cent. Of these victims a very large proportion perished in the north-eastern districts of the province. In the Madras division of the country the mortality was lessened by successful measures; and it is estimated, therefore, with only too much probability, that in some parts of the Bengal division three-fourths of the entire population had been swept away. During the scarcity and famine in Orissa, in Nuddes, and Midnapur, the starving people fled to Calcutta, where not fewer than 20,000 people were at one time fed daily.

The two earlier famines of 1789 and 1800 began in the north of the Ganjam district, and increased in intensity towards the south; whilst that of 1836, as in 1866, was felt with greatest severity in Orissa and parts of the district adjacent to Bengal.

Cuttack, Puri, and Balsore were the three districts of Orissa—omitting the hill tracts—in which the famine raged with greatest intensity, and continued longest. Mohurthunj is a very large territory, covering an area of upwards of 4000 square miles, and the greater part of this tract was included in the area of most severe suffering. In Chota Nagpur, in which are the districts of Manbhum and Singhbhum, the mortality for the famine of 1866 fell on the population about the same as in Orissa.

In 1866 a severe drought prevailed over all Rajasthan, the Central Provinces, the N.W. Provinces, including Meerut and Delhi. The harvest of 1867 was scanty, and that of 1868 failed. Rajputana, with its area of desert and its scanty water supply, was most affected. It is usual in times of scarcity for the population of the more arid districts to migrate to the more fertile states, but on this occasion all were alike parched by the drought, which was the most calamitous on record. Thousands of the famine-stricken poured into British territory in search of food, greatly aggravating the burden already felt there. In the Central Provinces, the drought, though less severe, was general. The northern parts of the N.W. Provinces, and those bordering on Rajputana, suffered most; in the Panjab, those south of the Satlej. The famine of 1868, in Rajputana, in severity surpassed that of 1813, which was the most calamitous in Rajputana of which they had record. It was most severely felt in Marwar, the northern portion of which was deserted.

1871–2. An intense famine prevailed in Persia. The harvests of 1869, 1870, and 1871 proved deficient from various causes. The slight fall of rain had diminished the natural reservoirs, and many of the invaluable subterranean canals fell dry. The Persian population live much on fruit, but in Isfahan the fruit harvest was a failure. Thus cereals, water, and fruit were cut off.

1874. Bengal suffered from drought. In 1871 the rainfall had been excessive, but in 1872 it was deficient.

In 1873, also, in Bengal and Behar, the autumn rains were scanty, and in 1874 frost and west winds dried up the crops. In those two causes a scarcity of rice occurred. Sir George Campbell, then Lieut.-Governor, Sir Richard Temple, and the Viceroy, Lord Northbrook, arranged for the importation of rice, of which half a million of tons were poured into the districts where scarcity prevailed, obtained from the Panjab, N.W. Provinces, Madras, and Burma; the last-named district alone sent 289,534 tons. Fifty miles of railroad were constructed at the rate of a mile a day; military officers were employed to aid in the distribution, private charity largely aided, and hardly twenty persons died. The population in reality lived on other grains and pulses. But it cost the Government about nine millions sterling. Macaulay, noticing the former famine there, says—'In the summer of 1770 the rains failed; the earth was parched up, the tanks were empty, the rivers shrank within their beds; and a famine, such as is known only in countries where every household depends for support on its own little patch of cultivation, filled the whole valley of the Ganges with misery and death. Tender and delicate women, whose veins had never been lifted before the public gaze, came forth from the inner chambers in which Eastern jealousy had kept watch over their beauty, threw themselves on the earth before the passers-by, and with loud wailings implored a handful of rice for their children. The Hoogly every day rolled down thousands of corpses close to the porticoes and gardens of the English conquerors. The very streets of Calcutta were blocked up by the dying and the dead. The lean and feeble survivors had not energy enough to bear the bodies of their kindred to the funeral pile or to the holy river, or even to scrape away the jackals and vultures who fed on human remains in the face of day.'
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1874-75. Severe famine in Asia Minor; the deaths up to July 1874 were 150,000.

1877-78. One of the most severe and most extended famines on record occurred in the Peninsula of India, in the Madras Presidency, Mysore, part of the Bombay Presidency, and lasting from the end of 1876 till the middle of 1878.

The 1876 S.W. monsoon rains were deficient all over the Madras Presidency and in the Pondicherry district, and the N.E. rains utterly failed. The drought in Bombay extended to nine districts in the Dekhan and Southern Mahratta country, including Kandes, Nasik, Almadnagar, Poona, Sholapur, Satara, Kaladgi, Belgaum, and Dharwar; and adjoining native states, Kolhapur, Phaltan, Akulkote, and Sawantwari, also suffered. The area of this territory, exclusive of native states, comprises about 54,000 square miles, and the total population amounts to eight millions, of which five millions were included in the tracts immediately affected. By October 1876 all the nine of the Bombay Dekhan districts were threatened with famine, as nearly all the monsoon crops had perished, and the spring and summer rains failed, and rain fell short all over India; there were scarce rains also in Egypt, Morocco, and Brazil. In Madras famine affected the districts of Cuddapah, Bellary, Nellore, Kurnool, Madura, North Arcot, Salem, Chingleput, Coimbatore, Kistna, Trichinopoly, and Tanjore. In Mysore, and also some part of the Nizam's country, the area of the distressed districts amounted approximately to 80,000 square miles, and the total population affected to nearly 18 millions.

In the beginning of 1878, a trial census was taken of the districts of N. Arcot, Bellary, Chingleput, Coimbatore, Cuddapah, Kistna, Kurnool, Madras town, Madura, Nellore, and Salem. In these, in 1875-76, the deaths were 340,545; but in 1876-77 they increased to 925,163, or 67 per thousand of the population of 13,765,163. According to the estimated population at the end of 1876, the losses were in Bellary 21 per cent.; Kurnool, 27 per cent.; Cuddapah, 26 per cent.; Nellore, 21 per cent.; Coimbatore, 17 per cent.; Chingleput, 10 per cent. The Salem district estimated population in 1876 was 2,129,850. The actual population on the 14th of March 1878 was 2,150,850; but as there were 662,950 souls in this district, or nearly 27 per cent. of the people, unaccounted for. And in this Salem district the famine distress was not then over.

In Mysore the January census showed that about 25 per cent., or one-fourth, of the population had melted away, equal to 1,250,000 souls. In Bombay the average deaths had been 32,909; but in the year 1876-77 the mortality was 149,053, and there were 32,054 diminished births.

In Oudh, the N.W. Provinces, the Punjab, and Central Provinces, the deaths were abnormally great. Great efforts were made to relieve the famine-stricken. The people of Great Britain subscribed about £800,000; the Government of India laid out about £10,000,000; and private individuals and the public servants in India vied with each other in efforts to save life.

The loss in cattle was very great. In Bellary the Madras Board of Revenue considered it unlikely that more than 25 per cent. of non-agricultural cattle, and from 60 to 70 per cent. of the agricultural cattle, would survive.

1877-78. An appalling famine prevailed in the N.E. parts of China, chiefly in the provinces of Shan-si and Hon-nan. Out of a population of 70 millions, 9 millions of people were reported to be destitute, and 7 million persons in all are computed to have died. The province of Shan-si alone is said to have lost 500,000 of its inhabitants in one winter. Women, girls, and boys were sold in the market for 2 to 5 dollars each, and many killed their children and then themselves. It was severest inland from the Yang-tze to near Pekin, and east to Corea. In Shan-si, in 1877, the dead could not get a burial; they were too many, and none could afford the expense, so they were cast daily into large pits. The people at Shan-si, in 1873, were said to be living on the corpses of their fellow-beings who died of starvation. And the strong were killing the weak for the sake of obtaining their flesh for food. It was accompanied by locusts.

In Kashmir, also, through the year 1878 it was very severe. The last previous famine in this state was about the middle of the 18th century. 1879. The swarms of rats which from January to March swept through the country between Sind and Mysore, are stated by a contemporary to have destroyed quite 50 per cent. of the crops in the agricultural land which they passed over. The length of their journey was not less than 1000 miles. Sir Arthur Cotton estimated that two acres of rice land would feed seven people for a year; and Mr. Fieschi considered that a family of five will consume under 9,000 grains per day. The fields of India yield quantities of the better grains, such as rice and wheat, but, except in Burma, these are used only by the well-to-do classes, the producers living on the coarser grains, pulses, and millets. And food at three times its ordinary price, at a season when some months must elapse without relief, means famine in the great majority of cases; while in some cases famine comes long before that rate is reached. When the rate rises to four times the ordinary standard, it is probably accompanied by famine of a very severe description. After the 1877-78 famine in India, a commission was appointed to report how 'Government might by its action diminish the severity of famines.' They calculated that India regularly yields a surplus of food, more than enough to supply a death in any particular district. But they avowed their conviction of the incapacity of any human endeavours altogether to prevent or abate the effects of a famine. In 1873 alone, an outlay of six millions and a half sterling averted an increase of mortality. But with the solitary exception of 1878, famine in India has been too strong for the State to bar its devastations. For a famine at Cawnpur, a million and a half sterling of subscriptions was realized and distributed; 1300 were fed daily, but 1200 persons died.

A larger proportionate expenditure was made by the State on the relief of the famine in Orissa in 1866 than on any previous occasion, yet nearly a million persons died.

By the famine of 1868-69 in the N.W. Provinces and the Punjab, and by the diseases which are the followers of famine, though enormous sums were spent on relief, 1,200,000 lives were lost.

Unless when a region is dependent upon rain for its fertility, and the rainfall fails, the soil in India yields the husbandman his fair return. In Sind the rainfall is always meagre. So Sindh has learned to trust to artificial irrigation from the Indus, and Sindh is safe from famine. Assam and Burma, the country between the Western Ghats and the sea,
Famines.

The immediate effects of famine soon disappear. An Indian population grows normally at the rate of 1½ per cent. per annum, and this proportion is within the mark in ordinary times. And within two years of the great famine of 1877-78 its injuries were no longer apparent, while calamities of other kinds continue to be remembered for long periods.—Army Sanitary Comm. Rep.; As. Soc. Journ.; As. Res.; Hunter's Rural Life in Bengal; Famine Comm. Rep.; India Administration Rep., vol. xii.; Proceedings of the Government of India; Saturday Review, 1878; Sanitary Commissioner of Madras, Report; Dr. W. W. Hunter in Geog. Magazine; Montgomery Martin’s Famine Chronology, 1640 to 1841; Statistical Journal, 1843, i. 3d series, p. 488; Macmillan’s Magazine; Geog. Mag., May 1877; Kaff Khan; Elphin. p. 510; W. H. H. Hinton, iii. p. 107. See Food.

FANAM. A silver coin of the Karnatic, now current, the falam of the Tamil race. The correct value of one Company’s rupee was 12 fanams 68-57 cash. Where much nicety was not required, the usual rate of conversion was 1 fanam = 1 anna 3 piec. It was a small silver coin, the 1-12th of a rupee; no longer coined.

FAN PALMS. The Chamerops humilis, Linn., used for this purpose, grows in considerable abundance on the shores of the Mediterranean. The leaves of many of the palms of Southern Asia—the Corypha, the Livistonia, palmyra, and date palms—are similarly employed. That of Ceylon is the Corypha umbraculifera, Linn.

Faqeer. Fakir, Darvesh or Dervis, amongst the Mahomedans, religious orders or communities, of whom there are several sects. In India only ten classes are generally met with. The Kalandar darvesh are rarely seen in India.

Fakir is from Fakhr, A. The Persian name Darvesh is from Dar, a door, and Vhtan, to beg. There have been many branches and orders. Jalal-Din founded the Mulavi order. In European Turkey, they have formed somewhat permanent communities, and about sixty different orders, each named after its founder, are supposed to exist there. The Batashi of Constantinople are said to be quite atheistic, not attached to the principles of the Koran, nor firm believers in Mahomed as a prophet. They are generally of the Shahi sect of Ali, and are Sufi or Mahomedan spiritualists. The Rafai darvesh, in Turkey, inflict on themselves great self-torture. Some of the wandering Indian fakirs wander so far west as Hungary, to visit the shrine of a santon, Gil-bata, and they sail to Tenasserim and Burma. One whom the Editor met near Hingolee, in the Dekhan, was a native of the Panjab, but had been to Ceylon, Mergul, Tavoy, Rangoon, and Mount Benne. The fakirs in India are now a low, prodigal set of men, held in great disesteem by all classes of the community, and some of them are utterly degraded in habits and mode of life. The bulk of them are Be-Sharra, literally without law, i.e. do not act up to the precepts of Mahomed, but are latitudinarians; a few are Ba-Sharra, or with law, following Mahomedanism. The latter are the Salik. The Be-Sharra are styled Majzub, Azad, Ras-us-Shahi, Imam Shabi. The Kalandars are of both sects. Some of the fakir take up their residence in burial-places, which they create, or of which they become the proprietor or makandar; or they reside in an aasthan or a takin.

The tract immediately east of the Ghats, the valley of the Nerbadda and the Tapti, enjoy rains or river floods, which have never deserted them. Eastern Bengal, in the parts between the Ganges and the Jamna, is now completely protected by its irrigation canals. It is the portion of India with a total average rainfall from 20 to 35 inches which is subject to drought when the south-west monsoon fails, and consequently is the prey of famine. No past famine has been more intense than that of 1876-78, so none may exceed it in the future. On that presumption, the largest population likely to be severely affected by famine at one time is put at 30 millions. An estimate for relief on a scale double that given in Madras and Bombay during the last famine, shows four and a half millions as the maximum number of objects of relief in the height of the famine, and from two to two and a half millions as needing aid for the space continuously of a year.

For each working adult male of this mass the commissioners compute that a pound and a half of flour or rice is sufficient; for a man doing light work, a pound and a quarter; and for a man doing none, still less. A woman needs rather less than a man, and children from half to a quarter the quantity, according to age. The commissioners recommended that for all who can work, public work should be provided, at fixed reasonable wages, the same for all, and ‘on which life and health can be maintained.’ Piece-work, unless as an experiment, they refused to recommend. The works selected should be of permanent utility, and contiguous to the dwellings of those to be employed upon them. The true policy is to begin a series of comprehensive or connected undertakings of permanent utility, and to entrust their construction to professional engineers, who shall take care that none but the able be employed, and that they be paid regularly in money for a fair day’s work. An unfinished canal in Orissa in 1871-72 sufficed to irrigate 100,000 acres, on which 750,000 cwt. of rice was grown.

The impression generally prevailing, that the preservation of life by Government measures of relief in Indian famines, is entirely a question of money, is erroneous. The same atmospheric conditions which produce a scarcity of food, produce also epidemic diseases; secondly, a larger proportion of the mortality of a famine season is due to epidemic diseases than to absolute deficiency of food, although their destructiveness is increased by the people being, from want, less able to withstand them; and thirdly, a point in the process of chronic starvation, when nutriment can no longer save life, is often reached before the people can obtain, or will seek, relief from their communities, after their homes. After the famine of 1877, the Indian Government endeavoured to ascertain approximately the deaths it had caused, and by enumerating certain districts, with the following result:

<table>
<thead>
<tr>
<th>District</th>
<th>Normal Death-rate Average in 5 years</th>
<th>Deaths in 1877-78</th>
<th>Percentage of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salem from Dec. 1876 to Feb. 1877</td>
<td>63,183</td>
<td>204,619</td>
<td>222%</td>
</tr>
<tr>
<td>Bollary (Gooy)</td>
<td>4,405</td>
<td>17,067</td>
<td>278%</td>
</tr>
<tr>
<td>Kurnool (Nandikotkur)</td>
<td>5,099</td>
<td>16,261</td>
<td>233%</td>
</tr>
<tr>
<td>Cuddapah (Madanapilly)</td>
<td>4,459</td>
<td>10,095</td>
<td>260%</td>
</tr>
<tr>
<td>Nellore (Gooty)</td>
<td>1,695</td>
<td>6,173</td>
<td>272%</td>
</tr>
<tr>
<td>Combatore (Palladam)</td>
<td>5,110</td>
<td>14,099</td>
<td>175%</td>
</tr>
<tr>
<td>Chingleput (Poneru)</td>
<td>2,776</td>
<td>7,169</td>
<td>167%</td>
</tr>
</tbody>
</table>

7076
The Kadria or Banaw profess to be the spiritual descendants of Sa'id Abdul Kadir Jilani of Baghdad. The Chisti are followers of Banda-nawaz, whose shrine is at Kulburga; they are usually of the shiah sect. Sutarian are descendants or followers of Abdul Shütar-i-nuk. Tabkatia or Madaria, followers of Shah Madar; many of the Madaria are jugglers, also bear or monkey leaders. Malang are descendants from Jaman Jati, one of Shah Madar's disciples. Rafai or Gurzmar are descended from Sa'id Ahmad Kabir Rafai, who seem to beat, cut, and wound themselves without betraying suffering, and who, in the belief of the faithful, can cut off their own heads and put them on again. Jubbia, followers of Sa'id Jadal-ul-Din Bokhari. Sohagia, from Musa Sohag, dress like women, wear female ornaments, play upon musical instruments, and sing and dance. Naskhi-ban via, followers of Baha-ul-Din of Nakhshband, distinguished by begging at night, and carrying a lighted lamp. Bawa piri dresses in white. There are other distinctions. At the Maharram a number of the lower classes assume the character and garb of fakirs of different ridiculous personages, for the amusement of the populace and the collection of contributions.—Wils.; Kanoon-i-Islam. See Darves; Sufi; Esawiah.

FARQH. Arab. A doctor of law; in Spanish, the faqih.

FARABATUN, a Christian priest, whom Abul Fazl names Padre Farabatun, and describes as learned in science and history. Akbar prevailed on him to come from Goa to undertake the education of a few youths destined to be employed in translating the productions of Greek literature into Persian.—Elph. p. 468.

FARK, the valley from which the Jabli-Musa range rises. That part of the range on which the Convent of St. Catherine is built is called Tur Sina. See Jubbil-Musa; Senai.

FARARI. Pers., Hind. Absconding, disappearance; a person who has disappeared. Faut-i-farari, casualties by deaths and disappearance.

FARAS. Hind. The tamarisk plants. Tamarix orientalis and T. dioica, in the drier parts of the Doab and in the vicinity of Dehi, are called Asul or Atul; and the galls, or choti-mai, which are formed on the tree are called Samrat-ul-aasul in Arabic.—Elliot.

FARASH. Pers. A carpet; hence Farash, a carpet-spread. But in Persia, Afghanistan, and India, applied to under-servants generally. Amongst the Mahomedan armies the Farash was a tent-pitcher, which in the British camps is the duty of the lascar or khallasi.

FARAZ. Arab. In the Mahomedan religion, points ordered by God—God's commandments; Sunnud being the ordinances of their prophet. For instance, the Ramzan or Eed-ul-Fitr feast and the Bakr-eed feast are alike Farz and Sunnud, while the Akhi-char shamlah, the Maharram, and the Shah-i-Burat are only Sunnud. Thus, also, Captain Burton says, the afternoon prayers being Farz, or obligatory, were recited, because we feared that evening might come on before the ceremony of Ziyarat (visitaton) concluded. Throughout India, the Farz, or commands of God, are almost obscured by the quantity of the Sunnud and the traditions, and there are frequent reforms attempted, but these speedily assume political features. A sect styled Farazi, or Faraizi, was formed at Dacca in 1828. Daulatpur village, in Faridpur district of Bengal, was the birthplace of Haji Shariat-ulla, the founder of that Farazi sect, which rapidly spread throughout the whole of Eastern Bengal. The Faraizi are a branch of the great Sunni division, and in matters of law and speculative theology they belong to the school of Abu Hanifa, one of the four authoritative commentators on the Koran. They reject traditional customs, declare that the Koran is the complete guide to spiritual life, and they therefore call themselves Faraizi, or followers of the Faraiz (pl. of Arabic Farz), the divine ordinances of God alone. The majority of Musalmans in the delta of the Ganges and Brahmaputra are descendants of the aborigines, who retained many of the superstitious ceremonies of their former life. The reformation inaugurated by Haji Shariat-ulla was a protest against such pagan practices, and a return to the simple habits and monotheism of the Koran. He insisted on the duty of the holy war (jihad), the sinfulness of infidelity (kufr), of introducing rites and ceremonies into worship (bid'at), and of giving partners to the one God (shirk). Externally a Faraizi may be known by the fashion of wrapping his dhoti or waist-cloth round his loins without crossing it between his legs, so as to avoid any resemblance to a Christian's trousers, and by his ostentatious mode of offering prayers with peculiar genuflexions in public. The rapid spread of the Faraizi movement in the lifetime of its founder affords sufficient justification for his enthusiasm. The majority of them are cultivators of the soil, but not a few occupy the rank of traders, being especially active in the export of hides. All alike are characterized by strictness of morals, and faithful promotion of the common interests of the sect.—Elliot; Wilson; Burton's Mecca, ii. p. 60; Imp. Gaz.

FARD. Arab. Any single thing; in accounting, a slip of paper, a list, a sheet, a slip in an account book, a statement, an account; a single long shawl, as opposed to Do-shala (q.v.).

FARDUSI, a celebrated Persian poet. He wrote the Shah-namah in the 11th century, containing three heroes, Jamshid, Faridun, and Garshasp, as the three earliest representatives of the generations of mankind. See Ferdusi.

FARFYUN. Hind. Gum of Euphorbia Cauniensis and other species. Its Persian name is Shiri-i-darakhht-i-zakum, and Arabic, Akal-nafsah. The Euphorbium known in Europe is very likely the juice of E. Cauniensis, but that of the bazaars of India is produced from E. antiquorum and others. It is used as a remedy for rheumatism.—Porell.

FARFUGIUM GRANDE. Lindley. A beautiful new herbaceous plant, having rich blotched or variegated leaves.—Fortune's Res. p. 420.

FARGARD. Pers. A section of the Vendid-dad, the sacred book of the ancient Zoroastrians.

FARGHANAH. Baber's ancestral dominions were on both sides the Jaxartes, a portion of ancient Sakatari or Sakaedwa (Scythia), where dwelt Tomyris, the Getic queen, immortalized by Herodotus, and where her opponent erected Cyropolis, as did in after times Alexander the Macedonian his most remote Alexandria. From this region the same Gete, Jit, or Yuti, issued to the destruction of Bactria, two centuries before the Christian era.
and again in the 6th century to found a kingdom in N. India. A thousand years later, Baber issued with his bands to the subjugation of India, which his descendants retained up to the end of the 18th century. This portion of Central Asia is the officina gentium whence issued those hordes of Asi, and of the Jit or Toot (of whom the Angles were a branch), who peopled the shores of the Baltic, and the precursors of those Goths who, under Atilla and Alanic, altered the condition of Europe. Baber quitted Samarcand as a fugitive, and with less than 2000 adherents commenced his enterprise, which gave him the throne of the Pandu.—Malcolm's Persia.

FARHAD and Shirin, two lovers in a Persian story, fabled to have their tombs near Kumbi-Shirin, a pool in Las, in the great Lak or pass connecting that province with the western district of Jao.

FARIA, MANUEL DE, author of the History of the Discovery and Conquest of India by the Portuguese, written in Spanish, and translated into English by John Stevens.—Playfair's Aden.

FARIDKOT, one of the Sikh states under the political superintendence of the Panjub Government, lying between lat. 30° 18' 30" and 30° 50' N., and between long. 74° 31' and 75° 5' E.—Imp. Gaz.

FARIDPUR, a revenue district in Bengal, lying between lat. 22° 47' 53" and 23° 54' 55" N., and between long. 89° 21' 50" and 90° 16' E. Area in 1877, 2365 square miles; pop. in 1879, about 1,502,436. Of its various races the Chaudals are numerous. They are capable of great fatigue. They are a despised race, and a Brahman thinks himself defiled by even crossing the shadow cast by a Chaudal; but in 1875 they organized a general strike in the district, resolving not to serve the upper classes until their own position was ameliorated. The Bunas, another aboriginal race, number 2412. See Faraz.

FARID-ud-DIN, styled Sherk-Ganj, a Mahomedan saint, whose shrine is at Ajodhan, on the bank of the Sutlej. See Pak Pattan.

FARIGH. ARAB. Release, free. Farigh nama or Farigh khatti, deed of release. From this word also is the word Faraghat, leisure, enjoyment, repose, alliance; also Farigh-khatana, a fee to the writer of a Farigh khatti.—Elliot.

FARINA. Eng., Lat., Sp. Flour, meal; any flour used as food, either from wheat, rice, janthia, potato, jatoba, maranta, curcuma, canna. Every now and then some one of the farinas is prominently put before the public as a novelty. Semolina consists of the gluten of wheat, with a proportion of the starch, part of this having been removed. Semolina resembles in appearance sago; but the little granules of which it is composed, in place of being round as in sago, are angular. When moistened, the water is rendered perceptibly opaque and milky by the starch still present, and the fragments swell up and become soft and glutinous. See Eryum.

FARING. Hind., Pers. Europe, from the old term Frank. Hence Faringi, a European, or relating to Europe.

FARMAN. Pers., Hind. A royal mandate; an order from a king or other superior, which the British write Firman.—Elliot.

FARMS of an experimental character have been formed by the British Indian Government, since the middle of the 19th century, for the object of improving the agricultural knowledge of the people, at Sydapet near Madras, Nagpur, Kandesh, Sind, Darwar.

FAROKHSIR, or Mahomed Farokhsir, emperor of Delhi, was the son of Azim-us-Shan. He ascended the throne on the 4th February 1718, after defeating and putting to death his uncle, Jahandar Shah. In Delhi he tortured to death Banda, the Guru of the Sikhs, the successor of their Guru Govinda, and beheaded 700 of his followers. When the empire began to totter, he furnished the last instance of a Moghul sovereign marrying a Hindu princess, the daughter of raja Ajit Singh, sovereign of Jodhpur or Marwar. To this very marriage the British owe the origin of their power. When the nuptials were preparing, the emperor fell ill. A mission was sent at that time to Delhi from Surat (1715), where they traded, of which Mr. Hamilton was the surgeon. He cured the king, and the marriage was completed. In the oriental style, he desired the doctor to name his reward; but instead of asking anything for himself, he merely asked a grant of land for a factory on the Hooghly for his employers. It was accorded; and this was the origin of the greatness of the British empire in the East. Such an act deserved at least a column. Farokhsir was deposed and murdered on the 16th February 1719, by Abdullah Khan and Husain Khan. His feeble, brief reign was disturbed by the intrigues of these Syuds of Barh, Abdullah Khan and Husain Ali.—Elph. pp. 610-612; Tod's Rajasthan, i. p. 152.

FARQAH, a tribe, from Arab. Farg, separation. Hence also Faraqat, separation; Faraqat behtar az mululat, Absence is preferable to quarrelling; also Farq, the part on the crown of the head where the hair parts.

FARRAH-RUD, a river of Afghanistan, which rises in the mountains in the unexplored country of the Taemuni, and, after a course of 200 miles, falls into the lake of Seistan.

FARRAKHABAD, a town in the N.W. Provinces of British India, in lat. 27° 20' 35" N., and long. 79° 36' 50" E., with a population of 78,204 souls. It gives its name to a revenue district, lying between lat. 26° 4' 31" and 27° 20' 36" N., and between long. 76° 9' 59" and 80° 3' 50" E. Area, 1744 square miles, with a population in 1872 of 918,850 persons. It possesses great antiquarian interest, owing to the presence within its boundaries of Kanouj, the capital of a powerful Hindu kingdom in the earliest centuries of the Christian era. Amongst the tribes, the Baniya number 15,717; Azhirs, 36,372; Chamars, 94,274; Kayasthas, 15,378; and Kurmi, 80,884.—Imp. Gaz.

FARS, Pars or Farsistan, is the province of the kingdom of Persia which gives its name to the country. It lies between lat. 27° 20' and 31° 42' N., and long. 49° 20' and 54° E., being about 220 miles in length and breadth. It has Kirman and Luristan on the east, the Persian Gulf on the south, Khuistan on the west, and Irak-Ajam on the north, with a superabundance of about 44,353 geographical square miles, or nearly one-fifth of France. It has many rich and picturesque tracts, and is less desert than other parts of Persia. This province of Persia contains the salt lakes of Bakhtegan (called Niriz) and Dervaeche,
which are in the neighbourhood of Shiraz; and there is a fresh-water lake in the plain of Zerdan. The principal streams are the Bendamir or Araxes, which receives the Kur-ab or Cyrus river, as it falls into lake Bakhtegan, and the Nabun, whose course is from Firozabad southward to the Persian Gulf. In this province are also the higher parts of the two branches of the Tab. Towards the north (according to Mr. Morier) Madar-i-Sullman marks the tomb of Cyrus (son of Cambyses); to the west are the ruins of Khiz Safed; and nearly in the centre are those of the ancient capital, Persepolis. This territory represents ancient Persis, which was watered by the Araxes, Gyndes, Oroatis, Artas, Ates, Chelvar, and Bagrad. Its cities were Corna, Axina, Ardira, and Artacana, besides many others whose sites are unknown. Persepolis was the capital in the time of Alexander; more anciently, the seat of the government was at Pasargada (Strabo, lib. xv. p. 729), the Persagadis of Quintus Curtius (lib. v. cap. vi.); but as this historian speaks of the fortress of Persepolis, and the city of Persagadia (Farsa-Gerd ?), it is possible that the extensive ruins in the plain, near the former, may be the Pasargada of Pliny (lib. vi. cap. xxvi.). The tribes now inhabiting it are,—

Fellii, 100 houses, Lek, Persians and Lek.
Byat, 120 houses, Turk.
Bergshadi, 50 houses, Turk.
Gurani, 400 houses and tents, Lek.
Kajar Afshar, a mixed tribe of Turk, 250 houses, and Lek 100 houses.
Abulvaridi, 500 tents, smugglers, engaged in trade.
Tewelllele, 40 houses, Turk cultivators.
Amesh, 40 houses, Turk cultivators.
Zargar Lek and Kara Guzu Turk, 100 houses.
Basle, 3500 houses, of Arab descent.
Arab, 7300 tents.
Kashki, 30,000 to 40,000 tents of Turks.
Masamanni, 8000 tents and houses of Lek.

The entire southern region of Fars, bordering on the Persian Gulf, is called the Garmsir. It extends from the sea to the latitude of Kazerun, and runs parallel with the Persian Gulf. From the banks of the Tab to the confines of Luristan, from Bushir eastward as far as Cangoon, the tract is named the Dushsthan, or land of plains. The Tungistan is a small tract of land east of Bushir. The greater portion of the people of the whole Garmsir consists of an independent lawless set, many of the tribes being robbers by profession. A huge wall of mountains separates the Garmsir or low region, from the Sardar or high table-land of Persia. One of the most conspicuous of these is an abrupt lofty hill named Hormooz, where specimens of coal were found. Sardar is also termed the Sardista, a word literally signifying boundary or frontier, but, there, is generally applied to any high land where the climate is cold. The Sea of Oman, or Persian Gulf, called also Persian Sea, Erythrean Sea, also Sea of Fars, has several islands, the Jazirah-i-Lafet, called also Jazirah-i-Daran, or Long Island, known on maps as Kisham; also Khareg Island, on maps Karrack, a small island, but well watered, not very far from Bushir, which once belonged to the Dutch, and was held from 1838 to 1846 by the British.—*Ouseley's Tr. i. p. 304;* Kinneir's *Per. Empire,* p. 64; *Chesney's Ephrates,* p. 210; *Porter's Tr. i. p. 548;* *MacGregor's Persia.*

FAKH. Pers. By the old Greek historians Φάσις. It is the Persian league, about

18,000 feet in length, and is known to Europe as the Farsang or Parang. It is usually reckoned at 32 British miles, but, like the cos of India, it varies greatly. According to Major Rennell, the farsakh is little short of 34 British miles (Illustrations of the Retreat of the Ten Thousand, p. 4). Mr. Fraser (Journey into Khorasan, p. 367) says, The Khorassani farsakh is rather more than that of Irak; rather less than 4 British miles. A farsang is also said to be a distance within which a long-sighted man can see a camel, and distinguish whether it be white or black (Bunchehesh, cap. xxvi.). It is also described as one hour's travel or journey, or three miles.—*De Bode's Tr. p. 57;* Rick's *Lestra* *i. d. p. 197;* Porter's *Tr. i. p. 255.*

FAKHAN, an island off the coast of Yemen, about three miles from the seaport of Jezan. The population are largely occupied in the pearl fishery.

FAKHETI HAMILTONII in the Farid buti, HIND., a Panjab plant, rarely used in medicine. Leaves and stem glaucous, pilose, with pink cruciferous flowers, and broad flattened silique, one of the Brassicaeae.—*Powell, i. p. 329.*

FARUD. ARAB., HIND., PERS. Literally descent or alighting; in the customs department, delivery in of goods.—*Ell.*

FAKHKHI, a dynasty of kings of Kandahar, founded by Malik Rajk, a person of Arab descent.
FASTIKI.

Hind. A kind of emerald.

FASIS form part of the religious practices of Hind. and Mahomedan in Mahrattens. The Hind. festivals called Barth are observed in sorrow for the dead, in honour of Vishnu, Lakshmi, Eswara or Siva, Vigneswara, and Subramanya, son of Siva; and the use of phulaha, certain grains, as buckwheat, etc., is admissible on other fast days, some of which seem to have an astronomical or sidereal bearing. The fasting of Christians consists of abstinence on certain days seemingly from one kind of animal food; but the Mahomedan fast in India (roza rakha) during the month of Ramzan is from before sunrise till after sunset, during which they do not even swallow the moisture of the mouth, and abstain from all enjoyment.

FATAH ALI SHAH was king of Persia up to the year 1828. His life illustrates one phase of Persian customs. He was an eminently handsome man. He possessed one of the largest families on record, in ancient or modern times. Besides the four akad or lawful wives permitted to every Mahomedan, he had more than 800 nauta or inferior spouses. He continually changed his wives, as he was tired of them and lacked novelty; but he never parted with any who had borne him male children. He had upwards of 130 sons, and 160 or 170 daughters. At the time of his demise, his children, grandchildren, and great-grand-children amounted to about 5,000 souls. The descendants of these princes (Shahzade) were long a heavy burden to the country. Scarcely a village of any size in some parts of Persia but had some resident at it. Some have become comparatively well-off, but many fell into great poverty; and some of his descendants have had to earn their living as mechanics and tradesmen in the different cities. August, 10th, of Poland is said to have had 354 children by his numerous concubines. He also had one of his own daughters for his mistress, a piece of depravity of which Fatah Ali Shah was never accused.

FATAH-UL-BALDAN, a historical work on Mahomedan countries from Spain to Sind, by Ahmad, son of Yahya, son of Jabir, styled Al-Biladuri. He was tutor to one of the princes of the family of the khalif Al Mutawakkil, and died A.D. 892 (A.H. 275).—Elliot, Hist. of India.

FATE, the Taqdir, Nasib, Kaza, Kismat, Hon- lar, and Talib of Mahomedians.

FATEHPUR, a revenue district in the N.W. Provinces of India, lying between lat. 25° 26' 17" and 26° 12' 60" N., and between long. 80° 16' 39" and 81° 28' E. In 1872 there were 503,206 cultivable lands, 70,554 unusable. The Kurmar and Kachil together amounted to 89,044. They are industrious and diligent agriculturists. They pay higher rents than any other tribes, and pay them easily. The Ahirs, Lodhis, Arabhs, and Pasi numbered in all 162,907 persons.—Imp. Gaz.

FATEHPUR SIKRI, a municipal town in the Agra district of the N.W. Provinces, and formerly capital of the Mughul empire; population (1872), 6878; lat. 27° 5' 35" N., long. 77° 42' 18" E. It chiefly consists of a vast expanse of ruins, enclosed by a high stone wall some five miles in circuit; amongst them the tomb of Shakh Salim, Chishti, a Musalman ascetic, through whose intercession Akbar obtained an heir, in the person of Prince Salim, afterwards known as the Emperor Jahangir. The tomb consists of an elaborately carved shrine in white marble, enclosing a sarcophagus within a screen of lattice-work, inlaid with mother-of-pearl. On this terrace and, among other noble buildings, the houses of Birbal and of the 'Christian lady'; the Diwan-i-Khas and the Diwan-i-am, or Council Chamber and Hall of Judgment. The Elephant Gate contains two massive figures of the animals from which it derives its name. Close by towers the Hiran minar, a pile some 70 feet in height, covered with enamelled imitations of elephants' tusks.—Imp. Gaz.

FATHER and Mother.

BaBa, Peder(father), Turk.

Pere, Mere, ... Fr. Ana, Nine (mother),...

Vater, Mutter, ... Ger. Thya, Typan, ... Tam.

Ma-Bap, ... Hind. Tili, Taudi, ... Tel.

Pedre, Madre, ... It. Sp.

Among the people of India, and amongst the Chinese, an honorific style of address to people of rank, or to a person from whom a kindness is received or expected. In China it is a title by which the representatives of authority are designated.—Luc, Chinese Empire, 1. p. 22.

FATHOM.

Bu, ... Arab. Braccio, ... It.

Lan, ... Arab. Buroc, ... It. Lat.

Toise, ... Fr. Braza, ... Sp.

Klaffer, Tiefe, ... Ger. Kulbj, ... Turk.

Bam, ... Hind.

This is a natural measure, from point to point of the outstretched hands. It was common to the Greek, Roman, and Indian, and is four cubits in length. The Greeks and Romans had also the foot (pes), the hand (palm), the palm (παχήντα), and the finger (digitus). The Romans also had the military pace; the Greeks and Romans also had the cubit (cubitus). The ancient inhabitants of Asia had, as a unit measure, the cubit or ell, from the elbow to the point of the little finger.
FATIH AH.

All of these—digit (angul), palm, cfi (hath), and span (blish)—are in use in India.

FATIH AH, ARAB, also Al-fatihat, Fatihat, and Fatihat. The name of the opening chapter of the Koran. It is a prayer, and is held in great veneration by Mahomedans, who give it several honourable titles, such as the Chapter of Praise, of Prayer, of Thanksgiving, or Treasure. They esteem it in the quintessence of the whole Koran, and often repeat it in their devotions both public and private, as Christians repeat the Lord's prayer. Most Turkish epitaphs end by the words, 'Fatihah ruhun icin,' say a fatihah for his soul. The fatihah is also entitled the preface of the Koran, or introduction. It was revealed at Mecca, and is as follows, commencing with the words Bismillahir-Rahman-ur-Rahim:—In the name of the most merciful God, praise be to God, the Lord of all creatures, the most merciful, the king of the day of judgment, thine do we worship, and of thee do we beg assistance. Direct us in the right way, in the way of those to whom thou hast been gracious; not of those against whom thou art incensed, nor of those who go astray.' This prayer is offered with upraised hands, which are afterwards drawn down over the face. The hands are raised in order to catch the blessing that is supposed to descend from heaven upon the devotee, and the meaning of drawing the palms down the face is symbolically to transfer the benediction to every part of the body. The Dairah ki fatahah is the cemetery obliteration; the Hazrat shah ki fatahah is on Maula Ali; the Nat khair ki fatahah is the prayer offered for the welfare of any one.—Sale's Koran; Burton's Mecca, i. p. 286; Ferrier's Journey, p. 502.

FATIMAH, daughter of Mahomed, and wife of her cousin Ali. Her tomb at Loms, Armenia, is held by Shah Mahomedans in the highest reverence. The Koran is read there night and day; and nearly the same privileges are offered to the pilgrims as at Mecca. It is a place of pilgrimage.—Chatfield's Hindustan, p. 209; Tavernier, ch. iii. and vi.

FATSIA PAPYRIFERA. Bentham.


The rice-paper plant of Formosa, used to make into the commercial rice-paper, also for sola hats.

FATSIF, or Inaccessible Island, in lat. 33° 6' N., and long. 140° E., a penal settlement of Japan.

FATSIA, or Inaccessible Island.

FATMIIH MAHOMED, a Mahomedan of Sind, who in 1788 dethroned Rahiden, Rao of Cutch, who had embraced Mahomedanism; ob. 1813.—Burnes' Sind.


FAULKNER, ALEXANDER, an officer in the civil service of H. M. Government at Bombay in the middle of the 19th century, author of Commercial Dictionary, a work containing in a small bulk a vast amount of useful information relating to the commercial and economic products of India.

FAYRER, Sir JOSEPH, M.D., LL.D. and F.R.S. London and Edinburgh, F.R.C.P. London, and F.R.C.S. of England and Edinburgh, Fellow of the University of Calcutta, Fellow of the Botanical Society of Edinburgh, Vice-President of the Zoological Society of London, Knight Commander of the Star of India. He entered the British navy on the 12th August 1847, from which he retired; and during the siege of Palermo, from December 1847 to March 1848, he served in its military hospitals. In 1848 he was present in Rome during its siege by the French. From December 1849 till April 1850 he was in the Royal Artillery branch of the British medical service, but resigned and entered the East India Company's service. He was in command of the fleet at Chusan from July to October 1850. During the second Burmese war he was present at the taking of the stockades and the capture of Rangoon, in charge of the field hospital, where he remained for a year as medical storekeeper and civil surgeon. In 1853 he was appointed Residency Surgeon of Lucknow, in which he served in 1857 during its siege by the mutineers. His house was one of the chief garrisons, and 14 were killed and 40 were wounded in it. He was with Lord Clyde at the relief of Cawnpur. He was appointed in 1859 Professor of Surgery and First Surgeon to the Medical College Hospital, Calcutta. In 1858 he was created a Companion of the Star of India, accompanied the Duke of Edinburgh and the Prince of Wales during their travels in India, and in 1876 was created a Knight Commander of the Star of India. He was author of a book on the Indian Tiger; of one on the Thatanophidia of India; of a work on Clinical and Pathological Observations in India; of another on Tropical Diseases; of one on Indian Fevers; and of many papers and monographs in the journals of Europe and India. The Royal Family of Great Britain and his contemporaries bestowed on him many professional honours. He was Honorary Physician to the Queen, and to H.R.H. the Prince of Wales, and to H.R.H. the Duke of Edinburgh. He was President of the Asiatic Society of Bengal; Member of the Senate of the Army Medical Schools, Netley; President of the Medical Board at the India Office; President of the Medical Society of London; President of the Epidemiological Society, London; a Governor of Guy's Hospital; Consulting Physician of Charing Cross Hospital; Fellow of the Royal Geographical Society of London. 

FAZL ULLAH RASHID, styled Rashid-ul-Din, author of Jamil ut Taurikh. See Rashid-ul-Din.

FEASTS.

Ziafat, Arab, Pers., Banchetto . . . . 1r.
Festin, . . . . . BANQUETE, . . . . . Sr.
Fest, . . . . . GER.

Feasts are often mentioned in the Old and New Testaments, and the texts find many illustrations in India. Genesis xlv. 22 says, 'To all of them he gave changes of raiment'; and at the close of a feast, Hindus, among other presents to the guests, commonly give new garments. A Hindu garment is merely a piece of cloth, requiring no work of the tailor. Deuteronomy xxiii. 10 says, 'He shall not come within the camp;' and Hindus in a state of uncleanness are interdicted from feasts, etc. Mark xiv. 20 says, 'Is it one of the twelve that dipped with me in the dish.' In the East, Hindus never eat together from one dish, except where a strong attachment subsists between two or more persons of the same caste. In such a case, one person sometimes invites another to come and sit by him, and eat
FEATHERS.

from the same dish. It is highly probable that the same custom existed among the Jews, and that the sacred historian mentions this notice of our Lord's, 'It is one of the twelve that dipped with me in the dish,' to mark more strongly the perjury of the character of Judas. John ii. 8 says, 'Bear unto the governor of the feast.' It is customary, both with the Hindus and the Mahomedans, to appoint a person who is expert in conducting the ceremonies of a feast, to manage as governor of the feast. This person is rarely the master of the house. The numbers invited amount occasionally to hundreds, sometimes thousands, and a person to secure regularity is indispensable. In Asia the term is applied by Europeans to all the religious festival rites of the natives, as to the Ramzan and Maharram, etc., of the Mahomedans, to the Diwali and Dassarah, etc., of the Hindus, to the festivals of the Chinese, Burmese, Japanese, etc.--\textit{Word's Hindostanoo,} 1914.

\textbf{FEATHERS.}

<table>
<thead>
<tr>
<th>Place</th>
<th>Arab.</th>
<th>Plume,</th>
<th>Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pluinen</td>
<td>DUT. Buhi,</td>
<td>MALAY.</td>
<td></td>
</tr>
<tr>
<td>Plumes,</td>
<td>Fr. Plumas,</td>
<td>SP.</td>
<td></td>
</tr>
<tr>
<td>Federn,</td>
<td>HIND. Rekkala,</td>
<td>TEL.</td>
<td></td>
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</tbody>
</table>

In Asia, feathers are never used for stuffing beds or pillows, but, as in Europe, they are largely used for personal ornament, those of the ostrich, the Indian roller, the green kingfisher, and the egret being most frequently employed. Those of the ostrich are imported from Africa, and the west of Europe is chiefly supplied from the northern margin of the Great Desert of Arabia. Those plucked from the living animal, or recently killed birds, are more beautiful and more durable than if taken from the animal some time after death, or than cast or dropped feathers. The plumage of the male bird is very superior to that of the female, the fine drooping plumes on the back and near the tail being of the purest white, while those of the female are never free from a tinge of grey near the tip. Commercelly, in Bengal, is celebrated for its egrets' feathers for broad-covers, tippets, boas, and muffas, and some of them are exceedingly beautiful, and not inferior in quality to those imported into Great Britain from Africa. The down of the young adjutant bird also is made into ladies' boas and victorines. The under tail coverts are collected and sold in considerable quantity. Many are procured at Trichoor in Malabar. In the Panjab the narrow black wing feathers of the onkar are used to make the kalgi, or plumes for the khod or helmet. These plumes have a very elegant appearance; they stand about 6 or 8 inches above the helmet. The feathers of the bustard are similarly used. In Madras, dealers in birds' feathers carry on their trade on an extensive scale. One dealer had nearly 100 sets of bustards, each composed of 4 or 5 shikaris and 1 cock; near some of these people are Korawa (basket-makers) who live in and about Madras. Each set has its headman, who is responsible for others. These sets are sent out once a year, each receiving from 20 to 100 rupees, together with a certain number of neta, a knife, etc. They traverse all India, collecting the feathers of kingfishers, and return after six or eight months to Madras, each set bringing from 1000 to 6000 feathers, which are taken by the dealer at Rs. 14 per 100, and shipped to Burma, Penang, Singapore, and Malacca, bringing 10 to 13 dollars the 100. Feathers form a considerable export from India. In the four years 1857-8 to 1860-1, to the value of £27,570 were exported, about one-third of which went to Britain, France, and China. Wings of a kingfisher are imported into Burma from India through Arakan. In 1875-80 the feathers exported from India were:

\begin{center}
\begin{tabular}{|c|c|c|c|}
\hline
Year & Lbs. & Value, Rs. & Year & Lbs. & Value, Rs. \\
\hline
1875-76 & 119,703 & 3,51,177 & 1876-77 & 67,466 & 2,55,466 \\
1877-78 & 55,000 & 2,10,350 & 1879-80 & 41,270 & 1,20,816 \\
1878-79 & 3,51,177 & 1,93,300 & & & \\
\hline
\end{tabular}
\end{center}

The blue feathers of the jay, the kingfisher, and other blue-feathered birds, are largely used in China for ornamentation, passed on silver gilt. The long scapular feathers of the Indian snipe-bird, Plotosus melanogaster, Gmelin, is looked on by the Khassya race as a badge of royalty.—M. E. J. R.; \textit{Dr. Taylor in Ex.}, 1851.

\textbf{FEE-SHOO.} \textit{Chin.} A yew tree of the genus Cephalotaxus. Its seeds are to be found in a dry state in all the doctors' shops in Chinese towns. They are considered valuable in cases of cough, asthma, and other affections of the respiratory organs—\textit{Carpenter,} 1888.

\textbf{FEET-WASHING,} alike amongst Hindus and Mahomedans, is a purification strictly attended to before meals. It has always been an oriental custom. With Hindus, so soon as a guest enters, to present him with water to wash his feet is one of the first civilities.

\textbf{FEL.} \textit{Pers.} Elephant. Hence Fel-khana, elephant shed; Fel-pai, elephantiasis. It is from this word 'Fel,' with the Arabic 'al,' that the words Elephas and Elephant seem to come.

\textbf{FELAMORZ,} the son of Rustum, the hero of Persian romance, was defeated by Behram near the fort of Fessa, between Shiraz and Darab. Behram caused Felamorz to be hanged, and his tomb existed in the village, until, it is said, a European traveller took it away as a relic.

\textbf{FELIS,} a genus of the mammalia, of the cat kind, of the natural order Carnivora, the family Felidae, and sub-family Felinae. Amongst naturalists, the notices of these are usually limited to the larger wild animals of this genus. The lion, the pard, the cheeta, the chaus, the wild cat, and the caracal or lynx, are common to India and Africa. The tiger, the pard, the clouded leopard, the marbled tiger cat, the large tiger cat, the leopard cat, and the bay cat are common to India, Assam, Burma, and Malaya. The ounce is of Central Asia; and the small tiger cat (F. Jerdoni), the Rusty spotted cat, and the spotted wild cat, are confined to the Peninsula of India.

Several of the smaller species of Felis have a very close family resemblance, and zoological writers have not agreed in their specific distinctions. Similarly, amongst sportsmen in India, there is a continuous attempt to distinguish the various kinds of the cheeta. This word is of Hindi or Mahrati origin, and means spotted; and amongst the spotted feline animals, sportmen speak of the leopard, the cheeta, the blue cheeta, the cheeta in a hunting or maned cheeta; and cheeta is generally applied as a suffix to all of these. There would seem to be at least four varieties of spotted cats, besides such rare animals as the snow leopard of the Himalaya, and the black panther.

The two larger animals, which are confusingly called cheeta, panther, leopard, differ so much in marking and appearance, as to make them,
alike to the scientific and to the unscientific eye, appear distinct species. The lighter coloured of the two has the ground of a light tawny yellow, shaded into white at the belly, and inside of the legs, neck, and chest.

Besides these, there is a small spotted cat also called cheeta, which preys on dogs and small animals, but is quite unequal to cope with a bullock. The rings are closer and smaller than those on the larger panther.

The hunting or maned leopard (Felis jubata, Leopards jubata), the fourth on the list, is quite distinct, and it has a mane. Its claws are only partially retractile. Many of the native princes train them to hunt antelopes.

Felis leo, the Lion.

Striped tiger,  |  Eng.  |  Pute wash,  |  MAHR.  
Bagh,       |  HIND.  |  Rimass, Harinam, SUMAT.  
Machan,     |  JAVAN.  |  Pilli,  |  TAM.  

The royal tiger is found throughout India to the S.E. boundary of China, through the Malay Peninsula, in Java and Sumatra. They are numerous in the centre of the Peninsula of India, and very numerous in Singapore. Full-grown specimens vary considerably in size, colour, and markings, but are considered to be of one species. They feed on cattle, on the sambar or Rusa hippocaphus, and more rarely on the Axis maculata or spotted deer, but only when suffering from extreme hunger. Fros, hogs, porcupines, and other creatures are eaten by them. The tiger is not brave, retires before opposition, unless wounded. The buffaloes in herds charge at a tiger and beat it off. The wild dogs hunt down and will drive a tiger away, but have not the power to destroy one; and one was found evidently killed by a boar's tusk. On one occasion, a herd boy being carried off, the buffaloes charged the tiger, and made it drop the lad.

Felis pardinus, LINN., the Pard.

F. leopardus, Schreb.  |  Leopardus varius, Gray.  
Var. a. the Panther.

F. leopardus, Temm.  |  F. pardinus, Hodg.

Honig,  |  CAN.  |  Tahir-hay, Bay-heera, HM.  
Adnara,  |  Cest. Ind.  |  Asnea,  |  MAHR.  
Burkal,  |  GON.  |  China pull,  |  Tel.  
Tendu, Chita,  |  HIND.  |  Silk,  |  Thib.  
Chita bag,  |  Leopard of Sykes.

This variety of the larger cheeta is generally found in Western Asia, Bengal, Africa, and Afghanistan. It is of a pale fulvous yellow, with white belly, and a shorter and closer fur than the smaller variety; it dwells in more open country than the smaller variety, and is a slighter and more active animal, extremely strong and fierce, and instances occur of several men being killed before this cheeta can be destroyed. They destroy wild pigs, monkeys, occasionally domestic cattle, ponies, children, old women.

Felis.

Var. b. the Leopard.

F. leopardus, Hodg.  |  F. longicaudata, Val.
Bidda of the,  |  BAEER.  |  Beechena bagh,  |  MAHR.  
Kerkal,  |  CAN.  |  Ghur-lay,  |  SIMLA.  
Ger-bancha,  |  DEER.  |  Dher-e-bay,  |  
Bor-bancha,  |  Lakkar bagha,  |  

This is smaller and shorter, fur longer and looser, and spots more crowded. It varies much in size, some not bigger than a large tiger cat. It is very fearless, taking sheep, goats, monkeys, peafowl, etc., prowling around villages, and seeing dogs even in tents and houses. It is more abundant in the forest tracts of Malabar, the Wynad, Gumsur, and the Himalayas.

Var. c. Felis melas, PERRON, F. peregrin, Hodg.

This is a well-marked race of a uniform dull black colour, the spots showing in particular lights, always found in forests or forest country, sparingly throughout all India, Assam, Malay Peninsula. This is supposed by some to be a black variety of the Felis pardinus, and both varieties are said to have been found in the same den.

Felis jubata, the hunting cheeta or hunting leopard, is common, though not plentiful, throughout Southern India. They can be quite tame, and handled with freedom. It is the pard of the ancients.

Felis cristata, a fossil tiger thus named was discovered by Sir P. T. Cautley in the Siwalik Hills.

Felis catus, the Cat, Domestic Cat.

Si mi,  |  BHOT.  |  Sokpa.  |  MAILA.  
Pilli,  |  HIND.  |  Pon,  |  TAM.  
Minkiyeng,  |  KAM.  |  Pilli,  |  Tel.  

The general term cat is applied by naturalists to all the feline tribe, but a considerable variety of animals are called cats in all countries, Civet cats, Genet cats, Marten cats, Pole cats, etc.; the Lemur also is the Madagascar cat. The marsupial animals of Australia are known as wild cats; the Shimmel billi of the people of India means the bush cat; and the wild cats of India are a small but savage kind of lynx (Felis rufa). Domesticated cats are not alluded to in Scripture, but they are mentioned in a Sanskrit writing 2000 years old, and there are figures of them on the monuments of Egypt of a much prior age. Mummy cats have been identified with Felis chaus or marsh cats, and with F. caliginata and F. boubastes, both still found in Egypt wild and domesticated. Pallas, Tammunic, and Blyth believe that the domestic cats are descendants of several wild species, which needlessly intermingle. F. sylvestris is wild in Scotland. F. lybica is the wild cat of Algeria; and in S. Africa F. Cafrua is wild. In India are found wild species, of which F. chaus has a lynx-like tail: F. ornata or tigrina occurs at Hansi, and F. manal occurs in Central Asia.

In the Isle of Man cats are tailless, and have long hind legs. The domestic creole cat of Antigua is small, with an elongated head; and that of Paraguay, also small, has a lanky body. In the Malay Archipelago, Siam, Pegu, Burma, all the domesticated cats have truncated tails, with a joint at the end. In China a breed has drooping ears. The large Angora or Persian cat is supposed to be the descendant of the Felis manal of Middle Asia; it breeds freely with Indian cats.

Whittington's nursery tale of England is
FELIS.

FELIS planiceps, Vigors, of the Malay Peninsula.

2d. The Lynxie Group.

F. ornata, Gray. F. servalina, Jardine.

F. hurtus, Bligh.

The ground colour is cat-grey, with numerous small black roundish spots. Length 2 feet, tail 1 foot. Central India, common at Hisar; feeds on the jarbon rat.

F. chaus, Gulden, Common Jungle Cat.

F. affinis, Gray. F. kutas, Pearson.

F. erythrostes, Hods.

Ban-beral, BENG. Mang bek. CAN. Bhago.

Katas, canthi billi, HIND. Jinka pilli, TEL. Cherra pulli, MALEAL. Kada bek, Billa bek, WAD.

Common all over India, and up to 8000 feet, and throughout Africa; breeds with domestic cat.

F. caracal, Schr., the Red Lynx. Caracal melanotis, Grey, is found throughout Africa, in Arabia, Persia, Tibet, in many parts of Central and Western India, not in the Himalaya or Bengal.

Feeds on peafowl, hares, etc., and is trained to kill hares, pheasants, kites, crows, cranes.

F. issabellina, Bligh, is the Lynx of Tibet, and F. manul, Palas (F. nigriticeps, Hods.), is also of Tibet. F. megalotis, Temm., is of Timor.

F. jubata, Schreb., the Huntig Leopard.

F. guttata, Herrmann. F. venata, F. Smith.

Kendus bagh, BENG. Chin, Yuz, Laggar, HIND. Chircha, Sivunga, CAM. Chita pull, TEL.

This was the pard, panther, and leopards of the ancients. Length, head and body about 4½ feet, tail 2½ feet, height 2½ to 2¾ feet. It is found throughout Africa, in S.W. Asia, Syria, Mesopotamia, in Sind, Rajputana, Kandesh, Central and Southern India. It attacks antelope, gazelle, and nilgai. It is trained to hunt deer, and is carried hooded on a cart till near the herd, where it is unhooded and slipped. It then slips down, and, if near the antelope, springs forward with a velocity perhaps exceeding that any other quadruped possessed. It singles out the biggest buck of the herd, holds it by the throat till disabled. If it fail, it walks about angrily.—Jardine, Mammals; Elliott; Bligh.

FELL, CAPTAIN, I.N., surveyed the Coromandel coast and the northern parts of the coast of the Tenasserim Provinces.

FELLAH, Falleh, in Egypt, a cultivator, a farmer; but applied to an Egyptian is deemed derogative.

FELLEK. Pers. A stout pole of or 8 feet long, with two rope nooses in the centre, used for the bastimado (zarab). The sufferer is laid on the back, his feet are inserted in the nooses, and retained immovable in the air by a man at each end of the pole; and two men, armed with pliable sticks, called chob, beat the soles of the culprit's feet. The Persians call it Chob khurdan, to eat stick.

FELSPAR, a mineral entering largely into the composition of hypogene rocks; granite is composed of felspar, quartz, and mica. It forms nearly two-thirds of granite rocks; it contains potass, an alkaline substance with a strong attraction for moisture or water. After a shower or a heavy night's dew, the moisture is taken up by the felspar, and conveyed into the substance of the rock, a portion of the potass being dissolved.
FERLING.

FERALIA of the Romans is the Srudhi of the Hindus.—W.

FERGUSSON, JAMES, Architect, C.E., D.C.I., I.L.D., F.R.S., F.R.G.S. and M.R.A.S., was born at Ayr, in Scotland, in 1808, and was for a short time a partner in a mercantile firm in Calcutta. During the years 1835–1842 he travelled through India, investigating the history, forms, and architectural antiquities, examined the eastern caves at Bactroo and Mahaballpur, and those of Ajanta, Ellora, Karli, Kenheri, Elephant, and others; and he has published the result of his researches into the origin of the architectural and sculptured remains of India, in volumes of the highest value to the ancient history of that country:—Illustrations of the Rock-cut Temples of India, 1845; Picturesque Illustrations of Ancient Architecture in Hindustan, 1847; Essay on the Ancient Topography of Jerusalem, 1847; Historical Inquiry into the True Principles of Art; Handbook of Architecture, 1855; On a Proposed New System of Fortification, 1849; Palaces of Nineveh and Persepolis Restored, 1851; History of the Modern Styles of Architecture, 1860, 1874; History of Ancient and Indian Architecture, 3 vols., 1865, 1874, 1876; Tree and Serpent Worship, 1868 and 1873; Illustrated Handbook for India, 1853, 1859; rude Stone Monuments, 1872; Holy Sepulchre, 1865, 1871; Study of Indian Architecture, 1870; Temples of the 18th Century, 1875; Cave Temples of India, jointly with Mr. Burgess, 1880. In 1859 he was appointed one of the Royal Commissioners to inquire into the defences of Great Britain, 7th April 1871, the Royal Institute of British Architects presented him with the Royal Gold Medal, as the author who had distinguished himself by his architectural researches.

FERHAD, so conspicuous in Persian romance, contemporary with Khusru Parvez, or Choeores (at the close of the 6th century), and that monarch's rival in the affections of fair Shirin, was a native of Kurdistan. He may be almost always recognised by the tishah or pickaxe, with which, for the sake of his mistress, he fractured or excavated enormous rocks, and, according to tradition, reduced the rugged face of Mount Resitin into those extraordinary sculptures for which it is still remarkable. With his tishah, says the poet Nizami, he rendered the hardest stone, as it were, soft like wax.—Ouseley's Travels, i. p. 234.

FERIDUN, n.c. 700? a hero of Persia, whose legend is related by Firdusi in the Shahnama. Feridun is fabled to have been the son of Abtin and Firinek, and to have been born in the reign of Zohak. Zohak, being warned by wise men that Feridun would overthrow his kingdom, sought to destroy the child. Feridun's father was killed, but the mother fled with the child, who was there brought up by a hermit. When sixteen years of age, Feridun learned from his mother the secret of his birth, and determined on revenge. He overthrew the king, and nailed him on the cross. Feridun, in this Iranian legend, is identical with Thracian, and the Tria of the Veda. He is fabled to have killed the tyrant Zohak on the Demavend mountain of the Alborz, south of the Caspian, as the Trita slew the demon Vrita.—Buness, p. 348.

FERTINGI, HIND., PERS. A term employed by Mahomedans of India to designate Europeans. It is used derogatorily, but ought not to be so, 1085
FEROSHPUR.


rhizomes of translated by Mahomedan was in the of Briggs 8vo, Earliest founded, 1612, 1780, 1794 was by J. Powers... of Iran. Ferozabad, on the summit of the mountain, and the fortified places of Darzi, Kutch, and Chakars, are considered similar to the whole nests of the Bakhtiar and Luri in the environs of Isfahan. They have a resemblance to the Hazara, but their foreheads, chin, complexion, and figure are less Turanian. They are decidedly Iranian. They take their name, the Feroz Koh, after the city of that name, about 63 miles from Teheran. Timur settled them by force in Mazenderan, but they soon returned to their own country. They have a few cattle, and they sow a little, and plunder the caravans travelling on the Maimani road, or make inroads on the scattered tents of the Jamshidi. —Vamberg.

FEROZPUR, in lat. 30° 57′ 1″ N., long. 74° 38′ 4″ E., in the Punjab, on the left bank of the Satlej. The mean height of the station is 1120 feet.

FERN, Kieuh, Chin. Species of Nephrumcidium and Pteris are common in China, and are included under this name. A kind of arrowroot is prepared from the rhizomes, which are also eaten, after proper washing and cooking.

Fern Spores, Hsiu-ku-chia, Chin. This fern plant grows in Hiu-nan Sze-chuen, and Che-kiang, in China, where the spores mean golden sea-sand. It is an exceedingly light, fine, reddish-brown powder, which burns almost as readily as lycopodium.—Smith.

FEROHZAD BAKHTYAR, the 29th and last but one of the Sassanian kings, A.D. 631. Under his successor, Yezdegird, the kingdom fell to the Mahomedans, A.D. 652.

FERONIA ELEPHANTUM. Roxb. 

Pteris vittata, E.J.R.; Bhuin-koit, Kaulfussia, Velanga; Vela, Vila, Vella, Kon.

A large, tall, wood-apple tree, one of the Aurantiaceae or orange tribe, is widely diffused in India. Its wood is white, hard, and durable. A specimen which was tried bore 560 lbs. in Vizagapatam it is much used in house-building, but said not to be very durable. It could possibly be creosoted, so as to withstand exposure. Its spheroidal fruit when ripe contains a dark brown, agreeable subacid pulp. When an incision is made in the trunk, a transparent oily fluid exudes, which by many artists for mixing their colours. Both leaves and flowers have a strong odour of anise, and the young leaves are given in the bowels complaints of children as a stomachic stimulant. It yields a large quantity of a clear white gum, much resembling gum-arabic in its sensible properties, and forms the well-known East India gum-arabic; and, from its ready solubility without residue, it gives the best mucilage for making black ink. The rather acid pulp contained within the hard shell of the fruit is eaten with sugar, but is not much prized.—Ainslie; Rozh.; Roble; M. E. J. R.; Gibson's Report; O'Sha; Wight.

FEROZ. Pers. Victory. Hence Ferozabad, Ferozpur, Ferozhshah, as names of towns; Feroz and Ferozshah, names of persons and kings.

FEROZ KOH, a tribe of the Almuk, a small number of people, about 6000, dwelling on the steep hill N.E. of Kale No, and from their inaccessible position afford their whole neighbourhood with their robbing and plundering. Kale No, on the summit of the mountain, and the fortified places of Darzi, Kutch, and Chakars, are considered similar to the whole nests of the Bakhtiar and Luri in the environs of Isfahan. They have a resemblance to the Hazara, but their foreheads, chin, complexion, and figure are less Turanian. They are decidedly Iranian. They take their name, the Feroz Koh, after the city of that name, about 63 miles from Teheran. Timur settled them by force in Mazenderan, but they soon returned to their own country. They have a few cattle, and they sow a little, and plunder the caravans travelling on the Maimani road, or make inroads on the scattered tents of the Jamshidi. —Vamberg.

FEROZPUR, in lat. 30° 57′ 1″ N., long. 74° 38′ 4″ E., in the Punjab, on the left bank of the Satlaj. The mean height of the station is 1120 feet.

1086

being derived from Fering, Europe, as Dana-i-Fering wa Dowlat-i-Hind, the wisdom of Europe and pomp of India. Peling is the Tibetan corruption of the word Firingi, itself a corruption of Frank, the oriental word for European.

FERISHTA, the literary title of Muhammad Kasim, styled Hindu Shah, also Ferishta, author of the Tarikh-i-Ferishta, a work considered superior to all the other general histories of India. He was born at Astarabad, on the shores of the Caspian, A.D. 1570, according to General Briggs, but according to M. Jules Mohl, A.D. 1560. His father, Ghalam Ali Hindu Shah, left his native country and came to Ahmadnagarr while Ferishta was a lad, thence ruled over by the Nizam Shah. Briggs supposes his death to have occurred A.D. 1612, when only 41 years of age. He seems to have accompanied Chah Sultan to Bijapur, where he lived under the Adal Shahi kings, and wrote the book on which several have been founded, viz. The History of Hindustan from the Earliest Times to the Death of Akbar, which was translated by A. Dow, 3 vols. 4to, London 1768; also The History of Dekhan from the First Mahomedan Conquests, and the History of Bengal to 1780, which was translated from the Persian by Dr. J. Scott in 1794; The History of the Rise of the Mahomedan Powers in India till A.D. 1612, translated from the Persian by Jo. Briggs, 4 vols. 8vo, London 1829. He also wrote many novels. His death is also supposed to have occurred in a period of famine while still only forty years of age. His work was translated by General Briggs of the Madras army, but the manuscript was burned when the Poona Residency was destroyed by Baji Rao, and had again to be re-translated by General Briggs.

FERNS, the Foug' reé of the French and Fielle of the Italians. Flowerless plants, the Filicales of Lindley and Fillices of other authors, belonging to the Acrogene. The species present infinite variety, in the form and division of their elegant leaves or fronds, the arrangement of the veins, and the form and general character of the clusters (sori) of minute fruit capsules, which are disposed upon the under surface or margin of the fronds. The rhizomes of the common brake (Pteris aquilina, L.) furnish a farinaceous food in times of scarcity. The male shield-fern, etc., are employed in medicine as anthelmintics, but Europeans in India largely cultivate exotic species as plants. In the table-lands they are met with, and in the hills and mountains of India they are abundant. The Dipteris Horsfieldi of John is the noblest of all ferns. Captain Beddome in 1853 issued a volume on the Ferns of Southern India, containing 84 genera. Species of the following occur in India:

**Polypodiaceae.**

1. autophyllum. 2. hemionitis. 3. notholena. 4. aspidium. 5. acraepodium. 6. bennetii. 7. Lindsea. 8. adiantum. 9. licoria. 10. fimbriata. 11. davallia. 12. acrostichum.

1. trichomanes. 2. Osmondeaceae. 3. tetradium. 4. allantodia. 5. chelitsiana. 6. vittaria. 7. blechnum. 8. Gleicheniaceae. 9. ceratopteris. 10. gleichenia. 11. lycopodium. 12. helemos-tachys.

Fern Root, Kieu, Chin. Species of Nephrumcidium and Pteris are common in China, and are included under this name. A kind of arrowroot is prepared from the rhizomes, which are also eaten, after proper washing and cooking.

Fern Spores, Hsiu-ku-chia, Chin. This fern plant grows in Hiu-nan Sze-chuen, and Che-kiang, in China, where the spores mean golden sea-sand. It is an exceedingly light, fine, reddish-brown powder, which burns almost as readily as lycopodium.—Smith.
FEROZ SHAH.

FEROZ SHAH, in the neighbourhood of Ferozpur, in the Panjab. A battle was fought here on the 21st and 22nd December 1845, between the British and the Sikhs.

FEROZ TAGHALAQ SHAH, king of Dehli, was grandfather of Sultan Mahmul, whom Timur conquered. It was this king (A.D. 1351-1388, A.H. 752-790) who removed the lat or pillar, according to one account, from near Khirazbad, immediately west of the Jumna, at the foot of the Siwalik Hills, to Dehli, and erected it in the centre of his palace. This column is alluded to by Chandra Gullab, telling the fame of the Chahara, but he says it was placed at Nigabode, a place of pilgrimage on the Jumna, a few miles below Dehli, whence it must have been removed to its present singular position. The name of Beasildake (Visaladeva) heads the inscription on the pillar. The pillar is now known as one of the Dehli Lat, also the Golden Lat, so called from the gilt kalasa, pinnacle or ball, which Feroz Shah placed on its summit. This monolith, like the kindred pillar at Allahabad, was in the first instance exclusively devoted to the exhibition of a counterpart text of the edicts of Asoka, but succeeding generations have taken advantage of the ready prepared monument to supplement a record of their own prowess. The other stone pillar at Dehli was brought from Mirat. His long reign was distinguished by the erection of many mosques, sarai, colleges, hospitals, public baths, wells, aqueducts, and reservoirs for irrigation. He excavated a fine canal, running from the river Jumna through the province of Dehli to the Kagar river, which subsequently formed a lake. About 200 miles of it were restored by the British in the middle of the 19th century. The public works executed in his reign were 50 dams across rivers, and 50 reservoirs to promote irrigation, 40 mosques, 30 colleges, 100 caravansaries, 100 hospitals, 100 public baths, 150 bridges, besides many other buildings.—\textit{Toody's Rajastahan, ii. p. 452; Orme. See Lat.}

FERUQUEH, amongst the Afghans, means a tribe. It is probably from the Arabic Fargh, separation. Fargah, a tribe or community.

FERREOLA BUXIFOLIA. \textit{Roxb.} iii. p. 790. \textit{Maba buxifolia, Pers.}

Illumbili maram, .. \textit{Tam.} | Eroombala maram, \textit{Tam.}

This plant grows among the Cirec mountains to the size of a small tree, but in the low countries it is only a shrub. The wood is dark-coloured, remarkably hard and durable; when its size will admit, it is employed for such uses as require the most durable, heavy wood. Its small red fruit, containing one seed when ripe, is pleasant to the taste, and is well known over India.—\textit{Roxb.; Ainslie; Mr. Rohde's MSS.; Voigt.}

FERRY. The ferries at rivers in the S. of Asia are crossed by means very various. On the Tigris, Euphrates, the Upper Indus and its affluents, the practice of 3000 years still continues, for Xenophon’s ten thousand were ferried over on inflated skins, and three slabs in the British Museum show the representation of the king of Assyria crossing the Euphrates in this mode, which, on the rivers named, still continues. Canoes are of common use on the ferries; two pieces of the bole of a palmyra tree, scooped out and blocked with clay at the end, and fastened together, are used in the Circars, but the wicker and leather coracle traverses most of the rivers in the Peninsula of India. The ferry-men on the Kistna river in the Peninsula are the Koli race, stalwart men. The Kili-Katir or Madaklapur race are also Kahl-gira or ferrymen.

FERULA ASAFETIDICA. \textit{Linn.} \textit{Asafoetida.}

\textit{Narthex asafoetida, Falce.}

Hillit, Anjadian, .. \textit{Arab.} | Hingisch, .. \textit{Hind.}

Samagh-ul-mahrus, .. \textit{Yang.} | Kasim.

Jawfela, .. \textit{Ingiva.} | Hing-patri, Tel.

Anza, Hing, .. \textit{Hind.}

This plant grows in all the mountainous countries in the north, the south, and the cast of Persia, between Persia and Tibet, and in Lar, Khorsan, Afghanistan, up to India. It grows in the neighbour-hood of Herat, mountains of Daristan and Baluchistan, and on the Hindu Kush at 7000 feet. Dr. Cleghorn says the asafoetida plant occurs in Pangi, and in the localities given for daphne and desmodium (as yielding material for making paper in district jails). Dr. Stewart got this plant in Khagan (Jhelum basin) at about 6000 feet; and Dr. Cleghorn, he says, mentions specimens of it as being brought to him on the Upper Chenab at over 8000 feet, but is not known there. This plant has been conjectured to have produced the Lasser of the ancients (see Astrantia), which, however, is now ascribed to a Thapsian. The gum-resin asafoetida is obtained by slicing the roots. A milky juice exudes, which dries rapidly into a fetid, pasty, bitter, and pungent mass. The odor of asafoetida has gained for the gum-resin the epithet of the devil’s dung; the taste is bitter, acrid, and very durable. Asafoetida occurs in commerce in shapeless masses of waxy consistence, with small transparent, brittle, and white tears. It is used in medicine, and by all classes of Hindus as a condiment with their food.—\textit{Stewart; Cleghorn, Punj. Rep.; Powell.}

FERULA GALBANIFERA. \textit{Nees and Eberm.}

Coastal of the Mediterranean, the Caucasus, etc.; yields copiously a secretion which dries into a gum-resin, supposed by some to be a galbanum. Professor Don states that galbanum is yielded by quite a different genus, called by him Galbanum officinale.—\textit{Eng. Cyc.; Hogg, p. 388; Von Mueller.}

FERULA ORIENTALIS. — \textit{?} \textit{O’Sh.}

P. ammonifera, \textit{Fec.} | \textit{Feeshook, .. \textit{Arab.}}

It grows in Asia Minor, Greece, and Morocco; supposed a source of gum ammoniacum.—\textit{O’Sh.} 364.

FERULA PERSICA. \textit{K. F. Sagapenm, \textit{Fec.}}

Suganij, .. \textit{Arab.} | \textit{Sagapen, \textit{Gn. Pers.}}

Bakmu .. \textit{Bomnat.} | \textit{Bakmu.}

Kandil .. \textit{Hind.}

A native of Persia; stem about two feet high. According to some authorities, it produces sagapenum. Nees von Esenbeck and Lindley considered it as one of many plants from which asafoetida is procured. Sagapenum is found in masses. Its odour resembles that of garlic and asafoetida; its taste is hot, nauseous, and rather bitter. It is sometimes adulterated with bellidium, gunda-birosa, and other similar gum-resins or turpentine. It is collected in the same manner as asafoetida; sells at 4 rupees the pound. The medical uses of sagapenum are the same as those of asafoetida, but it is considered less energetic, and is but little employed.—\textit{O’Sh.} p. 363.

FESTIVALS. The Festivals of the Hindus, of the Mahomedans, Burmese, and of the Chinese, are connected with their religions. At the Hindu Amarnath festival of the new moon, Hindus eat only one meal. It was a monthly mortuary service, at which prayers are offered up for their parents, grand
and great-grand-parents. In the new moons of January, July, and August, they make offerings to the manes, of sweet food. The Thivasam is an annual veneration of their parent, grand or great-grand-parent. The Mahalya Putham of the month of August is a mortuary service. Avani Aattam is a half-yearly service. With Mahomedans, the new year festival of the Maharram, and those of the Runzam and Bakreel are their chief. The Chinese new year falls on the 15th of Aquarius, their feast of lanterns on the first full moon of the new year.

**FETISHISM** is the belief that external phenomena can be controlled by witchcraft; the stage of religion in which man supposes he can force the Deity to comply with his desires. Totemism is the worship of natural objects.

**FEUDATORY.**

The Akukote chief is a Mahratta Subia of the Bhonsla family, to which belong also the Kolhapur chiefs. He is addressed as Rao Sahib Mirhaban.

Aroc.—In the earlier and middle parts of the 18th century, when Mahomedan generals, the British, and the French, were striving for supremacy in the Karnatic, the rulers for the time were styled Nawabs of Aroc. This was the title of a family whom the British favoured, and whom the treaty of Paris of 1751 acknowledged, though they style themselves Jalwah, of high dignity. The last Nawab died in 1855, but his uncle, Prince Azim Jah Bahadur, was since then created Prince of Aroc, and this title descended to that prince's son, who was styled Umdat-ul-Umra, Amir-ul-Umra, Madar-ul-Mulk, Azim-u-Dowlah, Asad-u-Dowlah-ul-Angiz (Zahir-u-Dowlah), Khan Bahadur, Zu-ul-Fiqar Jung, Fitrat Jung, Sipah Salar, Amir-i-Arkat and (?) Hinds, G.C.S.I.

The Banaganapilly ruler is a Mahomedan Synd, and is styled Nawab of Banaganapilly, Khan Bahadur.

The Bengal Subahdahr is not ruling. In 1763, Jafar Ali Khan was placed by Clive on the musuln as Subahdahr of Bengal, Behar, and Orissa; and in 1880 the holder of the titular dignity was the eighth in succession, and styled Nawab Mantazam-ul-Mulk, Mohsan-u-Dowlah, Faridun Jah (name), Khan Bahadur, Naesar Jung.

In Bengal there are many great Hindu landed proprietors, as the Raja of Benares, the Raja of Bardwan; and numerous chieftains with territorial possessions, as in Muripur, and amongst the Garo and Khasya, and in Assam on the east, and in the west amongst the Santal, Kol, etc.

In Calcutta, the capital of Bengal, there are many families with titular appellations, some of them patronymic, some of Mahomedan and some of Hindu origin, such as Deb; Sri-sri-Raja Deb-Bhoo Ballanda; Kumar; Rai, Raja, Rani, Maharaja, Maharani, Rai Bahadur, Bahadur, Raja Bahadur, Maharaja Bahadur; Malik, Nawab. A Hindu lady, a great patron of learning, has recently been created a Maharani.

The Bhaduris family of the Agra district often rendered good service to the British; and Lord Lake bestowed on them the pargana of Atais as an allamgah jaghir, but it was subsequently resumed.

Bhownagar rulers are styled Thakur, and have the title of Rawal.

Bhopal is ruled by a lady of the Mahomedan faith, Shah Jahan Begum, G.C.S.I., Begum of Bhopal. The titular designations of the Bhopal chiefs are, Myan, Rao, Rawut, Raja, Maharaja, Bahadur, Nawab, and Thakur.

Bhurtpur, in Hindustan, has a Hindu family of the Jat race, the ancient Geete. Their title is Brijandar Siwai Bahadur, Bahadur Jung, Maharaja Bahadur of Bhurtpur. The Jat are an earnest, brave race.

Bikanir, in Rajputana, is ruled over by a Rahtor Rajput, styled Maharaja of Bikanir.

Bobali, a great landed estate in the Northern Circars, is held by a Hindu, styled Raja Sahib Mirhan Dostan, Raja (name) Bobali Rana Gaur.

The Bundi ruler is styled Maharao Raja of Bundi. In the Canarese-speaking country, the chiefs are largely of Mahratta origin. Jamnepa Kara means a public benefactor.

Chichli has a Hindu ruler, styled Raja Bahadur;
his seal bears the titles Sado-sahai, Nar Singh, Nizam Singh, Sut-Bijai Bahadur Singh, son of Nizam Singh. His insignia is a yellow or jetambar flag, and chowri and staff.

The Cochini sovereign is a Hindu, whose insignia is a palanquin, with umbrella, lamp, and chank shell, entitled His Highness Rama Varma, Raja of Cochin, K.C.S.I.

Holkar, a sovereign ruling at Indore, in Malwa, is of the Dhhangar or shepherd tribe. He is styled Maharaj, Dhiraj, Rajeshur, Siwai, Tukoji Rao Holkar Bahbadur, K.G.C.S.I. Since 1836, each succeeding ruler has been adopted according to Hindu rites. Joswunt Rao died 1811, and was succeeded by his son Mulhar Rao, who died in 1833, childless. Martand Rao was adopted as his successor, but he was deposed by Hari Rao, who died in 1843, also childless; and his adopted son and successor, Khande Rao, died in 1844, and was succeeded by adoption by Tukoji Rao (ruler, 1881).

Hyderabad, in the Dekhan, has been for nearly 200 years under a Mahomedan family, now styled the Asaf Jahi. The state is in the centre of the Peninsula, and is formed out of parts of the Gond, Telung, Cooarase, and Maharrata countries. The sovereign is generally known as the Nizam, but is styled Muzzaffer-ul-Mumalik, Rustum-u-Dauran, Arastah-i-Zaman, Asaf Jah, Nizam-ul-Mulk, Nizam-u-Dowlah, Mahbub Ali Khan Bahaudur, Fatah Jung.

The Jeypore Maharaja is a Kachwaha Rajput. The Jhala ruler at Drangada in Kattyavard is also a Rajput family.

Jodhpur, under a Maharaja, a Raultor Rajput.

Kalahari or Kala hadari is a zamindari estate near Madras, held under a perpetual (cowl) agreement (Sanad-i-Milkat Istimtar). The proprietor is styled Raja Damara Kumara (name), Naidu Bahadur Varu. One of them died March 1881.

Kapurthalla, a family known as the Ahluwala, from the village of Ahlu, near Lahore. It is a Sikh chieftaincy of 800 square miles in the Panjab, and of 850 square miles in Oudh. Revenue, 17 lakhs.

Kashmir and Jammu are ruled by a family of Jamwal Rajputs, by treaties of 6th March 1844 and 1st January 1877, styled Maharaja Indar Mahindar Bahadur, Sah-sip-Sultanat, Musbhir-i-Kasian-i-Hind. The area of Jammu and Kashmir is 68,000 square miles; population, 1,600,000; chief towns, Jammu on the Ravi, Srinagar in Kashmir, and Leh.

Kawatnagar, a great zamindari near Madras, held by a family who rose from obscurity in the 17th century, known in history as Bomraz.

Kolkapur is held by a descendant of the great Sivaji, a Maharrata ruler of the Bhonsa family, with the title Chatrapati Maharraj.

Kotah ruler is a Chauhan Rajput.

Cutch ruler is of the Samma family, Jharjarah Rajputs.

Maharrata chiefs under the Poona collectorate, in the Dekhan and in the Southern Maharrata country, etc., have recognised titular names, but many of them have official designations, as Pant-Pritinmil, Pant-Amatya, the Ghatge chief of Kagal, chief of Ichakkaranj, chief of Sangli, chief of Mudhol, the Ghorparay, Patwardhan, the Vinechurch, etc.

The Mysore kingdom is ruled by a Hindu sovereign, under the partition treaty of 1795, framed after the fall of Seringapatam. The present ruler, Channajendry Wadiar, born 1862, was adopted by his predecessor, was installed 23rd September 1868, and placed in charge in March 1864.

Nepal has treaties with India as an independent kingdom, but it is tributary to China. The titles of the late Maharaja Jung Bahadur were Thong-lin-pimma Kokang-vang-syan, Commander of the Army, the Valorous. His term in office, 1768, was as follows:

The Nowanagar chief is styled Maharaja Jam Sahib Sivasthan Nowanagar.

Oodegger is ruled by a Suryabansi Rajput, His Highness Maharana Sujjun Singh, born 9th June 1858. They are mentioned in A.D. 720, and are deemed Hindus of the highest rank.

The Pursa race is chiefly dwelling in parts of the Bombay districts; they were refugees from Persia in the fourteenth century. Her Majesty created Jamsaiji Jijibhoi a baronet of the United Kingdom. The Rustomji Cowasji family claim as a titular appellation, Davar, said to mean in the Zend or Pehlavi, a chief or judge. That family has also assumed the designation of Mohli, meaning provision supplier. Indeed, except their constant use of the Hindu term Jeo added to a name of Persian origin, the Pursas are proud of the trades by which they acquired wealth, and in Bombay are the Bottlewallas.

Patiaala is a Sthiik Sikh chieftaincy. It has an area of 5412 square miles with a population of 1,650,000, and 44 lakhs of revenue. The ruler is styled Farzand-i-Khas-i-Daolat-i-Anglizia, Mansur Zaman, Amir-ul-unma, Maharaja, Dhiraj, Rajeshur, Sri Maharaja Rajgan Mahendar Bahadur.

Pudnacottah has an independent chief, His Excellency the Raja Tundlamah Bahadur, of the highly predatory Kollari race; indeed, their tribal name means thief. But they devotedly served the British in the Eighteenth century in the southern part of the Peninsula, and this small territory remains to them. His Excellency's armorial bearings is a lion, a feline animal not known in that part of India.

In Rewa Kanta the titles in use are Babi, Maharan, Maharwul.

Sandur, in a valley 37 miles from Bellary, is ruled by an independent Maharrata chieftain of the Ghorparra family, who is styled Siva Shambunkha Rao, Ghorparra, Mumalakat Madar, Senapati, Raja of Sandur.

Sind, now British territory, has chiefs with titles both from Hindu and Mahomedan sources. Many of the former are tribal, as Numura, Jat, Kalinat, Jokia, Soda, Talpur, Khilobra, Jam, Rao, Thakur, Wadero; also Arbab, Agha, Mahkhum, Malik, Kana, Khan, Bahadur.

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The Sindhu flows through the present (1883) sovereign's name is Jyaji Rao Sindia. His many titles may be given in diglot, in the following form:

Mukhtar-ul-Mulk, The absolute executive authority of the country.

Azim-ul-Iqta, The Mighty in Power.

Ba-frus-Shan, The High in Pomp.

Wala Shikoh, The Exalted in Splendour.
FIBROUS MATERIALS.

Fibres are either cellular in their structure, like the cotton, Bombax cotton, madar fibres, or they consist of woody tissue or fibre, like the lotus fibre, flax, hemp, jute, sumi, etc. But the cellular fibres are not the product of stem or leaves, but of the seed-vessels, etc. Plants whose stems and leaves are simply formed of cells or vessels yield no fibres. On the outbreak of the war with Russia in 1853, attempts were directed towards the probable effect which the stoppage of the Russian trade would produce upon the supply of flax and hemp, the greater portion of which had been derived from that empire. Their importations of flax from all parts, in 1853, had amounted to 94,169 tons, and Russia alone contributed 63,399 tons towards that quantity; and out of 66,142 tons of hemp imported during the same year, 41,819 tons were obtained from Russia alone.

The total value of these importations, computed upon the average rate of the year, amounted in round numbers to £3,500,000 sterling. Under these circumstances, attention was forcibly directed towards India as a possible source of supply, and the result was that Indian fibres were proved to possess all the necessary intrinsic properties, while in point of flexibility and strength some of them are infinitely superior to Russian produce. Very much was then done by Dr. John Forbes Royle, Dr. Alexander Hunter, the British Government, and the Governments of India, to extend our knowledge of the fibrous and textile materials of South-Eastern Asia, and the result was to make generally known that each district of India and of the south and east of Asia has its own particular fibres, all largely utilized by the people, and amongst the most desirable of attention may be enumerated the following:—

Adelmoschus esculentus.  
A. flueineus.  
A. abroma augustum.  
Abutilon indicum.  
A. polyandrum.  
A. argun.  
A. hirsutum.  
Acacia leucophlechia.  
A. arboica.  
Agave americana.  
A. cantaloupensis.  
A. pterocarpa.  
A. viridis.  
A. vivilara.  
A. yuccaefolia.  
Ailanthus altissima.  
Aletria nervosa.  
Aloe indica.  
A. perforata.  
Ananas sativus.  
Andropogon argenteus.  
A. schomannii.  
A. muricatus.  
Arenga saccharifera.  
A. saccharoides.  

Adopt the fez, while the turban only survived as a head-dress to be worn in the seclusion of the harem, or as an ornament carved in stone above the grave of the faithful. The very ulema were compelled in 1837 to renounce the turban for the fez. It was like stripping a bishop of his apron, or compelling the higher clergy to attire themselves in trousers. The ulema revolted on Mahmud's death, and returned to the turban. They would not wear the head-dress of the Gabar, for the red fez is originally the coiffe of the Greeks and Albanians.

Fey-Yue-Ling.

The terminations, holder in Gajapat frontier It in Travancore frightful, contain to Raja beleaguered Vizianagram 1766, The unwritten variation of or Chief maternial and of Bao FEY-YUE-LING. cap of most survival 2-16. covered and the arrival of the Exalted the Flax of the Madras. The proprietor's titles are Raja Masafhaq, Mirhban, Karmfarna-i-Mulkhasan, Rajah Velugoti Kumara Zachama Naidu Bahadur, C.S.I., Panj Hazar Manabdar.

The Vizianagram Maharaja is of Rajput descent, and a great landed proprietor or zamindari in the Northern Circars. The grandfather of the present holder never submitted to the British, and died in the wilds of the zamindari. His son, a mere child, who died in 1880, was brought into British territory and placed in possession of the estates. The titles of the family are chiefly of Persian and Arabic words, with vowels added to give Telugu terminations, Maharaja Sahiba Mirhban Masha-paku, Kadrcran, Karmfarna-i-Mulkhasan Maharaja Mirza, Hs Highness (name) Sri Vizia Rama Gajapat Raja Manya Sultan Bahadur, K.C.S.I.

The Zamorin of Calicut is the inheritor of a title famed of the ancestors of the Portuguese, but whose ancestors lost their position in the subsequent strife with those Europeans and with the Mysore State. In 1766, the Zamorin, being beleaguered by Hyder Ali, he set fire to his palace, and voluntarily perished in the flames. His title, Raja Poomthurakoo Koonalakonatiri, does not contain the term by which the ruler is known to Europeans, and which is supposed to be a lingual variation from Samundar, the ocean. Since 1766, the Zamorins have been tributary, first to Mysore, and since 1799 to the British.

Fey-Yue-Ling, a gigantic mountain on the frontier of the central empire of China, rising like an advanced post of the mountains of Tibet. It rises almost perpendicularly, and presents to the traveller many peaks. During the whole year it is covered with snow, and surrounded by clouds that reach to its very foot. The road is frightful, and passes over rocks and chasms; it is one of the most difficult in all China, and no place of rest can be found on it.—Huc, Chinese Empire, I, pp. 2-16.

Fez, a red cap worn by many of the Turks of Europe, Egypt, and W. Asia, also by many Greeks. The fortunes of the fez make a curious chapter in the unwritten history of clothes. It is now a symbol or a survival of Islam and of oriental manners. The great reforming Sultan Mahmud put down the turban, as he put down the janic- saries. He made all civil and military officials
FIBROUS MATERIALS.

HBROUS Twine, Hemp, and Quantity.


The abundance of fibrous materials in S.E. Asia may be illustrated by mentioning that while they are exported to India to the value of twenty to thirty millions sterling annually, the little of any kinds that are brought to India is almost all re-exported.

Southern India is abundantly productive of fibrous materials for every description of textile manufacture, from the coarsest packing cloth, to the finest cambric, lawn, or muslin. It would be impossible to say how far the cultivation of fibrous plants might be carried, and what would be the demand for them at Madras, if properly prepared for the market; but there is no doubt that a slovenly mode of preparing these materials has hitherto tended greatly to interfere with their sale in European markets.

In Bengal there are several plants adapted for the manufacture of textile fabrics. A species of Urica, of whose fibres the much-admired grasscloth of China is made, is cultivated in Rungpur, and, as rhea, is grown in Assam and Cachar. The pine-apple plant, too, from which a beautiful fabric is manufactured in Mindanao, is indigenous in Sylhet and Assam, and is extensively cultivated about Dacca. The fibres of both plants are used by the natives for making fishing lines and nets; but up to 1851 no attempt had been made in Bengal to weave them into fine cloths. The same remark, perhaps, applies to munga (Sansevieria Zeylanica), the fibres of which are commonly used to make bowstrings. Calotropis gigantea possesses a fine silky fibre; and some varieties of the plantain tree, as the Musa textilis, yield fibres which, like the abaca hemp of Manila, are capable of being converted into strong thread or cord, such as the Dacca spinners sometimes use for the bows with which they teoss cotton. The people of Rungpur make cloths of the fibres of pat; and there can be little doubt that, if encouragement were given to them and other spinners and weavers in Bengal, they would, with the skill which they possess in these arts, also succeed in converting other materials into fabrics.

In the Tenasserim Provinces ropes are frequently made from the banks of Partitum macrophyllum, P. tiliaeum, Hibiscus macrophyllus, Sterculia guttata, and Sterculia ornata.

In China the staple summer crops are those which yield textile fibres. Jute is grown to a very large extent, and is used in the manufacture of sacks and bags for holding rice and other grains. A
gigantic species of hemp (Cannabis), growing from ten to fifteen feet in height, is also a staple summer crop. This is chiefly used in making ropes and string of various sizes; such articles being in great demand for tracking the boats up rivers and in the canals of the country.

Boechmeria nivea yields the well-known rhea fibre. In strength it exceeds the best hemp, and in fineness it rivals the superior kinds of flax. Its culture is well known to the natives of Assam, and in the districts of Kangpaur and Durnajiap, being called kunkhoora. It is known in Burma, and is the pan of the Shans, the name of the Malays and of Java, and the caloe of Sumatra. Its culture succeeded in Tenasserim, and is followed in Siam, as in other eastern countries and islands. It is identical with the highly valued article of commerce known by the name of China grass, the Chu-ma of the Chinese, and from which the famous grass-cloth of China is manufactured. Manure is useful and moisture essential to quick growth, as well as shade and some protection from storms; in order to allow it to grow to the height of eight feet, from which a six-foot fibre may be separated. Hence it is most common and succeeds best in the districts along the foot of the hills. It is grown from the separated roots, and may be cut down several times in the year, so that four or five crops may easily be obtained during the year, and the aggregate produce of an acre of ground be about twelve maunds. The different crops vary in strength and fineness, the earlier being the stronger and the latter finer. The culture is perfectly understood, and it is susceptible of easy and rapid extension. The expense seems to be about five rupees a maund. Various attempts have been made to bring it into demand as an article of commerce. Dr. Roxburgh obtained four plants from Benooon in the year 1803, and wrote that it was one of the strongest fibres he had met with. In 1811, Dr. Buchanan sent three bales of the fibres to Messrs. Sharp of Mark Lane, who reported that a thread spun of this fibre bore 2,522 pounds, whereas the weight required to be borne by Russian hemp of the same size, in His Majesty's dockyard, was only 84 pounds. The Society of Arts, in the year 1814, awarded a medal to Captain J. Cotton of the East India Company's service, for the introduction of this fibre, and medals and honourable mentions were awarded to several exhibitors from India and Java, at the Exhibition of 1851, for specimens of sailcloth, ropes, cables, finer kinds of cloth, and tablecloths; and it is used by the natives of the countries which have been mentioned for making nets and fishing lines; also stout cloth and some of finer fabric.

A plant, known to the people as Ban Rheea, or wild rheea, is very common in all parts of the Assam province in most of the forests. By proper management any quantity of young shoots can be obtained, and the ridged roots afford numerous shoots, and the plant can be propagated by slips as well as by seed, its cultivation for its fibre might be carried on with facility. It is cultivated largely by the hill tribes on the north-west of Yunnan, and by the Singpho and Dhomneas of the north-east frontier to a small extent only for a coarse cloth, but chiefly for nets. It is the Leepceah of Nepal. Thompson & Co., rope-makers, of Calcutta, said of it that it is all that can be desired for either canvas or lines, and only requires to be known to be generally used for that purpose. It was valued as being worth about 235 a ton in England. When made into a five-inch rope at Messers. Huddart's works, it absorbed 17 of tar, and did not break until it bore nearly 9 tons weight.

Clean samples of the following fibres were taken, of equal weights and firmly tied at their ends, so as to be of equal lengths, and their strength tried in the India House Military Stores, 16th December 1853.

<table>
<thead>
<tr>
<th>Fibre</th>
<th>Strength (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petersburg hemp broke</td>
<td>160</td>
</tr>
<tr>
<td>Jubbulpur hemp, from Mr. Williams</td>
<td>190</td>
</tr>
<tr>
<td>Wuckoo-mar fibre, Travancore</td>
<td>175</td>
</tr>
<tr>
<td>Mudar or yereum fibre, common all over India</td>
<td>190</td>
</tr>
<tr>
<td>China grass, Boehmeria nivea</td>
<td>320</td>
</tr>
<tr>
<td>Rheea fibre, the same from Assam</td>
<td>343</td>
</tr>
<tr>
<td>Wild rheea, Boehmeria species, from Assam</td>
<td>400</td>
</tr>
<tr>
<td>Kote Kangra hemp, (no breakage at)</td>
<td>400</td>
</tr>
</tbody>
</table>

Dr. Royle gives the following tested strength of certain fibres:

- Wuckoo fibre, small cord, broke at 86 lbs.
- Petersburg hemp cord, 170 lbs.
- Wild rheea cord, same size as Russian, 190 lbs.
- Rheea fibre, one thread larger, 230 lbs.
- Pound line of wild rheea, 510 lbs.
- Six-thread cord of Petersburgh hemp, 505 lbs.
- Six-thread ratline of whee, tarred, 525 lbs.
- Twelve-thread of wild whee, tarred, 530 lbs.
- Nine-thread ratline of wild whee, tarred, 580 lbs.
- Twelve-thread ratline of wild whee, tarred, 1120 lbs.
- One-inch rope of wild whee, 1350 lbs.
- One-and-a-half-inch rope of wild whee, tarred, 1900 lbs.
- Two-inch rope of Russian hemp, 1900 lbs.
- Two-inch rope of rheea fibre, tarred, 2500 lbs.
- Twelve-thread rope of plantain, made in India, 264 lbs.
- Twelve-thread rope of pine-apple, made in Ind., 264 lbs.
- Two-inch rope of dhunnee fibre, made in Ind., 1500 lbs.
- Two-inch rope of agarve, usually called aloe, made in India, 1500 lbs.

Planting and Cleaning.—When plants are grown to produce fibres, they ought to be sown thick, to induce them to grow tall and slender and without branches, so that the straight stems may yield a greater length of fibre; and it may be laid down as a general rule that the softness or cleanliness of a fibre forms a good criterion of its strength, and vice versa.

As a general rule, every day's steeping of a fibre takes from its strength, and imparts more or less colour. Therefore, with plants having bark and woody fibres, the fibre can be purest extracted by beating them, at first, well with a wooden mallet, in order to loosen and allow the removal of the bark from the stalk, as it is generally on the inner surface of the bark that the fibres suitable for cordage usually occur. When the bark has been brought into a pulpy state, it should be well washed in clean water, to remove as much of the sap as possible, as this is the part in which the putrefactive process first begins. The leaves, stalks, or bars of plants should be cut when in full vigour, and in the bright green colour; when they are dried or decayed, they yield coarse and stiff fibre. Only so much should be cut at a time as can be cleaned within two days, and the plants when cut should not be exposed to the sun, as the sap dries up, and the process of cleaning them is made more tedious. The sooner the sap, pulp, and impurities can be removed from the fibre, the cleaner and stronger will it be. If
a plant be well crushed or beaten soon after it is cut, it may be immersed in water for a night, and a good deal of the injurious part of the sap will be removed. These remarks are particularly applicable to the coir fibre. With the agave, yucca, fourcroya, and sansevieria, beat or crush the pulp with a mallet or crushing cylinder, or a brake, and scrape away the pulp and wash the fibres. In cleaning the fibres of pulp plants, the plants should first be bruised or crushed, and the juice which exudes may be kept to be converted into a coarse kind of vinegar required in another process. For this part of the process the common sugar must of India, with two perpendicular rollers and a channelvoy to convey the juice into some convenient vessel, answers well, and the cost does not exceed ten rupees. Where this small sum cannot be afforded, and labour is abundant, the plant may be well beaten with wooden mallets on planks, until all the pulp is loosened. When it has assumed a pulp-like consistency, the plant should be seized at both ends and well twisted on itself in various directions to squeeze out the sap. It should then be well washed in plenty of water, untwisted, and scraped on a board, in small handfuls at a time, with a blunt straight knife, or a long piece of hoop iron fastened into a wooden handle. When all impurities are thus removed, the fibres may be soaked for an hour or two in clean water, and then hung up in the shade to dry, the latter being a point of much importance, as exposure to the sun at first is apt to discolor them. By this simple process, fibres of great length, of a silky appearance, and of a good colour, can readily be prepared. The stripings should be well washed, and set aside in the shade to dry as tow for packing, or as a material for making paper. This process is applicable to all leafy or pulp plants, such as those known as aloe plants, the agave and yucca, sansevieria and plantain. Prices have been obtained in England for fibres cleaned in this manner, double those offered for fibres sent at the same time, but which had been cleaned by the ordinary rottin process.

In order to save labour, the usual practice has been to steep the plants till the sap and vegetable juices are thoroughly decomposed, as the fibre can then in most instances be easily beaten or washed out; but this method, though applicable to a certain extent in cold climates, where decomposition takes place slowly, is found in India to be very injurious to the fibre, and to be almost inapplicable in warm climates, where fermentation takes place in pulp in about three days, and the decomposed sap acquires acid and other properties, which not only deprive the fibres of their strength, but discolor them in such a way as to render them quite unfit for manufacturing purposes. Most vegetable substances contain, besides the fibrous tissue, sap, cellular tissue, and a little colouring matter. The sap consists usually of water, gum, fecula, and alkali, with occasionally tannin. When plants are dead or dried up, they pass into a red or brown, usually streaked with deep yellow and grey. It is often possible to detect a regular succession of colours in the different parts of the same plant, and a few very useful lessons may be drawn from them,—1st, That the pale yellow or greenish parts of a plant contain fresh, tender fibres; 2d, that the deep green parts of a plant contain fibres in full vigour; and 3d, that red or brown parts indicate that the fibre is past its prime and beginning to decay. In the latter case, the fibre becomes stiff, harsh, and often brittle. If plants be cut and exposed to the air or steeped in water, the same succession of colours may be observed while they are drying or passing into decomposition, and these form a criterion by which the value of the fibre may be detected.

The above remarks are applicable to the cleaning of nearly all plants. Some special observations regarding particular classes may be given.

The Palms—Coconut Coir. — The coir fibre from the husk of the ripe coconut is greatly improved in quality and appearance by beating, washing, and soaking. The old method of steeping in salt water for eighteen months or two years is quite unnecessary, and produces a harsher and dirtier coir. The tannin which this substance contains prevents the fibre from rotting; but most of the coir of commerce is a dusty, harsh produce, while clean, and samples are suited to a superior class of manufactures, as fine mats and furniture brushes. Palm leaves are employed for thatching and making fans; they do not undergo any preparation. Leaf-stalks of the palms are harsh, stiff, and brittle; but if beaten and washed they become softer and whiter; if carefully split and drawn like wire through perforated steel plates, a neat, clean, and durable basket—work might be made from them.

Leaves of the Screw Pine make good matting. Some neat kinds of basket-work have been made from this substance; it has also been tried for paper and yields it of good quality, light and strong. Experiments are required to separate the green parts of the pulp from the white short fibre.

Rushes, Grasses, and Sedges. — It is uncertain whether differences depend upon the treatment of the grass and the modes of splitting it, or on the different qualities of the plants employed. The Palghat and Cochin mats have long been considered the finest in the south of India.

Liliaceous Plants include the different varieties of aloe, agave, yucca, fourcroya, and sansevieria. They are all hardy, require but little care for their cultivation, are comparatively easily cleaned, and yield good white fibres of considerable length. There are large exports of aloe fibre from the western coast, and the cultivation of these plants might easily be extended in India (see Report in Records of Military Board on Aloe Ropes supplied the Army from the 1797 to 1805). The aloe fibre contains a thick, viscid, milky juice, which can only be removed by hard beating or crushing. It is probable that this juice gives the aloe fibre its tendency to rot when much exposed to moisture.

Jute.—Corchorus capsularis, C. olitorius, and Hibiscus cannabinus, are all three indifferentily grown and sold as jute. The whole of the recorded evidence of Bengal jute growers, brokers, and merchants may be summed up in the following sentences:—Jute cultivation is easier and more profitable than rice. The Bogi, Corchorus capsularis, is generally preferred to the Desi, Corchorus olitorius, and to the Mesta, Hibiscus cannabinus. The latter is, however, pronounced to be of good gloss and colour, though coarse, but to be exported as true jute. The fibre from
the plants cut just when in flower is fine, glossy, and separates quickly from the bark. It is heavier, coarser, and discoloured, and requires more steeping when they are left standing till the seed is formed. The clearer the water in which the stalks are steeped, the finer the fibre. It is strengthened, and the colour spoiled, if immersion is incomplete, or if less than 2 to 3 feet of water is used; if over-steeping is permitted, or if it is dried in damp, cloudy weather. Under-steeping makes it woody. Stagnant water damps the bark soonest, but at the expense of the fibre; running water does not rot it quickly enough; and thick water in the retting stream is best of all. The plants thrive best in a good medium loam. Weeding is necessary; if the land is properly manured, it can be cropped with it year after year.

Rheea.—The difficulties met with in cleaning the rheea fibre induced the British Indian Government to offer a reward for a suitable machine; but Lord Mayo's efforts in this direction did not meet with the success that was anticipated, for of the 32 machines tendered in August 1872, only one, by Mr. Greig of Edinburgh, was submitted for trial, and though found to be unequal to the allotted task, the Government awarded a sum of £150 to the inventor as compensation for the trouble and expense he had incurred, and in consideration of some points of excellence in the design. Its costliness, the establishment needed to superintend its works, and the labour required to drive it, were prohibitive. The cost of clearing a ton of fibre by Mr. Greig's machine was put down at Rs. 138-2.

Dr. J. Leon Loubèrein, of the Ecole de Pharmacie of Paris, writing in 1873, mentions a machine which, if worked by two horses, could turn out 600 to 900 kilogrammes of fibre in a day; and if worked by hand, in ten working hours could clean 20 to 29 kilogrammes of fibre.

Abelmoschus. Several species of this genus of the Malvaceae family are fibrous. The reticulated fibre of A. roulidu is made into paper, and used in the manufacture of gunny bags. Abelmoschus excelentus furnishes an excellent fibre for the papermakers, and it is exported to a small extent to India. It can be used for cordage, and furnishes a fine and strong fibre, which it retains even when brown and rotten; a bundle was found by Dr. Roxburgh to bear a weight of from 79 to 96 lbs.

The fibre of the Abelmoschus moschatus broke with a weight of 107 lbs.

An excellent white fibre from the Abelmoschus tetratrophus was exhibited by Mr. Jaffrey at the Madras Exhibition of 1897.

Abelmoschus isedatus abounds in long, glossy, white, fine, and strong fibres. The fibres of the Abrooma angustatum, another of the Malvaceae, are of great beauty, strength, toughness, and fineness; and as it grows all over the East, and as far as the Philippines, and so rapidly as to yield two, three, and even four cuttings annually, all fit for weaving, it is deserving of more than common attention.

The bark is steeped in water for a week or more, according to the heat of the weather, and requires no further treatment. It is said to be three times greater and one-tenth stronger than that of sum. A cord of the abroma bore a weight of 74 lbs., while that of sum only 68 lbs. The fibres do not become weakened by exposure to wet, and the plant can be cultivated as an annual.

Abutilon Indicum, another malvaceous plant, yields a rather strong fibre fit for the manufacture of ropes. The plants are gathered and freed of their leaves and twigs, and dried for two days in the sun. They are then tied in bundles, and placed under water for about ten days; the bark and other foreign matter are removed by repeated washing, and the fibres are placed in the sun to dry. Fibre of a long silky character, fit for making ropes, are obtained from the Abutilon polyandrum, and a fibre is also yielded by the A. tomentosum. There are several other species.

Aproa Americana, or blue and green leafed aloe, grows wild in India a long, white, and strong fibre, of which more might be made. It is variously known as Valsati pet, Kathale, Rakas pattah, and Rakshahi matala, and is used for ordinary purposes by merely stripping the leaves for immediate use, or soaking them for a time till they are sufficiently soft for manipulation. This primitive method rots and stains the fibre, and lessens its value; but by pressing the fresh-cut leaves under strong rollers, and separating and drying the fibre with care and skill, its appearance and strength would be much improved, that it would command a high price in the London market. The propagation is extremely simple, may be easily extended; and the fibre has been shown to be equal to the best sum, jute, or Russian hemp, and far superior to the Japanese paper for long lines. The expressed juice, when mixed with mortar and applied to walls or floors, is an effectual remedy for white ants, but the smell is abominable.

The leaves of the Aloe nervosa, Ruzb, are used for making muka. Their fibres are steeped in water for fifteen days, in order to rot useless parts, and then beaten to separate the fibres.

Aloe Indica, A. littoralis, A. perforata, and A. vulgaris, of the American aloe, or aloes, are of a clear, clean yield of fibres of great value. In the year 1882, the Government of India largely recommended their extended culture.

The gumnals, "Araya saucufertilis" of very extensive utility in the Indian naval, furnishes a fibrous matter at the roots of its fronds, much resembling black horse-hair, of finer texture and greater strength than the husk of the coconut. This substance, known to the Eastern seamen as 'black rope,' is much used for fish and running rigging, and invites greater attention from manufacturers.

From the Bamboo is made all the paper of China; the consumption for all purposes of 570 millions of a much-reading and much-printing population—even that imported for engraving in Britain, under the name of India paper—is thus derived.

The paper mulberry, the Broussonettia papyrifera, which furnished the ancient clothing of the South Sea Islands, is which the Japanese manufacture a cheap paper, of toughness and durability approaching to parchment, is of value.

Bast is the fibrous or cellular tissue, consisting of tough elongated vessels, which can often be separated and converted into durable and singularly fine and strong fibres, obtainable and easily cleaned, fibrous matter at the roots of its fronds, much resembling black horse-hair, of finer texture and greater strength than the husk of the coconut. This substance, known to the Eastern seamen as 'black rope,' is much used for fish and running rigging, and invites greater attention from manufacturers.

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Bast is the fibrous or cellular tissue, consisting of tough elongated vessels, which can often be separated and converted into durable and singularly fine and strong fibres, obtainable and easily cleaned, fibrous matter at the roots of its fronds, much resembling black horse-hair, of finer texture and greater strength than the husk of the coconut. This substance, known to the Eastern seamen as 'black rope,' is much used for fish and running rigging, and invites greater attention from manufacturers.

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FIBROUS MATERIALS.

Bauhinia diphylla, called Authaeer ne, Yepy, and Apa, has a strong, coarse brown bark, of which the natives make temporary ropes for securing thatch, matting, or fences. The bark of several other Bauhinias is not so strong for the same purposes. Ara ne is the bark of the Bauhinia parvifolia, of which matches for native guns are made. This class also includes the barks of the banian, Ficus Indica, or Ala ne; of the pipal, Ficus religiosa, the holy fig of India; of the Ficus oppositifolia, Boda ne; Ficus, sp. (2) Culleth ne; of the bark of the Ficus tomentosa, also the barks of several species of acacia, as the hahul (Acacia tonkinensis), Mora, and the black acacia, Odai ne (Acacia leucoeaphila); Velvaila ne, Wrightia tinctoria; and a number of other plants not yet identified.

The trailing roots, twigs, tendrils, and drops of a number of plants are utilized in India for cordage.

The basts of the trans-Gangetic countries are very numerous. The Theng-ban-sha, the Ta-tha-yon-sha, the Sha-phyo, the Nga-soung-sha, Sha-ne, and the eyy-yo-sha, are the better known basts of Arakan; and there the eyy-yo-sha strips to 5 or 6 feet in length, composed of several layers, of which one side is smooth and compact, and the layers on the other side thin but cancellar, all having a considerable degree of toughness.

The basts of Akyab and Burma are Heng-kyo-sha, Dam-sha, Tha-ou-sha, Wa-pee-loo-sha, and Sha-goung, all used in preparing cordage for boats, nets, etc.; wholesale market price, 2 rupees 8 annas per maund, and all of the inner bark of large trees.

The barks of several species of Sterculia and allied plants, which abound in the districts. They are strong and enduring in their nature, and some of them have been tested with satisfactory results.

The buses, spalace, barks, tana, and other plants are used for tying bundles and other purposes instead of twine.

The Mardroow bushes of Province Wellesey grow spontaneously in the rice fields after the crop has been gathered, overspreading them like a heath. The fibre is most used in the manufacture of rice and sugar bags, mats, etc.; experiment may prove it to be adapted for the manufacture of paper.

The Mung-keng (Pandanus, sp.) is used for matting in Jaffna.

The Alam tree bark is from the Melaleuca viridiflora, Malacca.

The Teale trap (Artocarpus, sp.) is used at Hassang for fishing-nets.

The Tulate taras is of Singapore, and there is a bark used as twine in Siam.

The Bark-cloth of Keda, in the Malay Peninsula, is manufactured by the Semang, an eastern Negro tribe; and that of the Celebes (Kâli) is made from the bark of the Acacia robusa. The bark is gathered by the natives, dried in the sun, and then boiled in water. The fibre is split longitudinally, and made into mats, etc., and then worked on by the women, who twist it with their hands. When the mats are dry, they are given to the men, who wash them, and prepare them for the market. The bark-cloth of Keda is sold for 50 cents a yard, and made into cloth, etc., for the Indian market.

A bast or nar of the Acacia robusta, so common on the Neighibers, has been used for all purposes as time answers. The Bung-na bark is much more coarse than the height of from 6 to 6 feet in one year. The bark of this tree is also a powerful tan.

The beautiful fabric, China-grass-cloth, is made in the Canton Province, and largely exported to Europe and America. The grass is applied in gardens in China. The material is strong, tough, and durable, also pliable when wetted. This bast could be procured cheaply and in large quantities, as when the trees are cut down, much of the bbast comes out along the trunk to the height of from 6 to 12 feet in one year. The bark of this tree is also a powerful tan.

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line made from the fibre, forwarded from Chittagong, broke at once, without stretching, with only 127 lbs., though only the finest and largest of the material was made into cloth. Because of the limited amount of supply, the price will sustain with ease 400 lbs.; so that this fibre is much too weak for either sailcloth or cordage. It, however, possesses all the free and kindly nature of flax, and even smells like flax. It is easily worked, with fair results—Brow, Feb. 17, 1879.

Crotalaria, a genus of the Asclepiadaceae, has three species, gigantea, herbaeces, and procera, which furnish valuable fibres, all of similar character. The plants grow quite wild in all kinds of land places, and only attempts to drive them out. It is a most common plant, and may yet become a valuable article of export, if less costly than the lignum nucifera.

Dr. Wight says of the fibre he tried, that the yereum plant is the gigantea-C. usitatissimum—Bur. it is a bush, and not a tree, and its fibre is a woody one. It is a common plant, and may yet become a valuable article of export, if less costly than the lignum nucifera.

FIBROUS MATERIALS.

It is called popularly the gigantic swallow-wort; Madar, Ak, or Akund, in Hindustani; Yereum or Yeriku in Tamil; and Nella jelledo in Telugu. Its fibre, which is strong, white, and fine, resembles Belgian flax. It is stated by the Government of British India that a hay would be calculated for prime warp yarn, and capable of being spun into the finest thread, and to be worth £100 per ton for such purposes. The following is the result of experiments in the strength of fibres, showing their breaking weights:

<table>
<thead>
<tr>
<th>Source</th>
<th>Breaking Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coir</td>
<td>224 lbs.</td>
</tr>
<tr>
<td>Pooley mungee (Hibiscus cannabinus)</td>
<td>290</td>
</tr>
<tr>
<td>Marool (Sanseviera Zeylanica)</td>
<td>316</td>
</tr>
<tr>
<td>Cotton (Gossypium herbaceum)</td>
<td>346</td>
</tr>
<tr>
<td>Cotton (G. tenuifolia)</td>
<td>362</td>
</tr>
<tr>
<td>Janaja (Crotalaria juncea), Sunn, Hindi</td>
<td>407</td>
</tr>
<tr>
<td>Yereum (Calotrops gigantea)</td>
<td>552</td>
</tr>
</tbody>
</table>

It finds a habitat, spontaneously, wherever nothing else will grow, indifferent alike to drought or hungry soil, the seeds being wafted about in their silk cotton envelopes, which, by the sun's heat, become into a fine woody cloth. The fibre is used locally for string, cordage, tiger traps, ordinary nets, and durable fishing lines, and for all purposes where strength and endurance are required. The plant is used more for medicinal purposes than for the manufacture of rayon, but its leaves, which are green at all seasons, are used for haying, and the fibre is thrown into paddy lands, than for its excellent fibre. It is a perennial shrub. The seeds in its large green pod are enveloped in a silky white fibre, which has been most extensively used in the fabrique féminine of the Montmartre, where its roots is prized in the manufacture of gunpowder. Its leaves, buds, bark, and milky juice are employed in native medicine, for their emetic, diaphoretic, and purgative properties; and the inappassable juice resembles cocoa, but is a conductor of electricity. It yields an ardent spirit. It is the Bar spirit of the Western Ghats of India, and, according to Barth, the Gyi of the African.

Cotton is largely grown in India, is almost the sole fibre fabricated into cloths for ordinary clothing, much of it being exported raw to Europe and America, to be returned in the form of twist and yarn, place-goods, etc. About half of it is sent to Great Britain for the benefit of the other half going to France, Austria, and Italy.

1874-75 | 5,600,856 cwt. | Rs. 15,25,73,416
1875-76 | 5,097,783 | 13,27,86,635
1876-77 | 4,537,915 | 11,74,61,836
1877-78 | 3,499,077 | 9,36,35,340
1878-79 | 3,499,000 | 8,30,46,703
1879-80 | 3,499,701 | 11,14,91,778

It is largely grown in the tracts 1500 to 3000 feet above the sea. The E. I. Company made great efforts to improve the staple, and to introduce new varieties, and has reaped handsome rewards for Hingolganga, Nagpur, Berar, and Kandesh. Cotton rope and cotton cordage are largely made from it.

Coir is the commercial name for the fibre of the coconut, Cocos nucifera. It is very extensively used throughout the south of Asia. Towards the middle of the 19th century, in Malabar and Ceylon, every available spot within the influence of the sea-breeze was devoted to the growth of the coconut. Along the western coast of the Madras Provinces, the coconut grew to such an extent that the inhabitants of a number of villages, formerly inhabited in the earlier part of the century, had to abandon their homes, and seek their livelihood by any means and in any place. The manufacture of coir fibre, as a substitute for hemp, is now carried on in the following places:

<table>
<thead>
<tr>
<th>Place</th>
<th>Hemp Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chittagong</td>
<td>Hemp substitute</td>
</tr>
<tr>
<td>Malabar</td>
<td>Hemp substitute</td>
</tr>
<tr>
<td>Ceylon</td>
<td>Hemp substitute</td>
</tr>
</tbody>
</table>

Hemp in India, is a commercial term applied to the fibres of several plants—e.g., hemp fibre of the Boehmeria nivea, to that of the true hemp, Cannabis sativa, to the fibres of a species of Crotalaria, C. simpler fibrous being known as Jumbulpur hemp; Madras hemp is the same fibre of

The use of the jutes in the manufacture of fabrics is not unknown, as the collector states that the Gudahab females (a hill tribe) are clothed with a coarse linen of their own making. Beyond Gallikondah there are plains 8000 feet above sea level, very similar to the Mysore country, where it could be grown to any extent.

In Bellary, South Aroet, and Tumlevally, gunties are manufactured from its fibres. It is extensively cultivated in parts of the Godavery and the Godavari districts.
FIBROUS MATERIALS.

Crotalaria juncea; brown and other hampers are species of Hibiscus; Manilla hemp is from the Musa textils.

In China there are three plants which produce a fibre made into cloth, known under this name, viz. the Cannabis sativa, the Jute, and the Ceylon hemp. The Bemora (Urtica) nivea, a species of nettles grown about Suchan, and the Sida tiliifolia near Tien-tsin-fu (Williams' Middle Kingdom, p. 106). The nettle hemp is cultivated in the provinces north of the Melling, but the place of its origin is much disputed. Nettle hemp, though from it is not so much used for common dresses as cotton and silk. This has been noticed under the word Boehmeria.

In cultivating jute, hemp, or flax, the seeds should be sown by the Glyphium, in order that they may shoot up into long wand-like plants, which will yield much longer fibres, and be much less branched than if sown wide and freely exposed.

Hemp. —The Himalayan districts of Kamson, Garwhal, and Kote Kangra abound in true hemp of the finest quality, cultivated both on account of its fibre and for the different preparations of bhang. The fibre is sold among themselves for 2 rupees for 82 lbs., or about 5s. a cwt. Hemp sent by D. F. Macleod, Esq., as the Cannabis sativa Linn., and which was grown in India, is now cultivated in England. The culture seems to be very well understood in many parts of the hills, as they carefully prepare and usually manure the ground, thin the plants to two or 3 inches, and cut the male plant, phragmangha, which is placed in bags and hung up for five or six weeks before the female plant, golaanga or ghoobhanga, which has seed, the latter being cut about the end of September. Kote Kangra hemp is strong. It is at present the standard hemp of the country; it would be certain to be employed for all the purposes for which the best hemp is required, if it could be procured. It is grown throughout Southern Asia, to obtain its intoxicating resin or chartras, and its leaves for hemp. The fibre is sold among themselves for 100 rupees a cwt. It is the standard hemp of the country. It is chiefly used in making ropes and string of various sizes, such articles being in demand for tracking the boats up rivers and in the canals of the country.

Hibiscus cannabinus, or Dekhini hemp, is grown down the Ganges. In several places the Mussun population are just as great consumers of the intoxicating hemp product as the Hindus. In Sind the extent to which it is used by all classes is frightful. In China, a gigantic species of hemp (Cannabis), growing from 101 to 150 feet high, is known. It is cultivated for its edible leaves as for its fibre. It is an annual of from 3 to 5 months' duration, at the end of which time it is fit to be plucked up for the steeping process, necessary for the extraction of the fibre. The fibre is of equal length, from 7 to 9 feet long, fine to the touch, and with a silky gloss. The best selected fibre would, for rope and cordage, equal in appearance that made from Manilla hemp, so much in request for yachting purposes; but the second in quality, the pulp is of the inferior; the fibre, the quality of which is not always superior to the quality of the mass of fibre from theRoy, in the absence of a definite and useful system of trade; while the refuse, including cuttings, rejections, and the root-ends, would find a ready market among the papermakers. The fibre is known in Bengal as Mesta pat or Koshi, and Wahibit sann; is considered equal to hemp; hemp is exported in small quantities, and manufactured into coarse sacking or gunny, and into ropes, twine, and nets; and latterly, in Mysoor, into a superior, closely woven matting, which looks and wears well. Generally the tops are gathered in the dry season, and consigned to the drills among the rags in Mysoor, and similarly among the jowari in the Northern Circars, though in and about Rajamundry it is said to be in some instances cultivated as a special crop by itself.

Plants for jute are ordinarily cut after the formation of the seed, and left to dry in the sun for a day or two, when they are steeped in stagnant water, till the bark is sufficiently rotted to allow of the easy extraction of the fibre, which is then sold for export. The ordinary process is to beat the softened bark on a stone, by which unequal pounding much of it adheres to the fibre, which is further discoloured by careless sun-drying. Long steeping in stagnant watery mixture, with the addition of a little bran, should be used just as it is in flower, and left in swatches or bundles from twenty-four to thirty-six hours to dry partially in the sun, when they should be steepled in running water just sufficiently long to admit of the ready separation of the fibre, which should be thoroughly washed and dried under shade, as exposure to the sun's rays causes it to deteriorate in colour, touch, and strength, and London brokers judge much by sight and touch. The time that the hemp should be steepled for, must be regulated by those skilled in the matter, with great judgment and frequent inspections, for if the process of fermentation is carried even a little too far, the fibre will be of no use. Under the name of Poondi, it is cultivated extensively at Nudda, Hoogly, Faridpur, Barrakganj, and elsewhere, as a variety of jute, and is called bastard jute, but is as fit for papermaking as true jute. It is not equal to the fine jute grown in the low lands of Bengal for all the purposes of jute. Paper is largely made from it at Dacca, Mymensing, Dinajpur, and Noakhally, where it is prepared by being boiled with lime. The plant is known as Hibiscus sabdariffa. It yields a similar fibre, also called nestumput or pulachi. The Roselle is grown at Pur and Bhagulpur, and the Bendikali largely at Hoogly, and 24 Parganas, Nudda, Murshidabad, Koch-Bahar, and Puri, and less so in many other districts, the fibre being exported as jute. In Travancore the Hibiscus is cultivated, though to a much less extent, and is chiefly cultivated for the sake of its flowers and seeds, therefore yields a less remunerative crop. The Hibiscus plants will continue to be chiefly confined to the agri cultural population of its native places. If curcurus of the Ghats and Bengal yields abundance of strong white hemp, it is not worth the trouble of the natives to raise a remunerative crop. Its stems are woven into beautiful mats, used by the natives for ceiling upon, for covering the floors of rooms, and for many other useful purposes. This is cultivated in water, somewhat like the rice-plant, and is there always produced. The jute plant is a true herb and is usually sold in bundles or ropes. The jute plant is usually applied as a substitute for ribbon and cord in theLab and for the to be prepared as a special crop by itself.

The jute fibre is then dried in the sun, and are cleaned for the market. They are soft and silky, and much care is needed during the steeping to prevent undue decomposition. All the mackintoshes, butchers, and tanners, who come from Bengal to the Dutch and Spanish possessions in America, to America and to Australia. The raw fibre of the jute, with a little wool, has been manufactured into very beautiful goods, which can be sold at the very moderate price of 8d. a yard. At an industrial exhibition held at Dundee, there was at one end of a case the harsh, woody-looking jute stalks, and through each stage, of fibre to yarn and fine.
FIBROUS MATERIALS.

thread; in a second case were arranged coarse and fine gummy bags, packing cloths, coarse and fine towelling, different descriptions of plain and coloured paddings, pocketings and underlinings, flannels, India muslin and anbrilliant-looking rugs and carpets, that for design and colour were said not to compare unfavourably with those made from wool. The American imports of Goni (gummy) sacking and the raw material have decreased considerably by way of the addition of an improved ability to raise the plant in the southern districts, which, under their more careful culture, will of course improve. In China the staple summer crops are those which yield textile fibres. Jute is grown in China as a vegetable exchange crop, and is used in the manufacture of sacks and bags for holding rice and other grains. It is stated that the celebrated China hemp, called Lookina or green hemp, which, according to Meeus, Jardine Skinner & Co., is grown in the Hankow district for conversion into grass-cloth, is nothing but jute, of which plant they say the description and particulars exactly compare with the Chinese hemp, and that, in addition to its culture, the Chinese import it.

The Musa genus of plants, the plantain or banana tribe, is well known from two of its species, \textit{M. para-
sisana} and \textit{M. textilis}. Of all the substances for hemp, probably the most important is that obtained from the banana or musa; the stem of all of the species produces a vertical cylinder of dace and of equal quality, and it can be used with no less facility and advantage in the manufacture of paper. It yields an excellent substitute for hemp or linen thread. On cutting down the stem, remove old, stained, or withered leaves, and cut it into pieces 3 to 4 feet long, and fasten a long stalk on a long flat board with the inner side uppermost, scrape off the pulp with a blunt piece of hoop iron or old spoon; turn it, and treat the outer side similarly. When a bundle is obtained of these partially cleaned fibres, wash it briskly in a large quantity of water, rubbing and shaking it to get rid quickly of all the sap and pulp; spread them out in thin layers or hang them in the wind to dry, but exposure to the sun is not advisable. \textit{Musa textilis} is the well-known abaca of the Philippine Islands. The fruit is harsh, small, and unetable when allowed to ripen, but in practice the ripening is prevented, for the flower is nipped off, and that in the beginning of the month of November the bud is gradually cultivated, and contributes largely to the clothing of the four millions of inhabitants of the Philippines, besides being largely exported in the raw state. It is made up into mats and plaited with the finest quality and of great durability. In Great Britain it is only known in the raw state, under the name of Manilla hemp; and Great Britain in 1877, 1878, and 1879 was receiving about 18,000 tons, value £490,000, or £2 per ton. The cost of this article at the port of Mocha is about £14 a ton; it is the coarsest fibre only that are exported, all the finer being retained for cloth, which yet has not been made except in the Philippines. The fine grass-cloth, ships' cordage and ropes used in the South America and in the West Indies are made from it. The outer stalks of the stem leaves yield the thickest and strongest fibres. \textit{Musa textilis} is propagated by transplanting the suckers that spring up about the roots of the old plants. The abaca is generally planted in the countries that border on the Indian Ocean, in the islands of the East, and it is said to be only in Albay, Leyte, and on the north coast of Mindanao that it is cultivated expressly as an article of commerce, the production of small quantities for home use, and in districts more adjacent to the capital. The filament are detached from the stem by a very simple process, which closely resembles the mode of preparing hemp in Europe. The \textit{Musa textilis} is said to grow on the Ghats from Cape Comorin northward to the north of the Ghats the plant does not reach a height fitted to afford a fibre of more than two feet in length. Its strength is well known to the Ghat people, who employ it occasionally for domestic purposes in ropemaking, as well as for making the cordage of the small vessels that may be the Musa superba of the Dingidal valleys, at high elevations on the Travancore mountains, and wild on the Neilliherries at 7000 feet. It evidently requires a rich volcanic soil; it would probably succeed in the Molucca Islands, etc. \textit{Nelumbium speciosum}, the lotus, yields a useful fibre from its stalk. In the Red Sea, cables are used formed of the coating of the leaf of the date tree, \textit{Phoenix dactylifera}. At Ossameld, the plant is used for the manufacture of coarse cordage, a small proportion of fibre of the acabla bush, the Pandanus odoratissimus. The leaf-stalks are made into baskets. The leaves of the wild date tree, \textit{Phoenix sylvestris}, and of the \textit{P. affinisera} are made into mats, and the leaf-stalks into ropes, for draw-ropes for wells.

The \textit{Neillgherry nettle}, \textit{Urtica heterophylla}, is a very ferocious-looking plant, the least touch producing a most acute though quickly subsiding pain. Its bark abounds in a fine white, glossy, silk-like fibre. In the Todowar race separate this flax by boiling the plant, and spin it into their coarse thread. If well prepared and procurable in quantity, it is fitted to compete with flax for the manufacture of even very fine textiles, and in the highest order of the quality of the fibre of the Neillgherry nettle, commanding the high price of £45 to £60 per ton in the rough state, and worth the encouragement of Government. The leaves of the abundant pine-apple plant, \textit{Anamassa sativa}, are largely used in the Malay Peninsula and in the islands of the Archipelago, to furnish different sorts of pine-apple fibre, from the coarse material used for cordage, the middle fibre used for coarse clothes, and the finest makes the various kinds of nettings, and as a cordage and as a material for the manufacture of cloths, etc. The leaves of the pine-apple is the Pina of the inhabitants of the Philippines, who manufacture from it their finest fabrics. The Chinese in the European settlements of the Indian Archipelago prepare the fibre in connexion with the cultivation of coffee, and find a market for it in the in the islands east of Java.

\textbf{FIBROUS MATERIALS.}
FIGUS, a genus of plants belonging to the natural order Urticaceae. The number of species is great, and they are all either tropical or inhabitants of warm countries. Some are small plants, others are among the largest trees of the forest; others of them yield useful cauliflora; several of them yield fibrous materials used for cordage, for half stuff and papermaking; and the banyan tree and the papal tree, F. Indica and F. religiosa, are highly ornamental plants. Several throw out aerial roots from their branches, which grow into the ground, and again throw out branches. F. carica, the fig tree, is cultivated in many parts of India. F. Benjaminaeides, the Tenasserim banyan tree, drops aerial roots like the Indian fig tree, grows amidst mangroves and near tidal streams. The root of F. exsula, Vahl, of Peninsula India and the Moluccas is given in decoction as a purgative.

A soft grey timber is obtained from the F. goelleria, Roxb., which grows in Hindustan and China. F. heterophylla, Roxb., Wal-ahatoe, Singh, is common in Ceylon in damp shady places. F. infectoria, Willd., is of Ceylon and India, and its bark is chewed with betel in lieu of the areca nut. F. lacifera, Roxb., Nooga-gass, Singh, is not uncommon in the central province of Ceylon. F. lanceolata, Roxb. Thapan, Bum, of Pegu, yields a soft, useless wood. F. lucida, Ait., the Kapootoo-boss of Ceylon, occurs in the drier parts of that island. F. nitaia, Thnbb., which grows in the south of China and in many parts of India, is a valuable ornamental tree and good for shade. Some of the species possess in their milky secretion a highly acid principle, which explains the specific name of F. toxicaria of Sumatra, and F. daemona of Tanjore. One species, Kulli kae, Can., generally a climber, abounds in Canara and Sunda, in the country from Bilgy to the Ghats; its juice peculiarly abundant and viscid, and used as a birdlime; well merits a further examination. Another species, Thub-bh, Bum, a Tavoy tree, is used in house carpentery. A further species, the Bace dhimerice of Ganjam and Gumsur, extreme height 30 feet, is burnt for firewood, being tolerably common; the leaves are used for food plotters; the fruit is eaten.—Wight; Gibson; Captain Macdonald; Thwaites; Voigt.

FIGUS ASPERRIMA. Roxb. F. ampelos, Bumr. | F. polistioria, Moon.

See-wana maddeya,Singh. Karasa, Tellia baranki, Te. Pindi chetla . . . Tel.

A large tree, a native of the Peninsula of India and of Ceylon up to 2000 feet elevation. The trunk is remarkably short, but very thick, and sometimes so completely covered with small very leafy branchlets as to be entirely hidden. The leaves are used to polish ivory, horn, etc., and in Ceylon are in general use amongst native cabinet-makers as a substitute for fine sand-paper, similarly to those of the Trophis aspera.—Roxb.; Thw.

FIGUS CARICA. Linn.

Dhawan, Bum. | Anir. | HIND.

Fagun, Phagwara, Chena. Jamir. | RAYL.

Wu-hwa-ko. | CHIN.

The fig tree is cultivated in many parts of the East Indies, as high as 5000 feet on the Ravi. It reaches 7 feet in girth occasionally. It is common about Kandahar, mostly wild. The white fruit is generally kept for home use, and the black exported. Twenty maunds of the fruit are annually imported from Afghanistan via Peshawur. grows plentifully in China. Two main varieties are recognised, viz, that which produces two crops a year, and that which yields one crop. The former includes the grey or purple fig, which is the best, also the white fig and the golden fig, the latter being the finest in appearance but not in quality. The main variety, which bears only one crop a year, supplies the greatest quantity of figs for drying. The ordinary drying is effected in the sun. With the two-crop variety, the first crop grows on wood of the preceding year, the second crop is on wood of the current year.—St. FIGUS CINERASCENS. Thw. Wal- gon-gass, Singh. A large tree of the warmer parts of Ceylon.—Thw. p. 266.


Grows in Ceylon and on the western side of India. Parts are employed in medicine.


A tree of Moulin and the Tenasserim Provinces, and of the Panjab Siwallik tract up to the Ravi. In Tenasserim this tree usually supplies the place of the pipal in the public places, and in the neighbourhood of religious edifices. It approaches nearest to F. religiosa, yet is easily distinguished from it by the leaves being narrower in proportion to the length, with much shorter points, and the fruit being perfectly round, and not, as in religiosa, vertically compressed. Fruit edible. It yields a strong wood, fit for any ordinary purpose.—Mason, Cal. Cat.; Stewart; Gamble.


A tree of the Konkans, Rajmahal, Oudh, Nepal, Taong Dong, and Moulin, occasional in the Panjab Siwallik tract up to the Chenab. The fruit is not catable, but in parts of India is used in medicine, and in the Peninsula the rough harsh leaves are said to be employed for polishing wood-work.—Dr. J. Stewart, P. Plants, p. 212.


FIGUS DISTICHA. Blame. Common in the central province of Ceylon at 3000 to 5000 feet.

Thw. p. 266.

FIGUS ELASTICA. Roxb. Kundur, . . . BENGA. Indian rubber tree. | ENG. Elastic fig tree. | ENG. Kasmir, . . . SYLHET.

The Indian caoutchouc tree inhabits Assam, Khasiya, British Burma, the Pundas and the Juntipur mountains, which bound the province of Sylhet on the north, where it grows to the size of a European eycamore. It is chiefly found in the chasms of rocks and over the declivities of mountains, among decomposed rocky and vegetable matter. It produces when wounded a great abundance of milk, which yields about one-third of its weight of caoutchouc. It grows with great rapidity. A tree is described as being 25 feet high, with the trunk a foot in diameter, when only four years old. Another to 112 feet, with 100 aerial roots, in 32 years. Its juice is used by
the natives of Sylhet to smear the inside of split rattan baskets, which are thus rendered watertight. Old trees yield a richer juice than young ones. The milk is extracted by incisions made across the bark, down to the wood, at a distance of about a foot from each other, all round the trunk or branch, up to the top of the tree, and the higher the more abundant is the fluid said to be. After one operation the tree requires a fortnight's rest, when it may be again repeated. When the juice is exposed to the air, it separates spontaneously into a firm elastic substance, and a fetid whey-like coloured liquid. Fifty ounces of pure milky juice taken from trees in August yielded exactly 15½ ounces of clean washed caoutchouc of the finest quality, perfectly soluble in the essential oil of caoutchouc. This tree abounds in Assam, but the Outer Himalaya at Punkabari is its western limit. It penetrates amongst the mountains as far as the Tista valley in Sikkim, but is of small size. It may be distinguished from a distance of several miles by its immense and dense lofty crown. Dr. Griffiths gives the dimensions of one of the largest as follows:—Circumference of main trunk, 74 feet; ditto of main trunk and supports, 120 feet; ditto of area covered by the branches, 610 feet; estimated height, 100 feet. The geographical range of the tree, so far as has been hitherto ascertained, may be stated to be between lat. 25° 10' and 27° 20' N., and long. 90° 40' and 95° 30' E. Throughout this space it is found in the densely wooded tracts so prevalent along the bases of the hills, and perhaps on their faces, up to an average elevation of 2250 feet. Since 1875 it has been largely cut down in Assam and Burma.—P. von Mueller; The Universal Review; Roxb.; Hooker, Flora Jour.

FICUS EXCELSA. Voelh. Ati meralu, Maleal. Grows in the Moluccas and in Southern India. Its root is given as a purgative, in decoction.—Voigt.

FICUS GLOMERATA. Roxb. Jujuya doonoor, Beng. Perena teregram, Mal. Yae-tha-pan, Burm. Rumbal, Palah, Panj. Kulla kith mara, Can. Atteekka-gasa, Singh. Oombar, Durn. Ati maram, Mal. Glowara fig tree, Tam. Malum, Mal. Gooler, Tel. Gool or, Hind. Bodda chettu, Paki ch., "A large tree; thrives best near a watercourse or on the banks of rivers; fruit like the common fig, and grows in clusters along the branches; flavour insipid, but eaten by the poor. In Ceylon it is common on the banks of rivers up to an elevation of 2000 feet; grows also in the Peninsula of India, the Konkans, Nepal, all over Oudh, at Taong Dong, and Moultéine. Some of the lace of commerce is gathered from this tree. Wood is considered sacred, and is burnt when libations are offered. In the Punjab it is said to be only useful for fuel. A medicinal extract is obtained from the root.—Cal. Cat.; Thuw.; Stewart; Powell.

FICUS GOOLEEEA. Roxb. Dunbar, Hind.? A small tree of Chutta Nagpur and Hindustan, with a soft, grey timber.—Roxb.; Cal. Cat.; Voigt.

FICUS INDICA. Linn. Banyan tree.

F. Bengaleensis, Linn. | Urostigma Bengal., Miy.
But, Bat, Bar. | Beng.
Pa-young, Bum. | Kirripel.
Ahladara mara, Can. | Ala maram, Tam.
Arbor de raias, Port. | Marri chettu, Tel.
Vata vriksha, Sans. |

The Indian fig tree grows in most parts of India and Ceylon. Its fruit, the figs, grow in pairs, and when ripe are about the size and colour of a middle-sized red cherry. If the seeds drop into the axils of the leaves of the palmrya tree, the roots grow downwards, embracing the palmrya trunk in their descent. By degrees they envelope every part except the top, whence, in very old trees, the leaves and head of the palmrya are seen emerging from the trunk of the banyan tree, as if they grew from it. Hindus regard such unions with reverence, and call them a holy marriage instituted by Providence. Some of the banyan trees cover an immense space even when comparatively young. In the Botanical Gardens at Calcutta, when Dr. Falconer ascertained the age of the great banyan tree, which is still the pride and ornament of the garden, people were alive who remembered well its site being occupied in 1782 by a date palm, out of whose crown the banyan sprouted, and beneath which a devotee sat. The editor, in 1834, paced at noon the outer shadow of its branches, and the circumference was near 360 paces. Dr. Hooker, writing after that, mentions that this tree was 80 feet high, and threw an area 300 feet in diameter into a dark, cool shade. The editor paced it again, at noon, in 1863, and the circumference was still 100 paces. Large banyans are common in India, but few are so symmetrical in shape and height as that in the Calcutta Gardens. Dr. Roxburgh had seen such trees full 500 yards round the circumference of the branches, and 100 feet high, the principal trunk being more than 25 feet to the branches, and 8 or 9 feet diameter. Manslen mentions a remarkable banyan tree near Manjeet, 20 miles west of Patna in Bengal, diameter 360 to 370 feet, circumference of shadow at noon 1116 feet, circumference of the several stems, in number fifty or sixty, 921 feet. Under this tree sat a naked devotee, who had occupied that situation for 25 years; but he did not continue there the whole year through, for his vow obliged him to lie, during the four cold months, up to his neck in the waters of the river Ganges. One of them has long been famed at Allahabad, and which is still represented by a withered stem in the underground cave at Patala puri. There was no doubt a very ancient and venerable fig tree at Allahabad, perhaps for some centuries, for it is alluded to in various vocabularies, as Midimi, etc.; it is also described in the Kasi-khandas and Kurma Purana. The first notice, however, is in the Ramayana (b. 11, sec. 41 and 42), of Rama with his wife and brother resting under the shade of it after crossing the Jamuna, so that not only was the tree seen out of the open air, but it was on the opposite side of the river to that on which it is now traditionally venerated.

A remarkably large banyan tree grew on an island in the river Nerbudda, ten miles from the city of Bronch, in the province of Gujerat, and was described by Colonel Sykes. It was called the Kabir Bar, a name said to have been given to it in honour of a saint, but possibly from the Arabic adjective kabir, great. It was supposed to be that which Nearchus described. Forbes in his Oriental Memoirs mentions its circumference as of 2000 feet; and its overhanging branches, which had not thrown down aerial roots, stretched over a much larger area. The tree had as many as 320 large trunks and over 9000 smaller ones, and was capable of giving shelter to 7000 men.
FICUS LACCIFFERA.

High floods, one particularly in 1820, have since carried away the banks of the island on which it grew, and with it a portion of the tree. Indian armies, when in that neighbourhood, have encamped around it; and at stated seasons Hindu festivals are held there, to which thousands of votaries repair. The banyan tree is alluded to in Paradise Lost as that when Adam and Eve

'Both together went

Into the thickest wood: when soon they choose
The fig-tree; not that kind for fruit renowned,
But such as, at this day, to India drawn
In Malabar and Dekhan, spreads her arms,
Branching so broad and long, that in the ground
The bended twigs take root, and daughters grow
About the mother tree, a pillar'd shade,
High overarched and echoing walls between.
There, oft, the Indian herdsman, shunning heat,
Shelters in cool, and tends his pasturing herds
At loopholes cut through thickest shade: these leaves
They gathered, broad as Amazonian targe,
And, with what skill they had, together sewed,
To gird their waist.'

The banyan tree, however, is not, as Milton sang, remarkable for the broadness of its leaf, though the branches spread to a great extent, dropping their roots here and there, which, so soon as they reach the ground, rapidly increase in size till they become as large as, and similar to, the parent trunk. As the banyan tree gets old, it breaks up into separate masses, the original trunk decaying, and the props becoming separate trunks of the different portions. The banyan hardly ever vegetates on the ground; but its figs are eaten by birds, and the seeds deposited in the crowns of palms, where they grow, sending down roots that embrace and eventually kill the palm, which decays away; the drops or aerial roots yield a heavy hard timber, and, when well prepared by water seasoning, oiling, etc., are valued for tent poles, spars of small vessels, etc. The wood of the trunk is not employed in India, but Mr. Rohde had used palm, sawn from large drops, after they had been seasoned in water, with advantage; for knife-boards it is excellent. In Ceylon, Mr. Mendis says, it is used for common furniture and house buildings. A white glutinous juice is extracted by incision, from which birdlime is prepared; and it is applied to the mouth to relieve toothache. It is also considered a valuable application to the soles of the feet when cracked and inflamed. The bark is supposed by the Hindus to be a powerful tonic. The leaves are pinned together to form platters, off which Brahmanas and Hindus eat. Much lac is often to be collected from this tree.—Uttara Rama Cheraita, note, p. 302; Hooker’s Hist. Journ.; Marsden; Thud.; Mr. Rhode; Heber, Journ. i. p. 68.

FICUS LACCIFFER A. Roxb.

Urostigma laccifera, Miy. [Nooga gass.].—Sinh. A tree of Ceylon and of Burma; it yields caoutchouc.—Roxb. p. i. 545.

FICUS NITIDA. Thunb.

Ficus Benjamina, Roxb. [Urostigma retusum, Miy.]
F. pallida, Waut. [F. nitida, Miy.]
F. drum, Linn. [F. drum, Linn.]
Chinese banyan, Eng. [Billa juvii, Erra juvii, Tel.]
Hiti alu, . . . MALEAL. [Emmodugu, . . .]
Emmenta, Hemanto, Tel. [Nandireka, . . .]

Common in the central province of Ceylon up to an elevation of 5000 feet; grows in the Peninsula of India, in Lower Nepal, the Khasaya Hills, Penang, and China; the bark of the root and leaves are used in medicine. It is a great favourite with the priests of China, being valuable for ornamental purposes and shade.—Thoe; Fortune, Tea Dist. p. 6; Wanderings, p. 381; W. Jc.

FICUS OPPOSITIFOLIA. Roxb.

Degar,—BEN. [Kolu of KURU BAKU, RAVI.]
Kaku doomoor; BEN. [Daluri, Rumali, RAVI.]

A small tree of all India. Its seeds are sown by birds, causing much destruction to houses and walls.—Roxb. iii. 561.

FICUS RELIGIOSA. Linn. Pipal tree.

Urostigma religiosum, Gasp. Medah, Vuolah,—ARAB. [Bo-gamm.].—SING. Ashwuth, —BEN. [Arasaa irritum.]
Rangittamar, —CAN. [Raya manum.]
Anti-pipal, —DUR. [Ke, Ravi, Ragi.]
Pipal,—BENG. [Awapattamum.]
Ari-sain, . . . MALEAL. [Kallaravia, . . .]

This large, handsome tree grows in most of the countries of the S.E. of Asia. It is frequently to be met with near pagodes, huts, and other buildings. One at Gyane, South Behar, is said to have been that beneath which Saky was repossing when his views as to his duties became clear to him, and if so, is more than 2400 years old. It is also held in veneration by the Hindus, because the god Vishnu is fabled to have been born under its branches. In the Somavati festival, the Mahratta women circumbulate a pipal tree, and place offerings on it, when the new moon falls on a Monday. The pipal tree is preferable for avenues to the banyan. The leaves are heart-shaped, long, pointed, wavy at the edge, not unlike those of some poplars; and as the footstools are long and slender, the leaves vibrate in the air like those of the aspen tree (Populus trinula). Silk-worms prefer the leaves next to those of the mulberry. The roots are destructive to buildings, for if once they establish themselves amongst the crevices, there is no getting rid of them. Pipal bark is deemed a decumbent tonic; the lac insects also flourish on this tree. The Chinese remove the cellular tissue or green matter of the leaves, and, covering the skeleton with a coat of varnish or gelatine, paint figures of birds, flowers, etc., on its surface. It is the most sacred of trees with the Buddhists, who say it was under this tree that Gautama slept, and dreamed that his bed was the vast earth, and the Himalaya mountains his pillow, while his left arm reached to the Eastern Ocean, his right to the Western Ocean, and his feet to the great South Sea. This dream he interpreted to mean that he would soon become a Buddha. A branch of the tree was sent to Ceylon by Asoka, and it flourishes there as the Bo Tree.—Macleou’s Tea; Mason; O’Sh.; Riddell.

FICUS ROXBURGHII. Pall. F. macrophylla, R.

Timbal,—PANJ. [Trumuel, Tirmul, PANJ.]

This small tree is found in the Sutlej valley, between Rampur and Singham, at an elevation of 5000 feet; also grows in Australia. Fruit edible, flavour pleasant; sold in bazaar of Sinda.—Claghorn, P. Rep.; Backhouse, Visit, etc.; Stewart.

FICUS RUBESCENS. Wall. F. heterophylla, Law.

Grows on the coasts of Peninsular India, and the root bark is used in medicine.
FILICIGIUM. Moon. F. diversiformis, Miq.
Man-tu, Ch., Neg-yuh, Formosan.
Mukran-tu, Ch.,——

Very common in Ceylon up to 2000 feet. Its dry, tasteless fruits are used in China for fomenting hemorrhoids. F. pumila has the same Chinese name.—Thur.; Smith.

FICUS TSIELA. Roxb.

A large and very handsome tree, generally planted by the road sides for the sake of its shade, and from its not sending down aerial roots.

FICUS VENOSA. Alt.

Grows in Ceylon, the Peninsula of India, and the Punjab. Its bark is used as a substitute for betel-nut, to chew with the betel leaf; its leaves are given as fodder to elephants. The root is used as a red dye.

FICUS VIGARTA. Roxb. F. Caricoideus, Roxb.

This grows in Hindustan and Bengal. It is wild occasionally in waste places in the plains, Cis and Trans Indus, and is not uncommon in the Himalaya to 6000 feet. It not un frequently reaches five or six feet, and Dr. Stewart noted one of more than ten in girth. The fruit is eaten by the natives, and at 5000 feet in the hills he found it excellent, though it is generally poor. Wood used for fuel and agricultural purposes.—Stewart.

FIDA. Arab., Pers., Hind. A sacrifice. Figurously meaning, one who sacrifices himself; a secret conspirator. See Kurban; Fidvi.

FIERASFER. A species of this genus of crabs, about six inches long, dwells as a parasite, within the great sea-cucumber. There are several species. The one which lives in the body of the holothuria, in its digestive tube, has a long compressed body, entirely covered with small scales; they are found in the same, along with Palemonis and Pinnotheres. It eats a portion of all that enters. Hartwig says it enters the mouth, tears the sides, and quarters itself between the stomach and the outer skin.

FIGS.

Tin, Teen, Arab. Figos, Port.
Vygov, Durt. Udumbara, Sansk.
Figures, Fr. Rata attika, Singh.
Feigoun, Ger. Higos, Ste.
Anjir, Hind., Pers. Simalattipallam, Tam.
Fichi, It. Med'dilanda, Tel.
Fchet, Carice, Lat. Injir, Tur.

The Figus carica grows all over Spain, the Mediterranean, Italy, France, Greece, and India, and its fruit, the figs, can be had in every part of India. In Afghanistan there are two kinds, one a black fruit, which are dried and strung together and exported; the other, called Sada, are locally consumed. See Ficus carica.

FIJI, a group of islands belonging to Great Britain in the South Seas, about 1800 miles from Sydney. They extend from lat. 15° 90' to 20° 90' S. The group of 180 reef-bound islands occupy an area of 40,000 square miles. Only 40 of them are inhabited, and the population in 1863 was estimated at 200,000. The people, till the middle of the 19th century, were fierce savages and cannibals. They were then largely converted to Christianity. In 1851, 50 bodies were cooked and eaten at Nameng. In many wars, undertaken more to gratify revenge than from a desire for conquest, the slaughter of their enemies, and the obtaining the bodies for food, were objects supposed to be as honourably obtained by stratagem and every species of treachery, as by personal strength or courage. Indeed, the extent to which the thirst for blood prevailed, would be incredible, but for the undeniable testimony of many reliable witnesses. Canoes launched over the living bodies of slaves as rollers, houses built on similar foundations, the immediate massacre of all unfortunate in whom were detected the fatal sign of shipwreck, ‘salt water in the eyes,’—were practices sanctioned by their religion, the omission of which at the proper season for their performance, was sure to call down the indignation of the gods, and the punishment of the too merciful offenders, and burying alive of parents who had become burdensome to their children, and even of sickly sons by the hands of their own fathers, were events of almost daily occurrence. They discouraged early marriages, and the chastity of the young women was carefully guarded. Some at least of a chief’s wives were always strangled on the death of their husband, to accompany him to the other world, and no reluctance was ever shown by women to submit to the sacrifice; nor did young women consider the age of a man as any objection to their marriage, although fully aware that they must probably follow him to the tomb long before the natural termination of their own lives. The name and nature of their future abode differed in many of the islands, but the greater number spoke of Bulu as the place of departed spirits. They prepared and drank kava in the same manner and on the same occasions as the Polynesians. They call it Angona or Yangona, and the use of it was taught them by the Tongans.—Capt. Elphinston Erskine, Islands of the Western Pacific, p. 263.

FILICARIA MEDICINENSIS, Linn. Guinean worm. This is often about 3 feet long, and is very troublesome when it occurs about the sinews of the feet and leg. A species of Filaria inhabits the pearl oyster, and Dr. Kelart thinks it causes the formation of the pearl.

FILICARIA, or Leather Jacket, the genus Balates of the South Seas.

Filific-Aswad, black pepper, Piper nigrum.
Filific-Burree, wild pepper, fruits of Viti trilofia, annus-castus, and negundo.—Irwin.
Filific-i-Daraz, long pepper, Piper longum.
Filific-Gird, Piper nigrum.
Filific-i-Siah, black pepper.
Filific-i-Surk, cayenne pepper, red pepper.
Filific-Mueh, pepper root.
Filific-ul-Jibbel, Capparis Sinaica.
Filotof of Buddhists is the swastika or mystic cross.

Rhus decipiens, W. A. | Pahalimbar. | Singh.
FILIGREE.  

This very elegant fern-leaved tree grows in Ceylon, throughout the Western Ghat forests of the Madras Presidency, and is very abundant in the moist forests of the Animalays up to 4000 to 4500 feet elevation. The timber is strong, and valuable for building purposes; it flowers in December and January, and ripens its fruit in March. It has been introduced into gardens.—Beddome.

FILIGREE, a style of delicate wirework used for ornamenting gold and silver, introduced by the Italians, who call it Filigrana, a word compounded of Filum, a thread or wire, and Granum, a grain or bead; this is in allusion to the early practice of ornamenting the wirework with small beads. Wire used for this purpose is seldom drawn round, but flat or angular. The display of filigree work in the Great Exhibition of 1851 was very wonderful for delicacy of workmanship and fantastic beauty. The chief exhibitors were from Sardinia, Turkey, the Ionian Islands, and Malta, but the native silversmiths of Cuttack have long been noted for the fineness, neatness, and lightness of their filigree work. This kind of work is executed for the most part, under supervision, by mere boys, the whole number of boys and keener eyesight are supposed to enable them to bring out and put together the minute patterns with more distinctness and accuracy than their elders can; comparative cheapness is perhaps another reason for their employment. The ruling rates for this filigree work are from 2 to 2½ rupees; that is to say, taking the first rate, 2 rupees or 4½ is charged for every rupee weight of finished silver work, namely, 1 rupee for workmanship, and 1 rupee as the price of the silver. The filigree work in gold of Delhi and other places is famed. Next to muslins and embroidered flannelets, filigree work is that for which Dacca is most celebrated; but the art is also practised in great perfection at Cuttack, and in Sumatra and China. The articles usually made at Dacca are lady's ornaments, such as bracelets, ear-rings, brooches, chains, necklaces, etc., and attar-dans and small boxes for natties. The design best adapted for dresses is the whorl, which is supposed to represent the cope of a leaf. The apparatus used in the art is exceedingly simple, consisting merely of a few small crucibles, a piece of bamboo for a blow-pipe, small hammers for flattening the wire, and sets of forceps for intertwisting it. The drawing of silver and gold (i.e. silver covered with gold) wire, used as thread in embroidery, is extensively carried on in several places, and Beneares is celebrated for this art. There are several varieties of silver and gold thread (badia) made at Dacca, as Goolabatoon, for the embroidery of muslins and silks; Goshoo, for caps and covering the handles of chowries; Sulmah, for turbans, slippers, and hookah snakes; and Boolum, for gold lace and brocades. Some of it is drawn almost as fine as a hair. In the time of Aurangzeb, a quantity of this article was made, yearly for the court at Delhi. A boy, whose cheeks covered with it, and plain gold and silver badia to the amount of £2000 in value, appear among items composing the Mulbos khas nuzr, or present of royal clothing annually sent to the emperor. The Trichinopoly filigree work is as light and elegant as that of Malta or Genoa. Among the manifold and various manufactures of China, the gold and silver tinsel cloths of Pekin stand deservedly in high estimation; their chief value arises from the peculiar property which they possess of never tarnishing or becoming discoloured. The gold and silver filigree work of the Chinese equals any ever produced by ancient Venetian masters, and their chasing in silver is unrivalled. The art of enamelling on silver is also brought to great perfection in China, and specimens surpass any ever produced at Genoa.—Sirs's China and the Chinese, i. 387, ii. pp. 1-4; Dr. Taylor.

FINANCIAL members of the Government of India have been—James Wilson, 29th November 1859; Samuel Laing, Sir Charles E. Trevelyan, W. N. Massey, Sir Richard Temple, John Forbes, David Inglis, Sir William Muir, and Sir John Strachey, 23d December 1876, removed 1880, and Major Baring, 1881.

FINCH, a name for several genera of birds. The bull-finches are of the genus Pyrrhula, P. erythraea, P. erythrocephala, P. nipalensis, P. aurantiaca, and also of the genus Pyrrhuleuca, P. epauletta. The rose-finches, of the genera Propyrrhula, P. subhemenachala, Carpodacus rubii, P. coerulea, C. erythrinus, P. coeruleus, P. spuria, P. rhodochlamya, P. rhodochrous, P. pulcherrimus, P. frontalis, P. Murrayi, P. nipalensis, and P. juniceps, with Callcanthiis Burtoni, and the gold-finches of the Himalaya, Carduelis caniceps; also Metoponia pusilla, with species of Fringilla montifringilla and Fringillidae nemoriciola. The Himalayan gold-finch (Carduelis caniceps) at first sight bears a striking resemblance to the European species, but differs in wanting the black on the head. The pretty little red-fronted finch (Metoponia pusilla, Pall.) is a tenant of waste places, and usually seen singly or in small flocks, feeding on the seeds of a species of wormwood, on which gold-finches, house-sparrows, and one or other of the roseate grosbeaks also feed. This finch is easily recognised by its small size, a red spot on the forehead, and yellowish-brown on the upper parts; the females and young are darker in plumage. The consequence is it is in great request as a cage bird in the Panjaban, to which it is brought from Afghanistan.

FINGER-NAILS are allowed by Buddhist devotees of China to grow to a great length.

FINJAN. ARAB. A cup without handles.

FINN, a race occupying Finland in the north of Europe, supposed to be of the same stock with the Turkoman, the Chude, the Laplander, and the Magyar of Hungary. Rask was of opinion that the language of the Lap, the Finn, and Basque of Europe, and of the Cucuwhuri, Kohati, Toda, Gond, and Lar of India, also the Brahui and the Japanese, were of one stock.

It is generally supposed that the original seat of the Finnic tribes was in the Ural mountain, and their languages have been therefore called Uralic. From this centre they spread east and west and southward in ancient times, even to the Black Sea, where Finnic tribes, together with Mongolic and Turkic, were probably known to the Greeks under the comprehensive and convenient name of Seychiana. On the evidence of language, the Finnic stock is divided into four branches, the Chudic, Bulgaric, Permic, and Ugric.
The Chudic branch comprises the Finnic of the Baltic coasts. The name is derived from Chud (Tchud), originally applied by the Russians to the Finnic nations in the north-west of Russia. Afterwards it took a more general sense, and was used almost synonymously with Sclavon for all the tribes of Central and Northern Asia. The Finns properly so called, or, as they call themselves, Suomalaisten, i.e. inhabitants of fens, are settled in the provinces of Finland (formerly belonging to Sweden, but since 1809 annexed to Russia), and in parts of the governments of Archangel and Olonetz. Their number is estimated at 1,521,615. The Finnic are divided into three main dialects, and arc, the Magyars excepted, the only Finn race that can claim a station among the civilized and civilizing nations of the world. Karelians and Tavastian are dialectical varieties of Finnish. The Eeth or Esthonian, neighbours to the Finn, speak a language closely allied to the Finnish. It is divided into the dialects of Dorpat (in Livonia) and Reval. Except some popular songs, it is almost without literature. Estonia, together with Livonia and Kurland, forms the three Baltic provinces of Russia. The population on the islands of the Gulf of Finland is mostly Estonian. In the higher ranks of society Estonian is hardly understood, and never spoken. Besides the Finn and Estonian, the Livonian and the Lapp must be reckoned also amongst the same family. Their number, however, is small. The population of Livonia consists chiefly of Vets, Letts, Russians, and Germans. The Lapp inhabit the most northern part of Europe. They belong to Sweden and Russia.

The Bulgarian branch comprises the Tchernomians and Mordvinians, scattered in disconnected colonies along the Volga, and surrounded by Russian and Tartaric dialects. The general name given to these tribes, Bulgarian, is not borrowed from Bulgaria on the Danube; Bulgaria, on the contrary, received its name (replacing Moesia) from the Finnic armies by whom it was conquered in the 7th century. Bulgarian tribes advanced from the Volga to the Don, and, after remaining for a time under the sovereignty of the Avars on the Don and Dnieper, they advanced to the Danube in 635, and founded the Bulgarian kingdom.

The third, or Permic branch, comprises the idioms of the Votians, the Sirianes, and the Permians, three dialects of one language. Perm was the ancient name for the country between long. 61° 76' E., and lat. 55° 55' N. The Permic tribes were driven westward by their eastern neighbours, the Voguls, and thus pressed upon their western neighbours, the Bulgar of the Volga. The Vostiaks are found between the rivers Vyatska and Kama. Northwards follow the Sirianes, inhabiting the country on the Upper Kama, while the eastern portion is held by the Permians. These are surrounded on the south by the Tartars of Orenburg and the Bashkir, on the north by the Samoyedes, and on the east by Voguls, who pressed on them from the Ural.

The Voguls, together with Hungarians and Ostiaks, form the Finno-Ugric and last branch of the Finnic family, the Ugric. It was in 462, after the dismemberment of Attila's Hunnic empire, that these Ugric tribes approached Europe. They were then called Onagur, Saregur, and Urog; and in later times they occur in Russian chronicles as Ugry. They are the ancestors of the Hungarians, and should not be confounded with the Uigur, an ancient Turke tribe.

FINOKI. JAP. A cypress tree of Japan, which yields a light whitish wood of a good substance, and does not absorb water.—Smith.

FIR. Sung-shu, Chin. The fir tree is met with on most of the hills of China, and its wood is used in carpentry and for fuel.—Smith.

FIRDUSI, author of the Shah Namah, a Persian poem, was born at Kirwan, near Taos, in about 940, and died there 1020. He wrote it at the request of Mahmud of Ghazni; but disappointed of the promised reward of 30,000 drachmas, he returned to Toos, his native city, and there died. A little way from the gate of the entrance of Toos there stands a dome ornamented with laquered tiles, so small as seemingly to form a part of some private house. The dome covers the dust of this celebrated poet, who, after the treatment he received from Mahmud, retired there to die (Fraser's Khurasan, p. 519). Mahmud was not, however, a niggard in his rewards of the learned, and had sent the money after Firdusi, but he had died before it arrived. The Shah Namah relates to three heroes, Jamshid, Faridun, and Garshasp, as the earliest representatives of the generations of mankind. In his satirical description of Mahmud's court at Ghazni, he says he has had enough of plunging after plunging into it, and would fain rest while from ducking into a sea without bottom and shore in which he has fished long but has not found any pearl. Firdusi is the first of the epic poets of Persia, and few countries can boast of a greater genius. His chief work, the Shah Namah, or Book of Kings, contains, mixed with allegory and fable, almost all the Persians know of their ancient history. It contains 120,000 verses.
the poita, and never suffers it to go out, using the same fire at his wedding, and in all his burnt-offerings, till a length, after his death, his body is burnt with it. The sacred fire kindled by Moutezuma was preserved by Pocs down to our own times. The Natches of N. America preserved a sacred fire, and believed that frightful calamities would ensue if ever the fire were extinguished at both temples at once. Even among Christians of the present day, according to Mr. Robertson, on the eve of the Greek Easter-day, the ceremony of receiving the αυξω-τις or holy fire is performed in the chapel at Jerusalem. The fire burns from the sepulchre, and the pilgrims of the Greek communion light their torches at it, believing that they receive it from heaven. The lamps and candles which some Christian sects keep in their churches are remnants of the ancient and modern culture of fire. The Athenians had a perpetual fire kept by widows; among the Romans it was kept by virgins. The Greeks had one in the temple of Apollo. The Chaldeans adored fire; and when it went out, it was a presage of all sorts of misfortunes to the state.

In the Hebrew books, the Supreme is mentioned as having appeared in fire or encompassed with this element. When he showed himself in the burning bush, and descended on Mount Sinai in the midst of flames, thunder, and lightning (Exodus iii. 2, xix. 18). Fire is also a symbol of the deity (Deuteronomy iv. 24). In this awful manner he showed himself to Isaiah (ch. vi. 4); to Ezekiel (ch. i. 4). The Psalmist describes the chariot of God as composed of flames (Psalm xviii. 12-14). And the second coming of Christ is represented as in the midst of consuming fire (2 Thessalonians i. 8; see also Daniel vii. 10). The wrath of God is compared to fire (Psalm xviii. 8); and so are those effects of his displeasure, famine, war, and pestilence (Psalm lxvi. 12; Jer. xxi. 12). To this element the Lord is compared (Malachi iii. 2), referring to his judgment upon the wicked who are consumed like the dross of metals, and to the effects of his grace refining the righteous like pure gold. The influences of the Holy Ghost are also compared to fire (Malachi iii. 11), in reference to the tongues or flames of fire that rested on the heads of the apostles (Acts ii. 3), and to the work of regeneration on the human soul, illuminating, quickening, purifying, and inflaming with gratitude, love, and zeal. The angels of God are represented under the emblem of fire (Psalm civ. 4); and a column of flame directed the marches of the Israelitish camp during the night seasons in the wilderness (Exodus xiii. 21). Fire anciently fell from heaven to consume the victims sacrificed to the Lord, and this was an indication of his regard and approbation. And this is thought to be the manner in which Jehovah signified his acceptance of Abel's sacrifice. Fire also fell upon the offering made by Moses (Leviticus ii. 4), on those of Manoah (Judges xi. 29, 30), on Solomon's (2 Chronicles vii. 1), and on Elijah's (1 Kings xix. 18, 39). The fire which descended from heaven, first upon the altar constructed by Moses in the tabernacle, and again on that erected by Solomon at its consecration, was constantly fed and preserved by the priests, and was regarded as celestial or hallowed fire, first kindled by the Lord himself, to instruct mankind that the origin of all

spiritual good is from above, and that we are not to warm ourselves with the sparks of our own kindling.

What kind of fire is meant by the 'strange fire' of Leviticus x. 1, Numbers iii. 4, xxvi. 61 (see also Leviticus vii. 7, ix. 11, 24, and Exodus xxx. 9), is doubtful; but a Brahman should maintain three fires (Vikrama and Uravasi; Introduction, i. p. 190), two mentioned in a saka or the Rig Veda and the Apastamba Sutra, are the Sabha and Avasathy, the precise purport of which names is not known to the pandits, nor explained in the Baalha. The literal sense would be the fire of the assembly and the fire of the village, as if a sacrificial fire was sometimes maintained in common.

The subdivision of one fire into the three fires of the Hindu ritualistic worship is ascribed by the Mahabharata, and the rest to Pururavas. The commentator on the former specifies them as the Garapatyia, Dakshina, and Ahavaniya, which Sir William Jones (Manu. ii. p. 231) renders nuptial, ceremonial, and sacrificial fires; or rather—(1) household, which is perpetually maintained by a householder; (2) a fire for sacrifices of others, and for the religious (3) a consecrated fire for oblations,形成ing the Tretagni, or triad of sacred fires, in opposition to the Laulika, or merely temporal ones.

It may be that the taking of fire from other than the established place was called 'strange.' Fire used by Hindus for the funeral pile ought to be obtained from the sacred fire, but it is at present the common practice of the Hindus of ordinary rank in the Western Provinces of India to procure fire from an out-caste to light the funeral pile. On the eastern side of India, the fire used in the household sacrifices of their homes is obtained from the hearth fire. That used in their inceneration is from the lamp lit in the ceremonial when a person is moribund; but the lamps of the temples are lit only by Brahmins, and taking fire from other than the altar would be 'strange.' A Hindu, as indeed also a Mahomedan, does not blow with his mouth, or the deceased, when the breath, the Hindu believing that a deity intervenes. In the whole of Central and Southern Asia, and with Hindus, Parsees, and Mahomedans, to blow out a light is considered very wrong.

On the east side of the fortress of Gwalior, where myriads of warriors have fattened the soil, phosphorescent lights at one time often appeared. They are termed Shahaba by the Rajputs, perhaps from the Arabic shahab, a meteor. Colonel Tod dared as bold a Rajput as ever lived to approach them; but he replied, men he would encounter, but not the spirits of those erst slain in battle. Such fires the northern nations believed to issue from the tombs of their heroes, and to guard their ashes; they called them Hauja Eldir, or the sepulchral fires, and they were supposed more especially to surround tombs which contained hidden treasures. When the intrepid Scandinavian maiden observes that she is not afraid of the flame burning her, she is bolder than that bold Rajput, for Sri-Kishen, who, as above related, was shocked at the bare idea of going near the sepulchral lights, was one of three non-commissioned officers who afterwards led thirty-two firelocks to the attack and defeat of 1500 Pindaris. At present the Kasak or Kirghiz do
not spit on a fire; and in Khiva, Khokand, in many other parts of Africa and Asia and Europe, the custom continues of dancing round fire. Everywhere with the Hindus there is believed to be a fire which does not burn a person, attributed to Siva the Mahadeva, written also Sek or Sin; and annually, in the Dehkan, the fire-worship of Mahadeva is performed, in which the devotees run or jump through great fires, attributing their escape to the interposition of that Hindu deity. In the North Aroet district of the Madras Presidency, a fire festival custom prevails annually, in which the people walk through fire, but accidents occur, ending in death.

Abul Ghazi relates that he allowed his wives before their confinement to pour grease on to the fire, to guess from the splutterings of the flame whether they would have boys or girls. This superstition is still practised in Central Asia, and finds its counterpart in the melting of wax or lead by European girls on New Year's Eve, to see from the shapes into which it runs whether they will be married in the course of the year (Vambbery, Bokhara, p. 283). So the Kirghiz, though professing Mahomedanism, threw grease on their fires. They and the people of Wakhân and Badakhshan dislike blowing out a light. Spiegel asserts, in an article which appeared in the Ausland under the title Das östliche Turkistan, that in the 7th century after Christ, Turkish tribes in the north of the Tien-shan were fire-worshippers.

Fire is produced from several woods by friction. In India, from the Isora corhyloïda; in New Zealand, by friction of the woods of the Myhoe or Melicytus, members of the Araucaria family; and of the Kaimakmo trees. The wood used to provide fire in Tahiti is that of the Hibiscus tilicinus, which is also used for shoulder-poles and outriggers for steadying a canoe. Its blunt point is rubbed in a groove till the dust takes fire. Fire is kindled in the Sandwich Islands by twirling a sharp-pointed bit of wood over a small slab. The Aaleutians manage the upright stick with a string in the manner of a gimlet or borer. They also rub sulphur on two stones, and strike fire from thereon by means of a sulphur with sulphur (Kotzebue's Voyage, iii. p. 259, in Jam. Ed. Journ. vi.). The Guacho of the Pampas takes an elastic stick about 15 inches long, and presses one end against the breast, the other in a hole in the piece of wood, and then rapidly turns the curved point like a carpenter's centre - bit. — Wilson's Hindu Theatre; The Toy Cart; Art. p. 112; G. Bennett, p. 418; Colebrooke on the Religious Ceremonies of the Hindus, Asiatic Res. xxi. p. 241; Somner's Voyage, pp. 77, 78; Story of Nala, p. 102; Robinson's Travels, Palestine and Syria, i. p. 282.

FIREBACKS, species of the Gallus partridge.

FIRE-CLAY. Sang-i-dalam, Hind. A kind of clay, very common in many parts of India, from which bricks can be made that resist the action of great heat.

FIREFLY, little luminous insects, species of Lampyris and Elater. The lower part of the body has some apparatus for emitting a bright phosphorescent light. Usually it is emitted in flashes at intervals of a second, and it is interesting to guess where the creature in its flight will next show itself. But occasionally the light is continuous.

FIREWOOD.

As fade the upper skies,
Each thickest opes ten thousand eyes,
Before, beside us, and above,
The firefly lights his lamp of love,
Retreating, changing, Mahan, swooning,
The darkness of the cope explore.

Fulgura candelaria is the Chinese firefly. F. lanterna is another. The Elater beetles have over 70 species in tropical America. E. noctiluca occurs in India.—Heber, i. p. 247. See Agiolepas; Insects; Lampyrids.

FIREPLACES, in the eastern and southern parts of Asia, are usually the hearths alluded to in Jeremiah xxxvi. 22: 'There was a fire on the hearth burning before him.' Hindu houses have neither chimneys nor fireplaces. In the cold weather, the rich burn wood in brass or earthen pans, placed in any part of the room; the indigent burn sticks on the floor. The hearth or fireplace is commonly taken to mean the livelihood, or means of supporting a family. If the family be scattered into, say, three parties, the expression would be, 'I have three fireplaces burning.' Speaking of lead frequently rubbed and dispersed, the Persians say, 'Ojoak-isban koor shaud.' Their fireplace is darkened; and the people of India say, 'Ghar men chahin nahn.' The house is without a lamp; also 'Chulay men ag nahn,' 'There is no fire on the hearth.'

FIRE TEMPLE, the name usually applied to the places of worship of the Parsee religiousists. Their Hormusjee Wadia fire temple in Bombay was established about A.D. 1839; the Nowarsee, A.D. 1763; the Surat, in A.D. 1822; the Oodwar, A.D. 873—it is the oldest. An annual service is held in a morning of the beginning of November. In the evening the Parsee streets in the Bombay Fort and the Bazar Gate street are illuminated, and flags and evergreens adorn the principal entrances.

FIREWOOD.

Bois de chauffage, Fr. Lakri, Hind.
Bremskohle, Gen. Lena para el fuego, Sr.

Firewood is the chief fuel used in the E. Indies, and the less valuable trees of each locality are cut. On the east coast of the Peninsula the fuel woods are—

Canthium parviflorum. Randia dumetorum.
Hymenodactyllum exsalvum. Anisonea multiflora.
Acacia speciosa. Cassia auriculata.
Gmelina asiatica. Phyllanthus sp.
Feldonandra. Acacia leucophiea.
Vates lacertan. Morea buxifolia.
Grewia rotundifolia. Dichrostachys cinerea.

The fuel trees at Simla are chiefly—

Quercus incana. Pinus exelsa.
Rhododendron arboreum. Cedrus deodara.
Andromeda ovalifolia.

with other jungle trees and stout underwood. At Kussowlee and Kanawar, the contractors supply principally 'chir' (Pinus longiloba), which grows wild on the adjoining hill-sides, and splits easily. The only forbidden wood is 'beuhl' (Grewia oppositifolia), which emits an offensive smell in burning. The villagers use as fuel the withered stems of Euphorbia pentagona and thorny bushes.

In the Punjab, the woods used are—

Alstone, sp. Hippophae rhamnoides.
Artemisia sacrorum. Juniperus communis.
Calligonum polymorphides. Juniperus excelsus.
Cangana pygmaea. Periploca aphylla.
Cressophora tinctoria. Rhaiza stricta.
Ephedra Gerardiana. Resa Webbiana.
Eurodia ceratoides. Tanacetum tomentosum.
FIREWORKS.

Near the Panjab railway lines, Phulai (Acacia modesta) furnishes a hard wood, which is perhaps the best fuel given by any wild tree. It is only found in quantity near Amritsar and Jullundur. Jhand or kandi (Prosopis.spicigera) covers very large areas in the central tract near Lahore, and grows more partially over many parts to the south. Its wood is open-grained and softish, and is very subject to the attacks of white ants; but it furnishes a fair fuel, and has been the chief source of supply for the locomotives in the Panjab. Next to it, as to quantity of fuel furnished, come the tamarkises, furnas, lei, pilchi, etc. (Tamarix orientalis and T. Indica), which, from some miles south of Lahore, cover hundreds of square miles of the low land. A kikar or sisoo tree, under tolerably favourable circumstances, attains a girth of about 30 inches in ten years, and gives about 4 maunds (328 lbs.) of dry fuel. 200 trees yielding 800 maunds (65,600 lbs.) of dry fuel might be grown on an acre in ten years. Various species of Salsalocce are abundant in the more saline parts of the Doabs of the Panjab. West of the Beas, Karil, the Capparis aphylla, a considerable shrub, is a common brick fuel in many places in the Panjab; as also is the jal, wan, or pilu, Salvadoria oleoides over-abundant south of Lahore. Along some of the rivers in the south the bahn (Populus Euphratica) is not uncommon, but its wood is very light. The smaller tamarkis, T. Indica, becomes fit for felling in eight or ten years. For the fuel of the Indus steamboats on the Delta, the mangrove is used.

FIREWORKS.

Feux de artifices, FRI. Marchun, Rabok, MALAY. Feuerwerke, GER. Fucso artificiale. Attilhazes, GUI., HIND. Fuegos artificiales.

In Eastern countries the people have superb displays of pyrotechnic skill. The fireworks are of various forms, represent animate and inanimate things, such as trees, tigers, ships, elephants, men, sea-fights, eclipses of the sun and moon. They are manufactured in the principal cities. Green fire is produced by green baryta, chloride of potash, and sulphur; red fire from strontia, chloride of potash, sulphur, and charcoal; blue fire from chloride of potash and sulphur. Fireworks imported into India in the years 1874-5 to 1879-80 ranged in value about 3 to 5 lakhs. The natives of India are passionately fond of fireworks, and at marriages and other important festivals they gratify their taste.

FIROZAH, Turks, or the Turquoise. Firoz-rang, turquoise blue. This mineral is found at Khajood, in Mawar-u-Nahr or Transoxiana, at Shebavek, in Kirman, and in a mountain of Azerbaijan, where the mine was discovered before Ahmad bin Abd al Aziz composed his Tattiseri on Gems. He describes the mine at Nishapur as most celebrated from early ages for that particular kind of turquoise entitled Abu Isahi, which, says he, averts evil from those who wear it, conciliates the favour of princes, augments wealth possessed, repels the sight of enemies, vitiates an adversary, and banishes all unpleasant dreams. The ancient sages, when first they beheld a new moon, immediately after fixed their eyes, says he, on the fire-bash. — Ouseley's Travels, p. i. 211.

FIROZ KOHI, an Aimak tribe from the town of that name, 63 miles from Teheran. They are of Persian origin, and their forefathers fought Timur bravely when that conqueror subjugated their country. After they were driven by him into the mountains south of Mazenderan, they there defended themselves more desperately; but they were eventually defeated and carried by him into Herat.—Ferrier, Journ. p. 196. See Aimak.

FIROZPUR, a town and military cantonment in the Firozpur district of the Panjab, situated in lat. 30° 50' 42" N., and long. 74° 38' 24" E. The revenue district is between lat. 30° 8' and 31° 11' N., and between long. 74° 3' 30" and 75° 7' E.; area (1878), 2,739 square miles; population in 1868, 549,253. The Dogra and Bhatti form the leading Rajput tribes, and bear the reputation of being lazy and thriftless. — Imp. Gaz.

FIROZ SHAH, emperor of Delhi. He wrote an account of the occurrences of his reign, and called it Futuhat-i-Firoz Shahi.

FIROZ-u-DIN TAGHALAQ ascended the throne of Delhi a.d. 1351, and died at the age of ninety, on the 23rd October 1388. He was just and liberal-minded, erected many (700) public works, some of which still remain, amongst others an irrigation canal from the Jumna where it leaves the mountains, to Karsal to Hanni and Hissar. It reaches to the river Ganges, and in former times was connected with the Sutlej, the nearest river in the Panjab. The British restored 200 miles of it to beyond Hissar. Ferishta relates that he obtained acquaintances from the relatives of all who had suffered from the violence of his uncle, Muhammad Taghalag (A.D. 1325-51), and deposited the sealed acquittance in his uncle's tomb. —Elph. India, p. 556; Tr. of a Hind. ii. p. 216.

FISHES. OF THE South and East of Asia.

Samkat, ARAB. Pices, LAT. Angana, BURM. Ikan, MALAY. Pish, DAN. SW., MAHI, PERS. Vissenchen, DUT. Rybi, POLISH. Poisson, FRI. Flexos, PORT. Fisch, GER. Rub, RUS. Ichthus, GR. Pesados, SP. Dag, HERB. Min, TAN. Matchhi, MAT. Hansi, CHAPU, TEL. Pece, IR.

During the 18th and 19th centuries, this branch of the natural history of the East Indies has received the attention of many learned zoologists. Bloch, in 1785, published his splendid work on Auslandische Fische. This and his Ichthyology, and the continuation of the latter by Schneider, contain many Indian forms, as does Lacépédès Histoire des Poissons, 1798-1803. In 1808 there appeared Dr. Patrick Russell's book in two volumes, containing descriptions and figures of 200 fishes collected at Vizagapatam on the coast of Coromandel. In 1822, in a 4to volume, Dr. Hamilton gave an account of 266 fishes found in the river Ganges and its branches, with a volume of plates. The voluminous work by Baron Cuvier and M. Valenciennes, Histoire Naturelle des Poissons, published in Paris in 1828 and following years, was of great value to science. A beautiful volume of much more importance, the Fauna Japonica, was published in 1847 by MM. Ph. Fr. de Sibole, C. J. Temminck, H. Schlegel, and W. de Haan, Lugduni Batavorum 1847. In 1841 there was issued at Berlin the Systematische Beschreibung der Plagiostomen by Dr. J. Müller and Dr. J. Henle, which included many of the genera and species of the seas in the S. and E. of Asia. Dr. McClleland of the Bengal Army, in 1842, in the
Fishes.

Calcutta Journal of Natural History, described the fresh-water fishes which Dr. Griffiths had collected; and subsequently, in 1843, he described a collection made at Chusan and Ningpo. In 1834 Mr. J. W. Bennett published a Selection of Rare and Curious Fishes found on the Coast of Ceylon. Dr. Ruppell in 1828 and Peters in 1868 described the fishes of the Red Sea and those found southwards to Mozambique; and the fishes near the Cape were described by Dr. Smith. Dr. Day, in 1865, published his Fishes of Malabar, the new species in which were lodged in the British Museum. The fishes of China and Japan were described by Sir John Richardson in the Report of the British Association in 1845. Dr. M'Clelland published a memoir on the Indian Cyprinidae in the As. Res. xix. p. 217. Colonel Sykes wrote on the Fishes of the Dekham in the Transactions of the Zoological Society in 1841. Fishes aus Casimir were described by MM. von Hugel and Heckel in 1838. Dr. Kelart of Ceylon paid much attention to the ichthyology of the island. Dr. Theodore Cantor in 1850 furnished, in the Bengal Asiatic Society’s Journal, a minute account of 292 fishes of the Malay Archipelago. From 1845 to 1860 Dr. P. Bleeker, in numerous contributions on the fishes of the Eastern Archipelago, added greatly to the stock of knowledge of the seas of the region from Penang to Japan. Mr. E. Blyth, long the Curator of the Bengal Asiatic Society’s Museum, from time to time published in the Bengal Asiatic Society Journal, notices of fish; and T. C. Jordan, a medical officer in the Madras Madras’s Literary Society’s Journal, gave several contributions on the fresh-water and on the salt-water fishes of the Peninsula. Dr. A. Günther, in addition to all that he had written in the Proceedings of the Zoological Society and other journals, in the years 1859 to 1870 brought out eight volumes of a catalogue of the fishes in the collection of the British Museum; and in 1866, conjointly with Lient.-Colonel L. Playfair, published an illustrated volume on the Fishes of Zanzibar, the Seychelles, and Chagos Islands. Dr. Kullenzinger, in 1870-1871, published a detailed account of the Fische des Rothen Meeres. Later still, Dr. Day has written (1875-77) an invaluable work on the Fishes of India, Ceylon, and Burma, with many monographs and numerous reports on the sea and fresh-water fishes and fisheries of India. The scientific arrangement of this branch of Natural History is as follows:

- **SUB-CLASS, TELEOSTEI**. Order, Acanthopterygi.  
**Fam. Percidae.** Gen. lates, serranus, grammistes, diplotropis, genyogryoe, mesopiscis, myriodon, ambassia, agonon, agonichthyes, chelidopterius, dules.  
**Fam. Trisiptidomias.** Gen. therapon, pristipomis, -diagramma, lobedes, datniodes, germis, scolopsia, dentes, amaris, cesio.  
**Fam. Squamipinnes.** Gen. chartodon, toxotes, chelmo, homclinos, holacanthos, scaphophus, episcus, maculata.  
**Fam. Nandidae.** Gen. plesios, baldis, manudis, cateora.  
**Fam. Mullidae.** Gen. upeneodes, sollosilus, upenes.  
**Fam. Sparidae.** Gen. crenidens, sargus, lethrinus, sphyromus, pagrus, chrysophus, pimelopeterus.  
**Fam. Caridid.** Gen. cirichreas, cirichreus, cirichrhis, milatrus.  
**Fam. Scorpenidae.** Gen. scorpoas, sabuster, pterois, apasists, amphiospinchthyes.  
**Fam. Teuthidide.** Gen. teuthis.  
**Fam. Berycidae.** Gen. myriohtis, holocentrum.  
**Fam. Kurididae.** Gen. kurtus, permorrh.  
**Fam. Polynemidae.** Gen. polynemus.  
**Fam. Seicicidae.** Gen. umbrinus, sciema, ootolthus, scicinoides.  
**Fam. Xiphidae.** Gen. histiophorus.  
**Fam. Tetrodidae.** Gen. trichiricus.  
**Fam. Anacanthidae.** Gen. anacanthus, nasus.  
**Fam. Carangidae.** Gen. caranx, serlora, serilichthyes, nancrates, chacrinus, trachynotus, pectus, platas, pseus, equula, ganna, lactans.  
**Fam. Scortichidae.** Gen. stromateus.  
**Fam. Coryphaenidae.** Gen. coryphana, mene.  
**Fam. Nomeidae.** Gen. cucips.  
**Fam. Scombroidae.** Gen. scomber, thynnus, cybium archipelicum.  
**Fam. Uranoscopidae.** Gen. uranoscopus, icthysocopus.  
**Fam. Trachinidae.** Gen. percis, sallago.  
**Fam. Pseudochromides.** Gen. opisthognathus, pseudopiles.  
**Fam. Batrachid.** Gen. batracius.  
**Fam. Pediculost.** Gen. antornarius.  
**Fam. Cortidae.** Gen. synancium, synanoecis, minuos, pelor, chorismactys, polycellea, platychcephalus.  
**Fam. Cataphracti.** Gen. dactylopterus, pegasus.  
**Fam. Gobid.** Gen. gobitis, apgochryncisthi, scydrom, gobiodon, pergophostium, bongolephalum, electris, amblyopus, trypanch.  
**Fam. Callionymidae.** Gen. callionymus.  
**Fam. Pogonip.** Gen. ecpola.  
**Fam. Blemniidae.** Gen. blemius, salarids, anandria, petroziscrtes, tripterigium, xiphias.  
**Fam. Sphynidae.** Gen. sphyrena.  
**Fam. Atherinidae.** Gen. atherina.  
**Fam. Mugilid.** Gen. mugilis.  
**Fam. Aulostomatidae.** Gen. fustarlis.  
**Fam. Centriscidae.** Gen. amphiolis.  
**Fam. Trachyrhincidae.** Gen. regaleus.  
**Fam. Pomacentrade.** Gen. amphilonga, premmas, dasylus, pomacentrus, phylidodon, halistes.  
**Fam. Labridae.** Gen. labrichthyes, labroides, chelinius, eubulbus, anamayes, hemigymmus, stethojulis, platygnous, novacul, julis, gymnothunnus, coris, cymolutes, pseudolode, calyodon, pseudoscarus, chersones, bato, chelius, scarabys.  
**Fam. Labirynthici.** Gen. anabas, palaecotus, osphromenus, trichogaster.  
**Fam. Orthopoeichphalide.** Gen. orthopoeichphalus, channa.  
**Fam. Brynchoebolide.** Gen. brynchoebolus, macrourus.  
**Fam. Chromides.** Gen. etropus.  

ORDER, Anacanthini. **SUB-ORDER, Anacanthi-Gadoidii.**  
**Fam. Gadidae.** Gen. bregmaceros.  
**Fam. Ophidiide.** Gen. brotulus, Blekeria.  

**SUB-ORDER, Anacanthi-Pleuronectoidii.**  
**Fam. Pleuronectide.** Gen. pastodes, pseudorhombus, platophysis, heterosomata, solea, achirus, synaptura, plagius, cynoglossus.  

**ORDER, Phoxostomi.**  
**Fam. Siluride.**  

- **SUB-Fam. Silurinae.** Gen. macrones, arias, bata-choephalus, ketogens, osteogenius, plotosus, akyias, creitesius, rita, pangians, pseudetropius, callichrous, wallago, olya, silurus, chaca.  
- **SUB-Fam. Ambylocephine.** Gen. clarias, saccobranchus, silandia, allia, allichrous, eutrophichthyes, idor, eugnathiun, helodolus, bagarius, pseudocheniseis, glyptosternum, ambloeyes, exostoma.  
- **Fam. Cypridinide.**  

- **SUB-Fam. Cyprininae.** Gen. poecilobrychus, Meyara, microgastres, creius, schizothorax, laboe, osteo-choilus, ehirrana, scaphocephal, carbassius, sempliotes, cilia, mole, barbua, urria, aspartepia, rochtan, barbius, abrius, porlaimalois, ophiuro.  
- **SUB-Fam. Homalopterini.** Gen. homaloptera.  
- **SUB-Fam. Cobitini.** Gen. apua, anacanthophthalmus, anacanthis, eobiti, lepischoephalchthyes, ottis, lophathyphus, lebopsho.  
- **Fam. Scopelidae.** Gen. saurus, saurida, harpodon.  
- **Fam. Scrobireocde.** Gen. belone, hemiramphus, exocetus.  
- **Fam. Pseudeulpeidae.** Gen. chanos, cles.  

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### FISHES.

**Fam. Clupeidae.** Gen. chironotus, clupea, coilia, chatria, dasuamia, engraulis, ophistomerus, pellona, roncalis, scarplideus, corvis, megalops.

**Fam. Notopteridae.** Gen. notopterus.

**Fam. Symbranchidae.** Gen. monopterus, amphignon, symbranchus.

**Fam. Murcenses.** Gen. murcanesox, murcanichthys, ophichthyis, anguilla, moringus, murana, gymnumura.

ORDER, Lophobranchi.

**Fam. Syngnathidae.** Gen. syngnathus, nephos, gasteroopen, acenotrum, ichtyocampus, dory-ichthys, hippocampus.

ORDER, Pectoralia.

**Fam. Gymnothidae.** Gen. xenopterus, tetron, troton, dioton.

**Fam. Scoradermi.** Gen. triacanthus, balistes, monacanthus, ostracon.

**SUB-CLAS, CHONDROPTERYGI.**

ORDER, Plagiostoma. SUB-ORDER, Selachoidel, or Sharks.

**Fam. Carchariidae.** Gen. carcharias, galeocero, zygana, mustelus.

**Fam. Scylliidae.** Gen. scyllium, stegotoma, chlo- scyllium.

**SUB-ORDER, Batoidel, or Rays.**

**Fam. Pristidae.** Gen. pristis.

**Fam. Rhinidae.** Gen. muraenops, rhinobatus, sphyrodon, muraenops.

**Fam. Torpedinidae.** Gen. narce, astrape.

**Fam. Rajidae.** Gen. platyponia.

**Fam. Trygonidae.** Gen. trygon, urogymnus, pteropleur.

**Fam. Melobatidae.** Gen. melobates, notobatis, rhino- ptera, dicerosbat.

From the continuity of the waters from the Red Sea and east coast of Africa, through the Indian Ocean and Bay of Bengal, into the seas of the Archipelago, around Australia and into the Pacific and Polynesia, it is probable that many of the fishes which are now only known as inhabiting a particular sea, will be found throughout that line of ocean, and that the great natural barriers will be found to be Cape Horn and the Cape of Good Hope on the south, to pass either of which capes would throw the fish of the tropical seas into cold regions.

The fishes chiefly used as food in the fresh waters of India, belong to the order Physostomia, especially those of the Cyprinidae, and herring families, as also those classified in the spiny-rayed or Acanthopterygii order. Mahomedans in Sind eat silurids; but in general the silurid, or scaleless fishes, as sharks, skates, rays, eels, are not eaten by Mahomedans or Jews. They are very foul feeders. All the spiny-rayed or acanthopterygian fishes found in India are good for food. Of the silurid fishes, the Magur or Singi (Saccobranchus), and many others, and the carps (Cyprinidae), are all useful for food. The herring family (Clupeidae) are all good, and eels are reckoned wholesome, though natives of India refuse them.

The Andamaners eat the tetrodon, and the Burmese eat the large yellow Xonespernus maritus; others of these genera are deemed poisonous.

The fecundity of fishes is very various. In a hilsa fish, 1,029,645 eggs have been counted; in a migratory barbel, 410,500 eggs. The monogamous non-migratory fish appear to breed frequently, and they protect their offspring. In the Cirrhina reba, H. B., a polygamous non-migratory carp, Dr. Day found 41,500 eggs; and in a silurid, Callichrous canio, H. B., 47,444; whilst a monogamous walking-fish or ophiocephalus had only 4700. The striated walking-fish breeds twice a year, in December and June. The male constructs a nest with its tail amongst the vegetation, and by biting off the ends of the weeds that grow in the water. Here the eggs are deposited, the male keeping guard; but should he be killed or captured, the nest is taken by his partner. The parents are very fierce in this time, and defend their offspring with great courage.

Dr. Day tells us of vast shoals of some forms of fishes approaching the shores or shallows of the Indian coasts at certain seasons, mostly for breeding purposes, and these are often destitute of means of defence, becoming food for their stronger neighbours, or are captured by man for consumption. He arranges the Indian fishes, in their economic relations, into three classes,—First, the more strictly predaceous forms, which are more or less migratory in their habits, generally in order to follow and prey upon their weaker neighbours; some of these congregate in shoals, while others lead more solitary lives. Secondly, non-migratory fishes, some of which are likewise predaceous. These usually reside along the shores and backwaters, being almost confined to the littoral zone, although a few may extend their range into brackish waters on the inshore land, or into the deep sea on the other. Thirdly, those which are more preyed upon than predaceous, consisting of such as live in large assemblages, being gregarious in their habits, and others which lead a more solitary existence.

Among the first, or predaceous division of marine fishes, are some gregarious forms, but such are scarcely so numerous or well fitted for destroying their neighbours as those which are more solitary in their habits. Their best-known representatives are found in the spiny-rayed or acanthopterygian order, or else among the cartilaginous or chondropterygian fishes. Some attain to a great size. Thus, Dr. Cantor alludes to a sea perch (Serranus) exceeding 130 lbs.; and Dr. Russell to another, which was 7 feet long, 5 feet in girth, and upwards of 300 lbs. in weight. Nearly allied are the Lotusian or Messopontus, which, although not the largest, are the most formidable to man, owing to their being more numerous and coming closer inshore. The fishes of both genera are generally excellent as food, especially when not too large, and are much employed as such, either fresh, salted, or sun-dried. Among the Sparidae we find the Pagrus spinifer and several species of Chrysopteryx, abundant in places near the shores of India, especially during the cold months, and held in great esteem. In the family of Polynemidae are some most valuable fishes, all being good as food, and two affording isinglass. Some of these have been known to exceed 300 lbs. in weight, especially in estuaries, where they are not uncommon. The justly celebrated mango-fish of the Bay of Bengal arrives during the S.W. monsoon, about June, and continues through the cold season. It ascends large rivers (from the Mahanadi and Ganges to those of Burma and the eastwards) for the purpose of spawning, and is of great repute for its excellent flavour. Natives term it Tapasi, changed by Europeans into Tupperse-nutchee, the original name being derived from certain aesthetics. A similarity has been drawn between their unkept hair and the long tendrils which in this fish spring from the base of the pectoral fins, and exceed in length that...
of the body. The Maigres, Sciaenidae, absent from the Red Sea, become abundant off the coasts of Sind and through the Indian Ocean. Some attain to 5 feet or more in length, but are sought after rather for the isinglass their air-bladders afford than for their flesh as food, the latter being dry and insipid. The sword-fishes (Xiphidae) are likewise numerous at times off the Coromandel coast during the cold weather, and their flesh is esteemed by the natives, although not brought to the table of Europeans. The horse-mackerels, or Carangidae, are among the most important sea forms to the natives, by whom they are highly esteemed as food. They are very abundant along the Coromandel coast, less so down that of Malabar, where the herrings take their place to a great extent. Some attain to a large size, and on the coasts of British India are never found to be poisonous, as is reputed to be the case elsewhere. Caranx Rottleri reaches 5 feet or more in length, but some species never pass 5 or 6 inches. These fishes are gregarious, and not so oft-nerved in the predaceous habits of some of those already referred to, while the same remarks likewise apply to the next few genera. The closely allied species of Chorinerus and Trachynotus afford a considerable amount of food to man, but, owing to their being dry and insipid, are generally salted or sun-dried. Pomfrets (Stromateidae) are justly esteemed by both Europeans and natives, and they are abundantly distributed throughout the Indian Ocean. Coming in-shore in large shoals about June, they disappear as suddenly as they come, some forms entirely departing about September. It is a curious circumstance that in all the adult forms the ventral fins are absent; in the young of the black species they are very long, but become absorbed as age advances. The mackerel family are exceedingly important, and the common Scromber microlepidotus is very abundant along the western coast of India throughout the cold season, and is extensively salted and sun-dried, but, owing to its rapidly tainting, it is rarely brought to the tables of Europeans; it is not nearly so common along the east coast of Madras and Bay of Bengal, but is found at the Andamans. In India its usual length is about 10 inches, but in certain localities it attains to a foot. Some other forms, which grow to a larger size, and are more predaceous than the common mackerel, likewise arrive during the cold season, when they prey extensively on the numerous herrings and other small fish. Among these large species are the tunny and the pekumys; these are terrors to the shoals of sardines, which appear to afford them delicious food. The seer fishes (Cubinum) are held in great esteem by Europeans, and when of a medium size, are besides the most delicate for the table. They are quite as precious as the tunny's, and attain to three feet and more in length. The voracious and dangerous Sphyramus, termed sharks in some places, and barracuda in the West Indies, grow to several feet, and all forms are used by the natives as food.

The marine siluroids, shear, or cat-fishes, which cannot be considered migratory, are known by the long feelers found round their mouths and absence of scales, and are of considerable economic value; although not esteemed if eaten fresh, still, numbers are salted for export, while their air-bladders are collected for the isinglass which they afford.

Siluroids are mostly found in muddy waters; they are common from Bombay down the western coast, and likewise from the mouth of the river Kistna along the muddy coasts of Bengal and Burma, becoming very abundant in the Malay Archipelago. Among what may be termed the scaled siluroids, a few are excellent eating, but the only one which is found in very large numbers is the bummalo or Bombay duck (Harpodon nehereus). Numerous at Bombay, it is rare all down the Malabar coast, but on the Coromandel side of India a few are taken at Madras; and as we proceed towards Vizagapatam they augment in numbers, and are common along the entire coast of Bengal and Burma, ascending large rivers, but not above tidal influence. Owing to their almost gelatinous character, they are easily sun-dried or salted.

The Chondropterygii, or sharks, rays, and skates, play an important part in Indian sea fisheries. Sharks are found along the whole seaboard, but coast and river shoals are more common occurrence. In some years they are more numerous than in others, and this is due to the presence or absence of shoals of smaller fish, as sardines. They are captured both for the purpose of extracting oil from their livers, as well as for their flesh, as those of a medium size are cut up, salted, and sold to the poor. Their fins, likewise, are exported to China, where, due to the gelatine contained in them, they are in demand for the purpose of making soups. Rays and skates exist in enormous numbers in the Indian seas, where they attain to a great size. The first appear to be gregarious, and may suddenly arrive, to the dismay of the owner of an oyster bed, as they rarely change their quarters so long as any molluscs are obtainable. Saw-fishes are taken for the same purpose as are sharks.

Of the non-migratory forms, some of which are predaceous, there are many in the Indian seas, and some are more directly serviceable to man. Although some of these are small, still they make up by numbers for their deficiency in weight, besides being more readily sun-dried, or salted with brine. The little Ambassas, consisting of small fishes rarely exceeding six inches in length, with the closely-allied Apogons, equally small, are similarly employed as food. The Pristiopomus attain to a larger size,—2 feet or more in length,—are more commonly eaten even while fresh, and some species are very numerous. Along the Coromandel coast, species of Synagris are extensively eaten, while the genera Equula and Gerres furnish an immense amount of food, which is consumed by the poor either when fresh or salted. The Mullids, so esteemed in some parts of Europe and rejected in others, furnish many Indian forms. They are, however, not esteemed; neither are the beautiful and large Lethrinus, nor the more flattened Teuthidida. The gobies of the sea do not attain to a large size, but are of value owing to their abundance. The spineless Anacanthina, or flat fishes, are by no means uncommon, the largest examples being found off the coast of Sind. The very young of the Indian species, similarly with those in Europe, have an eye on either side of the head, a subject which has been so elaborately examined by Steenstrup in 1864, Mr. Malm in 1868, Dr. Day and others, in order to ascertain how it is that with advancing age both eyes are found on the coloured
The Cuchia, like Anabas, are, among the other species, extensively employed for their heads, which are considered as delicacies. The little sandsmeta (Atherina), having a burningished silvery band, are taken in enormous numbers; but as they rarely exceed three inches in length, they are commonly sun-dried and exported. The Indian whiting (Sillago) arrives in large assemblages, and is esteemed as a light and wholesome food. The halfbeak (Hemiramus) is very common, especially during the cold season, while the roes are largely collected along the Malabar coast. But it is among the herring family that we find some of the most important of those fishes which not only afford food to man, but to their larger and stronger relatives. As a rule, they abound more on the Malabar than on the Coromandel coast. The oil-sardine comes in vast numbers, more especially to the western coast, but is uncertain in its movements; occasionally being absent for many consecutive seasons, it returns in enormous numbers. The same may be said of the numerous forms of anchovies, and the great varieties of other genera of the herring family.

There are fishes in Asia which respire atmospheric air directly. They possess respiratory organs in the form of an accessory respiratory sac, distinct from gills, and they are essentially amphibious. The genera of Indian fishes (excluding Chanos) which possess respiratory organs, having a lung-like function, and which are distinct from the gills, are, amongst the anachonterygians, species of Anabas, Polyacanthus, Osphromenus, and Trichogaster; also species of the Ophiocephalidae and the genera Claris and Saccobranchus among the Siluridae. Of the family Symbanchilae, is the Cuchia eel (Amphipnous cucha). The Ophiocephalidae are very predatory, and their favourite lurking-place is amongst the grass at the margin of a tank. These amphibious fishes, and also the spined eels, Rhynchoboddeliae, retire into the mud of tanks as the water dries up.

In January 1869, in Orissa, Dr. Day dug up in a tank, two feet below the mud, two Ophiocephalus punctatus and three Rhynchobodella aculeata. The Amphipnous cucha, or amphibious eel, has also been dug out of blue clay. They have blow-holes in the mud, as seals have in the ice. Mr. Bonynge says (America, p. 165) he had seen the natives in the N.E. of India dig fish out of the earth; the fish is called Zamin ki mutchee (earth-fish), of about 5 to 7 inches in length, flat, and black in colour, flesh hard, and in flavour somewhat like an eel. Tenmant tells us (Sketches, p. 351) that in Ceylon, where the country is flat, and small tanks are extremely numerous, the natives are accustomed in the hot season to dig in the mud for fish. Mr. Whiting, the chief civil officer of the Eastern Province, informed him that, on two occasions, he was present accidentally when the villagers were so engaged, once at the tank of Malliative, within a few miles of Kottiar, near the Bay of Trincomalee, and again at a tank between Ellendotorre and Armitiove, on the bank of the Vegal river. The clay was firm but moist, and as the men flung out lumps of it with a spade, it fell to pieces, disclosing fish from 9 to 12 inches long, full grown and healthy, which jumped on the bank when exposed to the sunlight. The Lepidosiren of Africa and S. America is placed midway between the reptiles and fishes, and has gills and true lungs. It has the habit on the approach of drought of burrowing itself several feet deep into the mud of the ponds in which it usually dwells. It does not appear to possess the power of travelling.

Fishes do travel,—not cells alone, which in all countries can move rapidly over moist land. Theophrastus (De Piscibus), the contemporary of Aristotle, is the first who mentions fishes found in the Euphrates, which in the dry seasons leave the vacant channels and crawl over the ground in search of water, moving along by means of their fins and tail. The travelling powers of the Ophiocephalus amphibius of Burma are known. The Ophiocephalus striatus, which occurs in the Indian Peninsula, attains a length of upwards of 3 feet. O. gachua grows to one foot long, and Dr. Day believes that they breathe air direct from the atmosphere. Dr. Bowring (Siam, p. 10), in ascending and descending the Meinam river, to and from Bankok, was amused with the sight of fish leaving the river, gliding over the wet banks, and losing themselves among the trees of the jungle. Bishop Pallegoix (Siam, i. 144) says fish will wander more than a league from the water. Some years ago, he says, a great drought had dried up all the ponds in the neighbourhood of Ayuthia; during the night torrents of rain fell. Next day, going for a walk into the country, he was surprised at seeing the ponds almost full, and a quantity of fish leaping about! ‘Whence have these fish come?’ he inquired of a labourer; ‘yesterday there was not one.’ He replied, ‘They were come under favour of the rain.’ In 1831, when fish were uncommonly cheap, the bishop placed 50 cwt. in his ponds, but in less than a month nine-tenths escaped during a rain that fell in the night. There are three species of this wandering fish, called Pla-xon, Pla-duk, Pla-mo, etc. The first is voracious, and about the size of a carp; salted and dried, it is to be preserved for a year. It is very abundant, is exported to China, Singapore, and Java, and is a particularly wholesome and health-giving fish. Ophiocephalidae have a great vitality. In China they are kept alive at the markets, and slices are said to be cut off their bodies as required by customers.

Near the rocks of the Ceylon coast are multitudes of the Salarias allices, which possesses the faculty of darting along the surface of the water, and running up the wet stones and across the sand with the utmost ease and rapidity. Mr. Gosse (p. 122) mentions having seen a species of Antennaria running quickly to and fro on the surface of the great beds of floating sea-weed in the Gulf.
Stream, progressing by means of its pectoral and ventral fins, quite out of water. The Hydraphyrgue of Carolina leave the drying pools and seek the nearest water, in a straight line, though at a considerable distance. The hassar of Esaequibo is the Doras costata. When the water is leaving the pools in which they commonly reside, the yarrow (a species of Esox, Linn.), as well as a species of the hassar, bury themselves in the mud, while all the other fish perish for want of their natural element, or are picked up by rapacious birds. The flat-head hassar, on the contrary, simultaneously quit the place, and march onward in search of water, travelling for a whole night in its search. They can live for many hours out of the water, even when exposed to the sun's rays. They project themselves forward on their bony arms by the elastic spring of their tail; their progress is nearly as fast as a man can walk. Sir R. Schomberg tells us that the hassar are occasionally met with in such numbers in their travels, that the negroes fill baskets with them. If they fall in finding water, they are said to burrow in the soft mud, and pass the dry season in torpidity like the lepidoiren.

The travelling fish of India (Ophiocephalus), possessing an amphibiuous respiration, is capable of traversing from one pond to another, as necessity or fancy dictates. Jugglers carry them about in order to assist in their performances; while so great is their vitality, that the saleswomen cut portions off them while still alive, for disposal to purchasers, who will only give a decreased price when life ceases to exist. Their mode of continuing their kind is likewise very interesting: they live in pairs, occasionally in the holes made by crabs or birds situated on the banks of rivers, while the forms which reside in tanks construct nests of the grasses growing there. Bitting some off and entwining others, they construct a domicile wherein their eggs are deposited, while they protect their young until they are able to shift for themselves.

In Ceylon, the fish most frequently seen travelling is a perch called by the Singhalese Kayava or Karwila, and by the Tamil, Pannel-i-eri, or Samuel. It is march overland in search of water. It grows to about 6 inches in length, the head round and covered with scales, and the edges of the gill-covers strongly denticulated. Aided by the apparatus in its head, this little creature issues boldly from its native pools, and addresses itself to its toilsome march, generally at night or in the early morning, whilst the grass is still damp with the dew; but in its distress it is sometimes compelled to move by day; and Mr. E. L. Layard on one occasion encountered a number of them travelling along a dusty road under the midday sun. Mr. Layard (Ann. Nat. Hist. Mag. 1853) says it is most tenacious of life. Dr. Hamilton Buchanan says he had known boatmen on the Ganges keep them for five or six days in an earthen pot without water, and daily to use what they wanted, finding them as lively and fresh as when caught.

Mr. Morris, Government agent, Trincomalee, writing to Sir J. E. Tennant on this subject in 1856, mentioned that when inspecting the bund of a large tank at Nade-cadua, he found numbers of fish struggling upwards through the grass in the rills formed by the trickling of the rain. There was scarcely water enough to cover them, but nevertheless they made rapid progress up the bank, and his followers collected about two bushels of them at a distance of 40 yards from the tank. They were forcing their way up the knoll. They were chub, the same as are found in the mud after the tanks dry up. Subsequently, in July 1857, Mr. Morris mentioned that as the tanks dry up the fish congregate in the little pools, till at last you find them in thousands in the moistest parts of the beds, rolling in the blue mud, which is at that time about the consistence of thick gruel. As the moisture further evaporates from the surface, they are left uncovered, and they crawl away in search of fresh pools. In one place he saw hundreds diverging in every direction from the tank they had just abandoned to a distance of 50 or 60 yards, and still travelling onwards. His impression was that this migration takes place at night, or before sunrise, for it was only early in the morning that he had seen them progressing. All in the act of migration had their gills expanded.

Many fish die rapidly in turbid water, and they strive to escape from it. On the 2d August 1878, fish left the Ganges at Mirzapur for the dry land, but huge quantities of rohu, tengra, eels, hilsa, skates, piyasi, saoli, bachwa, and other fish died in the river. The smallest quantity of water, however, suffices to enable the multitude of small fishes to climb high away from the tanks of India to the high ground, when the water of the tank has become loaded with soil washed down by heavy rain.

_Fish-rain._—Dr. Buist, writing in the Bombay Times in 1856, mentioned that in 1824 fishes fell at Meerut on the men of Her Majesty's 14th Regiment, then out at drill, and were caught in numbers. In July 1826, live fish were seen to fall on the grass at Moradabad during a storm. They were the common cyprinids, so prevalent in Indian waters. On the 10th of February 1830, at noon, a heavy fall of fish occurred at the Nokulhatta factory in the Duce zillah; deposits on the subject were obtained from nine different parties. The fish were all dead; most of them were large, some were fresh, others were rotten and mutilated. They were seen at first in the sky like a flock of birds, descending rapidly to the ground; there was rain drizzling, but no storm. On the 16th and 17th of May 1838, a fall of fish occurred in the zillah of Futtehpur, about 3 miles north of the Jumna, after a violent storm of wind and rain. The fish were from 1½ lbs. to 3 lbs. in weight, and of the same species as those found in the tanks in the neighbourhood. They were all dead and dry. A fall of fish occurred at Allahabad during a storm in May 1838; they were species of the chowla, and were found dead and dry after the storm had passed over the district. On the 20th of September 1839, after a smart shower of rain, a quantity of live fish, about 3 inches in length, and all of the same kind, fell in the Sunderbuns, about 20 miles south of Calcutta. The fish did not fall here and there irregularly over the ground, but in a continuous straight line not more than a span in breadth. During a tremendous deluge of rain at Kattyawar, on the 25th of July 1850, the ground around Rajkot was found literally covered with fish; some of them were found on the tops of haystacks, where probably they had been
drifted by the storm. In the course of 24 successive hours, 27 inches of rain fell, 35 fell in 26 hours, 7 inches within one hour and a half, being the heaviest fall on record. At Poona, on the 3d of August 1852, after a very heavy fall of rain, multitudes of fish were caught on the ground in the cantonments, full half a mile from the nearest stream. Sir J. E. Tennant, when driving in the cinnamon gardens near the fort of Colombo, saw a violent but partial shower. On coming to the spot, he found a multitude of small silvery fish, from 1 ½ to 2 inches in length, leaping on the gravel of the high road, numbers of which he collected and brought away; and Mr. Whiting, civil servant of Ceylon, mentioned to Sir J. E. Tennant that he had been often told by the natives at Trincomalee that sometimes rainfed fishes at that side of Ceylon.—Tennant's Sketches, pp. 342-4.

Gosse, Romance of Nat. Hist., 1861.

Tame Fish. — In the neighbourhood of Tavoy are two small currentless basins in the Pagaya river, at the foot of pagoda-crowned precincts, 100 to 200 feet high. The fish, a species of barbel (Barbus Mortonis), are held sacred to the pagodas by the Buddhists, and come in shoals for rice thrown to them by passers-by, as fearless of man as of the barking deer that drink their waters. Mr. Hodgson mentions a similar tameness amongst the large gold-fish at Japan, which almost rose from their natural element to gasp and gasp, with open mouths, at the bread, biscuit, or cake which his little girl was half afraid to offer them (Hodgson's Nagasaki, p. 75). Dr. Oldham also tells us that in the middle of the Irawadi, about 30 miles above the town of Tsengoo, and opposite the small village of Thika-dan, on nearing the island, the headman in the boat shouted out: The horse-tail is sacred! was calling the fish. The boat was soon surrounded with about fifty large fish, some three or four feet long, a kind of blunt-nosed, broad-mouthed dog-fish. In one group, which he studied more than others, there were ten. These were at one side of the boat; nearly halF their bodies protruded vertically from the water, their mouths all gaping wide. The boatmen were feeding them with some of the rice prepared for their own dinners, by throwing little pellets down the throats of the fish. Each fish, as it got something to eat, sank, and, having swallowed the portion, came back to the boat-side for more. The men continued occasionally their cry of Tet-tet-tet! and, putting their hands over the gunwale of the boat, stroked down the fish on the back precisely as they would stroke a dog. This was kept up for nearly half an hour, moving the boat slightly about, and invariably the fish came back with a gape as before. The only effect which the stroking down or patting on the back seemed to have, was to cause them to gape still wider for their food. The fish are found in the deep pool formed at the back of the island, by the two currents meeting round its sides, and the phoungyes are in the habit of feeding them daily. It is regarded by the Burmans as quite a sight, which the people come from great distances to see, as well as to visit the pagoda, which is very ancient and much venerated. During an annual March festival, it is not unusual for the visitors to take the fish into their boats, and gild their backs with gold-leaf, as they do in the ordinary way to pagodas; and Mr. Oldham observed remains of the gilding visible on one of the fish. He wished to take one of the fish away, but refrained, as the people seem to regard the act as sacrilege (Mr. Oldham, in Yule's Embassy).

Sacred Fish. — The Hindu races, who worship, in addition to the works of their own hands, so many varied products, and so large a number of mammals and reptiles, do not, seemingly, worship fish. In their religion the Matsya Avatara is the fish incarnation of Vishnu, in which he preserves a man named Menu, with the seeds of all things, in an ark during the deluge. It is the Aryan Hindu tradition of the flood of Noah. A tank or pond with all its contents, may, however, with the Hindus be devoted to a deity; and Colonel Tod mentions that when, one day, he had thrown his net into a lake, which abounded with a variety of fish, his pastime was interrupted by a message from the regent, Selim Singh, 'to tell Captain Tod that Kotah and all around it are at his disposal, but these fish belong to Kaniya.' On which, of course, he immediately desisted, and the fish were returned to the safeguard of the deity. In such sacred tanks fish will feed from the hand; and in the Mahanadi, where it is 3 miles broad, he tells us (Travels, p. 9) fish will follow for miles for a little burnt rice. The amphious snake-head fish (Ophiocephalus amphihebus) occurs in the fresh waters of Burma, but the natives regard them with superstitious awe, and do not eat them. They have a legend that they were formerly men, changed into fish for their sins; and the Pwo Karen of Tavoy say that if people eat them they will be transformed into lions. The boura chang, a fish of Bhutan, another Ophiocephalus, is believed by the natives to fall from heaven, from the circumference of its being found after rain far from the water.

Flat-fishes, when very young, swim in a similar way to other fishes, with their dorsal fins above, their anal fin below them, and possessing an eye on either side of the head. As they grow older, this erect position becomes lost, their sides become their upper and lower surfaces, and both eyes are on the superior or coloured side of the body. The adult, when at rest or swimming, usually keeps near the bottom of the water, and progresses by means of a sort of undulating motion of the whole body, and of the unpaired fins. The bodies of these fish are broad, flat, and margined in almost their entire extent by the dorsal, caudal, and anal fins; while not only the muscles, but the skin, the gills, gill-covers, and even the pectoral fin-rays, are less developed on the side than on the other side, the eye also being, as it were, bent round to this eyeless side, towards which the anterior part of the face seems to be twisted. It had been known from a very early age that these fishes, when first emerging from the ova, and while in a pellucid condition, have an eye on either side of the head; that by degrees the eye, on what eventually will be the eyeless side, becomes depressed, while at the same time a dark spot appears on the opposite side of the head, so that the fish almost seems to possess three eyes. Double fishes have been observed in flounders, turbot, plaice, soles, etc., and they are seen to swim vertically, and to be more frequently found nearer the surface of the water than those which progress in a normal manner. These double flat-fishes are held in
greater estimation for the table than others which have an uncoloured as well as a coloured side. There are albinoi, uncoloured or nearly white on both sides, but still retaining their normal form, but in some which have been carefully examined, no sexual parts could be detected. Fish is largely partaken of by the Hindu women of Bengal, whilst unmarried or married, but a widow never partakes of it, and the 11th or ekadasi of the increasing moon is a day of close fast to a widow.

The names of fish have been given by people from their outward forms and habits, as bird fish; parrot, porcupine, scorpion, frog, and toad fish; pilot fish; rudder, fan, or sail, and sailor fish; angler fish and archer fish; sucking fish, doctor fish; gilt-head, black, blue, and yellow fish; glass eel, gold and silver fish, file and pipe fish, sword fish, saw fish, flying fish; climbing, walking fish; devil fish, sea dragon, and sun fish; transparent sole, luminous shark, pretty fish, albicore, bonito, tunny. The gold fish of China is a species of carp, Carassius auratus. The leather jacket or file fish is a species of the genus Balistos of the South Seas, Anamans, etc. The fan fish, called also sail fish, is said to raise the dorsal fin like a fan, and employ it as a sail. Its dorsal fin is 3½ to 4 feet long, and the fan fish 10 to 14 feet long. Its colour when in the water is a beautiful purple and green, with silvery belly, and displaying a rich variety of brilliant colours. The angler fish, the fishing frog, and the sea-devil are species of the family Lophiidae, but are not of Asia; the fighting fish of Slam is the Macropodus pugnax, and the glass eel is a species of the Leptocephalidae.

Fish-hatching. In China the hatching of fish is extensively practised. The sale of spawn for this purpose forms an important branch of trade in China. The fisherman collects with care, on the margin and surface of water, all the gelatinous matters that contain spawn of fish, which is then placed in an egg-shell, which has been fresh emptied, through a small hole; the hole is then stopped, and the shell is placed under a sitting fowl. In a few days the Chinese break the shell in warm water (warmed by the sun), where they are hatched; the young fish are then kept in water until they are large enough to be placed in a pond. This plan in some measure counteracts the great destruction of spawn by trawl-nets, which have caused the extinction of many fisheries. Mr. Francis Day, a Madras medical officer, made great efforts to introduce ova of exotic fish into India, and made recommendations for the protection of young fry. A few drops of a weak solution of peracetic acid of lime, added night and morning, sweetness, warm, and supplies oxygen, and thus diminishes the mortality in fish-hatching.

Luminous Fishes. The abdominal surface of sharks is said to be luminous, but due to the presence of small invertebrata; and shoals of fish are said frequently to emit flashes of light, perceptible even at great depths. The sand-lance, at night, has a silvery brilliancy, and the cod and other fish after death emit a phosphorescent light. Certain pelagic or deep-sea fishes, as Argyropelecus, Sternoptyx, Ichthyodectes, Malacocbus, Gonoctoma, Chauliodus, Stomias, etc., possess luminous organs of a circular form, some being as impressions, others as slight prominences of the skin. In Britain, the pearl-sides (Malacocbus borealis, Yarrell) is one of these fishes.

Weapons. Silet fishes or silurids are generally well armed. They have mostly strong dorsal and pectoral spines, often serrated, with which they can inflict dangerous lacerated wounds. In the marine and estuary forms the armature is invariably spinal. Species of Polyacanthus inflict punctured wounds; and the serrated spines on the tails of the skates cause lacerated wounds. The silurid Thalassophyseus has a distinct poison gland; while the Synanceia verrucosa has a tube at each of its dorsal spines, and a poison gland at its base. The wounds are very venomous.

Alates tili, Cuv. and Val., inhabits the sea of Penang, Malayan Peninsula, Singapore, Borneo, Java, Sumatra, Pondicherry, river Cauvery, and Bombay. Total length, 1 foot 9 inches. Like A. australis in Bengal, the A. tili is, by the English of the Straits Settlements, denominates shad or sable-fish, and is equally valued for its flavour. Both are, however, somewhat oily, very rich, and bony. A. tili is remarkable as forming in the Indian Archipelago a distinct and important branch of fishery, principally for the sake of its roe. It is the kind of shad to which Mr. Crawford refers as frequenting the great river Siak in Sumatra, and of which the dried roe, of enormous size, constitutes an article of commerce (Crawford, Hist. Ind. Archipel. iii. p. 440; Doyle on the Production of Isinglass, p. 76). Mr. Moor, in Notice of the Indian Archipelago, etc., says (p. 29), at Bukit Batu (opposite to and a little to the southward of Malacca), a place on the main of Sumatra within the strait formed by the island of Banka, exists an extensive fishery of the trubu fish. The fish itself is sufficiently known in all the neighbouring seas, but found with a roe only here (that is to say in shoals, for it is plentiful at Penang, Malacca, and Singapore), which makes it certain that it repairs to this favoured place for the purpose of spawning. The trubu, about a cubit long, is taken in and 4 fathoms water on a mud bank. About 300 boats are engaged at all seasons in the fishery, with the exception of four days during dead neap tides. The roes are an article of trade seaways, and the dry fishes are sent into the interior of Sumatra. The raja of Siak draws a revenue from this fishery of 72,000 guilders yearly, receiving a certain duty upon the quantity taken. From the rate and amount of this duty, it is ascertained that the quantity of fish caught yearly amounts to between fourteen and fifteen millions. In the Malayan markets the roe is called Tahrur ikan, the fish-roe. Like the preparation of fermented fish and shell-fish, Balachan, it is largely used by the Malays and Chinese to season and make their food palatable, and is less a favourite relish with Europeans in Sumatra. The fresh roe is thoroughly salted, and next partially dried, so as to retain a slight moisture, in which state it is by hundreds closely placed in casks, and thus exported. In the Malayan settlements the price is from 3 to 4 Spanish dollars per hundred. The dealers there export considerable quantities to China, after having taken the precaution to re-pack the roes between layers of salt, and to sprinkle them with arrack. To dress them, they are soaked for about half an hour in water, and then fried. As the roe appears in commerce, it is of an elongated flat shape, measuring from 6 to 8 inches in length, about 2 in breadth, and ¾ of an inch in depth, of
a deep amber colour. The single eggs are larger than those of A. Ilisha.

The Arius genus of fishes, of the Indian, Malay, and Japanese seas, furnish isinglass. A. arias, Buchenan Hamilton, inhabits the Gangetic estuaries near Pondicherry, and the estuaries near Penang, the Malay Peninsula, and Singapore. It is 22 inches long, forms an article of food, and more than any other of the Siluride contributes to the isinglass of Indian commerce.

Arius militaris, Linna., 18 inches long, inhabits the Coromandel and Malabar coasts, the Ganges, Irawadi, and the seas and estuaries of the Malay Peninsula. Its air-vessel is preserved as isinglass.

A marine siluroid fish, one of the Ariina, noted for the males carrying the eggs in their mouths until the young are hatched; consequently during this period they have to abstain from all food.

The bodies of the genus Chanda (Chandi, Hind., silver) are more or less diaphanous.

Botrachus grunniens, Linna. The natives of India attribute poisonous qualities to these fishes, and reject them even as manure. The créaking sound they emit has been noted by Buchanen. They are capable of living a considerable time out of their element.

Chelona rostrata looks for an insect on the foliage overhanging its pool, and suddenly shoots on it from below a drop of water, which brings the insect down. The Javanese keep them for their amusement. Surgeon James Mitchell, R.N., mentions having seen some archer fish kept in a pond at Java in 1822. In the pond was a pole with cross bits of wood, on which were placed beetles, and the fish discharged from their mouths a small jet of water with such precision as to force them from the twig into the water. These fish were about 5 or 6 inches long, with blackish stripes. Chatoledon praxetatus, Cantor, like other species of this and the neighbouring genera, expires immediately when removed from its element. It appears to be allied to C. reticulatus and C. lunata, Cuv, and Val. The gaudiest fish live among the coral reefs, such as species of the Chatoledon, the Balistine, and Glyphisodon. The Mesopon and Lethris feed on crustacea, and is distinguished for the beauty of its colours and the symmetry of its form.

Clupeonia perforata, Cantor, inhabits the sea of Penang, Malayan Peninsula, Singapore, and Sumatra. Total length, 5 inches. They are of delicate flavour, and pass in the Settlements of the Straits as sardines, in imitation of which they are sometimes preserved in oil. It has a resemblance to Alausa argyrochloris, Cuv. et Val. (vol. xx. p. 440). The general form, the yellow dorsal fin with a small black spot, give it a certain resemblance to Meleta venenosa, Cuv. et Val. (vol. xx. p. 377). Mr. Lewis says that during his official residence at Bencoolen in 1822, great numbers of what were supposed to be this identical species, presented the unusual appearance of having red eyes. Many natives, after having eaten these fishes, were suddenly attacked with violent vomiting, which in cases where remedies were not immediately applied, was known within an hour to terminate fatally. At the same time, such of these fishes with the ordinary silvery eyes were as formerly eaten with impunity. This phenomenon recurred at Bencoolen during the seasons of 1823 and 1825, but not of 1824. It was surmised that the poisonous fishes had fed on a gelatinous substance which at that season exudes from the beautifully coloured coral reefs on that part of the coast of Sumatra. It is, however, more probable that the poisonous fishes were shoals of Meleta venenosa, an inhabitant of the Seychelles and the neighbouring seas, which happened in those seasons to visit Sumatra. M. Valenciennes describes this fish as being poisonous, and producing effects as noted above. In the Straits of Malacca, Clupeonora perforata has never been known to produce bad effects.

Cylbium species are the seer fish, largely used as food. Dussumieria acuta, Cuv. and Val. x. p. 467, pl. 606, is the Tamban bulat of the Malays. Single individuals occur at Penang at all seasons, but numbers from June to September. It is highly valued for its delicate flavour, and passes commonly as a sardine. The latter denomination it shares, however, with Clupeonora perforata, with which it is also confounded by the Malays under the common name of Ikan tamban. Both species have been prepared as sardines à huile.

Echenes nucrator, Linna., occurs at Malacca. The Malays consider this fish to be powerful nuture for fruit trees.

Engraulis Brounii, Gmelin, inhabits the sea and estuaries of the Malayan Peninsula and islands, China Sea, New Zealand, Madura, Java, Sumatra, Bombay, Coromandel, Bay of Bengal, Gangetic estuaries, Isle of France, Australia, New York, Havana, Jamaica, Vern Cruz, Martinique, Barbadoes, St. Christopher, Rio Janeiro. Total length, 6 inches. In Java, Sumatra, and the Straits of Malacca, large quantities are preserved both for local consumption and exportation to China and India. The delicious red fish condiment (Ikan merah of the Malays), or Malacca fish, used as a relish, is prepared at Bencoolen as follows:—After the heads have been removed, the fishes (those of middling size are preferred) are cleansed, salted (in the proportion of one to eight parts of fish), and deposited in flat glazed earthen vessels. In the latter they are for some days subjected to pressure by means of stones placed on thin boards or dried plantain leaves. The fishes are next freed from salt, and saturated with vinegar of coco palm toddy, after which are added powdered ginger and black pepper (the latter mostly entire), and some brandy and powdered red rice. After having been kept for three days, a little more vinegar is added before placing the fishes in well-closed jars or bottles. They should be kept four or five months before being used. The expense of a quart bottle of the condiment is about 30 cents, the selling price one Spanish dollar. The Chinese settlers in the Straits prepare a similar red condiment with slices of Polynemus Indicus and P. tetradactylus, and also prawns.

Red rice is the variety of Orzya sativa called glutinosa (Pulut or Bras sepolit of the Malays), steamed in an infusion of cochinilla. In the Straits red rice is imported from China, and sells at the rate of 10 cents of a dollar per pound.

Equula insidatrix, Bloch, and Equula longimana, Cantor, also Ganza equulaformis, Kuppell, are very abundant in the Straits of Malacca at all seasons, and quantities, both fresh and dried, are consumed by the natives.

Gnorami, a fish of the Mauritian, is esteemed of more delicate flavour than the salmon or turbot.
FISHES.

Harpodon nehereus, the bummalo or Bombay duck, and Saurus nehereus of B. H., has the upper part of its head, back, and sides light grey or 'dust-coloured, semi-transparent like gelatine, with minute star-like black and brownish dots; the anterior part of the abdomen is pale silvery bluish, rest whitish; cheeks and opercles pale silvery bluish, dotted like the body; fins transparent, coloured like the body, but more closely dotted, so as to appear pale blackish. It inhabits the sea of the Malayan Peninsula and islands, Chusan, Woosung, Canton, Madura, Java, Sumatra, Tenasserim, mouths of the Ganges, Vizagapatam, Bay of Bengal, Bombay, Malabar. The total length is 11 inches. The fish is of most voracious habits, gorging itself with its own species, and other fishes of nearly its own size, and with crustacea (shrimps). It is frequently taken with the stomach and the jaws expanded with prey. It is very short-lived, more so than either S. trachinus or S. myops, and the whole body becomes at certain seasons brilliantly phosphorescent. In the Straits of Malacca it is at all times very numerous, although less so than it is at the Sandheads or in the mouths of the Ganges. Although very rich, it is a great delicacy immediately after it is taken. Salted and dried, it is also highly valued, and in this state it occurs in commerce under the denomination of Bombay ducks, the Bummalo of Bengal, and the Banmish of Bombay, large quantities of which are annually exported from Bombay and the Malabar coast to all parts of India and to London.

Hippocampus russelli, Cuv. and Val., is the Tola pendeck of the Malays (pendek, short). The Malays thus denominate all the species of Henniramphus, to distinguish them from those of Bolone (toda) of the Malays. At Penang, H. Russelli is numerous at all seasons, and larger individuals occur at irregular intervals. They appear at European tables under the appellation of guard fish.

Hippocampus munnulhus and H. comes of the Penang seas, when drying assume the figure of a horse head, and are known to all as the sea-horse. Their movements are most graceful, while by means of a noise somewhat resembling a cough, they appear to be able to communicate one with another.

Macropodus pugnax, Cantor, occurs numerously at the foot of hills at Penang. Like the rest of the family, it is capable of living for some time out of water. The Siamese, keep them in jars with water, where the larvae of mosquitoes is their food, and denominate them Pla kat (Pla, fish; Kat, a fighter). The real fish, however, the exhibition of whose combats is a popular amusement with the Siamese, appears to be a variety of the present species, produced by artificial means, like the varieties of the golden carp of China, and Dr. Cantor names it Macropodus pugnax, var. (pl. ii. fig. 4), Pla kat of the Siamese. When the fish is in a state of quiet with the fins at rest, the dull colours present nothing remarkable. But if two are brought within sight of each other, or if one see its own image in a looking-glass, the little creature becomes immediately excited, the raised fins and the whole body blaze with metallic colours of dazzling beauty, while the projected gill membrane, waving like a black frill round the throat, adds something grotesque to the general appearance. In this state it makes repeated darts at its real or reflected antagonist. But both, when taken out of each other's sight, instantly become quiet. This description was drawn up in 1840 at Singapore, where a gentleman had been presented with several by the king of Siam. They were kept singly in glasses with water, fed with larvae of mosquitoes, and had thus lived for many months. The Siamese are as inatuated with the combat of these fishes, as Malays are with their cock-fights, and stake considerable sums, and sometimes their own persons and their families. The licence of exhibiting fish fights is farmed, and affords a considerable annual revenue to the king of Siam.

The Osphromenus olfax and Trichopodus tri-chopterus, Pallas, are likewise very pugnacious amongst themselves.

The Magura fish in the Colombo lake is said to grunt under water when disturbed; and Bishop Pallegoix, in his account of Siam, speaks of a fish resembling a sole, but of brilliant colouring with black spots, which the natives call dogs' tongues. It attaches itself to boats, and gives out a very sonorous and harmonious sound (Tenn. ii. p. 470). Dr. Jordan says, 'I have every reason to believe that this is the so-called sable fish of Trichinopoly, which ascends the Cauvery during the freshes for the purpose of spawning, and is caught for the sake of its roe, which is highly esteemed.' It is called Ocellan-min at Madras.

Plagiusa potbus, Cuvier, the Ilan leedah of the Malays, is of excellent flavour, and, like Plagiusa trichopterus, is esteemed at European tables under the denomination of sole. The species are all distinguished for their tenacity of life. The fishermen at Penang assert that some species of Plagiusa shool at certain seasons.

Plotosus anguillaris and P. albilabris both occur in the seas of the Malay Peninsula. At Penang, the latter species is less numerous than the former. Both are eaten by the poorer class of natives. The wounds of both are equally dreaded.

Polynemus longifilis, Cuv., P. paradisicus, Linn., and P. risus, are the mango fish, or tapasi, tapasi mutchi, noticed at page 1109.

Racoula Russelliana, Gray. At Penang, individuals from 4 to 6 inches in length are numerous at all seasons, although less so than they are at the Sandheads and the mouth of the Ganges. The Bengal fishermen denominate the species Potassah-Fessah or Phassah, a generic term, particularly applied to Engraulis phassah, Buchan., and E. telahar, Buch. It is a heavy swimmer, and, like the rest of the Clupeide, expires immediately on leaving its element. It is chiefly consumed in a dried state.

Scatophagus argus, Linn., is eaten by the natives, though many reject it on account of its reputed disgusting habits. In several which were examined in the estuaries of the Ganges and at Penang, the stomach contained remains of small fishes and crustacean. According to Bennett, it is in Ceylon angled for on hooks baited with a kind of seaweed (Fendah), of which this fish appears to be particularly fond.

Stromates niger, the black pomfret of India, is taken abundantly along the coasts of India, and is largely dried for export to the interior. It is
at all seasons taken in abundance in the Straits of Malacca, where, however, it is considered inferior to Stromateus Sinensis, the white pomfret. In a dried state it is largely exported inland, and thus it appears in the bazaars of Hindustan, which are chiefly supplied from Bombay. S. Sinensis is the pomfret. It is justly renowned for its flavour, but it requires to be used when freshly taken. In the Straits and on the Coromandel coast it is abundant at all seasons. At the Sandheads in the Bay of Bengal (21° N., lat.), it occurs, but less numerous. Stromateus argenteus, Bloch., in the Straits Settlements, as well as at Madras, is likewise denominated the white pomfret. In abundance and excellence it vies with S. Sinensis. Stromateus cinereus, Bloch., is abundant at Penang, but probably from its inferior size it is considered somewhat inferior in quality. At the Sandheads it occurs rarely. The various pomfrets are valued by Europeans as food.

Toxotes jaculator, Pallas, or archer fish, appears to be the variety described by MM. Cuvier and Valenciennes, from a drawing in Col. Farquhar's possession. The food of several examined consisted of remains of crustacea. In the Straits of Malacca this fish occurs in all seasons, but not numerous. It is eaten by the Malays.

Tetraodon species have the power of inflating the abdomen, and in this state, when taken or handled, they emit a grating sound. They are also remarkable for tenacity of life, which they are capable of sustaining for several hours after having been taken out of their element. They have a peculiar disagreeable odour, resembling that of the Gobiodon, which continues for several years in specimens preserved in spirits of wine. In the Malayan countries they are considered poisonous, and are even objected to as noisome.

Of the Torpedinidae, several genera and species occur, viz. Nacire Indica, Astrapte diplurygyia, Temera Hardwickii, and Cystecercus temera. Dr. Cantor says large individuals of Nacire are at Penang of rare occurrence, but younger, from 3 to 6 inches in length, are taken at all seasons. In or out of water they may be handled with impunity. Several species of fishes introduced in a jar filled with sea-water, and containing a large Nacire, showed no consequences from the contact, nor did they appear to avoid the torpedo. The food of this and the other Malayan Torpedinidae consists of crustacea and testacea.

Teuthis, Linn. All the species of this genus are edible, though supposed by the Malays of the Straits to be highly poisonous. They are not eaten by them, but set aside among offal of fish to be used as manure.

Trichoplus trichocerus, Pallas, like the rest of the family, is capable of sustaining life out of water, particularly if kept in wetted fresh leaves, or occasionally sprinkled with water. At Penang it is numerous in streamlets and ponds, where it is eaten by the poorest classes. The exquisite beauty of the metallic iridescent colours makes these fishes acquisitions in garden tanks. Like Osphromenus olfax, they are very pugnacious among themselves. Both at Penang and at Malacca the Osphromenus olfax (Commerson) has been successfully naturalized, though in the former place it is not numerous, but confined to a few ponds. They become tame, so as to appear on the approach of their feeder, and will rise to flies, beetles, and certain flowers, particularly a large lilicrisms. About 1830, several were imported, and placed in a tank in the Calcutta Botanical Gardens, where they appeared to thrive; and 300 were introduced into the Madras Presidency, and are said to be doing well. A second species of Trichoplus has been discovered by Dr. Campbell, superintendent of Darjiling, in the rivers at the Sikkim passes in the northern frontier of Bengal.

Warm-water Fishes. — In the hot springs of Kannea, in the vicinity of Trincomalee, the water flows at a temperature varying at different seasons from 85° to 115°. In the stream formed by these wells, M. Raynaud found and forwarded to Cuvier two fishes which he took from the water at a time when his thermometer indicated a temperature of 87° Reaumur, equal to 115° Fahrenheit. The one is an anguilliform, the other an ambassid; and to each, from the heat of its habitat, he assigned the specific name of Thermals. A loach, Cobitis thermals, and a carp, Naria thermoiceus, were also found in the hot springs of Kannea, at a heat 40° Cent., 114° Fahrenheit, and a roach, Lencisus thermals, when the thermometer indicated 50° Cent., 122° Fahrenheit.

Fish have been taken from a hot spring at Puri when the thermometer stood at 112° Fahrenheit, and as they belonged to a carnivorous genus, they must have found prey living in the same high temperature (Journ. Asiatic Soc. of Beng. vi. p. 465). Fishes have been observed in a hot spring at Manilla, which raises the thermometer to 187°, and in another in Barbary, the usual temperature of which is 172°; and Humboldt and Bonpland, when travelling in South America, saw fishes thrown up alive from a volcano, in water that raised the thermometer to 210°, being two degrees below the boiling point.—Patterson's Zoology, part ii. p. 211;yarrell's Brit. Fish. i. p. 16, in Teunant's Sk. Nat. Hist. of Ceylon, p. 359; Cantor in Brit. Ass. S. J.; Loc's Penang; G. Bennett; Day, Fresh-water Fishes; Bonungue's America; Tod, Rajasthan; Palgezio; Dr. Hancock, in Journ. Brit. As. 1828-9; Grosse, Rom. Nat. Hist. 1861; Borwigs Journ. of, i. 10; Sir John Richardson; Penman's Hindustan; Guiz; Bombay Times.

FISHERIES. FISHERIES. 

of Eastern and Southern Asia. The numbers of fish in the seas of India are vast, but the harvest is comparatively untouched; an enormous amount of food remains uncaught, while famines devastate the contiguous shores.

The fisheries of India ought to provide food for multitudes of its people, employing them in fishing, in the ship and boat building, in netting, curing, and transporting them. The heat of the climate early leads to putrefactive changes, and salt is very costly, and consequently the smaller fishes, as ambassids, equula, the Bombay duck (Harpolon neheurus), many of the herring family, and the immature of other fishes, are largely sun-dried, while the larger fishes are cut into slices and also dried in the sun. Wherever, along the southern coasts, salt can be obtained at a cheap rate, there fisheries are largely established, and the fishermen well-to-do.

In Sind, where the duty on salt had been 1s. the maund (of 824 lbs.), the value of the dried and salted fish exported was as under in the five years ending—

1857-58, £8,472 6 0 1867-68, £18,725 2 0
1862-63, 13,050 8 0 1872-73, 22,941 16 0
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In the Bombay Presidency the imports of fish steadily decreased with the increasing duty on salt. For curing fish, about one part of salt is needed to three of fish; but where earth-salt is used, about 2½ parts of the earth to one of fish. Wherever salt can be cheaply procured, fisheries flourish, and salt fish is cheap, and largely exported. Species of the genera Lutianus or Mesoptron, though not of large size, come close inshore, and are largely used, fresh, salted, or sun-dried. The same remark is applicable to Pagrus spinifer and species of Chrysophrys, of the family Sparidae, abundant in the cold months, and held in great esteem. The Polyenidæ are all good, and some species attain to 300 lbs. in weight. The mango fish ascends large rivers, as the Ganges, Mahanadi, and Iravadi, and others to the east, in June, for the purpose of spawning, and continues there till the beginning of the following year. It is known as the tapasi mutchli, from the long tendrils that spring from its pectoral fins, and which exceed the length of the body. The maigres, species of the Scienidæ, are abundant off the Sind coast, and throughout the Indian Ocean. Some of them exceed 5 feet in length. They are somewhat insipid as food, but are valuable for their air-bladders, which are made into isinglass.

The sword-fish (Xiphidæ) are numerous, and are eaten by natives; but to the people the horse-mackerels (Carangidæ) are, from their abundance, the most important of the sea fish. Some attain a large size. These fishes are gregarious. Species of Chorinera and Trachynotus afford a considerable amount of food; they are generally salted and dried.

Pomfrets (Stromatidæ) are abundantly distributed throughout the Indian Ocean.

The mackerel family are important, particularly the Scomber microlepidotus, of all the seas around India, in the cold season. It taints rapidly, and is therefore extensively salted and sun-dried. It is commonly about 10 or 12 inches long. Some others of the mackerel family prey extensively on the numerous herrings and other small fish. Amongst these are the tunny and pelamys, which are teors to the shoals of sandlances.

The seer fish (Cybium, sp.) are held in great esteem by Europeans, and when of a medium size are the most delicate for the table. They attain to upwards of 3 feet in length, and are quite as predacious as the tunnies.

The voracious and dangerous Sphyrenæ, termed sharks in some places, are the Barnaculs of the West Indies. They grow to several feet in length, and all of the species are used by the natives of India as food. The siluroid, heat, or cat-fishes are known by the long feelers round their mouths, and the absence of scales. Numbers are salted for export, and their air-bladders are collected for the isinglass they afford. They are common in the muddy waters around the Indian, Burmese, and Malay coasts, and are very abundant in the Archipelago. One of the scaled siluroids is the bumblefo or Bombay duck (Harpodon meneurus). They are always glutinous, and are easily sun-dried or salted. They are in varying abundance round the coasts.

The Chondropterygli, or sharks, rays, and skates, are found along the whole seaboard, following at seasons the shoals of small fish or sardines. They are eaten; their fins are largely exported to China, and oil is extracted from their livers.

Rays and skates exist in enormous numbers in the Indian Seas, where they attain to a great size. They are supposed to be gregarious. Saw-fishes are taken, and are eaten.

The little Ambassia and closely allied Apogon are valuable from their numbers.

The Pristopomus attains to upwards of two feet. Some species are very numerous, and are eaten fresh and salted.

Species of Synagris are extensively eaten; and species of Equula and Gerres furnish an immense amount of food, both fresh and salted, but, like the beautiful Lethrinus and the flat-formed Tetrathidæ, they are little esteemed.

The Gobies of the sea are not large, but are very abundant.

The spineless Anacanthini, or flat fishes, are not esteemed as food.

The mullets (Mugilideæ) in the Indian Seas are about 24 species, frequenting the estuaries and entering the tidal rivers, and are esteemed as food, except in Kanara, where their snake-like heads prevent the people using them. They are extensively sun-dried and salted, and their salted roes are considered great delicacies.

The pretty little sand-smelts (Atherina) are sun-dried and exported. They have a burnished silvery band, and are taken in enormous numbers.

The Indian whiting (Silaga acuta) arrives on the Indian coasts in large numbers, and are esteemed as a light and wholesome food.

The half-beak (Hemiramus) is very common, especially in the cold season, and is largely eaten.

The abundant herrings family furnish largely food to man and to predaceous fishes. The oil-sardine comes in vast numbers, but irregularly, sometimes after several seasons; and the same may be said of the anchovies and the many others of the herring family.

Maury remarks that the places which are most favoured with good fish markets are the shores of North America, the E. coast of China, with the W. coasts of Europe and South America, and all of them are washed by cold waters, and their markets abound with the greatest extent of fish. The fisheries of Newfoundland and New England, over which nations have wrangled for centuries, are in the cold water from Davis' Strait. The fisheries of Japan and Eastern China, which almost, if not quite, rival these, are situated also in the cold water. Neither India nor the east coasts of Africa and south of America, where the warm waters are, have been famed for their fish, though 6000 to 8000 fishing vessels of all sizes, American, British, Dutch, and French, are engaged in the New England and Newfoundland fisheries. The sperm whale is eagerly pursued in the Indian and Southern Ocean, and in the Pacific. An immense number of log-books have been discussed at the National Observatory, with the view of detecting the parts of the ocean on which whales are to be found at the different seasons of the year. Charts showing the results have been published, and they form a part of the series of Mr. Murray's Wind and Current Charts. Of all the industrial pursuits of the sea, the whole fishery is the most valuable. The sperm whale is a warm-water mammal. The right whale delights in cold water. The fishery of the sperm
whale is largely followed in the Pacific, and in all the South Sea ocean between Africa and America, but wholly by fishermen from Europe and America.

The pearl fisheries alone, in the Persian Gulf, employ a great collection of ships; and the pearl fisheries of China and Ceylon are also valuable. In Ceylon about 10,000 canoes and boats are similarly employed. In the east and south of Asia, the people engaged in fishing by stake-nets, bag-nets, and hooks, in boats and in ships, are very numerous, and much of the food of their nations ought to be obtained from the seas and rivers; but the salt monopoly of British India places obstacles in the traffic of salted fish, and the wholesale destruction of fish in their migration to their breeding streamlets, with the minute size of the meshes of the nets used at all seasons, treble the selling prices of fish in the Indian markets. The usual price, therefore, of fish, is about the same as that of mutton.

Much ingenuity is shown. Tamed otters are trained to aid in fishing; in China, coronrats are trained to catch fish, which they bring to the boatsmen. The fishermen of the Indus, when the river is in flood, float themselves down on an open-mouthed earthen jar, and, letting down a three-cornered net, catch the hilsa fish as they pass up the stream.

There are no seas in the world more abounding in excellent fish than those of the Asiatic Archipelago, and a few of them are of excellent flavour. Fish constitutes the chief animal aliment of all the inhabitants, and everywhere of those of the seacoast, either by profession or by profession. Among the best fisheries are those of the eastern coast of the Malay Peninsula, those of the entire Straits of Malacca, of the northern coast of Java, and of all the coasts of Borneo and Celebes, with those of the Philippine Islands. The taking of the mother-of-pearl oyster, the pearl-oyster in a few places, of the holothuria or treapang, and of the shell tortoise, form valuable branches of the Malayan fisheries.

On the Bombay side there are many large boats, with crews of 12 men each, constantly employed in the shark fishery at Karachue. The value of the fins sent to Bombay varies from Rs. 13,000 to Rs. 18,000 a year, each boat earning perhaps Rs. 1000 annually, or Rs. 100 per man. From this falls to be deducted the cost of material and other charges. Shark-fins form a large part of their profits; they sell in China at about 32 dollars per pikul, or 26 per cwt. In the future the market the ordinary selling price is from 15 to 16 dollars, or from £2, 10s. to £3 per cwt. This trade was noticed by Dr. Royle (On the Production of Isinglass, 1842). It affords on some occasions to Bombay alone, taking fish-maws and shark-fins together, as much as 3 lakhs of rupees, and furnishes the chief means of support to at least 3000 fishermen, or, including their families, to probably not less than 15,000 human beings. One boat will sometimes capture at a draught as many as a hundred sharks of different sizes; but sometimes they will be a week, sometimes a month, without securing a single fish. The great basking shark, or mhor, is always harpooned; it is found floating or asleep near the surface of the water, and is then struck with a harpoon 8 feet long. The fish once struck is allowed to run till tired, and is then pulled in and beaten with clubs till stunned. A large hook is now hooked into its eyes or nostrils, or wherever it can be got most easily attached, and by this the shark is towed in-shore; several boats are requisite for towing. The mhor is often 40, sometimes 60 feet in length; the mouth is occasionally 4 feet wide. All other varieties of shark are caught in nets in something like the way in which herrings are caught in Europe. The net is made of strong English whip-cord, the mesh about 6 inches; they are generally 6 feet wide, and are from 600 to 800 fathoms, from three-quarters to nearly a mile in length. On the average side of the net, about 4 feet in length, at intervals of 6 feet; on the other piece of stone. The nets are sunk in deep water from 80 to 150 feet, well out at sea; they are put in one day and taken out the next, so that they are down two or three times a week, according to the state of the weather and success of the fishing. The lesser sharks are occasionally found dead,—the larger ones much exhausted. On being taken home, the fins are cut off and dried on the sands in the sun; the flesh is cut up in long strips and salted for food, and the liver is taken out and crushed down for oil. The head, backbone, and entrails are left on the shore to rot, or thrown into the sea, where numberless little sharks are generally on the watch to eat up the remains of their kindred. The fishermen themselves are only concerned in the capture of the sharks; so soon as they are landed they are purchased by Bania merchants, on whose account all the other operations are conducted. The Banias collect the fins in large quantities, and transmit them to native dealers at Bombay, by whom they are sold for shipment to China. Not only are the fins of all the ordinary varieties of shark prepared for the market, but also those of the saw-fish, of the dog-fish, and of some varieties of ray or skate. The dog-fish in India has a head very like that of its European congener, from which it differs in all other respects most remarkably. Its skin is of a tawny yellowish-brown, shading from dark brown on the back to dirty yellow on the belly; it is beautifully covered all over with spots, of the shape and size of those of the leopard, similarly arranged. The largest fishery at any given port is probably that of Karachue, which affords nearly one-tenth of the whole, but the shark fishery is conducted all along the Bombay coast.

There are three great fishing villages in Bombay Island, at Worles, Sewree, and Mahim. Their fishing boats are worth about Rs. 550 each, and canoes from Rs. 40 to 60 each. A patamar employs from 15 to 20 men, a fishing boat from 10 to 15, a canoe from 3 to 4. Canoes are chiefly employed in the coast fishing, in attending the men on the mud-banks, and in landing cargo when there is no depth of water sufficient for larger vessels. They are hollowed out of a single log, and are very serviceable, handsome-looking, well-finished craft. They are propelled either by paddles or sails; when the latter are employed, an out-rigger is resorted to; they will bear a surprising stretch of canvas, and make their way rapidly through the water.

The Bombay fishing boat is one of the swiftest and most elegant sea-going vessels of that coast, and can beat the best of the English yachts. See Boats, p. 395.
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On the western shores of India, nets of various forms and sizes are almost solely employed. The most important is the stake-net fishing in the Arabian Sea, and stakes are often to be found 30 and 40 miles out at sea,—wherever, indeed, a bank within half a day's sail of land presents itself; the fishermen are quite enterprising enough to extend their operations to any distance, but there is no use in their going further off than they can return with their fish to the market fresh. The fishing stakes vary from 50 to 150 feet in length; they are built up of successive pieces of wood, the lower being frequently the long straight trunk of the coconut or palmry tree. As many as 8 stakes, made of wood, from 8 to 10 inches in diameter, are used in the construction of a single stake. They are seared across each other, the searing being from 3 to 5 feet; the pieces are fastened together by strong rectangular fillets of wood. Two or three boats are employed in towing the stake out to sea. Its point is made wedge-shaped; there is a hole near the point of the wedge, through which a rope is passed. The two ends of the rope are made fast to boats anchored at a considerable distance off; other boats now proceed and haul up the upper end of the stake till the point is found to descend by its own weight. When it has once caught hold of the mud, the rope is released from its lower end, and the boats to which it was attached are employed in steadying the top in the direction of the run of the tide. At high water, two boats are made fast, one on each side, to the top of the stake, which is forced by their weight 10 or 12 feet into the mud. Stakes are thus put in successively, often to the extent of some miles at intervals of 20 feet from each other. Betwixt each pair is extended a long purse-net, the circumference of the mouth of which is about 60 feet, so that when attached to the stakes it exhibits an aperture 20 feet across, and 10 feet perpendicularly, the upper edge being a little above high water. The purse is from 100 to 170 feet in length, terminating in a point. The meshes gradually diminish in size from the mouth to the further extremity, being about 6 inches at the former, and three-fourths of an inch at the latter. The fish are carried into this by the tide, and entrapped; boats are always in waiting at high and low water, to secure the capture and reverse the nets. Also, in the creeks and shoals, lines of stakes and nets, often several miles in length, are run along where the sludge is exposed at low water. The upper edge of these is considerably under high-water mark, and the fish are in consequence entrapped by them on the retirement of the tide; breaks are left at intervals to secure their admission. Close along shore, fishing grounds, about half an acre in area or so, and in a semicircular form, are built. An aperture is left in the extremity of each of these, into which a net is placed as the tide begins to recede, and a considerable capture of the lesser-sized fish secured. Such are the fixed implements of the Bombay fisherman. Of the moveable implements, the most frequent is a conical net, of which the lower lip is loaded with pieces of lead and turned inwards. The material of which it is made is fine twine, and the meshes small. It is from 8 to 12 feet in diameter, and is only used in-shore. The fisherman holds it by the top, while he gives it a quick twirl, something betwixt that given to the American lasso and common quoit. Throwing it to the distance of some yards, it spreads fully out as it reaches the water; when pulled down and collapsing by means of the lead, it closes at the mouth as it approaches the bottom. The fisherman now approaches and pulls it up by the apex, when the fish are found enwrapped in it. Though this net sometimes attains a weight of 60 pounds, the dexterity with which it is thrown is wonderful. There are various spoon-nets and purse-nets of different shapes and sizes, and a bag of muslin on a hoop about 3 feet in diameter, this last being used when a number of crabs or small fish of any sort escapes. The mud-banks, and shoals in the creeks abound in eels, sometimes reaching the length of 2 or 3 feet. The fishermen wade through the mud till they detect these by the bubbling up or disturbance of the water. They then strike them with a harpoon or spear, with a fine bamboo shaft 8 or 10 feet in length. Having pinned them against the ground, they draw them out with a hook about the same size as the spear, also on a shaft. They are very dexterous in catching the little fish or crabs which lurk under the stones close by the shore, with their hands. The crabs when caught are immediately stripped of their claws, and so prevented from getting away. Of these there are a wonderful variety on the Bombay shores, many of them of the greatest beauty.

The Bombay fisherman's mooring anchor is generally of stone, from 4 to 5 feet in length, four-sided and pyramidal, the apex cut off. At base it is from 6 to 8 inches square, and from 4 to 6 at top. Through the top is a hole, through which a cable or hawser passes. Near the base are two holes at right angles to each other. Through these pieces of wood are thrust, corresponding to the prongs or flukes of the anchor. The whole weighs from 80 to 150 lbs., according to the size of the vessel, and answers very well the purpose intended.

The Bombay fishermen are a strong-made race of men, and are the only labourers in India amongst whom a great degree of obedience is observed. They are much given to the use of intoxicating drinks. A set of boats and nets belong to a dozen or so of fishermen, one often advancing the capital required to be contributed by the others; the capture is divided amongst them on their reaching the shore, and is immediately taken charge of and carried to market by the women, who carry their baskets on their heads. The men, when so employed, carry theirs in baskets swung at the opposite ends of a bamboo across the shoulders. The women who carry the fish to market are commonly followed by ten or a dozen crows, who constantly watch for anything that may escape, every now and then making a dash at the basket itself.

Southern India.—On the sea-coasts of the S of India, Murena maculata, H. Im., Ophiocephalus striatus,Bloch., O. marulus, Buck., O. gachna, Buck., Wallago(Silurus) atta, Bloch., W. Mahabharati, Cuv. et Val., Hemibagrus(Bagrus) punctatus, Jordan, Hypselobagrus(Silurus) cavasius, Buck.,

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E. insidiatrix, Bloch, Atherina Forskalii, Ruppell, and species of Ambassis, Polynemus, Hemiramphus, and Chato don are dried and largely exported to the interior. Of the better known salt-water fishes of a wider geographical distribution, such, for instance, as are brought as articles of food, at the three distant points, Calcutta, Madras, and Bombay, the market of the first is the least rich in varieties, in consequence of its greater distance from the sea. The abundance of the supply, however, makes up for what it wants in variety, and the large demand for fish affords a livelihood to great numbers of fishermen, who every night spread their nets in the river and in the salt-water lake. The Latea nobilis, different species of Polynemus, and the Mugil corsula, daily cover the tables of Europeans, who will more readily recognise these fishes under the names of the bogu or cockup, sudjeh, tapbi (mango fish), and the Indian mullet. At the Sandheads are to be found some of those delicious fishes which are more familiar to the residents of Madras and Bombay,—for instance, the Indian sole, the rollfish, and above all the black and white pomfrets and the bummalo or Bombay duck. Of these, the Indian sole is most largely distributed, being common in the Straits of Malacca, the Bay of Bengal, the Persian Gulf, the Red Sea, and also at the Cape of Good Hope.

The Sunderbuns sea fishery is carried on to a very small extent, chiefly because the distance to Calcutta is too great to allow of the carriage of fish in a fresh state. The only class of fishermen who have sea-built boats inhabit villages situated near the entrance of the Hoogly. Their chief and most profitable employment consists in attending with their boats on the shipping entering and leaving the river, for which they receive 16 rupees per diem. Whenever this employment fails, they resort to work with their nets, which they drag during high water along the coasts of the Sunderbuns. Two or three times are, generally speaking, sufficient to load a boat with fishes and shell-fish, a truly prodigious quantity being brought up in a few hauls. The larger portion of the fish and shell-fish is dried, while the cod or saclolli enters the mouths of the Ganges in shoals. The kharra, or Indian mackerel, a species of Scomber, is rather uncommon in that estuary; but from the Burmese coast great numbers in a dried state are annually imported into Bengal. The cartilaginous fishes abound in numbers and species, and are remarkable for their wide geographical distribution. The sharks enter the rivers to a considerable distance from the sea, and shark skin is used by the native workmen for polishing wood and ivory, while the shark fins are largely exported to China.

The bazaars in Calcutta are always stocked with an ample supply of dry fish, which is consumed partly by the European and native shipping of that port, and partly by the poorer classes of Bengal and the Upper Provinces. Cargoes of this article are annually transported to the Burmese and Arab ports. These dried fishes consist chiefly of the bummalo, which sells in Calcutta at the rate of four or five rupees a hundred, in Indian mullet, the sudjeh, the begti, and the kharra or Indian mackerel. The demand for dried fish exists along the coasts of the Peninsula. At Bombay large quantities of the bummalo are consumed and exported. At the mouths of the Indus the fishery is extensive; and some fish sounds are there procured from a Science, but they may also be those of other fish, as the fish maws are very different in form from the isinglass sent from Bengal. Dr M'Clelland in his paper called attention to the very important subject of increasing the supply of fish in the interior of India. Wherever there are any large pieces of water for the purpose of irrigation, as in the Peninsula of India, these he conceived might support quantities of fish, if proper kinds were selected, and pains taken to destroy the injurious animals, in the season when the water is sufficiently low for the purpose. He also suggested that at the different sanatoria which have been established in the mountains, it would be desirable and easily practicable to form riviria, which would at all times yield a supply of fish. This might be done by damming up a portion of some of the valleys through which the mountain streams pass.

On the Madras side, where a boisterous surf beats for ever on the shore, the fishermen use the catamaran and fishing lines, but nets are also largely used; and when shoals visit the coast, great bag-nets several hundred yards long are thrown from man-of-war-boats. The catamaran of Ceylon and the Coromandel coast carries two and three fishermen, and, with a sail set, they take advantage of the land and sea breezes to fish several miles from land, returning home about sunset. Every river is exhaustedly searched by the nets of the land fishermen.

Further India.—The great Irawadi river, and the seas in which the Mergui and E. Archipelagos are enclosed, abound in fish, and the Malay shoot their great stake nettings far into the ocean. The shallows between Penang and Province Welsey are covered with such nets. The wealth of these eastern rivers and seas is boundless.

The fishermen supplying the markets of Penang and Singapore are principally natives of China. Their fishing boats vary from one to three tons burden; they are of a slight make, and calculated to ply at short distances from the shore. They are propelled by oars, and seldom carry sails. The nets are made of twine, tanned with mangrove bark. The bamboo fishing-stakes are clumsy contrivances. That they answer well enough in fine weather, is more owing to the riches of the sea and their sheltered position, than to the ingenuity of the contrivance, or the durability of the materials. In nautical skill the Chinese fishermen of the Straits Settlements are far behind the Malays. The fishmongers are natives of China, but they form a class far superior to the fishermen. Their trade comprises the branches of fresh fish, dried fish, isinglass (fish maws), fish roes, red fish, sardinae, sharks' fins, balachan, fish manure, and trepang. The fishermen dispose of their boat-loads to the fishmongers, who assort the different kinds in heaps, over which sea-water is continually poured, and from these the daily customers are supplied. Comparatively few varieties of fishes appear on the tables of Europeans, but Malays and Chinese reject but very few kinds. The daily surplus fish are cured by the fishmongers. The process commences with a partial abrasion of the scales, after which the larger fishes are opened lengthwise, and gutted. Water is repeatedly poured over the fishes, till blood and impurities have
disappeared, when they are placed in casks in the layers, between which is thrown a quantity of salt. In this state the fishes remain from 24 to 48 hours, when they are exposed to the sun, and frequently turned, till they are thoroughly dried. The smaller kinds are not opened, nor are they all salted before drying in the sun. The little care bestowed upon the curing appears, however, to be sufficient for local consumption, and none of the settlements in the Straits export dried fish. The pikul of 133½ lbs. sells from 3 to 7 Spanish dollars, valued at 4s. 6d.; the catty being 1¼ lb., of which 100 go to the pikul.

Mr. Crawford, after stating that the fisheries of the Indian islands form a most valuable branch of their commerce, and that a great variety of the fish caught are dried in the sun, observes that fish maws, shark fins, and trepang are sent to China in large quantity. The trepang, swala, or beche-de-mer, often called sea-slug, one of the tribe of Holothuria, is an unseemly-looking molluous animal, which constitutes in quantity and value one of the most considerable articles of the exports of the Indian islands to China. There are fisheries of trepang in every island of the Indian Archipelago from Sumatra to New Guinea, and not less than 8000 cwt. were yearly sent to China from Macassar, the price ranging from 8 Spanish dollars per pikul to 20, and as high as 115, according to the quality. The same author states that shark fins are exported to China from every maritime country between the Arabian Gulf and the East Indian Islands. A pikul of shark fins usually sells in China as high as 32 Spanish dollars or £6, 1s. per cwt.; which high price makes it evident that they are only articles of luxury, the use of the rich. In the market of Macassar the ordinary price is about 15 Spanish dollars or £2, 16s. 8d. per cwt. Fish maws often bring as high as 75 Spanish dollars per pikul, or £14, 3s. 6d. per cwt., in the market of Canton.

Fish Traps in the Archipelago are made of basket-work, are baited with small fry, and afterwards sunk by means of stones, their position being indicated by long bamboo fishing- buoys.—Earl, p. 37.

Sharks' Fins of commerce are not, however, exclusively selected from sharks (Squali), but equally from rays (Raihe), and at Penang composed of the genera,—Stegostoma, Carexrias, Sphyra, Priatis, Shinobius, Trygon, and Myliobatis. Of all fishes, sharks and rays are the most valuable to Chinese. The flesh and entrails of all, not even the electric rays (Torpedinidae) excepted, are eaten either fresh or dried; the skin is used for polishing or converted into shagreen; gelatine is obtained from the larger fins, glue from the smaller. All except the caudal fins are cut at the root, so as to leave as little flesh as possible. The root is dipped in wetted lime (chumam), then dried in the sun, and packed promiscuously in gunny bags, each containing from one half to one pikul. According to the value in the Chinese market, the fishmongers sort the fins in two kinds, white and black. The white consist exclusively of the dorsal fins, which are on both sides of a uniform light colour, and reputed to yield more gelatine than the other fins. In China the lovers of gelatineous soups pay from 80 to 40 Spanish dollars per pikul of white fins. The pectoral, ventral, and anal fins pass under the denomination of black fins. The colour, however, varies according to the species from buff to grey or brown, and most of them are of two different colours, the upper surface being dark, the lower light. The black fins, for obvious reasons the most numerous, are supposed to yield a comparatively small quantity of gelatine, and sell in China at from 15 to 20 Spanish dollars per pikul.

In China, at least one-twentieth of the river and seaside population derive their food from the water, and much ingenuity is shown. Nets are woven of hempen thread, and boiled in a solution of gambier (Uncaria gambier) to preserve them from rotting. The fishing smacks which swarm along the coast go out in pairs, partly that the crews may afford mutual relief and protection, but chiefly to join in dragging the nets fastened to their boats. In the shallows of rivers, rows of heavy poles are driven down, and nets secured to them, which are examined and changed at every tide. Those who attend these stake-nets, moreover, attach to their boats scops or drag-nets, so loaded that they will sink and gather the sole, ray, and other fish feeding near the bottom. Lifting nets, 20 feet square, are suspended from poles elevated and depressed by a husker worked by a windlass on shore; the nets are baited with the whites of eggs spread on the meshes. Cornorants are trained in great numbers in the eastern provinces to capture fish, and are sometimes under such good order that they will disperse at a given signal, and return with their prey without the precaution of a neck-ring. A single boatman can easily oversee twelve or fifteen of these birds; and although hundreds may be cast out upon the water, each one knows its own master. If one seizure is found too heavy for it alone, another comes to his assistance, and the two carry it abroad. The birds themselves are fed on bean-curd, and eels or fish. They lay eggs when three years old, which are often hatched under barnyard hens, and the chickens fed with eels’ blood and hash. They do not fish during the summer months. The price of a pair varies from five to eight dollars.

Shell-fish and molluscs, both fresh and salt, are abundant in the Chinese market. Mussels are caught in small cylindrical basket traps, attached to a single rope, and floated with the tide near the bottom. Oysters of a good quality are common along the coast; and a species of Mactra, or sand clam, is fished up near Macao. The Pearl River affords two or three fresh-water shell-fish, of the genus Mytilus, which are obtained by dredging. The prawns, shrimps, crabs, crawnish, and other kinds of crustaceans are not less abundant than palatable; one species of crawfish, as large, but not taking the place of the lobster, called lang hai or dragon crab, cuttle-fish of three or four kinds, and the large king crab (Polyphemus), are all eaten by the Chinese, though not relished by others. On the Chinese coast, several species of Serranus (as Electropoma susuki, Serranus shihpan, etc.), generally called shipman by the natives and garoupa by foreigners, are common about Macao, and considered the most delicate-flavoured of any in the markets. Another common and delicious fish is the Polynemus tetractys or bynni carp, usually called salmon by foreigners, and sugar is prepared from its skin. The pomfret or stann-gyu of the Chinese
(Stromateus argenteus) is a good pan fish, but not so delicate as the sole fish, many species of which abound in the shallows of the Bogue. Two or three species of mackerel, the Sciaena lucida, an Ophiocheilus, the mullet, the white rice fish, and a kind of shad, complete the list of good table fish found in the markets of Canton.

The Chinese fish-catcher is to be seen, perfectly naked, half-walking, half-swimming. His feet warn him that a fish is at hand, and they feel for it amongst the mud at the bottom of the pond. The next moment the fisherman is under water, and he remains so long that you think something has happened to him. A few seconds more and he appears, rubbing his face and eyes with one hand, and in the other triumphantly holding up the fish which he has just captured. It is immediately placed safely in his basket, and the work goes on as before. The surface of the water is struck and splashed, in order to frighten the fish which are swimming amongst the feet of the Chinamen. Being frightened, they dive immediately to the bottom amongst the mud, where they are felt by the feet, and soon taken by these expert divers.

Fishing boats of China are under strict regulations, and all are licensed. Casting-nets are used by the poorer class of fishermen. They also use a dip-net. Anchoring the boat, the net is lowered, and the fisherman has large cork balls, to each of which several baits are attached. These are thrown beyond the net, and as they float towards the boat are followed by multitudes of fish, and the net is raised to capture them. They use, also, drag-nets between two ships. A small boat, painted white, is kept with its gunwale low in the water of the Canton river, into which the fishes leap on being disturbed. The night fishing of the Chinese is carried on in long narrow boats called pa-pak-teng. On one side there is a long white board, a foot broad, running fore and aft, and inclining towards the water. Amidships, a stone, which is made fast to the boat by means of a cord, is lowered into the water, the boat is paddled by a man in the stern, and the stone in the bottom of the boat gives a rushing noise which alarms the fish, and, seeing the reflection on the white board, they jump towards it, and nine times out of ten overleap it and fall into the boat.

Large quantities of fish are reared artificially in China, at Tai-shick, Lee-chun, Sai-chu-shan, Kow-hong, Kum-chok, and other places. In March and April the spring tides bring great quantities of fish up the rivers. The spawners deposit their ova among the long grasses or reeds growing on the banks, and in a few days the fish are hatched, are captured by nets, and placed in well-boats, where they are fed with paste made of wheat flour, bean flour, and the yolks of eggs. When they grow large they are placed in artificial ponds of shallow water, with rockeries and the banana and vine trellis work, the foo-lin-tree and water-lilies, for shade and shelter. Sometimes stone walls enclose the ponds on all but the north side, which is left open. Pigeons are not kept where fish are thus reared, and the willow tree is not cultivated. The fish are fed with grass twice daily during summer. The Bulletin Universal for 1839 mentions that in some parts of China the spawn so taken is carefully placed in an empty egg-shell, and the hole closed; the egg is then replaced in the nest, and, after the hen has sat a few days upon it, reopened, and the spawn placed in vessels of water warmed by the sun, where it soon hatches.

Of other two productions of the eastern sea, naked cephalopods are not only eaten fresh by the Chinese, but one species, a loligo, forms in its dried state a considerable article of traffic. The preparation consists in removing the ink-bag without laying open the mantle. After all impurities have been removed by water, the mollusc is submitted to a slight pressure, and ultimately exposed to the sun. Small bundles of one catty weight are tied up with slips of rattan, and enclosed in cases holding ten catties and upwards. The pikul sells at the rate of 14 to 16 Spanish dollars. Chinese fishermen, when they take one of those huge rhizostoma which abound on the coast, rub the animal with pulverized alum to give a degree of coherence to the gelatinous mass.

Fish Mannur.—The smallest fishes and all offal are employed in the sedge plantations by the Chinese gardeners and agriculturists of Penang, and they consider the fluid in which fishes have been salted very useful as a cure for all plantations.

In Borneo, in the enclosures of stakas, drag-nets, casting-nets, traps, placed so as to swing to each tide, and hook and line are largely used; prawns, shrimps, and small fish are taken with hand-nets in the fine season. The quantity of fish taken by these various contrivances is enormous. They are salted and dried, and sent into the interior of the country. The river fish in general are not so much esteemed as those taken at sea, though they also are frequently caught, principally by means of hooks and lines attached to the light wood called plye, cut into the shape of birds. These may frequently be seen floating down with the tide, to each of which is attached at the neck a strong line supporting a baited hook. The proprietor is generally not far off, and on the float bobbing under water soon seizes it. A fine fish, called in Borneo,ikan malang, is the one most frequently caught in this manner. Several light, porous woods, such as Gyracarpus Jacquinii, Sal-malia Malabarica, and the fruit of the baobab, are used as floats for fishing-nets.

In Formosa fishermen use a sunken dip-net, into which surrounding boats drive the fish by beating the water with long poles. Where dip-nets are used, live fish are held by cords to serve as decoys.

High Asia.—No trout or salmon inhabit any of the rivers that debouch into the Indian Ocean. This widely-distributed natural order of fish (Salmonidae) is, however, found in the Oxus, and in all the rivers of Central Asia that flow north and west; and the Salmo orientalis, M'Celland (Calcutta Jour. Nat. Hist. iii. p. 283), was caught by Mr. Griffith (Journals, p. 498) in the Bamian river north of the Hindu Kush, which flows into the Oxus, whose waters are separated by one narrow range of mountains from those of the feeders of the Indus. The Central Himalayan rivers then rise in Tibet from lakes full of fish, but have none (at least during the rains) in that rapid part of their course from 10,000 to 14,000 feet of elevation; below that, fish abound, but, it is believed, invariably of different species from those found at the sources of the same rivers. The nature of the tropical ocean into which all the Himalayan rivers
debouch, is no doubt the proximate cause of the absence of Salmonide. Sir John Richardson (Fishes of China Seas, etc., in Br. Ass. Rep. etc.) says that no species of the order has been found in the Chinese or Eastern Asiatic seas.

Raw dried split fish are abundantly cured (without salt) in Tibet; they are caught in the Yaru and great lakes of Ramchoo, Dobiah, and Yarbru, and are chiefly carp and allied fish, which attain a large size.—Llew Sarawak; Cal. Journ. Nat. Hist.; Crawford; Dr. Buist in Bombay Times; Sir J. Richardson in Rep. B. Ass.; Williams' Middle Kingdom; Hooker's Hist. Journ.; Fortune's Residence; Fortune's Wanderings; Dr. F. Day in M. Med. Journ., On the Migratory Fishes of Asia, On the Obliquity of the Eyes in Flat Fishes, On the Colours of Fishes, On Indian Fresh-water Fishes, On the Sea and on the Fresh-water Fishes and Fisheries of India; Grey's Chin; Montgomery—Cantor; Bend. As. J.

FISHERMEN. On all the sea-coasts of the south and east of Asia, and on the great rivers, the people are fishermen. There is something remarkable in the circumstance of the fisher races being amongst the earliest and most eager converts to Christianity in India, so much so as to render it questionable whether it be only an accidental coincidence, or the result of some permanent and predisposing cause. Along the coasts at Madras many became Christians early; indeed, from the southern outskirt of the town at St. Thomé to its northern village of Ennore, nearly all the fishermen are Christians of the Romish persuasion. The Koli tribe of fishermen in Bombay are nearly all Christians, though they have occasionally wavered. The Parawa, or fishermen of Cape Comorin, were the earliest proselytes of St. Francis Xavier, and they have still a pride in alluding to the fact that they were the first, as they have since been the most faithful and abiding, of his converts. It was by the fishermen of Mannar that he was invited to Ceylon in 1544; and notwithstanding the martyrdom inflicted by the raja of Jaffna, and the persecution with which they were visited by the Dutch, that district and the adjacent boundary of the Wanny has to the present day been one of the strongholds of the Roman Catholics in Ceylon. It is amongst the Parawa or fisher caste of the Singhalese that the Roman Catholics have at all times been most successful in their efforts to Christianize.

The Zamorin, in 1513, sent a deputation to Portugal, his ambassador, who turned Christian, was knighted under the name of 'John of the Cross' by John III. On his return to India, he was banished from the Zamorin's court as a renegade. In 1532 he joined the fishermen, and headed a deputation of 85 of them to Cochin, soliciting the assistance of the Portuguese against the Mahomedans. The whole of the embassy are said to have become converts to Christianity. A Portuguese fleet was sent to their relief, and 20,000 are reported to have immediately consented to be baptized. Ten years subsequently, Xavier instituted a church for these people.

The fishermen race along the Bombay coasts are divided into four great castes,—Watttree, Son-koli, Dongur-koli, Thankur-koli, over each of which a headman or jemadar presides. One great jemadar or chief rules supreme in the craft over all these fisher castes.

The sea fishermen in most parts of the coasts of India assert that in olden times they were divided into those who captured fish in the deep sea, and others who fished from the shore and in the backwaters and creeks; but in several parts of India, more especially in the Madras Presidency, they have customs of a patriarchal nature, but which are more strictly observed on the Coromandel than on the western coast. In Sind there are four divisions of the fisherman caste, each being under its own chief, who is hereditary, and his business is to settle caste disputes and other trifling matters, also to conduct the religious ceremonies connected with marriages and deaths. In the Bombay and Madras Presidencies headmen to the fishing castes likewise exist; in some localities they are hereditary, in others elective; or should there be no headman, matters are left to be decided by certain wealthy individuals of their own caste, whose decision is final. In places where the fishermen are Christians, the priest appears to be appealed to in order to settle disputes.

Among the fishermen of the Peninsula there exist priestly chiefs, two of whom are to be found on the eastern coast, one at Madras, and the other at Cuddalore, the territory of the former stretching up the Coromandel coast, while that of the latter reaches towards Cape Comorin. A third is found in South Canara, where he exercises spiritual control over a large district. These chiefs' offices are hereditary; they receive fees and fines from those of their caste living within their jurisdiction, and they are the final referees in all cases of caste or family disputes. A class of more petty chiefs or hereditary headmen only hold sway over a few individuals; their duties are the same, and some of their fees seem to have to be transmitted to their superior. On one of these headmen dying without heirs, a new one is elected by the people of the caste. Lastly, the fishermen have the elective headman, who is chosen by the residents of a single hamlet; his duties are to decide disputes, to be present at marriages and religious ceremonies, often to fix the work and assist in certain Government duties; his emoluments appear to be very trifling.

Along the western coast of the Madras Presidency, with its untaxed salt earth, these people prosper; but all up the Coromandel coast, except where there are large towns, we find them reported to be decreasing in numbers, due to cholera or other diseases, emigration, or accepting service as lascars in coasting vessels.

The fisherman in Sind, in 1875, paid a tax of 10s. a ton yearly on their fishing boats. These people are well off. In Gujerat the fishermen are poor, and the precarious living they make often induces them to accept service as sailors, labourers, or anything that ensures them a steady competence. They are in the utmost misery, not due to their own laziness, but as a result of British legislation imposing prohibitory duties on salt, and causing an enormous loss of food to the inhabitants at large. In the Janjira district the fishermen supply themselves with boats and nets; six or ten club together to obtain a boat and net, dividing the produce; here they have decreased in numbers. At Broach and Kaira they have diminished. In Ratnagerry they are said to have increased.

In the Timefully collectorate the fishermen as
FISH HOOKS.

the rule are very poor. They work by a system of advances made by traders, a few of whom reside in each fishing village, and supply all the requisites for fishing, as well as the boats, taking one-third of the captures as their share. In the Nellore district the inhabitants of the different villages prevent fishermen from other localities plying their occupation within what they believe to be their limits. At Cannanore the owners of fishing boats and nets supply them to the fishermen. A like plan obtains at Tellicherry, where the fishermen have framed rules for their own guidance, one of which is the right of the first discoverer, among a lot fishing together, to a shoal of fish; he is allowed to capture them without hindrance from the others, even though at the time when the fish were discovered he was not prepared to launch his net. At Ootepadram the native official estimated the daily earnings at threepence, taking all the year round, and excluding costs; and at Mannurje from three-halfpence to ninepence; while at Tenkareli their earnings were computed at from threepence to one shilling a day.

Without pretending to state the condition of these people in each district, it will be sufficient to say that they are poor and miserable, but not so badly off as in the Bengal maritime districts, where they appear to be quite poverty-striken.

The chief cause of this impoverished state is undoubtedly the hampering in their avocation, occasioned by the salt monopoly, which restricts their traffic to the sale of fresh fish, sufficient merely for local consumption. In India, also, on the sea-coast, it is aggravated by the caste customs preventing the fishing races taking to other avocations. Passing on to Burma with its cheap salt and freedom from caste, we find the fishermen well off.—Tennent’s Christianity in Ceylon; Day’s Fisheries; Bombay Times, 1580.

FISH HOOKS.

Hamecon, P. Panching, MALAY.
Fischangel, GER. Gallamu, TEL.
Gal, MALAY. Anuelle, SP.
Kall, Kai, MALAY.

Fish hooks are used in all countries, but in the S. and E. of Asia, nets, traps, and stakes are the generally adopted modes for catching fish.

FISH INSECTS are species of Lepisma, pretty little silvery creatures, found in brooks. L. niveo-fasciata, Templeton, and L. neger, Templeton, occur in Ceylon and Malabar. The genus was called Lepisma by Fabricius, from its fish-like scales. It has six legs, filiform antennae, and the abdomen terminated by three elongated sets, two of which are placed nearly at right angles to the central one. Lineeus states that the European species was brought in sugar ships from America. The chelifers found in Ceylon has been brought thither from Europe.—Tenn. Sk. Nat. Hist. of Ceyl. p. 476.

FISH MAWS, Fish Sounds, Air-blower, Swim. Singally, Sozilly, ENG. Sozilly (small), GUZ, HIND., Loopa-100-pa, CHIN. Palapong ukan, MALAY. Poa (large), GUZ, HIND. Ari, ARI IAN.

Are terms applied in oriental commerce to the air-blower, sound, or swim of fishes. It is an article of luxury with the Chinese, and forms an important article of export from all the S.E. coasts of Asia. Small quantities of the superior kind are occasionally sent to England, from which it is supposed isinglass is made. There are two kinds of fish maws in Bombay, the poota and sozili, the difference consisting merely in the size,—the latter being about one-fourth the size of the former. They are of yellowish tinge, and are cured by stretching them in the sun. If they become damp, they soon decay and are then worthless. They are brought to China in junk from the Indian islands. At Singapore and in China the price is from 35 to 70 dols. per pikel, and, together with birds’ nests, beche-de-mer, and sharks’ fins, are consumed by the Chinese for their supposed strengthening and restorative properties. That the fish maws are isinglass, appears to have been the discovery of an anonymous correspondent in that Parbury’s Oriental Herald for January 1839. The fishes from which isinglass is obtained at Penang are,—Lates hypostomus, Ikan siyakup; Polyenium Indicus, Ikan kurow; Otolithus biarius, Ikan salampe; O. ruber, O. argenteus, O. maculatus, all called Jarang gigi; Johnius diancathus, Ikan tumbarch; Lobotes erate, Ikan batu; Arius truncatus, A. arius, A. militaris, all called Ikan salatul. Their export from British India, from 1857-58 to 1860-61, ranged up to 1,002,624, value Rs. 90,620; and in recent years—

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<th>Year</th>
<th>Lbs.</th>
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<td>1875-76</td>
<td>875,624</td>
<td>2,51,603</td>
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<td>1876-77</td>
<td>966,658</td>
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<tr>
<td>1877-78</td>
<td>1,002,624</td>
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The air-blowers of fishes that swim near the surface are small, and are wholly absent in those which, like the flat fishes (Pleuronectidae), live near the bottom.

FISH OIL manufacture is carried on all along the western coast of India. The great source of supply is the shark and the skate. The livers of these are cut out, and thrown into a vat or old canoe or other receptacle, and trodden on with the feet till the oil is expressed. It is then drawn off, and stowed away. The oil from the variety of skate called Wagil by the natives of the Bombay coast, seems to have a strong resemblance to cod-liver oil. On the Malabar coast, especially to Villa, the seal literally swarms, and a great variety of the skate—two or three, ill-smelling kind of oil, which sells for from six to twelve annas a maund, is manufactured from these. The natives employ it for smearing their boats. The liver of the white shark is that generally used. The mode of preparing the best cod-liver oil is equally applicable to fish liver. The proper season for preparing cod-liver oil is early in January, when the livers are plump, firm, large, white, and full of oil. The livers are sometimes found diseased, and such as are specifically lighter than water should be rejected. Good livers should cut smooth, and not tear; when cut, none of the substance should flow out in a half-liquid state. The quantity of oil produced by livers depends much upon the time of the year. In the beginning of January 1000 livers were found by experiment to yield 37 imperial gallons, and at the end of February an equal number only gave 23 gallons of oil. In the beginning of January 1000 livers of average size weighed 900 lbs., whilst in the last day of March the same number weighed only 575 lbs. The oil at these different seasons was equally pale, and the livers equally white, although much smaller and more flabby in the latter season. To prepare the oil, wash the livers very carefully,
first removing the gall-bladders which adhere to them, and infuse them in rain or other water free from salt. Place them over the fire, and never allow the temperature to exceed 120° or 130°. On this head special care must be taken; a higher degree of heat, although yielding a larger product, communicates a rank, fishy taste and smell, and heightens the colour of the oil, thereby rendering it disgusting to the patient.—M. E. J. R. of 1855.

**FISH ROE.**

Matchi ke unde, . DUKH. | Choppa janna, . TELE. 
Min chenney, . TAM. | Trubu, . MALAY.

Fish roe is sold in every bazar of the S. and E. of Asia, and the fish roe of Siam is a great article of trade.

Fish Roos, Red Fish, and Saritines are Malay condiments, and the species of fish used in their preparation are Alasum toli (Ikan truboh), Engraulis Brownii (Bunga ayer or badah), Dussouvieria acuta (Tamban-bulat), and Clupea perferans (Tamban-ini-nepe or batul). Balachan or gun-pi is a condiment prepared from small fishes of all descriptions, and shell-fish. The ingredients are placed in a pit to undergo fermentation, and afterwards dried, pounded, and preserved with spices. With the Malays, Siamese, Burmese, and Cochín-Chinese, balachan has become a necessary of life, as it serves to season the daily food of these nations.

**FISH SKINS, Fiel de pescado, Sr., are used occasionally in India for covering scabbards. The Goldi, on taking a large fish, remove the skin and beat it with a mallet to remove the scales and until the thick, oily corium becomes supple. In a dress of this kind they defy snow, mist, and rain.—Latham’s Nationalities of Europe, p. 271.

**FITCH.** The best Aph Pitch, a London merchant, travelled through India and Burma about 1833–91, in the reign of Queen Elizabeth, along with another London merchant named Newberry, and accompanied by a jeweller named Leedes and an artist named Storie or Storey, all at the charge of Sir Edward Osborne and Mr. Richard Staper, two rich London citizens. They travelled through Syria to the Persian Gulf, and then the Portuguese imprisoned and sent them to Goa as interlopers. Storie adopted the Romish faith, and settled at Goa, marrying a half-caste; but the others were ultimately released, and travelled to Golconda, and through Berar and Rajputana to Agra, where Akbar was ruling. Thence Newberry returned, via Lahore, Afghanistan, and Persia, to England. Leedes appears to have settled at Agra in Akbar’s service, and Fitch sailed in a fleet of 31 boats down the Jumna and Ganges, passing Allahabad, Benares, Patna, and Gour, to the Bay of Bengal, visiting also Koch-Bahar, thence to Orissa, and finally, in November 1586, to Burma, in a small Portuguese vessel. He returned to England in April 1591. With the extensive information regarding the wealth of the countries they had visited, the general current of enterprise ran so vehemently towards India, that in 1589 some London merchants applied to their Government for the royal permission to send three ships and the same number of pinnaces on a voyage to that country. This was granted towards the end of 1600, and they formed amongst themselves a chartered association, under the style and title of the Governor and Company of Merchants trading to the East Indians, which was the origin of the East India Company. Their first factories were formed at Surat, Ahmadabad, Cambay, and Gogo.—Fytche’s Burmah.

**FITZCLARENCE, Lieut.-Colonel,** author of Journal of a Route across India through Egypt, to England, in 1817 and 1818, 4to, London 1819.

**FITZGERALD, Captain,** with three troops of Bengal cavalry, successfully charged the Maharrats at the battle of Kamptee in 1817 against Apa Sahib. He had been ordered not to advance against the enemy, but, seeing his small party being hemmed in, he sent asking permission, but was forbidden to charge at the peril of his commission. "By heaven, we'll charge him!" he exclaimed. The Hindu troopers, taking a handful of earth from their syces, threw it over their heads, the Mahomedan troopers shouted their usual warcry, "Deen! Deen!" For the faith! For the faith! and, spurring on, they captured two guns, which they turned on the enemy and mowed them down in heaps. This successful charge turned the tide of battle.

**FIUMARA.** In Italy, a hill watercourse, which rolls a torrent after rain, and is either partially or wholly dry during the drought season. It corresponds to the Indian nullah. —Burt, Mecco.

**FIVE, Panch, HIND.** is a number of frequent occurrence amongst Hindus. Panch-salar or Kansali, the five artisans; Pancha-junya and Pancha-kshiti in the Veda, five families, according to Lassen; Panchayat, a jury of five. The panch liquor and Panch of Panch and Judy are said to be from Panch, five. The five items of panch were arrack, sugar, water, rose-water, and fumes; the five of Panch and Judy are Panch, Judy, the dog, the constable, and the devil. The English word five comes from the Greek πέντε, Panth, the upraised hand. Ten is one upraised hand and one reversed, and, with digits prefixed or suffixed, up to 49 are indicated. The almanacs of the Hindus include Panch-anga, five sections, viz. the lunar day, the solar day, the lunar asterism, the conjunctions and transits of the planets, eclipses and the karana or subdivisions of the lunar day. Five mountains are sacred to the Jains, viz. Abu, Girnar, Palitana, and Tallija in Saurashtra, and Sakur in the east.

**FLACOURTIA INERMIS.** A natural order of plants. 18 species of the genera FLACOURTIA and Phoberos occur in the S. and E. of Asia. F. Obcordata is a shrub of Chittagong and Sylveth, F. rotundifolias of the Peninsula, and F. Campbelliana of Sumatra.

**FLACOURTIA CATAPHRACTA.** Rozb. Taliupatu, . HIND. | Talishapatri, . TELE. Paniiha, Panpia, .

A tree of Assam, Monghir, and Nepal, grown as a fruit-tree in gardens at Kotah, and averts a popular medicine in Behar. The small leaves and shoots resemble rhubarb in flavour, and are used as a gentle astringent in the dose of half a dram in powder. An infusion of the bark in cold water is also employed as a remedy in hoarseness. The young shoots and leaves are considered astringent and stomachic. The berries are edible.—Rozb.

**FLACOURTIA INERMIS.** Rozb. Lovi lovi. 

**SINGH.** Grows in Ceylon, in both the Peninsulas of India, in Sylveth, and in the Moluccas. It has minute greenish flowers. In the Moluccas it is extensively cultivated for the sake of its fruit, which makes excellent tarts, though too sour to be eaten raw.—Rozb. ; Voigt.

1126
FLACOURTIA MONTANA. Graham. Ram tambut, Uttuck, Main. A tree common in forests above and below the Bombay Ghat, but does not extend inland. The wood is rather strong and close-grained, but the girth is never such as to render it sufficient for general purposes of carpentry or building.—Dr. Gibson.

FLACOURTIA SAPIDA. Roxb.

F. Ramonchel. L'H.

Booech, ... BENG. | Oogorrasa, ... SINGH.
Boweehe of BOMBAY. | Swadou kantuka, ... SANSK.
Binecha. ... DUKH. | Peda kanaregu, ... Tel.
Kuku. ... HIND. | Peda caneaw, ...
Kangar. ... FLAV. | Naka neredu, ...

A small-sized tree or large shrub, growing to an elevation of 1500 to 3000 feet in the central province of Ceylon, also in Peninsula India, and on the Godavery, in Ganjam and Gumsur, also in Bengal and northwards to Dobra Doon. It yields a very hard, close-grained wood, which does not warp, and is worthy of attention. This wood is burned by Hindus when libations are offered for a person who has died on an inauspicious day. It is found as a large shrub along the lower hills of the N.W. Himalaya, sometimes to 3500 feet, in the Salt Range, and on the skirts of the Suliman Range, etc. The timber is there occasionally employed for ploughs, but is too small for most purposes. The fruit about Callcuta grows to the size of a common plum; it resembles a gooseberry, the skin thin and shining, and of a purple appearance. It contains from 10 to 12 seeds, is both palatable and wholesome, and well worthy of more general cultivation.

FLACOURTIA SEPIARIA. Roxb.

Juthe karande, ... DUKH. | Canrew, Sottakia, TAM.
Khatui, Dajkar, ... HIND. | Sambli, ... SANSK.
Shawarwani, Ynq, ... HIND. | Ranaregu, ... Tel.
Kuru mooll, ... MALEAL.

This shrub grows in Ceylon and all over India, up to the Salt and Suliman Ranges. It has strong spines, preventing cattle browsing the leaves. Its fruit is small, hard, and insipid.—Thur.; Stewart.

FLAGELLARIA INDICA. Roxb.

Ban-chunda. ... BENG. | Har charrul, ... HIND.
Myouk kyeing. ... BURM. | Poinee pootee, ... Tel.
Panawbu-vu, ... CAN.

A long, straggling, scendent perennial plant, a native of forests; flowers during the beginning of the rains in June. It is easily recognised by the tendrils it puts forth at the end of its leaves.—Mason: Roxb.; Fl. Ind. ii. p. 154.

FLAME OF THE FOREST is Izora coccinea, Linn. Flame tree or fire tree of Australia, King George's Sound, is the Nuytta floribunda. The flame tree of Illawarra in Australia is the Brachychiton acerifolium, which grows to 60 or 70 feet, and has large racemes of bright red-coloured flowers. Its wood is soft and spongy, and its bark is made into nets and fishing lines.—G. Bennett, p. 554.

FLAMINGO, or Raj-hans, the Phoenicopterus roseus of Pallas, a splendid bird, found in most parts of India. The Singhalese have been led, from their colour and their military order, to designate them the English soldier birds.

FLANNEL. Looi, HIND. This woollen article is wholly imported into India; there is no similar woollen stuff manufactured in S. and E. of Asia, the nearest fabric being the Rampur chadar. It is not much used by Asiaties.

FLAX.

FLAX. Linnen. A plant of the Linum genus, with square stem, and small white flowers, and is extensively grown in Europe and America. It yields two articles, namely, the plant itself, and what is called flax meal. The flax meal is the husk of the plant, which is made into flour, and is used by the peasants of France and other parts of Europe, for the manufacture of bread. The plant is a hardy one, and requires no particular care, and is easily propagated by sowing the seeds broadcast in a good soil. The flax is a native of Europe, and is cultivated in various countries, as in Russia, Sweden, Norway, Denmark, Prussia, and other parts of Europe. The flax is also grown in America, especially in the northern states, where the climate is mild and the soil fertile. The flax is a valuable article of commerce, and is extensively used for the manufacture of linen, and other articles of domestic use. The flax is a hardy plant, and requires no particular care, and is easily propagated by sowing the seeds broadcast in a good soil. The flax is a native of Europe, and is cultivated in various countries, as in Russia, Sweden, Norway, Denmark, Prussia, and other parts of Europe. The flax is also grown in America, especially in the northern states, where the climate is mild and the soil fertile. The flax is a valuable article of commerce, and is extensively used for the manufacture of linen, and other articles of domestic use. The flax is a hardy plant, and requires no particular care, and is easily propagated by sowing the seeds broadcast in a good soil.
the Sp. Gee. Lat. Ger. It. Sp. Sieme, a heat, from (Hflferiiig their piece-goods, being 13 laks of rupees, the highest value of the canvas being Rs. 7,94,978, and that of the piece-goods Rs. 4,96,546.

Flax Seed, linseed.

The seed is in India produced for its oil, and is largely exported.—Stewart; Powell; M‘Callock; Royle. See Linseed.

FLEA.

FLEABANE, PURPLE.

A small dark-coloured and extremely bitter seed, procurable in all Indian bazaars, considered powerfully anesthetic, and also used as an ingredient of a compound powder prescribed in snake-bites by native practitioners. An infusion of seed is also given for coughs, and against flatulence. The Inula pulicaria, or fleabane, a common roadside plant in Britain, strewed or burned in any place, destroys grats and flies, and the same properties are attributed to the common oxeeye daisy of Britain. Flies, fleas, and mosquitoes avoid rooms in which branches of pennyroyal have been suspended. Vernonia cinerea, Lata, is the ash-coloured fleabane.—Ainslie.

FLESH-EATING PLANTS. The insectivorous plants described are the common sun-dew (Drosera rotundifolia), the Venus fly-trap (Dionaea muscipula), an aquatic plant growing in Queens-land, and known as the Aldrovanda vesiculosa, which feeds upon water beetles; the Droso-phyllum Lusitanicum, which the villagers in some parts of Portugal hang up in their cottages as a living fly-catcher; the Pinguicula vulgaris, which flourishes in North Wales, and several varieties of the Utricularia; the Sarracenia purpurea, and the Darlingtonia of N. America.

FLOODS.

FLINDE SRIA AUSTRALIS. This tree is a native of Australia, and its wood is said to be not inferior to mahogany. F. Amboinensis is a native of the islands of Hitu and Ceman. The spiny part of the fruit is formed into rasps. It was on this account called by Humphius, Arbor radulifera.

FLESH.


This mineral is composed almost entirely of silica. It is almost all imported from Britain, being exceedingly rare in India. It is used, when calcined, anew ground, in pottery; also for gun-flints, for which purpose the yellowish-grey flints are preferred. In India the chaledonic quartzes are used instead of flint.—Waterstone.

FLOATING ISLANDS occur in the lake of Kashmir. One occurs in Lake Derwentwater in England.

FLOATS are much used for rafting timber, and they are formed of many vegetable substances. Saccharum sara reeds are much employed, also the bamboo and the fruit of the baobab.

FLOODS.


Of these, the traditions of nations mention several. One Hellenic tradition is known as the flood of Deucalion, son of Pronoucheus, who built the ark, which rested on Parnassus in Thessaly. A similar legend of Asia Minor was connected with the deluge of Iconium, and was localized at Olympus, the highest peak of Western Asia. Missionaries in China have attributed the inundations alluded to as occurring in the reign of Yu, the founder of the first Chinese dynasty, B.C. 2207, to the flood of Noah. The flood of Noah is supposed to have occurred in the year of the world 1565, that is, about B.C. 2328 or 2344. The Aryan Hindu tradition of this great flood are distinct, but involved in their mythical religion. Their Matsya or fish avatar is a version of that event disguised in oriental fiction. One account is given in the Satapatha Brabmana of the Rig Veda; another tradition is in the Mahabharata, where Brahma is the actor; a third in the Bhagavata Purana, and a fourth in the Matsya Purana, both of them indicating Visnun. Disastrous river and sea floods are of very frequent occurrence in India and China. Even the ordinary rain floods are eminently disastrous. A correspondent of the Englishman mentions that, when returning on one occasion from Kishengahr, he found the whole country under water. He got into a fishing dingy, and was rowed straight across country, nothing to be seen out of water but the villages, which looked like islands in a sea; the very parapets of the bridges in the road under water, and but for the trees at the roadside, nothing could indicate that such a thing was. All the crops gone.

Hebrew flood in Samaritan text, D.C. 3044 Brahmanical flood, 3101 Chinese flood, 2052 A.D. At Baghdad, half the city inundated from overflow of the Euphrates.

990. At Baghdad, nearly three-fourths of the city inundated from overflow of the Euphrates.
FLOODS.

908. Persian Gulf, severe eruption following earthquakes, several cities destroyed, and new islands formed.

1763. Baghdad overflowed by inundation of the river.

1868. Tigris again overflowed, and did much damage.

1876. Baghdad again inundated, after appearance of red flame.

1291 and 1304. Damascus inundated by overflow of river Jordan.

1842. The city of Kaffa besieged by rebels, and embankments destroyed and city inundated, during which 300,000 persons perished.

1763. Burhanpur overflowed by the river Tapti from heavy rains, a quarter of the city inundated, and one-tenth of the houses destroyed.

1765. Heavy floods in Behar and Bengal, and in 1769 and 1770 rain scanty.

1770. Great flood in Eastern Bengal.

1832. Great destruction in Calcutta from rain and floods.

1784. Some of the N.W. Provinces suffered greatly from floods after a great drought.

1787-88. Floods in Behar and N.W. Provinces, said to have Balesar 17,474 people and 100,000 head of cattle. Rain of 1787 began early, and continued late, particularly in Bengal, Jessore, Nuddan, and Behar. About 1st October a tremendous storm of rain and wind swept over W. of the N.W. Provinces, followed by floods which ran across almost all Bengal, and the crops largely destroyed. In Rangpur, in 1787-88, the excessive rains in the Himalayas, followed by wet weather in the district, caused the Tista to rise and its riverine rapids to sweep over the district; whole villages entirely disappeared, and multitudes of people and cattle perished; and on the 24th December, just as the rice was getting into ear, a cyclone with torrents of rain and destructive violence席卷ed the district, and the whole of Rangpur was lost, and in the Panga pargana half the population was gone. In the same year, 60,000 of the inhabitants fell victims to famine following on floods.

1800. Great floods.

1815. August. Floods occurred on the coast of Canara and Malabar.

1831-32. A flood occurred in the delta of the Ganges on October 8, 1831, when 90,000 lives were lost; nearly 80,000 people drowned; in 1832, 2000 in the same neighbourhood.—As. Jl. 1833.

1832. At Coringa a great and very destructive inundation.—Beng. As. Soc. Journal, 1834, xiv. p. 239.

1833. November. At Canton, excessive rain, and 15,000 houses were swept away, and 15,000,000 people inundated.

1837. On the Tapti at Surat, on August 6, 1837, 5000 houses were said to have been destroyed, the loss estimated at between 30 and 40 lakhs of rupees ($300,000 to $400,000) and a lakh and a half was estimated at Bombay to supply the sufferers with grain.

1838-39? The Ganges once rose 45 feet above the usual level; swept away Burree Bund, and laid a town four feet under water, and, according to an account, it appeared in the Agra Ukhbar August 30, 1839.—As. Jl. 1839. Inundations at Hussingabad were mentioned in As. Jl., April 1839, and a description of that at Agra in the As. Jl. 1839.

1839. December. Great floods, caused by a cyclone, swept 9 feet above the level of Coringa village; the inundation covered 30 miles of country, and above 7000 people were drowned. £100,000 worth of property destroyed; at sea 7000 lives.

1841. The Indus seemed to have been for some time ponded back, when a terrific flood swept over Attock and all the country around. Dr. Falconer gave an account of it in H. As. Trans. 1843, x. and Journ. xii. p. 362. It occurred from the giving way of a glacier. The body of a woman dressed in sheep-skins was thrown ashore at Attock, and supposed to be a Tibetan; 10,000 lives were saved. (As. Jl. 1841, xxxiv. p. 194.) Captain Abbott gave an account of it from lips of natives in the H. As. Trans. 1841, x. p. 220. From hundreds of villages and towns, including Khryabid and Attock, thousands of human beings and cattle were swept away. In the Hazara country, artillery guns with many hundreds of infantry and cavalry were lost; a whole camp with troops and Aghan bazaar is said to have been swept away.

1845. Great floods in China, destroying the shores of the Yellow Sea, submerging whole provinces.

1849. Dr. Buist gave an account of that of 1849 in Edin. Phil. Jl. 1851; Bl. As. Trans. 1851.

1856. Provinces nearly destroyed by overflow of the Irawadi.

1866. In Puri, during the 32 years ending in 1866, there were 24 years of excessive rains, but in 1866 floods swept over nearly all the Puri districts; in one particular, 5000 persons were drowned, 12 lakhs of solid land were suddenly turned into a sea from 7 to 9 feet deep, and thousands of families floated about in canoes on bamboo rafts, and on trees, and many perished. In 1789-90, 1777, 1788, 1866, 1874, and 1877, there were great floods in the province, and in the famine of 1866 was felt in the Twenty-four Parganas, in Nadiya, Hugli, Dacca, and Murshidabad; and Orissa was devastated. The numbers who perished will never be accurately known. The estimate has been about one-fourth of the entire population. In 1867. A great sea-wave in a cyclone broke along the coast at Malaputapatam, and caused enormous loss of life and property.

1871. Northern great floods.

1872. In Kandesh and Nasik, great floods, attributed to the destruction of the forests.

1875. In Bengal, heavier floods than in 1871.

1875. In N.W. Provinces, disastrous floods, causing loss of life and destruction of property.

1875-76. The river Tons and the Jumna rose, and the waters of the Jumna entered Allahabad. On the subsidence of the floods, it was found that 772 villages had been destroyed or damaged, 185 lives lost, 1949 head of cattle and 926 sheep and swine drowned, and the total damage estimated at nearly 14 lakhs of rupees.

1876. In northern provinces of China great floods.

1876. In October 1876, a tidal wave, consequent on a hurricane which swept Bheel Bungo, in the district of 200,000, and great destruction of property.

1878. For four months up to March, in Ceylon, a succession of floods.

—Edge in Load. As. Trans. 1836, ii. p. 342; Dr. Buist's Catalogue.

FLORA.

FLORA of the South and East of Asia has been largely described by some of the most eminent of the botanists of the world, whose names will be seen under the article Botany. But the most complete recent view given of the plants of this South-Eastern region is by Drs. (Sir) J. D. Hooker and T. Thomson in their Flora Indica. There is a striking resemblance between the vegetation of tropical Africa and tropical Asia; but India contains representatives of every natural family on the globe, a very few small American, Australian, and S. African orders being the chief exceptions. Many North African or Arabian forms, such as Peganum, Harmac, Fagonia cretica, Balanites ,Egyptiaca, Acacia Arabica, Alhagi, Grangea, Calotropis, and Salvadoria Persica extend through the drier parts of India; and others, Cleome, Balsamodendron, Astragalus hamatus, Cucumis colocynthis, Bertholletia, Anticharis Arabica, etc., have a less extensive range. In the humid parts of tropical India, as in the impenetrable green jungles of the equable and rainy Malay Peninsular, of Eastern Bengal, the west coast of the Madras Presidency, and of Ceylon, the flora contrasts strongly with that of the drier parts of the intertropical zone, and still more so with the loosely timbered districts of Central India and of the base of the Western Himalaya. Many genera and families, as most palms, Cycas, Diplopteronaceae, except Vatica, Aurantiacae, Conna-
raccaceae, Meliaceae, Myrtaceae, Rubiaceae, Ebenaceae, and many more, which are sensitive to cold, are comparatively local when found beyond the tropics. Many Leguminosae (viz. Bauhinia, Acacia, Erythrina, Butea, Dalbergia, and Milletia), Bombax, Vatica, Nauclea, Combretaceae, Verbenaceae, Lagerstroemia, Grislea, Jasminaceae, and Bignonia Indica, are indifferent to the cold of winter provided they experience a great summer heat; and they advance far beyond the tropics, and lend a more or less tropical aspect to the flora even of the base of the North-Western Himalaya, in lat. 35° N. On the other hand, the perennially humid forests are uniformly characterized by the prevalence of ferns; and at elevations below 5000 to 7000 feet, by the immense numbers of epiphytal Orchideae, Orontiaceae, and Seitanicaceae. They contain a far greater amount of species than the drier forests, and are further characterized by Zingiberaceae, Xyridaceae, palms, Pandanaceae, Dracaena, Piper, Chloranthus, Urticaceae, especially Arctocarpus, and Ficic, Araliaeae, Apoecynaceae, shrubby Rubiaceae, Aurantaceae, Geroncinaee, Anonaceae, nutmeg, and Diptercarpaceae. The bulk of the flora of the perennially humid regions of India, as of the whole Malay Peninsula, the Upper Assam valley, the Khasya mountains, the forests at the base of the Himalaya from the Brahmaputra to the Nalahar coast and of Ceylon, are of one type, which includes a very large proportion of the Indian genera.

In India the number of peculiar families largely represented in it is very limited; the Aurantiaeeae, Dipteraceaeae, Balsaminaceae, Ebenaceae, Jasminaceae, and Cyrtandraeaceae are the only orders which are largely developed in India, and sparingly elsewhere, and of these few contain one hundred Indian species. The total number of Indian species are estimated at 12,000 to 15,000. The species are much scattered. It is believed that nowhere in India could more than 2000 flowering plants be found in a radius of ten miles; and there is in India an almost complete absence of absolutely local plants. The plains of India are everywhere poor in species; and such as abound in individuals are usually of a woody character. Indeed, there are few of the families in which the vegetation of the more accessible parts presents so little beauty or such short seasons of bloom. The great number of 222 British plants extend into India. Many North African and Arabian forms occur. Several Australian species are found in the Malay Peninsula. Many of the Himalaya, Neillgherries, Khasya, and Ceylon species are found in the Malay Peninsula and in Java. Gaultheria umbrularia extends from the N.W. Himalaya to the Java mountains; and common to India and Java are Sedwickia cerasifolia, Griff., Marlea, Cardiopheris lobata, several oaks and chestnuts, Antideminee, a willow, and Myrica. The Chinese type is abundant in the temperate region of the Himalaya, and plants of N. America west of the Rocky Mountains also occur. An immense proportion of annual plants, which vegetate during the last rainy seasons in the plains and ascend the lofty mountains, are uniformly distributed throughout India. Of these the most conspicuous are Gramineae, Cypereaceae, a vast number of small Leguminosae and Scrophularineae, Composite, some Labiateae, Amaranthaceae, Convolvulaceae, and Acanthaceae.

**FLORA.**

**Belta of Vegetation.**—The flora of the Himalaya mountains, including that of the most northern parts of China, shows an almost complete identity with the genera found covering the elevated belt of the Himalaya. If we commence with the bases of these mountains, and pass successively through the several belts, and (analogous to what takes place between the parallels of latitude of 40° to 45°) experience the rapid decrease of temperature and the quick succession of vegetable productions, we first find a vegetation similar to that of the southern provinces of India. The agricultural products consist of rice, millet, amaranth, an esculent arum, ginger, turmeric, a little cotton, and sugar at the season, succeeded by wheat, barley, and buckwheat in the cold-winter months. Along with plantains, oleander, and some of the orange tribe, we meet also with some species which were long considered peculiar to China, as Marlea begonifolia and Houttuynia cordata, with species of Chloranthus, Incarvillia, and Hiptage. On ascending, we pass through different gradations of vegetation, until, reaching the regions of the oak and rhododendrons, which is immediately succeeded by that of pines, we meet another mild region, with a flora which must approximate to that of the mountains of the central provinces of China. For here we find the Chinese genera Abelia and Eurya, with Stantonia, Kadura, Hovenia, etc., and it is in the midst of similar vegetation that the tea-plant is everywhere found. Dr. Royle notices the similarity of products of the Chinese tea districts and the Himalaya. He says, as the camphor, varnish, wood-oil, and tallow trees constitute a part of the natural riches of China, so we have in the Himalayas and at their foot, Camphora glandulifera, containing solid grains of camphor in its wood. Melanorrheaa usitata, Woll., yields abundance of excellent varnish; besides Rhus vernicifera, the varnish tree of Japan, which is common in the Himalaya. Wood-oil is yielded by several species of Diptercarpus; oil is obtained from apricot seeds, and from Prinsepia utilis in China, as it is in the Himalaya; and paper of the Daphne Cannabina is also a product common to both, as also the butter of Bassia butyracea, which is found at Almaten and in Turkestan.

The winter months of the colder northern countries have a corresponding cold season in India, during which ex-tropical cereals, wheat, barley, and more rarely oats, with various kinds of pulse, are cultivated; and many wild plants appear, very many Cypereaceae, grasses, and such aquatics as Myriophyllum, Potamogeton, Vallisneria, Zannichellia, Lemna, and others. The mountainous regions of Afghanistan are rich in Himalayan forms, and contain an immense number of European and Persian plants, which find their eastern limits within the British Himalaya; and many plants are found in those mountainous regions common to Europe and the Himalaya. Nepal, Bhutan, East Tibet, and the Khasya mountains present a flora which has much in common, and in a geographically-botanical point of view is one of the most important regions in India. If not in all Asia. In the Himalaya, the genera Rhododendron, Monotropra, Pedicularia, Corydalis, Nepeta, Carex, Spirea, Primula, Cerasus, Lonicera, Viburnum, and Saxusrica attain their maximum of development. The majority of the Afghan and Tibetan plants are also on the one hand natives respectively of
the Caspian steppe and N. Persia, and of Siberia on the other.

On the Himalaya and on the isolated mountain ranges of the Peninsula of India, on the heights of Ceylon, and on the volcanic cones of Java, many plants occur, either identically the same or representing each other, and at the same time representing plants of Europe not found in the intervening hot lowlands. A list of the genera collected on the loftier peaks of Java raises a picture of a collection made on a hill in Europe. Still more striking is the fact that Southern Australian forms are clearly represented by plants growing on the summits of the mountains of Borneo. Some of these Australian forms extend along the heights of the Peninsula of Malacea, and are thinly scattered on the one hand over India, and on the other as far north as Japan. Along the Himalaya, at points 900 miles apart, glaciers have left the marks of their former low descent; and in Sikkim Dr. Hooker saw maize growing in gigantic ancient morasses. Plants on the Himalaya and Neighberrics, Ceylon, and the Khasaya mountains, and in the Malay Peninsula, and the moist and more equal parts of India, are identical with those of Java. The genus Calamus, Orchids, Areceaee, Zingiberaceae, and ferns are especially abundant; the genus Grammatophyllum, the wonderful Nepenthaceae, or pitcher plants, of which solitary species occur in Madagascar, Ceylon, the Seychelles, Celebes, and the Moluccas.—Powell; Darwin, Origin of Species, 3d ed. p. 403; Wallace, i. p. 138; Hook. and Thomson, Pl. Ind.

FLORA COCHIN-CHINENSIS, a botanical work by Fr. Loureiro.

FLORES, called also Ednie or Mangerey, an extensive island of the Archipelago, 201 miles long from E. to W., and from 42 to 45 miles broad. Flores Head is in about lat. 8° 44′ S. and long. 122° 50′ E. It is so named from the Portuguese word Flor, a flower. Flores Island is the fifth in a line E. from Java due S. of Celebes, and of volcanic formation, and affords the first example of a race of men seemingly intermediate between the Malay and Papuan, but partaking far more of the physical form of the former than of the latter. The complexion is a good dark yellower than that of the Malay, the nose flatter, the mouth wider, and the lips thicker. The hair is not lank as in the Malay, but buckles, without frizzling as in the Papuan. The stature is the same as that of the Malay, that is, short and squab. Bugis settlers in the island told Mr. Crawford that Flores is inhabited by six different nations, speaking as many different languages. The Ende, the Mangari, the Kio, the Roka, the Konga, and the Galeteg,—names all derived from the principal places of their residence. The coast is occupied by the Malay or brown race; but in the interior is a people with frizzled hair, and a similar frizzled hair people live in the mountainous parts of Solor, Pintar, Lombata, and Ombay. Captain Keppel gives the following translation from a Dutch journal:—On the island of Flores there lives a race, called on the south coast Rakka, who not only devour their enemies, but with whom custom requires that the son shall cut the body of his deceased father in pieces, and sell the flesh to the inhabitants at the high price of its weight in gold. This flesh is greedily eaten by the people as a great delicacy. If the father was heavy and of great size, the son considers himself particularly fortunate. The population of Endore, on the same island, is also very greedy of human flesh. But these cannibals confine themselves to the heart, which with incredible dexterity they extract from the body, by giving a blow under the left shoulder-blade. It is then cut into very small pieces, eaten completely raw by the bystanders who belong to the same race. Capt. Keppel adds, 'I am not able to corroborate this.' Galeteg is a locality in the island of Flores, occupied by a race so called.—Horsburgh; Bikmore; Keppel's Ind. Arch. ii. 149; Crawford.

FLORICANS are birds of the tribe Prioreostres, family Otididæ, bustards and floricans, which occur in many parts of India, and to the N.W. of Afghanistan. They are, like the bustard, speckled, greyish-coloured birds; the males have plumes, and change their plumage in the breeding season. The little bustard of Europe is said once to have been called the Flanderkin, which may be the source of the name. The species are now arranged under the genus Sypherodites.

S. Bengalensis, Gmel., Bengal Florikan.
Otis delicosa, Gray. O. Himalayana, Vog.
Charass, Charaj, or Dabar of . . . Nepal.
Charas, . . . Hind.

In the breeding season, the whole head of the male, which is very fully crested, the neck, breast, and lower parts and thigh coverts, are of deep glossy black, the plumes of the breast elongated, forming a full breast tuft, and the feathers of the neck in front also lengthened; back a rich olive buff, with zigzag markings, and a black dash in the centre of each feather. It is 24 to 27 inches long. It is found throughout Lower Bengal, north of the Ganges, north-easterly to the foot of the Himalaya, into Dacca, Assam, Tiparrah, Sylhet; north-westerly into the valley of the Jumna, Rajputana, the Cis-Sutlej States, and parts of the Panjab. It frequents large tracts of moderately high grass. The sexes live apart, but near each other.

S. auritus, Lath., Lessor Florikan, Otis fulva, Syke.

Chulla eheh, etc.

The Bilis name means grass partridge; and it gets its Tamil name from being usually found in fields of warragu (Paspalum frumentaceum). The lesser florikan, also called the common florikan and black florikan, is 19 to 21 inches long. In winter dress the male closely resembles the female, but has always some white on the shoulder of the wing; when in full breeding plumage, the male in its head, neck, ear-tufts, medial wing coverts, and all its lower plumage is deep black, the chin alone being white, the rest of the plumage fulvous. The different character of the plumage in the two seasons has led some to write on this bird under two names. It is found throughout India, from the extreme south to the foot of the Himalaya, and frequents long grass in preference to any other shelter.—Jerd. Birds of India, ii.

FLOUR OF WHEAT.

Fleur de farine, . . . Fr. . . . Flour de farine. . . . Port.
Sammel-mehl, . . . Godhuma phaha.
Tringa-pittaya, . . . Singh.
Lumat.
FLOWER BATTEN.

Meal of wheat flour. When sifted, maize is the finer part of wheat flour, and soogie the coarser. In India, the unsifted wheat flour, the atta, does not readily leave into wheaten bread, for which the sifted soogie, the semolina of Italy, is solely used. The natives who use wheat use the atta or unsifted flour, and the maize where obtainable. The farina of wheat is used as food in British India. Rice-flour is somewhat in use; in the Archipelago that from the sago tree is very extensively consumed. There were samples of seven varieties of flour made from roots in Paasuruan, and called kering, kalata, jawi, sajo, arrowroot, katela, bat, and flâwek, in the cookery; either used medicinally or as delicacies for invalids. See Bread; Farina; Food; Semolina; Soogie.

FLOWER BATTEN, a very hard, fine, close-grained, heavy Ceylon wood. Its surface shows a pleasing mottled pattern.

FLOWER DEW-WATER of the Chinese is the dew gathered at early morning from certain allaceous plants, and especially from that of the sweet flag. The Mahomedan herbalists of India gather it from the stalks of the rice plant.

FLOWERS.


Flowers are largely used by Mahomedans, Hindustan Buddhists, and the followers of Confucius in their worship of the deity, or of their idols, and in their offerings for the dead. Flowers do not seem to have been similarly employed at any time by the Hebrew race; and in Acts xiv. 13, when the priests of Jupiter came to Paul with an ox for sacrifice and with garlands, is the only mention of them that occurs. At the time of worship, the Hindu priest places a garland of flowers upon the idol. Whether Paul and Silas were to be the objects of worship, to receive the garlands, or the ox intended to be slaughtered, in either case the practice would be commensurate to that of the Hindus. There are numerous flower shops for their sale. But though so largely used in the south and east of Asia, the Aryan Hindu does not seem to care for flowers as beautiful objects of nature. He could not sing,—

"In summer, autumn, winter, or spring,
A flower to me is the loveliest thing.
That hath its birth
On this chequered earth,"

though Western poets delight to dwell on the love that Eastern races have for the natural flowers. Hindu ladies sometimes wear a little mirror, called chury, of polished metal, in a ring on the thumb, and amulet Hindu the lotus is the emblem of female beauty. In a tale, it is mentioned that Krishna, who had concealed his passion from the parents of a damsel whom he secretly visited, unfortunately chanced to find her in the midst of her relations. How great her distress! He was averse to departing without expressing his passion; words were debased, both were embarrassed, love prompted:

"He with five flowerets tips the ruthless darts, Which through five senses pierce enraptured hearts; Strong Champa, rich in odorous gold; Where Amer, nurtured in her salt mould; Dry Nag-keser, in silver smiling; Hot Kittikam, our sense beguiling; And last, to kindle fierce the scorching flame, Love-shake which gods bright Vela name."

Clitoria ternatea is sacred to Durga; Joneasia asoca is a sacred plant. The cax plant is sacred to Siva. Baka, a kidney-shaped flower, is sacred to Vishnu. The flowers of Minimus elengi are favourites for garlands. The Chrysanthemum Indicum has a favourite garland flower. Datura fastosu is sacred to Siva. Christians in India largely use the flowers of the Tagetes erectum on Christmas day. Hibiscus rosa-Sinensis is sacred to Kali; Jasminium pubescens is sacred to Vishnu; Nerium odorum to Siva; Nelimium spectiosum, the Indian lotus, is sacred to Brahma, Vishnu, Siva, and their consorts, Saraswati, Lakshmi, and Parvati; Nytanthes arbor-tristis is sacred to Siva. The Buddhists make great offerings of flowers at their temples, but these are not used by the Buddhist priest for decking the person. The Mahomedans use them largely for laying over the tombs of their departed. The beautiful purple and fragrant Bignonia champaca is a pagoda plant, its fragrant and sweet-smelling Millingtonia or bela tree, the cork tree; and the Justicia pieta is a shrub admired for its beautiful, varieegated green and white leaves.

'Jesu!' blessed be the God for flowers!—For the bright, gentle, holy thoughts that breathe Out from their odorous beauty, like a wreath Of sunshine on life's hours.'

—Jafrey; Ains. Ward's Hindoos; Hardy, Eastern Monachism; D. L. Richardson.

FLUGGEA, a genus of plants of the natural order Euphorbiaceae. F. leucopus is a small tree of many parts of India; F. retusa grows on the banks of the Jumna; and F. virosa grows on the Jumna and westward to the Siwalk Hills and Bhotiya, and in the latter is cultivated as a horticultural plant of China and Japan; its mucilaginous tubers can be used for food.—F. v. Mueller.

FLUGGEA VIROSA. R. Phyllanthus vir., R. Girk, . . . HIND. Vanuhati, . . . SUTLEJ. Bats of. . . SUTLEJ. Peri pastwane, Th. Ind.

Occurs on the Jumna, on the Siwalk, Salt Range, and Trans-Indus. The wood is close-grained and strong. Its fruit is edible by man and beast; its bark is astringent, and is used to intoxicate fish. —Roxb.; Stewart; Voigt; O'Sh.

FLOR SPAR, Derbyshire Spar, Native Fluoride of Calcium, Taie- shih-yang, CHIN., occurs in the Canton and Che-kiang provinces of China. Its powder is given in sterility and lung diseases. Found in great beauty and abundance in Derbyshire and other places.—Smith; Mason; Waterstone; Faulkner.

FLY. In the Hebrew Scriptures are several Hebrew words which in the English version have been translated fly, viz. Orub, Zebub, Deurrabah, Ta'ira, Sarabin, Bak, Cimim. The Orub or Orab, a swarm or assemblage, is translated in Psalm cxv. 31 swarm of flies, but in Exonus viii. 21, also Psalm lxviii. 45, is employed to allude to the mosquito. The Hebrew Zezon of Ecclesiastes x. 1 and Isaiah vii. 18 is not identified. Flies are undoubtedly very troublesome in tropical Asia at some seasons, but an infusion of quassia
sweetened with sugar placed on a plate destroys them. The eye-fly, a minute insect which comes at seasons inside houses, and clusters in myriads on any hanging thread, can be destroyed instantaneously in masses, by forming a cone of paper like that for a grocery packet, and, setting fire to its edges, bringing it under the thread where they cluster; their wings are singed as they try to escape out of the burning circle. In Italy, large bundles of a common viscos plant (Erigeron viscosum, *Linn.*) dipped in milk, hung up in the rooms, attract all the flies. Glossinia morisians, the Tsetsy fly of Africa, whose bite is fatal to the horse, the bullock, and cow, is supposed to be the same as the Tsalt sia or Zimb of Abyssinia, mentioned by Bruce. See Ban; Fleabane.

FLY-CATCHERS, birds of the family Muscie- pidae and sub-families Muscieopina and Myiogrinae, comprising the genera teitra, myzura, leucocera, chelidophryx, cryptolopa, hemichelydon, alsonax, ochronula, cunyias, cyornis, musciepula, nitidula, niltava, antipes, sipisia, and erythroperna, birds with large gaps, which subsist on flies and small insects. Many of them have bright-coloured plumage. Tetrica paradisi, the Hussini bulbul, has its tail feathers greatly elongated, and is a beautiful object when in flight. The red-breasted, species of cyornis, occur through all the East Indies; and the beautiful sapphire-headed fly-catcher, Musciepula sapphira, is found in Nepal and Sikkim.

FLYING CATS, a name given to the flying mammals of the genus Galeopithecus, of the family Galeopithecideae, and natives of Malayana. They are usually called flying lemurs. They have a membrane connecting their limbs, but they have not the power of sustaining flight. They have pectoral mamms, and sleep with their head downward. They are insectivorous and insec<torious.—*

FLYING FISH. Jerad ul bahar, Arab. The flying fish are species of the genus Exocetus, belonging to the abdominal Malacopterygii, forming part of the family Exociiidae. Their pectoral fins are very long, nearly equal to the length of the body. The fish, to escape its enemies, rises into the air, and the pectoral fins vibrate while wet, and re-vibrate as often as they pass through a crest wave, wetting the fins afresh. There are many species,—Exocetus volitans, *Linn.*; E. solitarius, E. evolans, E. oxilens, E. mesogaster, and others. The E. volitans is usually 10 or 12 inches long, but E. solitarius attains to 15 or 20 inches at greatest. They are captured by torch-light in the West Indies. At the island of St. Helena they are from 15 to 20 inches long; are used there, as in the West Indies, for food, being very sweet and of delicate flavour. E. solitarius is so named from not being seen in large schools like the *E. volitans*, and it appears to have other specific difference. When watching these fishes closely, as they passed under the stern of the ship, Dr. Bennett remarked that the extension of both the pectoral and ventral fins was effected with an audible rustling noise, and only a vibratory motion was perceptible afterwards; nor was there any expansion and contraction of those organs during flight, after the first effort. Had there been any percussion of the pectoral fins, it would have been distinctly visible, owing to the proximity of the fish; indeed, to produce percussion of the fins, it would be requisite to have an elaborate muscular apparatus; and as, on dissection, such is not found, the theory of that action of the fins may be considered unsupported by facts. The fish, when keeping in a direct line of flight, proceed for a great distance; but when this is deviated from, and it turns round (which action was apparently performed by the tail, not by the pectoral fins), it only proceeds about the length of a yard, and drops into the water. The greatest length of time he had seen them fly has been 32 seconds, and their longest flight from 200 to 250 yards. The flying fish has a steady flight, resembling that of a flock of swallows; but when pursued by enemies, or frightened by the passage of a ship through the water, it loses this graceful style of volition, its flight becomes hurried, irregular, stiff, and awkward,—a kind of scrambling pace,—and it frequently drops into the water, and again renewed its flight in the same unsteady manner. When a large shoal of them emerged at the same time from the sea, it was perceived that some of them dropped immediately, others passed over a distance of 20 yards and fell, while the rest continued a steady flight of 170 to 200 yards, and passed out of sight. Their long pectoral fins or wings have the rays united by a fine delicate membrane, flexible and transparent; the colour of this membrane varies; and some have the ventral fins so large as to appear to have four wings.—Collingwood; Gatherings of a Naturalist in Australia, by G. Bennett, M.D., p. 15; Captain B. Hall's Fragments.

FLYING FOX.


FLYING FOX is the name by which Europeans in India designate the fruit-eating bats of the family Pteropodidae, of the S.E. of Asia, Malayalnian islands, as far as Australia. The females of some have nursing pouches. The species are Pteropus Edwardsi, Pt. Leschenaultii, Pt. edulis of Java, and others; also Cynopterus marginatus, C. alflinis, Pt. minimus from Tenasserim. The flying fox of Australia is Pt. poliocephalus. They roost during the day on trees, generally in large colonies, to the number of many hundreds, often, occupying a single tree. Towards sunset they fly off, sometimes to great distances, to trees that are in fruit, for the garden fruits, and those of the mim, ber, and fig trees, returning at early dawn from their hunting grounds to their roosting tree, where they wrangle to get the best places, striking with their wing claw, screaming and cackling, and circling round the tree till they can hook on. They hang with their heads down.—Ken.

FLYING GURNARD. Of these fishes two species occur, one the Dactylopterus orientalis of the Indian Ocean, the other D. volitans of the Mediterranean, Atlantic, and West Indian seas. A singularly beautiful species raises itself into the air by means of its large pectoral fins, which they are said to move in their flight. See Dactylopterus; Trigla.

FLYING HORSE, species of Pegasus.

FLYING SQUID, Loligo sagittatus.

FO, the Chinese name for a Buddha. for Sakya Muni, and proceeding Buddhas. One fo is said to have gone from India to China, B.C. 1200. See Adam's Peak; Buddha; Kwang-yin.
FODDER for cattle in India is of various plants,—the root of the harial grass, Cynodon dactylon; the stalk of the joar, Sorghum vulgare, cut into small pieces; the straw of several grasses, Paspalum scrobiculatum, Pennisetum s htmlspecialchars Sundari, Panicum Italicum, P. frumentaceum, P. miliare, and Eleusine Ægyptiaca. Buffaloes are also fond of kans (Saccharum [impertata] spontaneum) and its varieties. The pasture grasses in Hurriana are celebrated for the herbs of cattle which graze on them, species of Panicum, Pennisetum, Cenchrus, Chetetera, Valsa, Daetlyolium, Chloris, Eleusine, Achrchne, Fos, Ergrostis, Andropogon, species of Phragmites and Rottbilia. A clover or lucerne, shotal, is grown; also siniji, but this principally by Europeans for their horses and other cattle. Cattle are usually fed (besides grass) on bhusa, or, as it is called in Panjubi, turi, the chopped straws of wheat and barley; besides which they get karni, the dried stalks of joar (Sorghum vulgare); this latter when green and fresh is called charri. Chopped leaves of the ber (both Ziaxylus vulgaris and Z. nummlaria), called malla, are much used, and are said to be fattening. In Shahpur and one or two other districts, turnips are grown very extensively for feeding cattle during the cold weather, and they often attain a larger size than in Europe. The manikan grass, the wild sawkun, phog, the seed of Caligo-num polygonum, is used, and also as human food in the Panjubi in times of famine. Dhaman or anjan (Pennisetum combrichodes) is considered the best grass for cattle, rapidly improving their condition and increasing their produce in milk. Jhang is a scented grass, probably Andropogon schenchatnus; and the root of A. muricatum forms the khaz khas used in matting tatties and screens for cooling the atmosphere. The leaves and fruit of many trees are used; and Dr. J. L. Stewart names 64 trees which furnish fodder in the Panjubi.

As fodder for camels, there are Khazya stricta, D. C.; Salsola species—Calotropis Hamiltonii, W.; Euphorbia nereolus, L.; Sueda species—Tri-anthema micrantha, Xxygyphillum simplex, etc. The camel eats the Nerium odorum, but it invariably proves fatal.

The farmers of India have ever long trusted to the natural grasses, and this has led to the impression that India is very deficient in green crops suitable for the food of cattle, and that, from June to October especially, there is nothing to be got but roots; and the great difficulty has been to find some crop that will yield green fodder during the months of June, July, and August.

In the vicinity of Madras, at the experimental farm at Syadapat, Mr. Robertson in 1870 reported that with care an abundance of green fodder may be maintained all the year round; that an acre of land thus laid out will amply keep two or three horses, and double that number of cattle; that, with abundance of water, harial grass is the most profitable crop; with a tolerable supply, Sorghum saccharatum pays best; with water only from October to May, yellow chulum and cumbo will maintain an abundant and continuous supply of green and nutritious food. He says the cumbo crop afforded an abundant supply of green fodder at a time when it was usually very scarce. Under irrigation it is possible to grow yellow chulum so as to afford a supply of green fodder throughout the hot season; but there are large tracts of country to which irrigation cannot be applied, in which cumbo will yield excellent green fodder during the season when the stock-feeder finds it the most difficult to maintain the condition of his animals. Cumbo sown in the middle of June received no water other than the ordinary rainfall. Within six weeks it reached an average height of not less than eight feet, and was then cut for green fodder. The cattle eat it greedily, and fattened much more rapidly than usual on other green crops. The weight of the fodder reached the high figure of 1800 pounds per acre. It would be the easiest thing in the world to arrange the planting of the cumbo as to obtain a constant supply of fodder at all times. On one occasion, when several advantageous circumstances met, the harial grass at this place grew to the enormous height of eight feet. At the People's Park, Madras, three crops of excellent grass are cut each year, on areas that are not irrigated. Yellow chulum is cultivated almost everywhere as a grain crop; but at the Government farm it was cut several times for fodder, and then allowed to go on to grain. The plant grows so rapidly, that in sixty days after planting the stems will be seven feet high and about an inch and a half thick. This stem is perfectly succulent, and is eaten with avidity by cattle and sheep. Horse grass grows almost anywhere, requires a minimum of care, and gives a good dry fodder or hay. Without other help than the ordinary rain, it will give 7000 pounds of green fodder per acre—a fodder which is very fattening, and well liked by cattle and sheep. If abundance of water be available there is nothing like harial grass. At the Kistnaupett sewage farm, an acre of land produces not far short of 100,000 pounds of green fodder in the twelve months.—Powell; Royle, Him. Bot. p. 491; Mason; Williams' Middle Kingdom; Hooker's Him. Jour. ii. p. 289; Mr. Robertson's Report.

FEICINICULUM DULCE, Hwai-hiang and Siau-hwin-hiang of the Chinese. In China, the stalks and leaves are eaten as a condiment.—Smith.

FEICINICULUM PANMORI. D. C.

Anethum Panmori, Roxb.

Razeenaj, ... Arab. Badian, ... Pers.
Mooree, ... Beng. Moodori, ... Sansk.
Goowa mooree, ... M. D. Deowadooroo, ... Singh.
Sonf, Mayuri, ... Hind. Perun siragam, ... Tam.
Panmohori, ... Pedda gillaka, ... Tel.

Cultivated in India. Flower small, bright-yellow, February; fruit, March and April. Seeds of a pleasant, sweet, warmish taste, used for culinary and medicinal purposes, especially among the natives.—Roxb. ; Voigt; Beng. Disp. p. 208.

FEICINICULUM VULGARE, fennel, Anethum feniculum, L.

Sonf, ... Hind. Bchik-ka-rash, ... Pers.
Adas, ... Jav. Shohi kire, ... Tam.
Bchik-badian, ... Pers.

Cultivated in the plains of the Panjubi as a pot herb. An essential oil is prepared in large quantities from the seeds. The odour of the entire plant is strong and persistent; that of the roots disappears on drying.—Stewart; Fo-Hi, the Great, Brilliant (Tai Hao), in China, is a king who cultivated astronomy and religion. Fo-hi is the first named sovereign of the Chinese, but the date of his reign is not ascertained. Yu, the Great, is the first monarch.
FOH-KIEN.

of whose reality there is no doubt, and his accession occurred about 2000 years before the Christian era. Husbandry and silk-weaving were the earliest of the arts cultivated by this people: the former was introduced by Shin-nong, the immediate successor of Fo-hi, and silk-weaving by an emperor; and to both of these the Chinese perform sacrifices on their annual festival days. Husbandry is still highly honoured, and annually, at a grand festival in honour of the spring, the emperor ploughs and sows a field. The Egyptians, Persians, and Greeks held games and festivals, mingled with religious ceremonies, at seed-sowing, as Hindus now do; and in England formerly the festival of Plough Monday was held, during which the plough light was set up before the image of the patron saint of the village.—Eliott.

FOH-KIEN, a Chinese district, lies on the coast, and is bounded on the N.E. by Cho-kiang, on the N.W. by Kiang-si, and on the S.W. by Kwang-tung. Its surface is estimated about 57,000 square miles, and its population is about fifteen millions. Foh-kien is the principal black tea district of China. The remnant hills of Bohoe, are distant 152 miles from Fu-chu-fu, the capital of Foh-kien.—Sirs China and Chinese.

FOIL. In the arts, metals are rolled and beaten out into thin leaves; and large quantities of gold, silver, tin, and brass foils are so used in India, Burma, and China for ornamental work in their temples and in ornaments. In jewellery, foils are manufactured by painting a sheet of silver foil with the required colour mixed in a transparent varnish, and placed beneath a precious stone.—King.

FO-FO-KWE-KI, a Buddhist work. See Sakya.
FOLIA MALABATHRI, F. tamalapathri, and F. Indica of Dioscorides and Pliny, supposed to be Cinnamomum tamala or C. nitidum, Nees; also thought by some to be the leaves of piper betel.

FO-LING, a root so called by the Chinese, comes from the rhubarb region, and formerly well known in the European Pharmacopoeia, under the name Radix China.—Yule, Cathay, i. cvii.

FOLK-SONG S. The influence of Brahmanic literature does not seem to be much felt among those who have transmitted the folk-songs from generation to generation. Though many of them refer to the subject of death, there is scarcely a word about transmigration. When the ordinary Hindu is about to die, ‘he looks away from ceremonial and obscure tradition unto the great God; for throughout these songs there is but one God to the mind and heart of the worshipper.’ The Dasari are professional minstrels, who beg and sing in streets and villages and at the gates of pagodas, and, being all worshippers of Vishnu, invoke their one God by that name. Some of the folk-songs ridicule the distinction of caste and the pretensions of the Brahmans, and broadly state that with God there is no distinction of persons, except after the eternal laws of right and wrong. Others, life is looked upon as a mere illusion or maya. It is a time of probation; but it is so much easier to do wrong than to follow right, that in reality men may be carried farther and farther away from God. Throughout many of these there breathes an overwhelming sense of sorrow and failure that calls forth our deepest compassion. Some of the folk-songs of Southern India might be sung by Bengalis of the Braho Samaj, many of the strains containing devout aspirations after goodness, wise proverbs for the regulation of life, and earnest thanksgivings to the deity for blessings received.—Pioneer.

FOLLIS, a copper coin, appears to be the same as the Arabic Fals, Flatus, formerly known in Spain as the name of a small coin, Foliz.—Yule, Cathay, i. p. 491.

FOO-CHIOO-FOO, in lat. 26° 7' N., and long. 119° 15' E., is the capital of the Chinese province of Foh-kien. It stands on the banks of the river Min, about 38 miles from the sea. It means happy district. The celebrated fingered citron is cultivated in great perfection, and the district around is the great camellia garden of China. Its ixoras and hydrangeas are also handsome. Early in spring the hill-sides were covered with a beautiful daphne with lilac flowers (Daphne Fortunt, Lindaey), and Azalea ovata, Lindii; and Buddha Lindleyana has its long spikes of purple flowers hang in profusion from the hedges. The hill side, covered with the Glycine Sinensis. One of the most beautiful shrubs of Northern China, the Weigela rosea, was first discovered in the garden of a Chinese mandarin near the city of Ting-hae, loaded with noble rose-coloured flowers. In the hedges the beautiful spring flowering Forsythia viridissima, with several species of wild roses, Spirea Revesiana, clematis, Glycine Sinensis, and the lovely Azalea Sinensis.—Fortune's Residence among the Chinese, p. 27; Wanderings, p. 317.

FOOD.


The food of man is obtained from the vegetable and animal kingdoms, but in by far the larger portion from plants. Flesh and bone and blood, when chemically analyzed, yields the following elementary substances—carbon, hydrogen, nitrogen, oxygen, sulphur, phosphorus, potassium, sodium, calcium, magnesium, iron, manganese, aluminium, copper, chlorine, fluorine, and silicon. These ultimate elements occur in the human body variously combined into compounds, with very different physical properties and chemical relations. Carbon, hydrogen, oxygen, and nitrogen are called organic elements, because no animal cell and no vegetable cell can grow unless the whole of these elements exist. The substances belonging to this group which enter into the food of man are cellulose, starch, sugar, and oil, Cellulose, forming the external membrane of the cells of all plants, is found in all food derived from the animal kingdom. Though similar in composition to starch, it differs from starch in being insoluble; but, as they feed largely on it, it must be extensively taken up into the system of herbivorous animals, carbon, hydrogen, and oxygen, and must be similarly adapted by the human stomach, perhaps with some difficulty, as carrots, turnips, radishes, uncooked vegetables, etc., are not readily digested. Cellulose can be converted into starch by sulphuric acid. Substances yielding starch enter very largely into the diet of man and of the lower animals; and man starch is generally partaken of in the form of
flour, either of grains, of roots, and root-stocks, of the stems and in the seeds of plants. There are few or no vegetables that are eaten that do not contain starch. It is found in turnips, carrots, potatoes, cabbages, parsnips, beans, peas, wheat, barley, oats, and the rest of the cerealia, in all seeds and fruits; but, as with the sago, Portland sago, tapioca, cassava, the various arrowroots, potato-starch, sago starch, etc., it is first, before being used, separated from the other vegetable elements. Starch has the property of combining with water at a temperature of 190°, and forming a gelatinous mass, in which water it seems more digestible. The carrot, turnip, parsnip, cabbage, and Jerusalem artichoke, owe their dietetic value to the starch which they contain; as also the roots of the Arum maculatum, Orchis mascula, inulin from the Inula helenium, lichen starch, found in almost all kinds of Algae, and in the seaweeds. One of these sea-weeds, the Placomena tenax, is known in all the Eastern seas.

Sugar can be converted into alcohol, and it exists in plants dissolved in the water which they naturally contain. It is taken into the animal system to maintain the animal heat, and persons and animals get fat on it. Cane sugar consists of carbon 12 atoms, hydrogen and oxygen each 9, and water 3. Sugar is obtained also from beet, the maple, the birch, the various palms, from the Caryota ureas, Phoenix sylvestris, Ph. dactylifera, Corrypha umbrellifera, Palmyra, Arenga saccharifera, coconut, etc.; it exists also in milk, the grape, in the fruits and other sweet parts of plants, and in the stems of all grasses. The yield of sugar from beet is 8 or 9 per cent.

The alcohol obtained from these by fermentation, in the form of spirits, wines, and beers, is largely used. Although resembling sugar in composition, its effects on the animal system are very different. It acts on the nervous system as a stimulant and narcotic; it is very valuable in medicine, and also of great value to people in health, exhausted by long-continued mental or bodily labour. In excess alcoholic substances are injurious; but amongst the earliest discoveries of every race has been the art of producing intoxicating stimulants. In India, boasting of an ancient civilisation, opium, hemp and its charas resin and bhang, the various palm-wines, the beers from millets, and ardent spirits from cereals and from palm-wines and sugars, have been used from time immemorial. As Mr. Cornish observes (page 15), the effect of those articles in moderation is probably rather beneficial than otherwise. Opium-eating and ganjah-smoking are both occasionally carried to excess, and the consequences, in injury to the nervous tissues of the body, are very similar to those resulting from the excessive use of ardent spirits. The moderate use of all these agents, however, appears to prevent undue waste of tissue in the body, and to render the frame less susceptible to the action of those impalpable but pestiferous poisons which are so prevalent in the soil and atmosphere of tropical countries. The craving for the use of these things undoubtedly arises out of some urgent requirement in man's nature, and the extent to which they are used in Southern and Eastern Asia is perhaps greater than in any part of Europe; in some parts certainly it is so.

Of the nutritious proteinaceous or nitrogenous articles of diet, it may be added that the substance called protein is the basis. Protein is the first element that appears in the development of the vegetable cell. It is consequently universally present in plants. It also constitutes the chief material of the tissues of animals. In the vegetable and animal kingdoms it assumes various forms, and is called albumen, fibrine, and caseine, according to its physical and animal properties. Herbivorous and granivorous animals derive this constituent directly from the vegetable kingdom; the carnivorous obtain it from the plants, through the animals that they eat. Man obtains his supply of protein from both sources.

The fat of animals, ghi or clarified butter, and the sesame oil are almost the sole oleaginous or fatty substances used in the S. and E. of Asia for food. Pure butter is rarely used. These consist of carbon 11, hydrogen 10, and oxygen 1, and their value in the animal economy is as heat-producers, for which they are superior to sugar or starch. The oleaginous principle, however, seems also to aid in the development of the proteinaceous tissues, and to act as a kind of preparation for their growth. In disease, oils are of undoubted value.

Many tables have been published showing the chemical composition of the various substances used as food by man. Perhaps those by Dep. Inspector-General Mayor of the Madras army, Dr. Lyon Playfair, and Dr. Watson, are the most valuable.

The following table shows the composition of food in 100 parts:

<table>
<thead>
<tr>
<th>Food</th>
<th>Nitrogen &amp; Forming Substances</th>
<th>Non-nitrogenous, Heat-giving Principles</th>
<th>Mineral Matter</th>
<th>Carbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>4.50</td>
<td>7.90</td>
<td>0.60</td>
<td>6.94</td>
</tr>
<tr>
<td>Butcher's meat</td>
<td>22.30</td>
<td>14.30</td>
<td>0.50</td>
<td>25.16</td>
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<tr>
<td>Bacon, pork</td>
<td>8.36</td>
<td>62.50</td>
<td>0.50</td>
<td>53.99</td>
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<td>Fish</td>
<td>14.00</td>
<td>7.00</td>
<td>1.00</td>
<td>9.15</td>
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<td>17.00</td>
<td>66.00</td>
<td>0.70</td>
<td>45.50</td>
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<td>63.50</td>
<td>2.00</td>
<td>40.50</td>
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<td>13.00</td>
<td>70.50</td>
<td>3.30</td>
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<td>72.25</td>
<td>1.04</td>
<td>30.41</td>
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<td>0.00</td>
<td>19.40</td>
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<td>80.25</td>
<td>1.08</td>
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<td>83.67</td>
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<td>0.50</td>
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<tr>
<td>Potatoes</td>
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<td>22.10</td>
<td>1.00</td>
<td>12.20</td>
</tr>
<tr>
<td>Carrots</td>
<td>0.14</td>
<td>11.61</td>
<td>0.51</td>
<td>8.40</td>
</tr>
<tr>
<td>Turnips</td>
<td>0.64</td>
<td>1.90</td>
<td>1.62</td>
<td>5.20</td>
</tr>
<tr>
<td>Parsnips</td>
<td>0.21</td>
<td>17.10</td>
<td>0.58</td>
<td>8.60</td>
</tr>
<tr>
<td>Mangel-wurzel</td>
<td>1.00</td>
<td>12.26</td>
<td>1.14</td>
<td>5.50</td>
</tr>
<tr>
<td>Cabbage</td>
<td>1.75</td>
<td>4.05</td>
<td>2.20</td>
<td>2.65</td>
</tr>
<tr>
<td>Cocoa (mhl)</td>
<td>9.56</td>
<td>85.76</td>
<td>2.70</td>
<td>68.50</td>
</tr>
<tr>
<td>Sugar</td>
<td>2.00</td>
<td>60.00</td>
<td>0.00</td>
<td>42.50</td>
</tr>
<tr>
<td>Suet, fat, butter</td>
<td>0.90</td>
<td>100.00</td>
<td>0.00</td>
<td>79.00</td>
</tr>
<tr>
<td>Bread</td>
<td>6.83</td>
<td>48.65</td>
<td>1.51</td>
<td>25.19</td>
</tr>
<tr>
<td>Cheese</td>
<td>31.02</td>
<td>25.30</td>
<td>4.90</td>
<td>36.80</td>
</tr>
<tr>
<td>Beer</td>
<td>0.65</td>
<td>9.17</td>
<td>0.20</td>
<td>4.33</td>
</tr>
</tbody>
</table>

The following table shows the relative quantities of nitrogenous matter contained in various cereals and pulses. The abundance of this element, together with substances abounding in carbonaceous or starchy matter, in 100 parts, varies in specimens from different parts of India:
The following lists of cereal grains and pulses give the names of the principal food-plants cultivated in the Madras Presidency:

<table>
<thead>
<tr>
<th>Name</th>
<th>Nitrogenous Matter</th>
<th>Starchy Matter</th>
<th>Fatty or Oily Matter</th>
<th>Moisture</th>
<th>Mineral Constituents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cicer arietinum</td>
<td>18.05</td>
<td>61.70 to 62.30</td>
<td>1.46</td>
<td>1.48</td>
<td>3.05 to 3.12</td>
</tr>
<tr>
<td>Arhar, Cajanus Indicus</td>
<td>19.83</td>
<td>61.00</td>
<td>2.32</td>
<td>2.35</td>
<td>2.30 to 2.32</td>
</tr>
<tr>
<td>Matta, Gram sativum</td>
<td>21.88</td>
<td>58.38</td>
<td>2.16</td>
<td>2.20</td>
<td>2.20 to 2.23</td>
</tr>
<tr>
<td>Urad, Dolichos Sinensis</td>
<td>31.50</td>
<td>59.34</td>
<td>1.10</td>
<td>1.12</td>
<td>1.20 to 1.27</td>
</tr>
<tr>
<td>Kuthli, Dolichos uniflorus</td>
<td>24.06</td>
<td>59.52</td>
<td>0.35</td>
<td>0.38</td>
<td>2.37</td>
</tr>
<tr>
<td>Guwar, Cyamopsis psoraleae</td>
<td>29.88</td>
<td>12.41</td>
<td>0.31</td>
<td>0.33</td>
<td>0.93</td>
</tr>
<tr>
<td>Blat, Suja hispida</td>
<td>37.44</td>
<td>12.41</td>
<td>0.33</td>
<td>0.37</td>
<td>0.31</td>
</tr>
<tr>
<td>Urd, Phaseolus radicatus</td>
<td>22.48</td>
<td>12.41</td>
<td>1.16</td>
<td>1.18</td>
<td>1.10</td>
</tr>
<tr>
<td>Mung, Phaseolus mungo</td>
<td>29.88</td>
<td>12.41</td>
<td>0.64</td>
<td>0.66</td>
<td>0.90</td>
</tr>
<tr>
<td>Moth, Phaseolus aconitifolius</td>
<td>23.80</td>
<td>12.41</td>
<td>0.64</td>
<td>0.66</td>
<td>0.90</td>
</tr>
</tbody>
</table>

L. decorana, ten-cornered gourd.
L. vulgaris, red lentil or boll-gourd.
L. pipo, the pumpkin.
L. melo-pipo, or squash.
Momordica charantia, or small gourd.
Ocimum vulgare, mint.
Raphanus sativus, or radish.
Solanum melongena, chilli pepper.
S. lycopersica, tomato or love-apple.
Trichosanthes anguina, the snake gourd.

With a rapidly-increasing population in all parts of the world, the production of food is an object of the first importance to all classes; and the vegetable substances from which man derives his principal sustenance, necessarily occupy the main attention of the cultivator, while the products form most important staples of domestic and foreign commerce. The breadstuffs of commerce consist of the nutritious cereal grains, the tuberous rooted plants, and the farine yielded by trees. Amongst these are wheat, barley, oats, rice, maize, millet, Guinea corn, the sago of palm, the plantain and banana, the bread-fruit tree, the edible root-crops and starch-producing plants which are a somewhat extensive class, the chief of which, however, are the common potato, yams, cocoy or eddo, sweet potato, the bitter and sweet cassava or manioc, the arrow-root, sago, and other plants yielding starch in more or less purity. Wheat, maize, and rice form very important articles of commerce, and are largely cultivated for local consumption and export, a portion being consumed in the arts, as starch for stiffening linens, etc., and for other purposes not coming under the term of food. The kind of bread in common use in a country depends partly on the taste of the inhabitants, but more on the sort of grain suitable for its soil. The Chinese use little bread, and that little is generally of wheat-flour. In the Punjab, wheat, barley, and millets are consumed in nearly equal proportions; in Berar, Bombay, and Mysore, eighty-two per cent. of the food-growing area is sown with millets; in Bengal, Assam, and Burma, rice is the chief product; in Madras, one-third rice and two-thirds millet. Cakes of wheat-flour prepared on the girdle are a common article of diet amongst the races of Northern and Central India. Further south, on the table-lands of the Peninsula, the natives of India use unleavened cakes made of the great millet, Sorghum vulgare, the spiked millet, Pennicillaria spinata; and the very poor of the people use the hard ragi, Eleusine coracana, in the form of cakes or porridge. Barley is occasionally used to the westward. Cakes made of the flour of the Indian corn, the Zea mays, are scarcely used in India. They are rather less

FOOD.
nutritions than those made from wheat, but more
fattening, in consequence of the greater quantity
of oil contained in it. Along the seaboard,
however, of all the south-east of Asia, in the
deltas and valleys of the great rivers, the Indus,
the Ganges, the Brahmaputra, in all Bengal, all
Burma, in the delta and valley of the Irrawady,
in all the seaboard and near the great rivers of
China, rice is the longed-for article of diet, boiled
and eaten alone, or with a little animal food, or
with condiments made into curry or chutni; or
it is made into the cakes which are sold through
the bazars under the familiar name of ‘appa’ or
hoppers.
In the interior of India, on the table-
lands, other grains and pulses are used, such as
wheat, the various millets, and Indian corn; and
in Northern India, the pulses, chick-pea, the
lentil, and dhal are all in extensive use. But
well-to-do people prefer rice, which is more and
more used as increasing prosperity enables them
to obtain it, and the people speak of using it once
or twice a day or week; to indicate their larger
or smaller means. The facility with which it
may be cooked, the little cost of cooking it, and
its lightness in digestion, are its great recommenda-
tions, the cleaning, grinding, and cooking of
the harder grains costing much time and money.

Rice flour is scarcely ever made into fermented
bread, although it is said to be occasionally mixed
with wheat flour for that purpose. The superior-
ity of wheat to all other farinaceous plants in
the manufacture of bread is very great. Its
essential constituents are starch, also called farina
or fecula, gluten, and a little sugar and albumen.
It is occasionally adulterated with alum, which is
added to whiten the flour, and to enable it to
retain a larger quantity of water. Suit is also
employed in the adulteration of wheaten bread,
to whiten the flour, and enable it to hold more
water, and carbonate of magnesia is fraudulently
used to obtain the same result. In Eastern and
Southern Asia, the ordinary wood bread, the well-
known sago, is made from the starch granules
contained in the piths of several species of palms.
In the Archipelago, sago flour and prepared sago
are largely used as an article of diet, alike for the
robust labourer and for the invalid, and in a
prepared form is extensively exported for the use
of the sick and the nursery. Amongst the Arabs,
burghoul consists of wheat boiled with leaven, and
then dried in the sun. The dried wheat is pres-
served for a year, and boiled with butter and oil.
Leavened bread is called Khubz khamir, and
unleavened bread Khubz fair.

The seeds of all the Gramineae, those of the
damage alone excepted, are capable by cultivation
of becoming alimentary. The value of grains,
generally speaking, is directly as the size of the
caryopsis, and inversely as the thickness of the
pericarp. When the grain abounds in perisperm,
it is heavy; when the envelope is thick, the grain
is, on the contrary, light. Thus—

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 of wheat</td>
<td>450 grains</td>
</tr>
<tr>
<td>100 of rye</td>
<td>200 grains</td>
</tr>
<tr>
<td>100 of barley</td>
<td>335 &quot;</td>
</tr>
<tr>
<td>100 of oats</td>
<td>250 &quot;</td>
</tr>
</tbody>
</table>

As Dr. Royle has forcibly pointed out, the
slightest enlargement in the size of a grain, or the
least increase in the productiveness of an ear of
corn, when extended into the agriculture of a
country, will infinitely increase its resources and
revenues.

The chemical composition of the grain influences
materially the quality of the resulting bread.
If the gluten be absent, no fermentation takes
place in the dough; if the gluten be in excess,
the bread is heavy and acid. Wheat flour may
be considered the type of all that is suitable for
alimentary purposes, and in the degree of devia-
tion from this standard consists the inferiority
of the other grains. It is very largely used by
the races occupying Hindustan, Rajputana, the N.W.
Provinces of India, in the Panjab and in Afghan-
istan, but almost wholly in the form of unleavened
cakes or chapatti, prepared on the girdle; for
most of the Hindu people of India, as a rule, are
prohibited by their religion or prejudices from
partaking of food prepared by others, many of
them even of food of which others have seen the
preparation; and as the stricter Mahomedans
object to use leavened bread, from the use of the
toddlies or fermented palm-wines as leaves
unleavened bread, or porridge of flour and
water, with perhaps the addition of salt, are alone
employed. As a leaven for bread, the substances
employed are yeast in Europe, and the palm-
wines or toddies in Eastern and Southern Asia;
and the substitutes for these are sacqui-carbonate
of ammonia, carbonate of soda and hydrochloric
acid, or carbonate of soda and tartaric acid.

Several calculations have been made to ascer-
tain the available supply of food for India. Sir
Arthur Cotton estimates that two acres of rice
land will feed seven people for a year; and Mr.
Fischer, the manager of the Shevagunga estate,
considers that a family of five will consume under
6 lbs. of grain per diem.

It is estimated that in the Madras Presidency,
15 millions of acres of dry land, and 54 millions
of wet land, are devoted to the production of food-
grains; also that an acre of the best rice land
will yield from 1080 Madras measures in the
southern districts, to 1200 measures in Godavery
and Kurnool, i.e. from 30 to 33 cwt.; and the
worst rice land in those two districts varies from
300 to 533 measures, i.e. from 8 to 14 cwt. Pro-
bably, therefore, 20 cwt. of paddy or rice in the
husk, or 10 cwt. of cleaned rice, may be taken as
a good average of produce of irrigated land; and
190 measures, or about 5 cwt., that of dry land,
whether it be devoted to Eleusine coracana or
ragi, Penicillaria specata or cumbo, and Sorghum
vulgar, or cholum, or any other of the unirrigated
crops which form the food staple of the poorer
classes. One acre of wet land will thus produce
as much food as two acres of dry land; and 66
million cwt. of rice, and 75 million cwt. of dry
grains, was the estimated amount of produce in the
Madras Presidency, when it had a population of
26,539,052 souls. This allows about 8 cwt. per
soul per annum. Mr. Dalrymple estimated the annual
yield at 129 million cwt., or 14 lbs. daily for each
person; whereas he considers that a family of
five can subsist on 7 lbs. per day, and three acres
of superior land supposing one acre to be irrigated,
or four acres of unirrigated land, would support
such a family for a year. The Madras Presidency,
with a long seaboard, both imports and exports
largely food articles, the exports exceeding the
imports five or six times, and perhaps one-third
of the population occasionally use animal substances,
as additions to their vegetable diet.

Animals of every class — quadrupeds, birds,
fishes, reptiles, insects, and their larvae — are used
by man as food, and are acknowledged to contain a very large amount of alimentary substances, and these are classed as the nutritious proteinaceous or nitrogenous articles of diet. There are few living creatures in the south and east of Asia, which some one or other of its multitudinous races do not use as food,—the horse, the bullock, the tiger, and all the cat tribe; the dog, birds of all kinds, birds of prey excepted; almost every fish, frogs, snakes, ants, beetles, and their larvae; crustaceans and molluscs of every kind; and the bodies of animals that have been killed or have died, are all utilized. The Hindu Brahman and Rajput and Vaiyasa, as a rule, will not eat animal food, and no Hindu can eat the cow without ceasing to be of the four Hindu castes; but all Sudras Hindu eat sheep, goats, fowls, mutton, fish; and the servile races eat nearly all quadrupeds, many birds and reptiles, amongst them field-rats and frogs. The majority of northern Brahman may and do eat animal food, generally mutton or fish, though priests, while officiating as such, perhaps do not. For although most Hindu priests are Brahman, all Brahman are not priests, amongst them the tribe of Levi furnished the priesthood, so among Hindus it is largely furnished from that of Brahman.

Flesh or fish of any kind is, however, but little eaten by any race or caste in India, owing to their inability to buy it. Even Mahomedans, who may eat all but the pig, only use these in small quantities as a relish with their mainly vegetable diet. Rajput and the hunter and wild races are keen sportmen, and eat what they can kill in the chase, even the flesh of the wild pig; and all sects and all classes of Hindus and Mahomedans make use of milk, curds, and ghee. Scrupulous Hindus will not eat fowls or their eggs. The animal food of which the greatest number would partake is fish, but, as already explained (Fishermen, p. 1120), from this the salt monopoly debars them, though the seas and rivers teem with this form of animal life. From the climate and the gelatinous character of the fish, to be cheaply supplied they need to be quickly cured, and Fishermen effect this take brine with them on their trips. The consumption of fish is merely limited by the cost of the supply. In Canna, too, neither sheep nor oxen are reared, and fish alone are available. The Famine Report scarcely alludes to the available fish supply. But, in para. 69 of their Report, the Famine Commissioners show that the seasons of drought in India have always been followed by scarcity or famine:—

1769. Drought in Bengal.

1770. Famine in Bengal.

1772. Drought in Bombay and Madras.

1783. Drought in Upper India.

1783. Famine in Madras; scarcity in Bombay.

1784. Famine in Upper India, from the Karammee to the Satlej.

1791. Drought in Bombay, Hyderabad, and Madras.

1792. Drought in part of Madras; intense famine in Hyderabad and Southern Mahratta country; severe famine in Dekhan, Gujarat, and Marwar.

1802. Drought in South Hyderabad and in Dekhan.

1803. Drought in Ceded Province of N.W. Provinces and in Central India.

1804. Famine in N.W. Provinces, and scarcity in Central India and Rajputana.

1806. Drought in central districts of Madras, from Trichinopoly to Nellore.

1807. Famine in central districts of Madras.

1812. Drought in Gujarat, Cutch, and Kattyawar, and to some extent in Madras; also in Rajputana and Central India.

1813. Famine in Cutch, Kattyawar, intense in some parts of Rajputana; scarcity in parts of N.W. Provinces and of Madras.

1823. Drought in Madras.

1824. Drought in Bombay.

1825. Scarcity in Bombay, chiefly in Gujarat and Northern Dekhan.

1832. Drought in the northern districts of Madras, except Ganjam; in the south of Hyderabad and the Southern Mahratta districts.

1833. Drought in north part of Bombay, in Rajputana, and in Dehli, Punjab, and N.W. Provinces.

1833. Famine in northern districts of Madras, intense in Guntur; scarcity in Hyderabad and Southern Mahratta districts.

1834. Scarcity in North Dekhan and Gujarat, in Rajputana, the Hidiro district of the Panjab, and the trans-Jumna districts of N.W. Provinces.

1837. Drought in N.W. Provinces, eastern states of Rajputana and south-east part of Panjab.


1838. Intense famine in Central Doab and trans-Jumna districts of N.W. Provinces; also in Delhi and Hissar districts.

1839. Scarcity in North Dekhan, Cutch, and Kattyawar.

1841. Seanty rainfall in Dekhan.

1845. Scarcity in Dekhan.


1853. Food scarcity in Cutch, and in adjoining parts of Madras, Hyderabad, and Bombay.

1860. Drought in part of N.W. Provinces and Panjab, and neighbouring states of Rajputana.

1861. Famine in Upper Doab of N.W. Provinces, Delhi, and adjoining parts of Rajputana; scarcity in Cutch.

1865. Drought in northern part of Madras, in South Hyderabad, and north part of Mysore, in the S. Mahratta districts, and all W. Bengal.

1866. Famine in Bellary, Gajum, intense in Orissa and Behar; scarcity in all adjacent parts of Madras, Mysore, Hyderabad, and Bombay, and in Central and Western Bengal.

1868. Drought in Rajputana, trans-Jumna districts of N.W. Provinces, north and south-east districts of Central Provinces, and in Panjab from Jumna to Indus.

1869. Famine intense in Western Rajputana, and in the trans-Jumna districts of Allahabad and Delhi and Hissar; scarcity in adjacent parts of N.W. Provinces and Panjab, Gujarat, Cutch, and N. Dekhan, and also in the north and south-east districts of the Central Provinces.

1873. Drought in N. Behar, and in part of N.W. Provinces and Oudh.

1874. Famine in Behar, and scarcity in the strip of N.W. Provinces and Oudh adjacent.

1876. Drought in all Madras and Dekhan, Mysore, and south part of Hyderabad, Cutch.


1877. Famine in Madras, Mysore, Bombay, and Hyderabad, very intense.

1878. Famine in N.W. Provinces and in Kashmir; scarcity in Panjab.

In the famine of 1873-74, the cost to the Government of British India was Rs. 6,75,95,700, and in that of 1876-78, Rs. 11,19,43,200.

Buddhists. — The use of animal food is not absolutely forbidden to the followers of Buddha, and all of this faith in Burma use enormous quantities of fish, reptiles, and crustaceas; even the more strict of them, though they may refuse to take life for food, eagerly use flesh when they can get animals killed for them, or find them dead from accident or disease; and the cow, buffalo, and horse are all eaten. The Burmese eat the
tiger, the hyena, camel, monkey, jerboa rat, field rat, bate of kinds, flying fox, flying lemur; and amongst other creatures, the Palolo viridis or sea-worm, and Cordyliæ palmariæ, the grub of the palm palmæ, are eaten by one or other of the races in the south and east of Asia and Australia. In Burma, tiger flesh sells for five annas (7¼d.) a lb. Perhaps no race in the world so largely utilize vegetable and animal substances as the Burmese and Chinese,—the great rivers which intersect the country, and the extended seaboard, providing a large supply of fish, molluscs, and crustaceae.

Chinese.—The great staff of life in China is rice, which is either eaten dry or mixed with water, so as to resemble a soup. Out of rice they make their chief intoxicating liquor, which, when good, is something like strong whisky, both in its colourless appearance and its smoky flavour. Vegetables are largely consumed, such as the sweet potato, yams, melons, peas, beans, turnips, carrots, etc. Of their fruits, the orange, litchee, loquat, and mango, are much in use. Their favourite drink is tea; and the favourite animal food of the poor is pork, the taste for which is national. There is a maxm prevalent among them, that 'a scholar does not quit his books nor a poor man his pigs.' The flesh of the bullock, sheep, deer, dog, cat, wild cat, rat, and horse is eaten, but, compared with that of swine, it is a rarity. Fish are eaten in great abundance, either fresh, dried, or salted; and they rear great quantities of ducks and various species of fowl for the table. The comprehensive principle on which Chinese diet is regulated, is to eat everything which can possibly give nourishment. The luxuries consumed by the very rich consist of the edible birds' nest, beche-de-mer or sea-urchin, shark fins, fish maws, cow sinews, points of stag antlers, buffalo hides, which afford the gelatinous food considered so restorative. Amongst their delicacies also are dishes made of the larve of the sphinx moth, and of a grub bred in the sugar-cane. In China, the various modes of catching and rearing fish exhibit the contrivance and skill of the Chinese, quite as much as their agricultural operations. According to the Repository, at least one-tenth of the population derive their food from the water, and necessity leads them to invent and try many ingenious ways of securing the finny tribes. Great hand-nets and stake-nets are in use, also hand-nets with a diameter of 30 feet, which they throw with a swing over-head; and they teach coromants to fish and bring the prey to the boat. Amongst molluscs eaten, are the sepia, octopus, turbo, hippocus, tridacna, cerithium, arica, holothuria, species of monodonta. Amongst reptiles, the turtle and their eggs, tortoises, frogs, crocodiles, iguanas; amongst crustacea, prawns, shrimps, crabs; amongst birds, all but the carrion birds, and the edible nest of a swallow. Amongst other mammals, the Chinese eat the dog and cat; they and the Japanese eat whales. When Chinese fishermen take one of the huge rhizostoma, which abound on their coast, they rub the animal with pulverized alum to give a degree of coherence to the gelatinous mass.

Dead Animals. — Many of the Dher, Pariah, Mhar, and Chuchill or leather-workers of India eat creatures that die of disease. It is said that, in S. Africa, eating the flesh of animals that have died of peri-pneumonia causes in the eater a malignant putride, and that the virus is neither destroyed by boiling nor roasting. But, after minute inquiries throughout India, no injury seems to result from such food. In 1863, when many horned cattle died throughout Burma, of what was supposed to be the rinderpest ailment, there was a considerable amount of sickness and death from a typhoid fever; but whether eating diseased animals was the cause, was not ascertained.

Milk, butter, ghee, curds, poultry, eggs, mutton, beef and game, are eaten in some form by almost all nations in the S.E. of Asia. The adult Khassa, Garo, and Burmese wholly abstain from milk.

The extent to which vegetable food is produced in India may be estimated by mentioning that 56 per cent. of the population of British India are agriculturists, with 10 per cent. of labourers, most of whom also are employed in the fields. The area cultivated for food-crops is a little more than 1 acre for each individual in the Panjab; 0'76 of an acre in the N.W. Provinces and Oudh; in Bengal, 0'81; Central Provinces, 1'8; Berar, 1'75; Bombay, 1'4; Madras, 0'93; and Mysore and Burma, each 1 acre; and the produce of food-grain per acre is as under:

Punjab. . . . . 11 bushels, or 0'29 of a ton.
N.W. Prov. and Oudh, and Bengal, . . . . 13, or 0'36
Central Provinces, . . . . 8, or 0'21
Berar, . . . . 6, or 0'16
Bombay, ex Sind and N. . . . . 7, or 0'19
Madrass and Mysore, . . . . 11, or 0'3

In the Central Provinces, in 1872-73, the average produce of wheat per acre was in Hushangad only 267 lbs.; Sagar, 324 lbs.; Raipur, 452 lbs.; Narsingpur, 440 lbs.; and Jubbulpur, 600 lbs.—or from 4f to 16 bushels; and that of rice in Balaghat, 360 lbs.; Bilaspur, 426 lbs.; Bhandara, 448 lbs.; Raipur, 602 lbs.; Seoni, 654; and Chand, 675 lbs.—or from 6 to 11 bushels. With periodically recurring famines, and a population increasing at the rate of 1 per cent. per annum, the importance of increasing in India the yield of grain and fodder has become a matter for serious thought. Mr. Lawes of England having shown that in the four years 1874 to 1877 inclusive, in Great Britain, the average yield of 23 kinds of wheat (dressed corn) was as under:

Average bushels, 503 36 421 424
Aver. weight per bushel, . . . . 61½ lbs. 60½ lbs. 63½ lbs. 60½ lbs.
FOOL-SOLA.

The pig, which many races avoid, is used by the Naini Hindus of the Indian Peninsula, and by all the aboriginal races and humbler Christians. Most Hindus avoid crabs, but many eat shrimps. Eggs are eaten by many of the Hindus; and all Hindus partake freely of milk, which the Burman and Chinese in its natural state never touch. Hindus and Buddhists make food offerings to the deity, and bestow the first portion. With the Burmans the act of offering is the merit; and the quantities of food presented at the temple at Prone and at the great Shoo Dagon at Rangoon is so enormous, it is simply got rid of by being all thrown over the wall down the slope of the rock. Hindus make sacrificial offerings to the deity, the elements of sacrifice being a lamp, frankincense, camphor, and sandal-wood, which are burnt, and they eat the sacrificial offering, whatever it be. Food is often presented by Hindus to the pitri or manes of their ancestors; many of the races of Northern India, who follow Brahmanism, cook within a sacred circle, and a stranger stepping within it makes all unclean. A sect of Vaisnavas Hindus will not permit a stranger to cast a look on the food they cook, nor even to look on them while eating; and every Hindu of that sect above the rank of a labouring man, eats his food dressed in a sheet.

It is mentioned, when describing the meal noticed in Genesis xlili. 32, that they set one for himself, and for them by themselves, and for the Egyptians by themselves, because the Egyptians might not eat food with the Hebrews, for that is an abomination to the Egyptians; and so, amongst the Hindus, different castes will not even eat food cooked in the same earthen vessel. If a person of another caste touch a cooking vessel, it is thrown away. Similarly, in Genesis xliii. 34, it is mentioned of Joseph that he sent messes unto them from before him; and this is still the method among some Hindus. The dishes are not placed on the table, but messes are sent to each individual by the master of the feast, or by his substitute. Feasting is everywhere in the East a great social duty, in the manner described 1 Kings i. 8. Food is eaten with the hands, as in Matthew xxv. 29; and after meals, good-washing, as in 2 Kings iii. 11, and Matthew xv. 2. Mark vii. 5, Luke xi. 38.—Eng. Cyc.; Pocell; Anals, Indian Admin. xii.; Hunter's Rural Bengal; Crawfurd, Dict.; Dr. Cornish on Diet; Ward, Hindoos; M. E. J. R.; Fortune's Residence in China; Robinson’s Travels, ii. p. 132; Tomlinson; Hassall; Statistique des Cereales de la France, par Moreau de Jonnes, quoted by Simmonds. See Agriculture; Fish; Panine; Hubandray.

FOOL-SOLA. Beng. Aeschynomene aspera. FOONG-HANG, the Chinese phonix, a head ornament worn by Chinese ladies, composed of gold and jewels, the wings hovering, and the beak of the bird hanging over the forehead on an elastic spring.

FOOT.

The foot in most oriental countries is deemed the humblest part of the body. It is alluded to in 1 Kings ix. 9, where the Hebrews are mentioned to 'have taken hold of other gods.' When a person claims the protection of another, he casts himself down before him, and lays hold of his feet; and the expression is commonly used, though a person may not prostrate himself, 'I have taken hold of your feet.' 'I will not leave your foot.' When a person is called into the Burman monarch's presence, he is said to go to the golden feet, and a son and his parents will add that he kisses the feet of his mother.

Several oriental nations—Buddhist, Hindu, Christian, and Mahomedan—have marks on rocks, which they believe to be imprints of the feet or of the foot of people whom they reverence, such as that on Adam's Peak, Ceylon, or of Mahomed at the Kadam Rasul Hill near Hyderab. St. Augustine, when landing at Thaet, is said to have left the prints of his foot on the rock. One foot-print is shown as that of Jesus, in a small circular chapel covering the stone which bears the foot-print, on the summit of the Mount of Olives. The ancient Mexicans showed one of the god Tezcatlipoca, and the people of Samoa, one of the Navigator's Islands, showed one of Titi. —Peschel; Frere, Antipodes, p. 257.

FOOTBALL.

Khayy-Jon, , , Bum, Ballone, , , , , Sr. Ballen, .

Football is a favourite game with the Burmese, Malay, and Papuans. In Burma it is woven of rattan, hollow and elastic. The player keeps it dancing a little while on his foot, then occasionally on his arm or thigh, till suddenly he gives it a good blow with the hollow of his foot, and sends it flying into the air. Another player runs to meet it, and at its first bound catches it on his foot, and plays in his turn; six or eight young men form a circle. It must not be struck with the hand, but only with foot, ankle, knee, elbow, shoulder. The game needs agility, skill, and practice. Malay players stand in a circle, larger or smaller according to the number engaged; a ball made of split rattans, hollow, and about 6 inches in diameter, is thrown up by one; the person to whom it approaches receives it on the instep of his foot, and throws it into the air towards his nearest playmate, who in like manner sends it on to the next, and so on. If no player can reach the ball or if he ever loses it during the game, the ball is thus sent round from one to another an extraordinary number of times without falling; sometimes one player will himself, particularly when there are many onlookers, keep the ball in constant motion, receiving it in the fall, now on his foot, now on his knee, elbow, head, shoulder, etc. The ball is a perfect sphere, and is so light, it may be thrown almost with full force against any fragile object without causing injury. The introduction of this playing into Europe would be a great matter in households.—Journ. Ind. Arch. v. No. 11.


FORBES, MAJOR, author of Eleven Years in Ceylon, comprising sketches of the Field Sports and Natural History of that Colony, and an Account of its History and Antiquities, 1840.
FORESTED MEATs.

FORESTED MEATS, or unclean meats, have been amongst almost all races, many of the prohibitions being of the most fanciful kinds. The animals which the Hebrews were ordered to avoid are enumerated in Leviticus xi. and Deuteronomy xiv., viz. blood, animals dying of disease or killed by wild animals, camel, hare, bat, coney, swine, fish without fins or scales, eagle, caracara, osprey, glele, kite, vulture, raven, owl, cuckoo, hawk, night-hawk, swan, pelican, gyr-eagle, cormorant, stork, heron, lapwing, creeping things which fly. Mahomedans adhere largely to the above. They abstain from the animals that do not chew the cud, and divide the hoof; also from scaleless fish and from prawns. Many Brahmans and many Hindus do not eat animal food of any kind, and abstain even from onions from their flesh-like consistence; as also from fowls and their eggs. The Garo and Khasaya hold milk in detestation.

The Chinese and the lower castes of India are almost omnivorous; and Burmans, who are Buddhists, though they will not kill creatures for food, eat any creature which others kill, and eat almost every grain and vegetable. See Food.

FORESTS.

Forec,    F., Biaban,    PERS.
Forec, Wald,    GER. Floresta, Selvosa,    Sp.
Jangal,    IND. Orman,    TURK.
Floresta, Rosco,    It.

Drs. Roxburgh, Royle, Wallich, Gibson, and M'Clelland, for many years continuously, during the earlier part of the 19th century, urged the necessity for attention to the forests of India and Burma. A vast extent of forest land in Oudh, situated on the coast side of the Kerowlee river, was described by Dr. Royle as holding out the prospect of very valuable supplies by the year 1850, provided that means were adopted for preventing wanton destruction, and of allowing the young plants to grow up and supply the place of those which are cut down. Dr. Wallich drew attention to the forests then occupying the islands of the Gogra, commonly called Chandraee Cheko. He represented them as in every way deserving of being preserved for the use of Government, and protected from destructive depredation. The sissou and sal forests of the Dehra Doon were also recommended to be preserved, being as important for the stations in the north-west of India, as the forests of Oudh and Gorakhpur are for those in the south.

Dr. Gibson unceasingly advised the Bombay Government to preserve their forests, and to form plantations of hardy trees; Mr. Dalzell's efforts to preserve the Sind forests were unfruitful; in 1840, 1848, and 1878, Surgeon-General Balfour advised arboriculture.

In 1850, the British Association at Edinburgh appointed a committee to report on the probable effects of the destruction of tropical forests, and the report was presented the following year, 1851, at their meeting at Ipswich. A year afterwards, forest reserves were sanctioned for the Madras Presidency and for British Burma, and by Act vii. of 1865, the Government of India issued forest rules and penalties.

The forests of India had up to that time been injured by the fires of the kumari cultivators and cowherd races, and by reckless felling of wood merchants; whilst no systematic efforts were adopted to preserve or restore. Kumari cultivation has since been prohibited, the firing of forests to obtain fresh grass for cattle has been prohibited, and fire-paths formed, 40 to 50 feet broad, to cut off the fires. Great forest tracts have been reserved, new plantations formed, and seed dillibed in amongst the mass of vegetation.

The report of the committee had reference chiefly to the influence of forests on the climate and productiveness of a country; and it is now acknowledged that the indiscreet destruction of the forests of any country is apt to bring upon future generations three calamities,—the want of fuel, the want of water, and the want of timber; while the appropriation of forest land for purposes of cultivation would not benefit the revenue, as regards climate, the interests of agriculture, the progress of commerce, and the general prosperity of a province, doing so would gradually lead to the most serious consequences. Not only is the rain that falls economized and prevented from rapid evaporation, but the water which sinks into the ground is being continually pumped up from great depths by the roots of the trees, and exhaled by the leaves, thus actually moistening the neighbouring atmosphere in the driest weather, and benevolently affecting the crops of the neighbouring fields. In passing through a tamarisk jungle early in the morning, even in the driest weather, the whole of the foliage is found dripping,—not from dew, but from the water of exhalation brought up from great depths by the vital processes of vegetation; the whole of this passes into watery vapour in a few hours. If forests be cleared away, the neighbouring fields become exposed to the violence of parching winds, and liable to be covered with drifting sand, while cattle find no grazing and no shelter from the scorching heat.

The Sunderbun tract, extending over 3000 square miles, is a dismal swamp, growing timber trees and underwood, its most valuable tree being the Herticia littoralis. The western coast of the Peninsula of India, the country above the ghats in Canara, the Animallay and Pulney Hills, have famous forests, and Mulabar teak has always been held for its superior timbers to that of other places, and with which the dockyards and ordnance department was long supplied. The forests to the eastward of the Salwin river, in Martaban, when visited by Dr. Wallich, were very favourably reported on, for the supply of splendid bamboos as well as teak, for the extent of the forests, the size of their timber, and the facility of procuring it. Subsequently, Dr. M'Clelland reported in the forests of Pegu and Tenasserim, 85 species of soft white wood, many of them valuable either for their fruit, gums, oil-seed, or spices; others, for their close and compact structures, are employed in the manufacture of small ware, as a species of Naucia used for making combs, and two species of Erythrina yield the light charcoal employed in the manufacture of gunpowder. These light woods, useless as timber, belong to the family of the Umbrosae (including more than 20 species of Ficus) and Stephaniae, Laurineae, Rubiaceae, Myristicae, Anonaceae, Spombdineae, and Bignoniaceae, with odd species from other families. Of the remaining white woods: 25 in number, valuable for their strength and closeness of grain, 17 of them were thought fit for house-building, and 8, from the hardness and fineness of their
in rear of the babul forests. The dry belt of the Panjub has woods on the high land between the rivers, composed mainly of Prosopis, Salvadora, and capparis.

The woodlands of a portion of Rajputana are mainly composed of a beautiful tree, a species of Anogeissus, with small leaves and drooping branches.

Sandal-wood grows in the S. dry belt of Mysore. Outside the arid zones, the teak grows in the mountain tracts and west coast of the south of India, where also grow the blackwood trees, poon spar trees, angely, vengay, and irul; and the sal (Vatica robusta) grows in the extensive forests at the foot of the Himalaya, in forests in the Rewa territory, the eastern part of the Central Province, and the adjoining districts of Bengal.

The moist belt along the Himalayan range to Burma and Tenasserim, and that along the western coast of the Peninsula of India to the top of the glats, is covered with luxuriant evergreen vegetation. In the Himalaya are the forests of pines and firs. The deodar has its eastern limit in Kamaon, but is succeeded by the sal in Burma also which, the Pinus Khassayana, extends into Burma. The Ficus elastica, yielding caoutchouc, is found along the foot of the Himalaya from Sikkim to Assam, and more sparingly at the foot of the Khaya and Cachar hills. Assam also has the Mesus ferrea, Artocarpus chaplasha, and Lagerstroemia virgata.

In Burma there are extensive forests of Pinus Khassayana on the high mountains, large teak forests between the Salwin and Sitang, and magnificent evergreen forest vegetation in the moister valleys, where trees grow to a height of 200 feet.

Forests in British Burma cover 4,480,000 acres, or a total of 60,000,000 acres. Of this the teak forests take up 1,504,000 acres; and forests devoid of teak, but in similar localities, 2,945,920. The richest in teak are on the hills between the Irawadi and the Sitang. The destruction of the forests of Acacia catechu has been reckoned. Burma also yields the Xylica dolichocarpa. Teak plantations were commenced in 1856 on the river above Rangoon, and on the Sitang near Toungbo, intended to extend to 30,000 acres.

In Kamaon and Garhwal, the characteristic trees are the chin (Pinus excelsa) and the chair (Pinus longifolia). Below lie the great sal and bamboo forests, which have been much worked, but there is still much timber near the Kosi and Ramganga rivers.

The deodar forests of Gangotri and Jaunsar, N. of the Dehra valley, near the sources of the Tons and the Bhagirathi, the last leased from the Tirthan. In Gorakhpur, sal is the characteristic tree, mixed with terminalia and acacia.

The deodar forests are in the valleys of the Satluj, Beas, Ravi, Chenab, Jhelum, and their tributaries. The forests of the Chamba and Bassahr states are leased by the Government of India. The teak forests or preservs in the Panjub are, between the rivers, consist of about 8000 square miles. Plantations of sissoo and kikar have been formed at Changa Marga in the Bari Doab, 44 miles below Lahore; also on the Jhelum near Lodhiana, and near Delhi and along most of the irrigation canals.

In Oudh, the forests in the Khori, Gonda, and Bharatpur districts are strips cut off from the
Nepal forests on high ground along the Nepal frontier. They consist of sal, terminalia, and conocarpus, interspersed with open glades of grass land.

In the Central Provinces there are great tracts of jungle, but only a small part properly forested. The hills between the Narbada and Nagpur, though covered with trees, contain little timber of value. In the Central Provinces, 2880 square miles of forest tracts have been reserved, 11,000 square miles remain unreserved, and there are 10,000 square miles of timber tracts belonging to private individuals. The teak in the forests of the Mandla district, at the head of the Narbada river, has been ruthlessly felled. Thence to Raipur are extensive sal forests; and the Dela Kari forest near Pachmarhi is the most westerly position of the sal tree in Central India, but further west are remnants of the teak forests of Baitul and Hushangabad, from which the cities of Ujjain, Indor, and Malwa were built. The vast forests to the eastward, the magnificent teak along the Gdavery, and the great sal belt around Chattinga, extend across the centre of India from the head of the Narbada to Cuttack.

In Berar are 646 square miles of reserves. Mysore and Coorg have three great forest belts,—the evergreen on the Western Ghats, yielding angely, pon, ironwood, and blackwood; a moderately moist belt from 10 to 40 miles wide, on the eastern slopes of the ghats, yielding teak and sandal-wood; and a dry region on the eastern side of Mysore, on which grow the Hardwickia, Terminalia, and Conocarpus. In Mysore the reserves are 398 square miles. In Coorg there are 947 square miles, besides the Devada Kadu, or sacred forests.

Forests of Bombay Presidency extend for 500 miles, from Canara in the south to the Mahi river in the north, in the districts of Canara, Tanna, Kolaba, and Kandes, the best tracts being near the line of ghats.

The forests of Sind, called Beya, cover 352,460 acres. They were originally hunting-grounds of the Amirs. They are dependent on the inundations of the Indus, without which they would disappear.

In the Animallay forests of Madras there are reserved teak forests. The Conolly teak plantation on the Beypur river was begun in 1844. The teak seed is steeped in water for 48 hours, and sown on raised beds of fine mould covered with straw, to prevent too rapid evaporation; they germinate in 10 or 12 days, and in the interval are constantly watered. At Mudumalli a plantation of 29,000 teak trees was formed in 1865.

Australian gum-trees were introduced into the Nellicherry about 1850.

Sandal-wood planting has been tried with success in Cuddapah and Kurnool districts, and in the Secur and Collegal ranges of Coimbatore. The sandal-wood tracts belonging to the Government are confined to certain portions of the Coimbatore and Salem collectorates. The tree is often found in hedgerows and low scrub jungle, etc., but is seldom seen in any regular forest. Up to a few years ago, sandal-wood was considered a Government monopoly,—at least none of the ryots ever asserted a right to fell it when found in even their own fields and hedgerows; but upon a sub-collector of the Salem district raising the question, the Government waived any claim to the trees, and they are now generally sold standing by the ryots, to merchants, etc., for a merely nominal sum. Sandal-wood planting has been successfully tried in the Cuddapah and Kurnool districts, and in the Secur and Collegal ranges of Coimbatore. South Canara is held to be a promising field for the extension of the experiment, as the tree is indigenous in portions of that district. Blackwood and catechu trees have been largely planted in S. Canara, and much success has attended the formation of plantations of the babul, casuarina, red sanders, and Pithecolobium saman plantations, the latter being a Central American tree, esteemed very valuable for fuel, the seed of which was obtained from Ceylon. Much has been done for the extension of fuel reserves and plantations, in view of the railway requirements, and too much importance cannot be attached to the addition to the Conolly teak plantations in Malabar, which are an established success. Teak planting is under trial in Kurnool, the Animallays, Bulumputty, Mudumalli and its western vicinity, in the Cumbum valley of Madura, in S. Canara, and the results of hitherto gained are very promising.

The area of the conserved forests of the Madras Presidency is supposed to be more than 5000 square miles. The area of reserves and plantations for railway fuel is about 6200 acres, estimated to yield 67,000 tons of firewood annually; and the area of teak, sandal-wood, etc., plantations is about 2500 acres. From 1860-61 to 1874-75, the balances of receipts and charges ranged from a debit Rs. 59,380 to a credit Rs. 4,28,640, the annual average profit for the period being Rs. 1,11,518.

The reserved Government forests in the Nulla-mallays districts are at an elevation of from 2000 to 2500 feet above the sea, and contain some of the finest blackwood timber in the world. The Cuddapah forests comprise the whole of the preserves, the lands and plantations on both sides of the N.W. line of railway running between Trivupthy and Cuddapah, and are estimated to cover 260 square miles; reserves were established in the districts of Cuddapah and North Arcot, in addition to a large plantation at Ghooty in the Bellary range. The working season in the Animallays lasts from June to November, during which time the forests are almost entirely covered with a dense undergrowth of grass, often growing to the height of ten feet, and swarming with wild beasts and elephants. For the other six months of the year work is impossible, owing to the malaria causing severe jungle fevers. The woodcutters very often refuse to work on account of the large number of tigers and elephants, which prove a source of endless annoyance. These forests are the finest in India, and should be placed under a very strict conservancy system.

The forests of Mysore are those of Bilikal in Kan-kanhalli, and Singapore, Mavakal, and Kachanhalli in Ashtagram, and in 1873-79 had an aggregate area of 442 square miles. Of sandal-wood, 10094 tons were sold for Rs. 3,89,385, and the sales of timber and bamboo produced in 1875-76 Rs. 71,932, in 1878-79 Rs. 34,757.

The aspect of Coorg presents an entire forest; the long and narrow valleys cultivated within it serve but to render the vast woods more striking. The whole of the eastern boundary presents a
remarkable line of demarcation, exhibiting an almost uninterrupted and impervious wood from the Burmargherry Hill till reaching the Chavvey; this space is wholly uninhabited. Advancing westwards, the wood decreases in density as the country improves in cultivation, and becomes gradually thinner till reaching the Western Ghats, the immediate summits of which, naturally bare of wood, are clothed with a luxuriant herbage.

In 1881 there were 16,246 square miles of forest and fuel reserves in Bengal, Berar, Burma, Hindustan, and the Punjab; the Punjab had 15,000 square miles of rack or preserves in its various districts, and there are leased forests in Berar, Bombay, Garhwal, Tehri, Madras, and Punjab.

Under Act vii. an order was issued prohibiting felling of forests at an elevation of 6000 feet or upwards. In 1879 the Punjab Government issued regulations to protect the Hazara forests, providing for their management, grazing, cutting timber within the reserved area, and the creation of village forests, the district officer being empowered to set apart certain areas of the village waste for this purpose. Such areas are the crests and slopes immediately below the crests of hills, the catchment-basins of rivers, all steep and rocky slopes and other situations of which the clearance is, in the opinion of the district officer, unavoidable. And in the case of other kinds of lands, a majority of the landowners, representing two-thirds of the revenue, may apply to the deputy-commissioner to have a tract set apart as village forest. Squatting, breaking up the soil, cutting trees or brushwood, barking trees, or grazing cattle contrary to the general orders, removing dead leaves or kindling fires, are prohibited within a village forest. Also the district officer can require the owner of any cultivated land on a hill-side to take the necessary steps for ensuring the stability of the soil; and also, in ease of erosion of a river's banks, or of risk of torrent action, or of the occurrence of landslips, to enclose and plant the necessary area in such manner as most effectually to guard against the threatened danger. The areas so enclosed are to be regarded as a reserved forest, and the owner is to be compensated as though it were taken in the survey.

The forest's wild products vary in different parts, but honey, wax, roots, fruits, gall-nuts, ginger, turmeric, cardamoms, dye-powder, resin, and various fibres are obtained yearly from the forests of the Madras Presidency. Cinnamon bark, cinnamon flower, resins, gall-nuts and bamboo sprouts, in Malabar. The most valuable of these products is cardamom; but a large quantity of this spontaneous crop is never gathered, and all efforts to collect it are failures, as the jungles are uninhabited by human beings, and wild animals take shelter in them. Cinnamon bark and flower are procured, the former by stripping the trees, and the latter by plucking the flowers when in blossom. Nagabetta (a species of cane) is carried away in large quantities by wayfarers and pilgrims frequenting the temple at Subramania, where they grow largely. The Government of Madras has repeatedly declared that they will not sanction any step in the direction of monopolizing the forest products, the collection of which affords the only employment and means of subsistence open to the inhabitants of wild forest tracts.

The gross revenue derived from the Indian forests, in the ten years 1872 to 1881, was £6,204,977, and the charges £1,407,554. The importance of forests to tropical climates, as inducing rain and preserving surface-water, is recognised. The extensive clearing of a country diminishes the quantity of running water that flows over it. Rain often fails, and more dew is deposited, in well-wooded countries; where the country is naked; mountains, when covered with their native forests, gather clouds around their summits, condense the humid particles of the air, and equalize the fall of rain; lands destitute of the shelter of trees allow of a more rapid evaporation; forests preserve the surface-water, and husband and regulate its flow.—Noble's Productive Resources of India; M'Clelland; Cleghorn in Yearbook of Facts, p. 263; 1868; Scindian, July 12, 1856; Annuals, Indian Administration, March 1861.

F. CINNAMONI. An extensive family of Hymenopterous insects, belonging to the section Aculeata, sub-section Heterогyna, Latreille, comprising the numerous tribes of ants. The family is distinguished by the wingless state of their abortive females, by the great length of the basal joint of the antennae in the females and the neuters, in which they are elongated at the extremity of this joint, and by the first or the first and second segments of the abdomen being knotted; the upper lip of the neuters is large, horny, and perpendicular, falling between the jaws; the eyes are rounded, or oval and entire, the form of these organs varying greatly in many of the species. In their structural character the Formicidae resemble the Tiphiidae and Darylida belonging to the section of the sand-wasps. The neuters are smaller than the males, and these are smaller than the females; the abdomen in the first and last of these sexes is composed of six segments, in the male of seven. The females and neuters are furnished with a sting in many of the species. Those species which have stings emit an irritating fluid into the wounds which they make, while the stingless species discharge a red transparent fluid on to the skin, causing painful blisters. The various genera of this family, according to Latreille, are—F. Crematogaster, F. Fomica, F. Myrmica, F. Polyrhachis, Atta. This last genus differs from Myrmica only in having very short palpi; the head of the workers is generally very thick. The 3d Tribe Formicidae contain those ants that have no sting, and the abdominal pedicle is of one knot only. It comprises two genera, Polyrhachis and Formica. The Formica genus is distinguished by having the footstalk of the abdomen composed of a single joint, the mandibles triangular, and dentilicated at the edge. The females are destitute of a sting. The neuters are about one-third of an inch long, of a black colour, with the thorax, abdominal scale, and a large part of the head red. It makes its large conical nest in the open ground in woods, etc., amassing together large quantities of sticks, straws, etc. Dr. Jerdon notices in India F. ammon, angusticollis, assimilis, carinata, cinereascens; compressa, besta, undulosa; longipes, phyllophila; reclusa, rufe-glancea, acerina, amarargida, timida; vagans, velox, stricta, and sylvicola. The fondness of F. indefessa, Sphen, for sweet substances is very great. F. gigas is more than an inch long.

F. compressa, Fabr., well known as the black ant, is found throughout every part of India.
FORMOSA.

except the western coast. It lives in very numerous societies in the ground, the entrance to the nest being often round the trunk of a tree, or close to some building. The warriors are very numerous. Their food is chiefly vegetable secretions, sugar, etc., and Colonel Sykes has given an interesting account of the devastations committed by them on preserves, sugar, etc. They bite rather severely, but the pain is quite momentary. At certain times great numbers of the winged males and females are seen at the mouth of the nest, and they remain there for several days. When they take wing, they do so in vast numbers, and always at night.

F. smaragdina, Worker, the red ant of India, Diniya, Singo, of a uniform pale rufous. Male of a rufous colour. Female of a pale shining green colour. The red ant is well known in Malabar and the wooded parts of India, but is rare in the Kurrutic. It forms a nest of living leaves, which it draws together without detaching from the branch, and unites with a thin white web; some times this nest is above a foot in diameter, but usually smaller. The society consists of a vast number of individuals, and in large nests are many females and males, both with and without their wings at all times of the year. They are very bold and pugnacious, and bite very severely. They live chiefly on vegetable secretions, and are very partial to the flowers and buds of some of the loranthis, which abound on the western coast. They often form a temporary web round the flowers, or sometimes round the fruit, of various trees, viz, the Eugenia Malaccensis, Artabotry odoratissima, etc., apparently only for the purpose of feeding undisturbed. They will, however, also sometimes feed on decaying animal matter. It is said that the web they form is occasionally used for writing on in the N.W. Provinces of India, and that these ants are made use of to destroy a nest of wasps that have settled themselves in a box. They are said to destroy all the wasps, but to become so infuriated, that their own indiscriminate attacks are nearly as bad as those of their foes. In gardens they are most partial to mango trees, but in the jungles they make no selection.

F. timida, Jerdon, the small red ant, has all the body covered with long scattered hairs; only found on the Malabar coast, where it is very common, living chiefly on vegetable secretions. It has its nest under ground. It is timid, if approached or touched, dropping to the ground at once and hiding itself. On one occasion pigeon squabs placed in a room on the floor were found killed by these ants, chiefly, however, the warriors.

F. velox, Jerdon, colour blackish, abdomen greenish pubescent. Very common in Malabar, and also found in the Kurrutic. It frequents flowers, especially delighting in those that have great quantities of pollen, such as the Cucurbitaceae, Hibiscæ, etc. It runs very speedily, and is very easily alarmed, dropping to the ground on being touched. See Ants; Insects.

FORMOSA or Pファッション Island, called alsoTy-oan, is about 210 miles in length from N.N.E. to S.S.W., its south point, called the Cape of Formosa, being in lat. 21° 53'/2 N., long. 150° 53'/2 E. It is 20 to 80 miles wide, and is traversed down its centre by a mountain range, which rises to 8000 feet in the south and 12,000 feet in the north half; the valleys and higher slopes are clothed with trees. As yet only 36 species of its mammals and 128 of birds are known, several of them identical with the species of India and Malay Peninsula; 49 of its land birds are peculiar to the island. Formosa is part of a chain which lies along the Asiatic continent, and forms a distinct and well-defined ethnic and geographic group, which includes all the Japanese and Aino islands from Formosa to Kamtschatka; and Mr. Logan proposed to call it Aino-Japanesia. It was known to the Chinese a.d. 1431. It was held by the Dutch for a short time. The western coast is occupied to a great extent by recent settlers from China, but the interior is inhabited by several rude tribes, whose language differs from the known Formosa. The aborigines, called Kebalan, are short in stature, of tawny complexions, and lank hair. Although inhabiting a great and fertile island, affording to all appearance a fair opportunity of development, they have never made any progress of civilization, and at present seem to live in a state of barbarism. The language of Formosa, according to M. de Rosnay, is to be a branch of the Oceanic, which, however, belongs to a state intermediate between the monotonic and the inflectional; words of the Malayan languages are to be found in the language of the aboriginal inhabitants. In the north-western portion of the island sulphur mines are frequently met with, presenting blots in the otherwise beautiful scenery. The gigantic laurels from which the camphor is obtained are found on the mountains in the possession of the aborigines. In the neighbourhood of Tamsuy alone, 800,000 lbs. of this valuable commodity are produced annually. Petroleum also adds to the riches of the island, which, both from its natural and artificial products, is well worth a struggle on the part of the Japanese to obtain, and on the part of China to defend. Areia papyriforma in Formosa does not exceed 6 feet high. Forrester places the Empolocamus Swainboi.—Ind. Arch. Supp. ii. pp. 318-358; Japan, 410; Loo-choo; Horsburgh; Latham's Descriptive Ethnology; Adams; Cornhill Magazine; Jour. India Arch.; Maryat's Ind. Arch. p. 41; Dr. Colllingwood, Trans. Ethn. Soc. N. S. vi. p. 139; A. R. Wallace.

FORREST, CAPTAIN THOMAS, author of Voyage to New Guinea and the Moluccas from Balambangan, in 1774-76, with a Vocabulary of the Magindano Tongue, Lond. 1780.

FORSKAL, PETER, a native of Denmark or Sweden, who travelled in Arabia and Egypt, and wrote the Flora Egyptiaca, Arabica, and other works.

FORSTER, GEORGE, an early traveller from India to Europe. He proceeded by land from Bengal to the Caspian Sea, and from thence by the ordinary route on the Volga, etc. to Peters burg, in the year 1784. He avoided the country of the Sikhs. He wrote Journeys from Bengal through Kashmir, Afghanistan, Herat, Persia, Petersburg, etc., to England, Lond. 1808.

FORSYTHIA VIRIDISSIMA, a beautiful flowering plant of China; it blossoms in springtime. Forsythia suspensa, Smith, Lien-kiau, Chin., is obtained in Shen-si and other Chinese provinces; the fruit, leaves, and root are used medicinally.—Smith.

FORT GEORGE, the fortress of Bombay. Fort
Gloucester, a fort now in ruins, is on the left bank of the Hooghly river, about 15 miles below Calcutta. Fort Golconda, a fortress on a rocky hill on the left bank of the Secna river, five miles W. of the city of Hyderabad in the Dekhan; its builder is not known. It consists of an enceinte, with bastions and a citadel. After a siege of seven months, it fell by treachery in the end of September 1687. Fort St. David, a place in the Karnatic at Behoor; between it and Pondicherry, Major Lawrence, in August 1752, entirely defeated the French army. Fort St. George, the fortress at Madras, built on the principle of Vuban. Fort Victoria, the name given to Bencooe, after its surrender to Commodore James on the 8th April 1756. Fort William, the fortress of Calcutta; it was constructed by Lord Clive.

FORTUNE, ROBERT, a scientific horticulturist, who collected many rare plants in China, in the middle of the 19th century; obit 1860. His first voyage was made in 1842, for the Horticultural Society of London. During four years' wandering, he discovered several new useful and ornamental plants, which now adorn the beauty gardens of the world. He was in 1848 deputed by the Court of Directors of the East India Company, and upwards of 20,000 tea-plants, eight first-rate manufacturers, and a large supply of implements, were procured from the finest tea districts of China, and conveyed in safety to the Himalayas. This journey occupied altogether about three years, and he returned to England at the end of 1851. He was deputed again in 1852, for the purpose of adding to the collections already found, and of procuring more tea-makers. He was occupied in this undertaking for nearly three years, and the result of his mission was considered very satisfactory. His fourth voyage was made in the service of the United States Government, to procure a very large supply of tea-plants, for trial in some parts of the American Union, and other choice productions desirable to introduce. He wrote Residence in China, and Wanderings in China.

FOSSILS. Cotton contains fossil along with lignite in the thin beds of the Malabar coast near Trivancore, and on the east coast of Africa. It was first found in the blue clay at Highgate, near London; it occurs also at Wochlow in Moravia. It occurs in irregular pieces or small nodular masses. Its colour is yellowish or dull brown, nearly opaque; lustre resinous; fracture conchoidal; sp. gr. 1:046. When heated it yields an aromatic odour, and melts into a limpid fluid; it burns with a yellow flame and much smoke. When strongly heated in contact with the air, it is totally dissipated.

Fossils are very abundant in Southern Asia, all along the seaboard; west of Pondicherry, and near Trichinopoly; in Hyderabad and the Central Provinces; in the valley of the Nerbadda, in all the coal tracts, in the Siwalik Hills, and in Burma. Of those found in Burma by Mr. Oldham during his companionable English garden. He was the following - elephant tusk and lower jaw; mastodon lower jaw and molar tooth; rhinoceros tooth; tapir lower jaw; deer; sus or merycopotamus, portion of cranium; gastral fragments; bones of the pachydermata, ruminants, crocodile, tortoise, large tortoise.

Sir Proby T. Cantley carried on extensive researches in conjunction with Dr. Falconer, in the fossil remains of the Siwalik Hills. They presented to the British Museum an extensive collection of fossil mammalia from the Panjab Siwalik. At Cutchavally, north of Trichinopoly, there is a bed of calcareous clay, in which recent shells and crustacea, principally Macrophthalmus and Scolyia, are found in a semi-fossilized state. The broecca at Jaffna and the arenaceous strata in the western coast of Mannar and the neighbourhood of Galle also contain recent shells. These fossils, when powdered, are used by the Arabs as a specific for diseases of the eye. The siliagrams which the saiva and vaishnava Hindus worship are fossil water-worn ammonites, found in part of the Gandak river in Northern India. The bin-lung, rori, and choolia stones found in the whirlpools of the Nerbadda and Chambal rivers are also worshipped by Hindus; but they are not fossils, merely stones rounded by attrition. Numerous fossils are obtained in the Baloti range and in the Shikha Booden Hills, which may be considered offshoots from the Salt Range. Fossils also occur in the Lagari, Mazari, and Lower Hills and the Sultani range. A specimen of eubay is found fossil in the Lagari Hills, Inam Bakhsh Khan, and Dhehra Ghazi Khan, and the curious trilinnet markings on it are compared by the people to the impression of a bird's foot, to which accordingly they attribute the origin of these fossils. The natives regard the larger fossils of the Mazari Hills as the petrifed clothes of fifty betrothed virgins, who, while bathing, were surprised by their future husbands. They prayed Heaven to grant them a covering; in answer to this the earth swallowed them up, and their clothes became stones. In the Panjab, a fossil encrinite is used in medicine, under the name of Sangi-i-yahudi, or Jew's stone; and the Sangeha, a nummulite from Dhehra Ghazi Khan, and Sang-i-shad-naj, another nummulite, are also used in medicine.

The Delhi system of hills includes those of the Dehli, Gurgaon, and Hissar districts, also the Shekawati Hills in Gurgaon, which ultimately become fused in the Sultani range. Some of these hills are fossiliferous, others yield metals, the copper of Hissar and Sighnanga in Gurgaon district belonging to this series. In other portions marbles and freestone are found; and the Kalyana Hills of Dadi, now included in the Jind territory, furnish elastic (micaceous) sandstone.

Spiti yields ammonites, astarte, belemnites, species of nucula, othocera, pholadomya, rhyconella, and spirifer.

The Shih-yen of the Chinese are fossil shells, species of spirifer and rhyconella, used medicinally. Fossil wood is found abundantly in Burma, in the Kyen-dween, and Namloroung.

Fossil wood in the sandstones at Triviciary near Pondicherry, at the village of Verdur Valadugar, four miles E. of Triviciary, and other fossil send in British India and Ceylon, were described by Mr. Edward Forbes. The Triviciary fossil wood is embedded in a coarse silicious conglomerate. The conglomerate in Siind consists chiefly of the rolled fragments of the nummulite and other sub-adjacent rocks. In the cliff at Minors, near Kurachee, adjoining beds of oysters and other sea-shells, in situ, along with fossil wood like that of Cairo, and fossils nearly identical.
This plant flowers when 10 or 15 years old, and when 20 or 30 feet high.

Fourcroya Gigantea. Vent. Sinai katalay, TAM. The great aloe, one of the Amaryllacee, has been introduced into India from S. America. It is remarkable for its leaves, which are often 10 feet long. It yields a fibre 5 or 6 feet long, somewhat finer than agave fibre, but possessing similar properties. It is less abundant than the agave, but is as easily propagated. In preparing its fibre, called into fibre, the leaves, cut close to the stem, are placed on piles of old board, and beaten with a short stout stick. After being bruised, the pulpy portions are scraped out with a blunt knife, and the fibres are subsequently washed in clean water and dried in the sun. Its long and strong fibre deserves more attention than is given to it. The agave and fourcroya are similarly called alocos, and their fibres, aloc fibre. They are capable of enduring a great variety of climates, and are all rapidly extending over India; but they are not yet sufficiently abundant, the Fourcroya gigantea especially, to yield the fibre in large quantities.—M. E. J. R. See Fibres.

FOWLS.

Kì; Chuh-ye ... CHIN. Murghi ... HIND. Ouph ... HERB. Kohl ... TAM.

Though in numerous breeds and sub-breeds, all the domestic fowls seem to have diverged from a single type. The game breed is from the Gallus Bankiva, called also G. ferrugineus. Its feathers are closely depressed to the body; it is indomitably courageous, evinced even in the dispositions of the hens and chickens. It is of various colours.

Malay fowl, with body of great size, disposition savage. Cochín or Shang-hai breed, of great size, of Chinese origin, and disposition quiet. Bantam breed, originally from Japan. Creepers or Jumpers, from Burma, with monstrous short legs.

Frazzled or Kafir fowls of India, with feathers reversed. Silk fowls, with silky feathering; and Sooty fowls of India, the hens of which have a white colour, stout-stained, black skin and periosteum. Gallus Bankiva does not range into the northern parts of India; part of its halescons consist of highly peculiar horny lamine, and it is not now believed to be the parent bird of the domestic fowl.

Gallus Stanleyi is peculiar to Ceylon, and greatly resembles the domestic fowl.

Gallus varius, called also G. furcatus, is met with in Java, and the islands of the Archipelago as far east as Flores. It has green plumage, unarrated curb, and single median wattle.

Gallus Temminckii is supposed to be a hybrid.

Gallus Bankiva, inhabits N. India as far west as Sind, ascends the Himalaya to a height of 4000 feet; inhabits Burma, the Malay Peninsula, Indo-Chinese countries, and the E. Archipelago as far as Timor.

The Europe breeds, Dorking, Hamburgh, Andalusian, Spanish, Sultans, Ptermian, Ghoaondook, Rumpless, are unknown in S.E. Asia.

A long-tailed variety occurs in Corea; the kind with feathered legs, known in England as Cochín-Chinese, are obtained in Ho-nan. In China, a cock is used in sacrifices, and is not to be used on occasional occasions. Black-boned fowls are in China prized to make soups for persons with lung diseases.

Fowls are not mentioned in the Old Testament, and are not figured on Egyptian monuments. They are figured on some of the Babylonian cylinders, n.c. 600 and 700. The Institutes of
Fox.

Menu permit the wild fowl to be eaten, but forbid the domestic fowl, and Hindus avoid domestic fowls and fowls' eggs. At the present day, most of the pagan tribes on the east coast of Africa, from 4° to 6° south of the equator, hold the fowl in aversion. Caesar informs us that the Celts of Britain would not eat the hare, goose, or domestic fowl. The Rajput will hunt the first, but neither eat it nor the goose, sacred to the god of battle (Haa), and rarely the domestic fowl. The domestic fowl is eaten freely by Mahomedans, and they are largely reared for the table.

Fowls are sacrificed by the Yazidi of Kurdistan. The Assyrians worshipped the cock. The Jews of the East offer a cock for man and woman as an atonement. Socrates, when dying, desired a cock to be sacrificed to the god of health. Fowls fatten best when kept in the dark. In India their eyelids are sewn together.

Fowls' Gizzard, Ki-lui-kin, Chun-pi of the Chinese. The inner lining of the gizzard of fowls is peeled off and dried, and given medicinally in dyspepsia, spermatorrhoea, and urinary disorders.

—Darwin; Tod's Rajahstan; Smith. See Cock; Gallus.

India has three foxes,—

Vulpes Bengalensis, Shaw.

Canis Bengalensis, Gray. Vulpes coraee, Blith. V. Bengalensis, ;
Kokree, Sykes. V. indicus, ;
C. rufescens, Gray. V. fulvaee, ;
Vulpes indicus. V. kockree,
Lomi, Loomri. DUKH. Bengal common fox, Eng.
Noomri, .

Lives in the entire of India and the adjacent countries, but varies both in size and colour in different localities; is generally of a greyish brown with a fulvous cast, passing in some cases to Isabella; it is always variegated above with an intermixture of whitish hairs. It is a very pretty animal, but much smaller than the European fox, with a short head, very sharp muzzle, oblique eyes, nut-brown irides, very slender legs, and very bushy tail, trailing on the ground. Its principal food is rats, land-crabs, grasshoppers, beetles, and fruit; the mango, the custard apple, are largely eaten. It always burrows in open plains, runs with great speed, doubling like a hare; but instead of stretching out at first, like the hare, and trusting to its turns as a last resource, this fox turns more at first, and if it can fatigue the dogs it then goes straight away.

Vulpes flavescens, Gray.

Vulpes montana, Hodg. | Robur in Kandahar.

This species is numerous in the valleys around Kandahar, hiding in burrows and in holes in the rocks. It is about two feet long from the nose to the insertion of the tail, and the tail is about seventeen inches; height at shoulder, about fifteen inches. Its tail is yellowish; back rather darker, inclining to brown; face and outer side of fore legs and base of the tail fulvous; spot on the side of the face just before the eyes; the chin (breast), the front of the fore legs, a round spot on the upper part of the hind foot, and the tips of the hairs of the tail blackish; end of tail white, and ears externally black. The skins are soft, and are made into the nimchah and postin overcoats.

Vulpes montanus, Pearson, the hill fox.

Canis montanus, Pears. Vulpes montanus, Gray. C. HIMALAIUS, Ogilby. | V. Nilgarensis, ..

The hill fox of India dwells in the Himalaya, ranging up to the snow limits; and in winter, when the snow is on the ground, they are very numerous about Simla, coming close to the houses in search of offal. Its fur is exceedingly rich, dense, and fine, the longer sort measuring fully two inches upon the back, and the inner everywhere of considerable length, and of a woolly character. General colour, pale fulvous; head mixed with white; tail bushy and white-tipped.—Horsfield's Cat; Col. Sykes: Jerdon.

FOX ISLANDS, or Aleutian Islands, in the Northern Archipelago, on the west coast of America. This name was given to the whole group (16), on account of the great number of black, grey, and red fowls with which they abound. Lat. 52° 56'N.

FRAGARIA, the strawberry genus of plants, of the order Rosaceae. Some wild species occur in India, and others are cultivated. F. Chiensis, Ehr., the Chili strawberry, was brought from S. America. F. collina is also an introduced plant. F. elatior, Ehr., is the bush strawberry from America; and F. grandiflora and F. jamaicae are also known, as also F. Roxburghii, W. and A., the F, Indica of Roxburgh, which has also been classed with Duchesnea and Potentilla, growing in the Neillherries, Dehra Doon, and Kamaon. Fragaria vesca, Shie-mei, Chin., is the wood strawberry.

Fragaria Indica. Andr. Wild strawberry.


Klang of . | JHRUM. Banaphul of . | SUTLEJ.

Ingrang, Yang, Tash, KANG. Tawal of . | TR. IND.

This grows wild in most parts of the Panjab and Himalaya, from 4000 to 12,000 feet, in Kamaon, Dehra Doon, Neillherries, and Penang. The fruit is excellent when gathered dry, but is largely improved by cultivation. See Strawberry.

FIRA JOAN, an Augustinian monk, who reigned for many years as a petty sovereign on the island of Sundwa, about the middle of the 17th century.

FRANCE, a country of Europe, which, in the 18th century, nobly made exertions for empire in the East. They occupied Madagascar, also the Isles of Bourbon and France; formed a factory at Surat, and one at Musulipatam; were repulsed at Galle, but took, and again lost, Trincomalee; settled at Pondicherry, which they surrendered to the Dutch. They took and abandoned Surat, but founded Chandernuggur, conquered Malac, obtained Kirikal, repulsed the British fleet off Negapatam, took Madras. Defeated Mafuz Khan near Madras, at Sadras, and St. Thomé, but were surprised at Cuddalore, twice repulsed and forced to retire. They were besieged in Pondicherry, but repulsed the besiegers. They gained the battle of Amboor, when Anwar-ud-Din fell; surprised the camp of Morari Rao; defeated Muhammad Ali, son of Anwar-ud-Din, stormed Ginji; defeated Nasir Jung; defeated the British at Volonda. They were shut up at Trichinopoly, where they were twice defeated by Olive, and
retracted to Seringham, where they subsequently surrendered to the British. They afterwards defeated the British at Vizcruvandi, but sustained a defeat at Sainte Marie in 1763. They repeatedly defeated theMaharras, obtained great power, under M. Bussy, at Hyderabad, and obtained the cession of four provinces on the eastern coast. They defeated the British at Teruvadi, but were defeated at the Golden Rock, at the Sugar-loaf Rock, and took refuge in Seringham; were repulsed at Trichinopoly, but surprised the British and Contarapa; made peace with the British, and refused to aid Suraj-ud-Dowlah against the British. Subsequently, at Negapatam, they were beaten, but took Cuddalore and Fort St. David, and were repulsed from Tanjore. They were beaten off Tranquebar, at Condore, and off Fort St. David and at Wandiwash, and surrendered Pondicherry. Their efforts ceased from the 16th January 1761. By the treaty of Paris in 1763, Muhammad Ali was declared an independent sovereign. They are a brave and conquering nation, and had able leaders, but the officers under Dupleix and Bussy were inferior. France now holds the island of Bourbon, or Reunion, in the Indian Ocean; also settlements on the coast of Madagascar, at Nosse Bé, the island of St. Marie, and at Bati Bé; the island of Mayotta, one of the Comoro group, was purchased also, in 1841, from a chieftain, and converted into a colony. In Cambodge France has 56,000 square miles of territory, with a population of 750,000 souls, and exercises a protectorate over Annam.

The remaining French possessions in India consist of five towns, Chandernagur, Karikal, Pondicherry, Yanaon, and Malpe. The total square miles of these is 194, with a population of 205,997. Pondicherry was restored to France by the peace of 1768; in 1778, again taken by Sir Hector Monro, to be restored by the treaty of peace of 20th January 1788. Captured again in 1793; again restored by the peace of Amiens in 1801. Recaptured in 1808, and finally restored in 1814 and 1815. France sends annually to British India above half a million sterling of merchandise, and takes to the value of eight millions.

During their greatest efforts, Admiral de la Bourdonnais was employed by sea, and Dupleix and Bussy on land. Many eminent men of this nation served in India,—the younger Lally, Law, Dupleix, Bussy, De Suffren, De Boigne, Perron, La Bourdonnais, Guerene, Jean Baptistc, Raymond, and Bernadotte, who was subsequently king of Sweden. The noticeable era of the French power in India was but of short duration, but remarkably brilliant while it lasted. It commenced under the government of M. Dupleix in 1748, and was extinguished by the surrender of Pondicherry in 1761.

In 1601 they had sent two ships to India from St. Malo, under the command of Lieutenant Bardelieu, but both were lost off the Maldives. In 1604 Henry Iv, incorporated the first French East India Company, which the minister Colbert in 1664 re-established on an improved footing, granting a monopoly of the trade for fifty years. In 1668 Surat was selected as their first settlement; afterwards Trincomalee was taken from the Dutch, but soon again recaptured. In 1672, St. Thomé, now a suburb of Madras, was taken from the Dutch, but in 1674 it was again restored to them, and the same year they occupied Pondi-
FRASER, JAMES.

wrote on the geology of Bundelkhand, and on the Punna diamond mines.


FRASER, JAMES BAILLIE, author of Journey from Constantinople to Tehran, and Travels in Persia; also Travels in the Caspian Provinces of Persia; also Journal of a Tour through part of the Himalaya Mountains and to the Source of the Rivers Jumna and Ganges, 4to, Lond. 1820; also Narrative of a Journey into Khorasan in 1821-22, with an Account of the Countries to the N.E. of Persia, 4to, Lond. 1825; also Travels in Kordistans, Mesopotamia, etc., with Sketches of the Character and Manners of the Kordish and Arab Tribes, 2 vols. 8vo, Lond. 1840.

FRASERPET or Khushhal Nuggur, a town in Coorq, 19 miles N. of Mercarn, on the left bank of the Cavuery, in lat. 12° 26' N., long. 76° 8' E. It was named Khushhal Nuggur by Hyder, but takes the name of Lieutenant-General Fraser, the first Commissioner of Coorq.

FRAXINUS, the ash tree, of the Ash family, of the Ash tribe, and of the Hebrews. Two species of the genus Fraxinus grow in the Western Himalaya,—F. floribunda, or large ash, and F. xanthioides, or crab ash. They grow in the Meico forest, near Abbotabad, Hazara; and in the valley of the Sutlej there is abundance of yew and olive, and a considerable quantity of box and ash, the ash and olive near the river, but the box and yew on the higher slopes, 2000 feet or more above the Sutlej. The larger ash and yew are much esteemed for jampen poles, hefts, and tool handles, etc.; and the larger, in colour, grain, and toughness, resembles the English ash, and makes good walking-sticks. Some species of ash are remarkable, like the sugar maples, to which in some respects they are allied, for the sweetness of their sap, which, on concentrating by exposure to the sun is known as manna. To the two species, F. rotundifolia and F. floribunda, and probably also to other species, we owe the manna. Ornus florifera, the flower bearing ash tree, grows in the mountains of the south of Bokhara, and F. rotundifolia (Orna rotundifolia), the round-leafed manna ash, is a native of Calabria and Sicily. The wax insect tree of China, F. Chinesis, grows abundantly on the banks of ponds and canals in the province of Chito-hiang. When the insect, Coccus pela, Westwood, is fully developed, the trees seem as if covered with flakes of snow. The wax is of great value in Chinese commerce, and a small portion is exported.—_Fortune's Residence_, p. 146; _Cal. Cat. Ez._ 1852; _Cleghorn, P. Rep._; _Royle, Him. Bot._ p. 266; _O'Sh._ p. 434.

FRAXINUS FLORIBUNDA. Wall.

_Sinna, Shinna, CHEMAB, Susu, _Ravi._

_Sinna, _JHELM, Uga, Shing, _Tr. IND._

_Hum, Hauz, _KANGRA, Banaah._

The large ash is found on the Thandian and Mochputa ranges of the Himalaya, but not in Kaghnn. It is a handsome tree, with a deeply furrowed bark, growing to 15 feet in height and 15 feet in girth. The wood is excellent, possessing most of the qualities of European ash. It is valued for jampen poles, ploughs, platters, spinning-wheels, etc., and in Kashmir is reckoned by far the best wood for oars.—_J. J. Stewart, M.D._; _Cleghorn, Punjab Report_, pp. 80, 177.

FRAXINUS XANTHOSTYLOIDEE. Wall.

_F. Moorcroftiana, Wall._

_Butru, Sandal, CHEMAB, Chitta, Chuj, KANGRA._

_Shangal, _ENGL, Chun, Thun, _SUTLEJ._

_Nuch, Hauz, _JHELUM, Shing, _TR. IND._

_Shill_,

The crab ash is a small shrub or small tree. It grows in the N.W. Himalaya, and is found in the Sutlej valley between Rampur and Sungnam at an elevation of 7000 feet, and in Tibet up to 12,000 feet. It rarely reaches a girth of 5 feet and 25 feet high. The wood is small, but hard, heavy, and strong, mostly used for walking-sticks, hefts, handles, etc., and for fuel. Cleghorn states that it is at times used for jampen poles.—_J. L. Stewart, M.D._; _Cleghorn, Punj. Report_, p. 64.

FREDERICK, Caesar Frederick, a Venetian merchant, in 1563 travelled by way of the Persian Gulf to India, and on to Pegu in 1568. The account he gives of his travels was translated into English in 1588, by Thomas Lichoehe. He describes Cambay, Ahmedabad, and Goa, and gives a detailed account of the commerce of Pegu. It had previously been visited by Antonio Correa, who, shortly after the occupation of Malacca by the Portuguese, was despatched thither with the view of establishing trade with Burma. It was subsequently (1583) visited by Gasparo Balbi; and his Viaggio dell' Indie Orientale and Caesar Frederic's Narratives are the best notices we possess of this country until the publication of the modern works of Symes and Phayre.

FREGILUS GRACULUS, the chough, is found on high mountains and sea-cliffs of Europe, Asia, and Africa, is common in high Central Asia, the Himalaya, Afghanistan, etc.; as is also another chough, Pyrrhocorax alpinus, of the Swiss Alps and Tyrenees.

FRENCH BEANS, haricots.

Faginoli, _It._ Jula, _Sr._

Contain much nutritive matter, and are most desirable for the food of troops.

FRESER, Sir HENRY BARTLE, K.C.B., an eminent Bombay civil servant, Commissioner of Sind, Member of the India Council, afterwards Governor of the Bombay Presidency. He went as envoy to the sultans of Zanzibar and Muscat, with the humane object of endeavouring to put a stop to the slave-trade. He reported that from the remote island of Johanna to the Persian Gulf there are some rulers who are ashamed of and abjure slave traffic; that the prince who reigns at Muscat had not shrunk from declaring the freedom of every slave who shall land in his territory; and that Colonel Pelly had induced the Arab chiefs of what was once the pirate coast, to renew, confirm, and extend their engagements.

FRESCO PAINTINGS cover the walls of the caves of Ajanta; the walls of the mosque of Wazir Khan at Lahore are also covered with them.

FREYCINETIA BAUERIANA, the Norfolk Island grass tree, belongs to the tribe of Pandanaceae, and is one of the true pines. Its stem is marked by rings like the compound stem of the old leaves have fallen off; and it lies on the ground, or climbs like ivy round the trees. The branches are crowned with cresses of broad sedge-like leaves, from the centre of which the flowers arise, the petals of which are a bright scarlet, and the sepals green; and, when they fall off, clusters
appear of three or four oblong pulpy fruit, four inches in length, and as much in circumference.

--- *Ind Arch.* ii. p. 284.

**FRIGATE BIRD.**

*Attaga aquilis,* L., and *Tachypetes aquila,* Illiger, is also the sea hawk, also man-of-war bird and the boatswain. It has short feet, and cannot swim or dive. It is intermediate between the predaceous sea and land birds. It attacks the smallest birds, and makes other fishing birds abandon their prey. It takes extended flights, and is of great endurance, rising to vast heights in the air. It ranges through all tropical seas, and has been seen 400 leagues from land, but sailors say it returns to land every night. Its expanded pinions measure 14 feet from end to end. A minor occurs in Australian seas.—*Ben.*

**FRINGILLIDÆ,** a family of small birds, which ornithologists arrange into six sub-families, viz. the *Ploceinae* or weaver birds, the *Estrellinae* are the munia or amadavads and wax bills, the *Passerinae* or sparrows, the *Emberizinae* or buntings, the *Fringillinae* or finches, and the *Alaudinae* or larks. The weaver birds build nests of strips of leaves or grass interwoven together. The amadavads are social little birds. The sparrows also are social, many of them preferring to dwell in towns. The ortolan bunting, *E. hortulana,* L., occurs in the west of India; the *Fringilla,* comprising the grosbeaks, crossbills, rose-fiches, and bullfinches, and the larks, are often kept as cage-birds. *Fringilla montifringilla,* the mountain finch of Europe, N. Asia, Japan, Asia Minor, Afghanistan, Kashmir, W. Himalayas, is a winter visitor in Britain, and the European *Montifringilla nivalis* has been obtained at Kandahar.

**FROG-FOOTED FISH, Cheironectes,* sp., the frog-fish of the British in India, belongs to the family of Lophiidae or anglers, *Lophius histrio* and others, and species are met with in many seas. In this group the bones of the carpus form arms that support the pectoral fins, and enable these fishes to walk along the moist ground. *C. immaculatus,* *Ruppell,* has feet or claws rather than fins. Hartwig mentions a frog-fish of the Asiatic islands and the southern hemisphere, as remarkable for its hideous appearance and its capability of surviving for several days on land. Its pectoral fins are so placed that it can crawl about on land.—*Tennent's Ceylon,* p. 330.

**FROGMOUTH,** species of birds of the genera *Batrachostomus* and *Otothrix.*

**FROGS.**


Frogs are very common in all the south and east of Asia. They belong to the reptile sub-class Batrachia, and order Batrachia salientia. The Malabar bull-frog, Hylorana Malabarica, occurs in several parts of the Peninsula of India. The Rana cutipora occurs in Ceylon ; it was named by Mr. Blyth Rana robusta. The little tree-frogs, *Polypedates maculatus,* *Gray,* shelter themselves beneath leaves from the heat of the sun; and several species of *Polypedates* occur in this region. The tocs of the tree-frogs terminate in discs. Many of the small tree-frogs are mimickers. When seen in their natural attitudes, they cannot be distinguished from beetles or other insects sitting upon leaves. Several species of toads occur in Ceylon, but the more common are *Bufo melanostictus,* Kelaartii, and asper. As in Europe, so in India, these harmless creatures have been counted poisonous. In Ceylon this error is as old as the 3d century B.C., when, as the Mahawans tells us, ch. xx. p. 122, the wife of king Asoko attempted to destroy the great Bo Tree (at Magadha) with the poisoned fang of a toad. Frogs are eaten in Europe, in India by the humblest of the races, by many of the Burmese, and in China by all classes. In Southern India, on Fridays, in the convents, Christian ladies from Europe use them. They are caught in China by tying a worm or a young frog just emerged from tadpole life to the waist of a fish-line, and lobbing him up and down in the grass and grain rice-fields where the old croakers are wont to harbour. As soon as one sees the young frog, he makes a plunge at him, and swallows him whole, whereupon he is immediately conveyed to the frog-fisher's basket, losing his life, liberty, and lunch together, for the bait is rescued from his maw, and used again as long as life lasts. Frogs, says Fortune, are in great demand in all the Chinese towns, both in the north and south, wherever he had been, and they were very abundant in Nan-tsin. They abound in shallow lakes and rice-fields, and many of them are very beautifully coloured, and look as if they had been painted by the hand of a first-rate artist. The vendors of these animals skin them alive in the streets in the most unmerciful and apparently cruel way. They are brought to market in tubs and baskets, and the vendor employs himself in skinning them as he sits making sales. He takes up the frog in his left hand, and with a knife which he holds in his right chops off the fore part of its head. The skin is then drawn back over the body and down to the feet, which are chopped off and thrown away. The poor frog, still alive, but headless, skinless, and without feet, is then thrown into another tub, and the operation is repeated on the rest in the same way. Every now and then the artist lays down his knife, and takes up his scales to weigh these animals for his customers and make his sales. Everything in that civilised country, whether it be gold or silver, geeze or frogs, is sold by weight. Boiled frogs in a Burmese bazar are exposed for sale among other articles of food. The Pyxicephalus adspersus of Dr. Smith, the Matla-metlo of the Bechuanas of S. Africa, when cooked, looks like a chicken. The length of the head and body is 5½ inches, and the hind legs are 6 inches long. During the dry months they conceal themselves in holes which they make at the foot of bushes.—*Williams' Middle Kingdom,* ii. p. 48; *A Res. among the Chin.* pp. 45, 434; *Tennent's Ceylon;* *Livingstone.* See Reptiles.

**FRUIT.**


The better known of the fruits of the S.E. Asia are as under:—

**Custard-apple, Anona,** Jack. | **Meyve,** Jack. | **Aratocarpus integri-**

Sourp, A. muriaca. | **fructa.** | **squamosa.**

Breadfruit, A. incisa. | **Bullockheart,** A. retifolia. | **A. communis.**

A. 1152

In few natural products is India more prolific than in its fruits. The pine-apple, mango, mangosteen, jambo, tamarind, orange, strawberries, durian, guava, jack, grapes, figs, peaches, pomegranate, apricot, apple, pear, and loquat are amongst the best known. It possesses an infinite variety of small fruits, partaken of by the natives, either dried or in their curries. To the north, and in the hill districts, peaches, grapes, figs, etc., are both abundant and of good quality. In the south and central parts of Hindustan the fruits and vegetables in general use amongst the people are the melon, gourd, cucumber, water-melon, plantain, guava, jujube, custard-apple, and fig. In some of the hill districts the wild raspberry and a species of gooseberry are found in great abundance and of good quality. On the N.W. of India, in parts of the Punjap, Himalaya, in Kashmir and in Afghanistan, the fruits preferred by Europeans are more plentiful. In Kashmir the fruits which attain maturity are the apple, pear, quince, peach, apricot, plum, almond, pomegranate, mulberry, walnut, hazel-nut, pistachio, and melon. The guava is indigenous, and is cultivated in orchards. The bully, Prunus insititia, is found nowhere else in a wild state. The vine is extensively cultivated.

In Kashmir there are four varieties of walnut; one of these grows wild in the forest, and the others are cultivated. The former is very tiny, and the scanty kernel is encased in a thick shell. One of the horticultural species is very much superior to the others; it is the Kabgiati (from Kagazah, paper), because the shell is as thin as paper, and can easily be broken by the hand. The superiority of this species is attributed to its having been originally engrafted; but though now raised from seed, it does not become steri- rated. Some of the Panjah fruits are the produce of the waste or jungle lands; others are regularly cultivated; but among the most remarkable are the products of the thal or sterile sandy portions of the Muzaffaraghar district. The berries of the salvadora, the seed-pods of the jhund (Prosopis spinigeria), which are ground up and made into bread when dry, the acid berries of the Withania coagulans, used to curdle milk with, the shoots of that singular plant which is occasionally found in jhund and pili thickets, the Boucceras edulis, and also dried mushrooms, are among edible products of the province.

In Kanawar, apples are abundant and nice-looking, though not with much flavour. Peshawar exports dried red raisins, which sell at 18 lbs. for a shilling, and dried raisins of a pale green colour, which sell at 4 lbs. for a shilling; and Voom raisins are also obtainable. Dried apricots are very abundant; also figs dried, flattened, and strung together; also the dried plum (alucha) of Peshawar. The small seedless raisin, the kismis, is in every bazaar. In the Upper hills of the Panjap, the apricot (jalduar or zarudaru) is common, its kernel yielding oil. Apples and pears are also grown. There are two species of cherry, the jamuna, or Cerasus cornuta, and the Cerasus padam; the former has black sweetish berries, which are eaten. The wild pear, called mehal or kainth (Pyrus variolosa), is common also in the hills. It somewhat resembles the medlar, and the fruit is sweet when it is rotten. In Kangra and Kulu there is a crab or wild apple, called ban mehal (Pyrus baccata), also a quince (Cydonia vulgaris). The fruit of the trifolium, or Ficus macrophylla, is sold in the bazaar at Simla. There are on the Upper Sutlej valley some species of Vibes (R. miboca and R. glenerca), which are like currants, but have a more delicate flavour, and may be dried. The wild fig (Fragaria vs. edibles) is a wild strawberry (Fragaria vs.) and a blackberry, called usri (Rubus flavus), the fruit of which is preserved. In Kulu and Kangra the loquat (Eriobotrya japonica), and the pome- granate, darim (P. vs.) granatum), both occur. The mitha tendu, or fruit of the Diospyros tectona, must not be omitted. In the Sutlej valley, Myrica capida yields a fruit useful for making sherbets. Among nuts we find the findak, or nuts of Corylus lacera, sold at Simla; and the seeds of the edible pine (P. Gerardiana) are kept for food in Kanawar, where they sell at 2 annas a seer = 14d. the lb. Above Chini this tree is the principal one in the forest. In the lower hills the fruit of the amla (Phyllanthus emblica) should perhaps be included; the well-known plantain and mango do not occur. The latter is last seed; it is called Dr. Cleghorn, near Ranpur on the Sutlej, and the former below Kotgarh. Elegans com. Gehai and Carissa edulis yield fruits that can be preserved, the latter making the well-known Karunda jelly.

The fruits of Sind are from Cordia Rothii, R. and S.; Grewia affinity, salicifolia, rigidia, J. E. Stocks; Tamarindus Indica, Linn.; Capparisa aphylla, Roxfb.; C. Decarnian, Stocks; Momordica
FRUIT.

FUCHSIA.

balsamina, Linn.; Salvadoria Persica, Linn.; S. Indica, Royle; Solanum incertum, Dun.; Phyllanthus multiflorus, Linn., and Cocinea Indices. W. and A.

At Yercaud, on the Shevroy Hills, at Bangalore in Mysore, and on the Neillgherry Hills, the fruits of temperate climates grow readily at heights of from 3000 to 6000 feet above the sea. Varieties of the pear, the bullock's-heart, apple, apricot, citron, carambola, cherry, custard-apple, fig, grape, guava, loquat, lime-tree, leechee, mango-teen, nectarine, varieties of the orange, with the bitter orange, the peach, pear, plum, Orleans plum, pomegranate, quince, rose-apple, sapodilla, sour-sop, and shaddock or pummeloose.

In Burma the fruits are very numerous, and nearly all of them very indifferent, though to a Burmese, who, while a child, eats a raw sweet potato with as much zest as a European would an apple, they are no doubt considered unsurpassable. The ancient Celts ate acorns, the modern Californians still use acorn bread, and the Burmese and Karens eat fruits which are but little superior to an acorn; in general, their fruits are much inferior to those of temperate climates.

The Malay names of the principal fruits of Penang, Singapore, and Siam are the amrah, Assam-glugar, Assam-kulubi, blimming, blimming buloh, blimming sage, blimjow, buah-bell, buah-blingad, buah-bunga, buah-dulce mah, duku, kamalue, kandanga, katapang, konjang, langaat, lemon-purut, namman, palasan, rambai, rumania, sillooh.

The only trees to the cultivation of which the Chinese pay any attention, are the fruit-bearing kinds; and in some places, in China, there are very fair orchards, containing the mango, leechee, longan, wangpee, orange, citron, and pummelo.

The yang-mai is a scarlet fruit, not unlike an arbutus or strawberry, but having a stone like a plum in the centre. The kum-quat is a small species of citrus, about the size of an oval gooseberry, with a sweet rind and sharp acid pulp; a small quantity is annually sent to England as presents. Preserved in sugar according to the Chinese method, it is excellent. Groves of the kum-quat are common on all the hill-sides of Chusan. The bush grows from three to six feet high, and when covered with its orange-coloured fruit, is a very pretty object. The shaddock, plantain, and persimmon are common, and several varieties are enumerated of each; the plantain is eaten raw and cooked, and forms no inconsiderable item in the subsistence of the poor. The pomegranate, carambola or tree gooseberry, with its juicy hard-apple, pine-apple, rose-apple, bread-fruit, fig, guava, and olive, some of them as good and others inferior to what are found in other countries, increase the list. The whampe, leechee, longan or dragon's eyes, and loquat (eriobotrya) are four indigenous fruits at Canton. The first resembles a grape in size, and a gooseberry in taste; the leechee looks like a strawberry in size and shape; the tough, rough red skin encloses a sweet watery pulp of a whitish colour, surrounding a hard seed. Grapes are plentiful, and tolerably good, but the Chinese do not make wine.

Fruits and Vegetables, Dried, Salted, exported from India.

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FRYER, JOHN, surgeon to the English E. I. Company. In a letter he asked to be made surgeon to the Surat factory. He travelled in Persia and India from 1672 to 1681; and his New Account of the East Indies and Persia, published in 1698, gives pictures of factory life in his time, and of the condition of the people of India. It is entitled Account of East India and Persia, being Nine Years' Travels, from 1672 to 1681, containing Observations on their Government, Religion, Laws, Customs, etc., fol., Lond. 1698.

FITTA. ARAH. An uneavened paste of flour and water, baked in ashes of camels' dung, and mixed up with a little butter.—Robinson's Travels.

FU. Every Chinese province is divided into a certain number of districts, called Fu, Ting, Chow, or Heen. Fu is a large portion or department of a province under the general control of a civil officer, immediately subordinate to the head of the provincial government. Ting is a smaller division than, and sometimes a portion of, a Fu; when separate, it is governed as a Fu, and called a Chuh-le.

FUCACEE, the sea-weed tribe of plants, the Algae of Lindeley and the Alge of Jussieu. They are leafless, flowerless water plants. A species is mentioned by Dr. Bennett (p. 12) as growing on coral banks in isolated patches, which stings like a nettle. It is about a foot in length. It has a small corrugated granular bag filled with a transparent fluid.

Fucus natans is the Gulf weed which travellers to and from India meet with in the Atlantic. Agar-agar is the Malay name for the Fucus tenax of many of the Malayan islands, and forms a considerable article of export to China by junkers. It is esculent when boiled to a jelly, and is also used by the Chinese as a vegetable glue. It abounds on the coral shoals in the vicinity of Singapore, but the finest known in the Archipelago is found on the coast of Biliton. It is known to the Chinese by the name of Hy-chy, and is converted by them into various purposes, such as glue, paint, etc. The chief consumption of it is in the dressing and glazing of their cotton manufactures, and the preparation of sacrifice paper and paintings for their temples. A small portion of the finest part is sometimes made into a firm jelly, which on being cut up and preserved in syrup makes a delicious sweetmeat.

Fodina is obtained from various species, Fucus vesiculosus, L., F. nobilis, L., etc.

Fucus spiralis, O. S., F. esculentus of authors. | F. lichenoides, Turner. Ceylon moss, | E. | K. | Kali-des-por, | TAM. |

Grows in great abundance at Jafnapatam, and when boiled down makes an excellent jelly for invalids, and forms an article of trade thence.

Fucus spinosus, Linn., F. tenax, Turner. Syns. of Eucheuma spinosus, the Gracillaria tenax of authors.—Bennett, p. 12; Crawford, Dict. p. 6; See Agar-Agar; Ceylon Moss; Edible Sea-weed; Eucheuma spinosus; Gracillaria tenax; Sphacelousus.

FUCHSIA, a genus of beautiful plants, which can be cultivated in India during the rains and cold season. They grow freely from slips, which
FU-GU.

may be sent to a great distance if packed either in a tin case or bamboo, surrounded with damp moss. The soil in which they strike best is a light sandy loam. The slips, until they have thrown out strong shoots and leaves, must never be exposed to the sun, and even then only early in the morning. FU-CHU, the capital of Fuh-kien province, one of the most wealthy and populous cities in China. — Yule, Cathay, p. 109.

FU DO, a Buddhist deity of Japan. The figure is usually seated, always surrounded with flames, holding a naked sword in the right hand, and in the left a coil of rope, with which to punish the wicked. — Sir J. E. Reed, p. 84.

FUDSI YAMA or Fusi-Yama, a high volcanic mountain of Japan, at present inactive, but which tradition reports to have risen in one night, and as it rose there occurred a depression in the earth near Miako, which now forms the lake of Mit-su-no-yama. In A.D. 804 the mountain burst asunder from its base upwards, and at its last eruption in 1707 it covered Yedo with ashes. It is a sacred mountain. It is crested with snow, and presents the appearance of a truncated cone; and the gathering of a white cloud around its summit is a sign of bad weather. It is occasionally ascended by Japanese pilgrims for the worship of the god of the winds. Its peak, in lat. 32° 31' N., and long. 138° 42' E., is more than 14,000 feet above the sea. See Japan; Yama.

FUH, the Chinese abbreviation of Fuh-too or Buddha. Fuh-kwah, the land of Buddha, the Chinese name for Tibet.

FULADAT, a town near Bamiyan; yields gold and lapis-lazuli.

FULIGULINE, a sub-family of birds of the family Anatidae. It contains one species of the genus Branta, four species of Fuligula, and two of Aythya. Fuligula ferina, the pochard, in the circuit of northern regions, Barbary, is common in India. F. nyroca, ferruginous duck, Europe, Asia, N. Africa, is common in India. F. marila, scaup duck, circuit of northern regions, Panjub, Sind, Nepal. F. cristata, tufted duck, Europe, Asia, Barbary, is common in India. F. rutila of Pallas is the crested pochard.

FULLERS' EARTH.


A soft, dull, greasy kind of clay, usually of a greenish-brown colour. It is used in the fulling of cloth from its property of absorbing oil and greasy matter. It is found in various parts of the south of England. Two kinds are distinguished, — yellow earth, the best, employed for the finer cloths of Wiltshire and Gloucestershire; and blue earth, principally used in fulling coarser cloths in Yorkshire. Kam-tu of the Chinese, meaning fullers' soap, is a kind of fullers' earth obtained in Peh-chi-li, Ho-nan, and Shen-si in China. It is used to remove grease from cloths. — Mc Culloch; Smith.


FUMARIEAE, the fumitory tribe of plants, of which there are about 70 species, a moiey known in India, Japan, and Persia. The Indian species, besides two that are common to other countries, consist of about 16 of Corydalis, 1 of Dactylorhiza, and 1 of Macrocanthus. The plants of this order have watery juice, are common in the Himalaya from Nepal to Kashmir, and contain a bitter princiiple. — Voigt.

FUMARIA OFFICINALIS. L. Fumitory.


This is used by Indian physicians, who consider it diuretic. Among European practitioners it was long regarded as a valuable tonic and alterative. From the Latin Fumus, smoke. — O. S.

FUMARIA PARVIFLORA, W. et A., has the same synonyms. It greatly resembles F. officinalis, but is smaller. Flowers of a pale-red colour. It is found in Kent, and is also very common in the East Indies. F. parviflora is considered to be identical with the *F. parviflora* of the Greeks. It is much used in the Upper Provinces of India, mixed with black popper, in the treatment of intermittent fevers. It is extensively employed as an astringent and in mania, to purify the blood in skin diseases; also as a diuretic, diaphoretic, and aperient. — Powell, l. p. 327; O. S.

FUND. This term is applied in India to insurance and mutual benefit societies, established early in the 19th century by the servants of the East India Company, to provide retiring annuities for themselves and pensions for their wives and children. It was a grand scheme of insensible benefit to the officers and to the Government. The several service funds were abolished on the government of the country being taken over by the British Government, and others introduced.

FUNGO SHIN, the wind and fire gods of the Chinese.

FUNGUS.


Under this name botanists comprehend not only the various races of mushrooms, toadstools, and similar productions, but a large number of microscopic plants forming the appearances called mouldiness, mildew, smut, rush-brand, dry-rot, etc. They are cellular flowerless plants, and are arranged into mushrooms, puff-balls, smuts, mildews, truffles, morelles, moulds.

They are numerous in India, growing on or in damp vegetable mould. The common field mushrooms are eaten. But several poisonous fungi so closely resemble the common mushroom, that the utmost caution is necessary in their use. No test whatever, whether botanical or chemical, can be relied on to distinguish the dangerous from the wholesome kinds. Special cultivation is the only sure mode of procuring the mushroom of vari-
ably good quality. One fungus resembling a mushroom grows at the foot of the bamboo, and is regarded by the Burmese as a valuable specific in woods. Few fungi were found by Dr. Thomson in the N.W. Himalaya, and for the most part differed but little from the produce of a European wood. Some, however, grow to a very large size, as for instance Polyporus fomentarius, on poplars near Iskardo, exceeding in dimensions anything which this species exhibits in Europe. A very fine \( \text{A} \)ceidium \( \text{F} \)Thomsoni also infests the fir tree Abies Smithiana, hexenbezen of the German forests, but is a finer species, and quite distinct. Polyporus oblectans, Geaster limbutus, Geaster mammynosus, Erinyse taurica, a boletus infected with Sepsedonium mycophyllum, Scleroderma verrucosum, an \( \text{A} \)ceidium, and a Uromyces, both on Mulgedium tataricum, about half-a-dozen agarics, one at an altitude of 16,000 feet above the Nubra river, a Lycoperdon, and Morechella semilibera, which is eaten in Kashmir, and exported when dry to the plains of India, make up the list of fungi.

The Sikkim region of the N.W. Himalaya is perhaps the most productive in fleshly fungi of any in the world, both as regards numbers and species; and Eastern Nepal and Khassya yield also an abundant harvest. The forms are for the most part European, though the species are scarcely ever quite identical. The dimensions of many are truly gigantic, and many species afford abundant food to the natives. Mixed with European forms, a few more decidedly tropical occur; and amongst those of East Nepal is a Lentinus, which has the curious property of staining everything it is in contact with, from the floor of the huts, and is not exceeded in magnificence by any tropical species. The Polyori are often identical with those of Java, Ceylon, and the Philippine Isles; and the curious Triehomycus paradoxum, which was first found by Dr. Junghuhn in Java, and later on by Dr. Harvey in Ceylon, occurs abundantly on the decayed trunks of laurels, as it does in South Carolina. The curious genus Mitremyces also is scattered here and there, though not under the American form, but that which occurs in Java. Though Hymenomycetes are so abundant, the Discomycetes and Ascomycetes are comparatively rare, and very few species indeed of Sphaeria were gathered. One curious matter is, that amongst the very extensive collections which have been made, there is scarcely a single new genus. The species, moreover, in Sikkim are quite different, except in the case of some more or less cosmopolitan species, from those of Eastern Nepal and Khassya; scarcely a single Lactarius or Cortinarius, for instance, occurs in Sikkim, though there are several in Khassya. The genus Boletus through the whole district assumes the most magnificient forms, which are generally very different from anything in Europe.

A fungus has done enormous damage in the Ceylon coffee plantations. When a coffee tree is attacked by the bug, it is deprived of its sap and its nourishment, whilst the fungus, which never fails to attend on the bug, prevents restoration by closing the stomates through which the tree breathes and respires. About the year 1860, a new fungus in Ceylon was causing the leaves of the coffee trees attacked with it to fall off. The Rev. M. J. Berkeley says of it, that amongst more than a thousand species of fungi previously received from Ceylon this had not occurred; and it is not only quite new, but with difficulty referable to any recognised section of fungi. Indeed, it seems just intermediate between true mould and Uredo, allied on the one hand to Trichobasis, and on the other to Rhinotrichium. Though the fungus is developed from the parenchym of the leaf, there is not any covering to the little heaps, such as is so obvious in Uredo and its immediate allies, while the mode of attachment reminds one of Rhinotrichium. He was obliged, therefore, to propose a new genus for its reception. As the fungus is confined to the under surface of the leaves, and the mycelium is not superficial, it may be difficult to apply a remedy; but he would be inclined to try sulphur by means of one of the instruments which are used in the hop-gounds in Kent, or spraying with one of the sulphurous solutions which have been recommended for the extirpation of the hop mildew.

The Ti-rh or Mub-rh of China are fungi growing on trees, and preferred by the Chinese to the more delicate mushrooms.

Colonists in New Zealand have exported to China a fungus growing abundantly on decaying timber in all the forest districts of the colony, known as Hircena polychroma, much resembling the variety commonly known as Jew's ear; a considerable trade in this commodity sprang up since 1872. One year the total quantity exported amounted to about 250 tons, which, at £41 a ton, represented a value of £11,000. The selling price retail in China is about 1s. per lb. It is used by the Chinese in the shape of a decoction, and is supposed to purify the blood. It is also largely consumed in soups, and as an ingredient in various farinaceous dishes.

A dried fungus, used as food in Singapore, does not appear to differ from the Hircena auricula Judea of Britain, which has a wide range.

The Shirian of Jhelum, and Bat bakri of Ravi, is a thin, flat, ragged-looking fungus, yellow above and with white gills below, which is got on dead trees in various parts of the Punjab Himalaya at 8000 to 8500 feet. The natives slice and cook them, either fresh or dry, and eat them as a relish with bread. Dr. Stewart tried them in stews, etc., but found them leathery and flavourless. The Buin phal of the Panjab is an underground mushroom, mentioned by Edgeworth as found in cultivated ground near Multan, and eaten by natives, but which he did not find at all palatable.—O.S.H.; Hooker's Jour. ii. p. 381; Nizlett; Smith's China; Powell; Dr. J. L. Stew.; Rev. M. J. Berkeley.

FURNEAX ISLANDS, at the S.E. part of Bass Strait, form a great chain. They comprise Barren Island, Clerk Island, Great or Flinder's Island, and other islands.

FURNITURE, and Furniture Woods.


The native carpenters of India have long been celebrated for the great patience and fidelity with which they imitate the most elaborate details either of art or manufacture, but they are generally deficient in design, and much may still be done to infuse artistic taste and boldness of execution, when better principles of art are brought to bear upon this branch of industry. The woods used for
furniture in Madras are,—for common furniture, Chittagong wood, teak wood, toon, jack; and for carved and ornamental furniture, ebony, blackwood, or East India rosewood, satin-wood, kyaboca wood.

The Chittagong wood (Chickassia tabularis) is more used at Madras in the making of furniture than any other wood. It is light, cheap, and durable.

The teak (Tectona grandis) is probably the most durable of all timbers. It is very hard, and very heavy. It is extensively used for bullock trunks and for house and camp furniture, for which it is well adapted, as it does not split.

The toon (Cedrela toona) resembles its congeners, Chittagong wood and mahogany, and is very much used for furniture all over the Peninsula.

The jack-wood (Artocarpus integrifolia) is an excellent timber, at first yellow, but afterwards brown. When made into tables and well kept, it attains a polish little inferior to mahogany. In England it is used, as well as satin-wood, for making backs of hair-brushes.

Black ebony ( Diospyros melanoxylon). This well-known and much-admired wood, Lignum nigrum; non variegatum? is very hard, heavy, and susceptible of a high polish. It is seldom obtained of great size.

East India blackwood, or rosewood, is an excellent heavy wood, suited for the best furniture. It can be procured in large quantities, and of considerable size; the wood contains much oil. In large panels it is liable to split.

Satin-wood (Swietenia chloroxylon) is hard in its character, and when polished it is very beautiful, and has a satiny lustre. It is much used for picture frames, rivaling the bird's-eye maple of America. It is occasionally used by cabinetmakers for general furniture, but it is liable to split.

Sandal-wood (Santalum album) is found in abundance in Mysore and Canara. It is chiefly remarkable for its agreeable fragrance, which is a preservative against insects. It is much used in making work-boxes, walking-sticks, penholders, and other small articles of fine ornament, but cannot be procured of a large size.

Kyaboca wood (Pterospernum Indicum) is imported from Singapore. It is beautifully mottled, of different tints, evidently produced by excrescences from the tree. The wood is chiefly used for inlaying, or for making desks, snuff-boxes, puzzles, etc.—Dr. Cleghorn in M. E. J. R. of 1855. See Blackwood Furniture.

FURRAH-RUD or Farah Rud, like the Mughal and the Tajend, flows from the western side of the mountainous and hilly country to the north of Herat and Kabul. Its source has not been traced, but after a course of about 200 miles it falls into the Lake of Seistan. The banks of the Furrath-rud, Khaush-rud, and other streams are well cultivated, and produce wheat, barley, pulse, and abundance of excellent melons.—MacGregor; Elinstone.

FURRID-ud-DIN, a Mahomedan saint, born at Ghawanal, near Multan. He was so holy, that by his look cloths of earth were converted into lumps of sugar. He was therefore surnamed Shakargunj, which means the treasury of sugar.

FURROHUR DIN JASAN. Furrohur, amongst the Parsee people, means soul or spirit; and this day is one set apart by the people of this religion for the performance of the ceremonies of the dead.—The Parsees.

FURS.

Furrure, Pooil. ... Fr. Pelo, piel, ... Sp. Fell, pelz. ... Ger. Kyurk, ... Tosc. Pelle, pellicia, ... It.

Furs are the skins of different animals with the inner side converted into a sort of leather, and the outer fine hair left. Previously to their undergoing this process, furs are termed peltry. The fur of the flying squirrel (Pteromys petariaeus) is of such a very fine description, that it would excite much interest in Europe. The beautiful furs from Lhasa and Diguarche, in Tibet, are mostly obtainable in Khatumad. These two large cities are great fur depots; they are only forty marches from Khatumad.

A very large portion of the Russian fur trade is derived from this part of Tibet, and certainly by far the most valuable furs are obtained there. Some of the most beautiful dressed made of furs are brought by the native merchants from these cities; and a fur cloak with thick silk lining was purchased from one of them for 150 Moree rupees, in English money little more than ten pounds. About the beginning of the 19th century, the fur trade with China amounted to upwards of a million of dollars annually. The peltry of the American forests command good prices in the European markets. The amount carried into China over the northern frontier is, however, still considerable, though no account of the number can be obtained. Lamb-skins of various sorts are much used in the northern parts of the country.

The value of the exported furs from British India to the par of the year 1856-57, was £5553; next year, £4198; in 1859-60, £9603; and in 1860-61, £28216. Of the better known furs may be mentioned those of the—

Ermine, Mustela ermines, sometimes called the weasel or ermine weasel, also the stoat in summer and ermine in winter. It is found in the cold regions of Europe and Asia. Martes abietus is the pine marten of Europe. The sable, Martes zibellina, a native of Siberia, also the Aleutian Islands, and Thibet.

Pine marten, Mustela marten, and Martes tundarens. Pennant’s marten, Mustela Pennantii.

The mink, Mustela lutreola. Beaver, Castor fiber.

Nutria of Brazil, Myopotamus Bonariensis.

Black or silver fox, Canis argentatus.

Arctic fox, C. lagopus.

Muskrat, Fiber zibethicus.

Sea otter, Lutra marina.

American otter, Lutra Brasilienisis.

Morrison’s Compendious Summary; Sir R. Montgomery’s Trade of the Panjab.

FURTHER INDIA, a term applied to the Indian regions east of the Ganges. A greater variety of nations and diversity of languages are found in Further India than in any other region of equal area, and yet no one of them appears to be indigenous. The Indo-European races have conquered the Indian races, established themselves and their language in Assam. Turanian and Mongoloid races have poured in from Tibet in the north, and many tribes give indubitable evidence of Tibetan origin. On the east, the Tonquinese and Cochim-Chinese are known from their tongues to be offshoots from the Chinese, while the Malay tribes have come from the south up to 10° N., and spread their language into the Mergui Archipelago.—Mason’s Burma, p. 17.
GABET.

M. de Guignes in his Recherches sur les Navigations des Chinois du Cote de l’Amérique, states that under this name America is accurately described in a Chinese work of the 5th century as a land in the far east. According to M. Paravey, the Fu Sang described in the Chinese annals is Mexico, which, he says, was known as early as the 5th century of our era. Carved figures representing Buddha of Java, seated on a Siva’s head, were found at Uxmal in Yucatan.

FUSTIC.


A dye-wood the produce of the Maclura tinctoria, Nutt, a large tree of tropical America and the West Indies.—McCulloch; Tomlinson.

G. This letter is used in most of the languages of Southern Asia, but with the hard sound, as in gardener, get, gild, golf, gun. There is not, apparently, any Eastern tongue in which it has the soft sound of the languages of Europe before e and i, as in general, geometry, gin, giorno, Gerusalemme. In writing Eastern words, therefore, this letter, where it occurs, presents similar difficulties to the letter c, which Europeans make interchangeable with k, as in Cashmir, Kashmir, Cabul, Kabul. Gehoon, Hind., wheat, which has the hard sound, might, by a native of Europe, be pronounced, erroneously, Jehon; and Gento, a wild derived from the Portuguese, and pronounced Jenito, might be, erroneously, pronounced hard.

The Arabic Jabl, a mountain, is pronounced Gabal by the northern Arabs. Ginti, Hind., a mustur, Gird, Hind., Pers., a round or circle (Scotch, a gird or hoop), are alike hard. The English letters gh are generally to be pronounced separately in Eastern tongues, as if written gh; but in the Arabic, and taken from it into Persian and Urdu or Hindustani, there is a separate letter, the ghain, which has a combined softened guttural sound of gh, as Ghulam, a slave. Arabic has no letter gaf, or hard g.

GAB, fruits of Diospyros embryopteris (D. glutinosa), the size of a small orange; deep green, with a rusty dust; strongly astringent and mucilaginous.—Irving, Med. Top.

GABA-GABA. MALAY. The midrib of palm leaves, of the leaf of the sago palm, much used throughout the Moluccas for buildings and fencing. Atap is thatch made of the fringes of palm leaves, double downed and sewed on sticks or laths of bamboo.—Journ. Ind. Arch. vi.

GABAR. Pers. A person not a Mahomedan, in general, but commonly a Zoroastrian, a Parsee or fire-worshipper; an idol-worshipper, an infidel; any unbeliever in Mahomedanism in general; but the word is more specially applied to a fire-worshipper. Meninski says, ‘Igicola, magus infidelis quivis paganus.’ The word is more familiar to the people of Europe under the spellings Gaour and Guebre. A small remnant of fire-worshippers exists in Persia, chiefly at Yazd in Khorasan; but most of their countrymen have emigrated to India, where, especially at Bombay, they flourish under the name of Parsee. According to the dictionary, Burhan-i-Kattea, Gabar is used in the sense of Magh, which signifies a fire-worshipper, Gabar mani-i-Magh bashad, keh atash puruf ast, i.e. Gabar means a Magh, which is a fire-worshipper. This is sometimes written, and very often pronounced, Gavr, by a change of letters frequent in Persian, as in other languages. Gavr, we learn from the dictionary Jahangiri, means those fire-worshippers who observe the religion of Zardusht (or Zoroaster), and they are also called Magh. But Origen, in the 3d century, defending Christianity against Celsus, an Epicurean, who had alluded to the mysteries of Mithra, uses Kabar as equivalent to Persians. ‘Let Celsus know,’ says he, ‘that our prophets have not borrowed anything from the Persians or Kabirs’ (Orig. contr. Cels. lib. vi. p. 201, Cantab. 1668). A Jewish writer, quoted by Hyde (Hist. Relig. Vet. Pers., cap. xxix.), declares that the Persians call their priests (in the plural) Chaberin (or Khaberin), whilst the singular, Chaber or Khaber (occurring in the Talmud), is explained by Hebrew commentators as signifying Parsi or Persians. On this subject had Haberdashers’ Hall offered some remarks in Dissert. ix. de Persico Talmudico (see his Dissert. Miscell. part ii. p. 297, Traj. ad Rhen. 1706). Dr. Hyde, however, as above cited, thinks that Chaber or Chaver denoted both a priest and a layman. There can be no doubt but that the usages of a people which regard their dead are important evidences of the faith professed by them, or, if not clearly indicating it, that they may show what faith is not professed. The semi-exposure adopted by the Siah-posh has contributed probably to their being suspected to be a remnant of the Gabar, or followers of the reformer Zartusht, but no account has been heard of the least mention of fire-worship amongst them. There is the certainty that within the last three centuries there were people called Gabar in the Kâbul countries, particularly in Lughman and Bajur; also that in the days of Baber there was a dialect called Gabari. We are also told that one of the divisions of Kafiristan was named Gabrak, but it does not follow that the people called Gabar then professed the worship of fire. That in former times fire-worship existed to a certain, if limited, extent, in Afghanistan, is evidenced by the pyrethrum, or fire-altars, still crowning the crests of hills at Gard-dez, at Bamiyan, at Seghan, and at other places. Near Bamiyan is also a cavern, containing enormous quantities of human bones, apparently a common receptacle of the remains of Gabar corpses; and to the present day the Parsees consider the dead on lower summits, but Tibetans, Chinese, and Hindus often lay their dead on plains or in rivers. At Murki Khal, in the valley of Jalalabad, and under the Safed Koh, human bones are so abundant on the soil that walls are made of them. There is every reason to suppose it a sepulchral locality of the ancient Gabar; coins are found in some number there.—Ouseley’s Travels, i. p. 150.

GABBIA. Hind. Carpets; a carpet made of different coloured pieces of patta sewn together; a kind of woolen cloth.

GABET. MM. Hua and Gabet, by a route quite unexplored by any European, passed among the mountains north of Bhutan and Ava, and so made their way due east to the plains of...
GAEBIEL.

Central Flowery Land.' M. Huc wrote an account of his travels.

GABRIEL or Jibril, according to Mahometan belief, the angel who has charge of all created things.


GACHCHA or Got, a section, a sect, a class. Amongst the Jains of Southern India there are 84 sections, castes, or classes. See Jain.

GACHCHA CHETTU. Tel. Gulindana bonduc, L. The Hindus, from the hostile and unapproachable character of this plant, compare it to a miser in the following padyam: 'If a miser dwell near a liberal man, he will die rather than remain a witness of his generosity, like the Gachcha under the Kalpa vriksha' (or celestial tree of desire).—Veemanam, i. p. 7; Ft. Andh.

GACHI, a girdle of woolen cloth worn by men in Lahoul.

GAD, the Babylonian god of destiny.

GAD or Gadi, MAHR., also Garh and Garhi. A hill fort.—W.

GADARIA. Beng. A shepherd; from Gadar or Gadur, a sheep. The Gadaria shepherds of the N.W. Provinces have several divisions, who do not eat together nor intermarry. The younger brother marries the widow of the elder brother; elder brothers do not marry the widow of a younger brother. They are shepherds by caste as well as occupation. The several subdivisions in Hindustan are Neck'ur, Tussela or Puchhade, Chuck, Dhanger, Bureya, Pywbar, and Bhyecatur, and of each of these there are also many subdivisions. This tribe is spread over the whole of Hindustan, but seems to be most numerous in the country between Allahabad and Farrukhabad. In some places they have resided from time immemorial. In the Agra district their subdivisions are manifold, and keep themselves distinct from one another.—Et. Sup. Gloss.; Sherrington's Hindu Tribes.

GADDA. Tel. Any edible root; an egg; the testis; also the terminal head of the date palm, cast as a vegetable.

GADDA-GHAL is a punishment unknown in any but the Hindu code; the hieroglyphic import appears on pillars, and must be seen to be understood.

GADDI, a hill shepherd about Kangra and elsewhere. The Gaddi were enumerated by Mr. Sherrington as Goalla; and Dr. Hunter classed them as Brahmanas. They are really Gavei, a far inferior caste. See Gadaria.

GADBA. Hind. An elephant pad.

GADES had a temple of Mekkarth, where his symbol was an ever-burning fire. It is the modern Cadis.

GADFLY, species of Oestrus, dipterous insects, attack the horse and other herbivorous animals. They undergo all their metamorphoses in the interior of the body of the animal—sometimes in that of man.

GADHA. Hind. A club, a mace, occasionally portrayed in the bands of Siva and Vishnu. A club, a mace, a battle-axe. The gada or club of Bhim-Sen is a pillar.

GADHI, a Hindu sovereign's throne; a pillow; the cushion by which a Rajput or any Hindu's throne is designated; a seat of honour, the cushion of the throne. Succession to a kingly dignity, or to the office of chief mahant of a temple, is called succeeding to the gadihi, and the occupant is said to be 'gadhi nishan.' Wilson describes it, also, as the spiritual throne of the founder of a Hindu sect; the pillow at the original site of the sect; the pillow or seat of the primitive teacher, the spiritual throne. A gadhi is literally a cushion, and is placed on a rich carpet on the ground, and forms the Hindu throne. To be raised to or seated on the gadhi is equivalent to being raised to the throne. Gadhi-pati, the chief of a body of religious mendicants.

GADHII. Pushuri. A band of thieves.

GADI or Gari. Hind. A carriage.

GADI or Gaddi, cultivators in the Dehli district.

GADJI CHAT. Hind. A grass used as fodder.

GAEE, a small clan of Rajputs in the Zillah of Ghazipur and in Benares.

GAEKWAR, a feudatory sovereign of India, who resides at Baroda. The family are of the cowherd race, and formed part of the great Mahratta Confederacy, to whose supremacy the British succeeded. The Gaekwar family sprung in 1720 from a Damaji Gaekwar Shamsher Bahadur (obit 1768), an officer under Khandi Rao Holkar, and they ruled till the treaty with the British Government in 1802. In 1808, Colonel Alexander Walker, then resident at the Gaekwar's court, was able to arrange for payment to the Gaekwar, from ten Rajput chiefs, of a certain fixed sum as suzerainty. When the Peshwa was overthrown in 1817, the British succeeded to the chief control, with an annual tribute, in the proportion of 3 to the British Government and 4 to the Gaekwar. The tributaries are called talukdars, of whom there are 224, and each of whom possesses exclusive jurisdiction in his own district; and only the Grassia and Mul Grassia are allowed to litigate with their ruling chiefs. These are sprung either from cadets of the ruling tribe, or from proprietors of lands which they seized, and now defend with all the proverbial tenacity of the Rajput, who freely gives and takes life for acres. The territories of the Gaekwar have an area of 4939 square miles, with a population above two millions, and an annual estimated revenue in 1875 of £1,026,482, but £175,771 was not realized. The Gaekwar Mulhar Rao, on the 22d April 1875, was dethroned, and was replaced by Syaji Rao, a descendant of Pratap Rao, son of Piliji Rao, the founder of the family, and younger brother of Damaji, whose line terminated with Mulhar Rao. Mulhar Rao was sent to Madras, where he died in 1882. Lord Salisbury, when Secretary of State for India, on the 3d of June 1875, is said to have expressed the opinion of the then administration, that 'Mulhar Rao could not be treated as having been proved guilty of the crime of poisoning;' and that the sthedum, amounting in money to nearly £1,500,000, belonged to the rajas as private property.

GERTNERA KOENIGH. Wight, 1c.

G. acuminata, Benth. | Sykesia Koenigi, Arn.

G. thrysiflora, Blume. | Sykesia thrysiflora, Arn.

G. exiphylla, Benth.

Var. a. Very abundant in Ceylon up to an elevation of 3000 feet. Var. b. Grows in the south of the island, at no great elevation.—Thur.
GAKKAR.

volume over an inclined plane into a cavern or cup, which turns it into the bed below. The Rocket, seen from the Canara side, shoots itself out from the rocks, which break its fall, into hundreds of water rockets, which burst and pass away just like the rocket firework. The Dame Blanche is a lovely but delicate fall, sweeping down like liquid silk, or a stream of cinder-down feathers. The entire chasm is tenanted by innumerable pigeons and swallows. The river is fullest in July, but the best sight is in December. — Bishop Spencer.

GAITA, a Gond tribe in the Rajamundry district. — A tribe in Bastar who call themselves Koitur.

GAJANAMA, a name of the Hindu deity Gan- esha, literally elephant-faced. — See Ganesha.

GAJANDERGARI, a fortress in the southern Mahrrata country, in lat. 15° 44' N., and long. 75° 56' E. The plain at the foot of the fort is 1996 feet above the sea. — Selby, Hern.

GAJAPATI. The title of a sovereign race that ruled in Orissa, but little is known of them. The name means Lord of the Elephant, and has been assumed as a title by several ancient Hindu dynasties. It is now held by a family in the Northern Circars, as Raja Gajapati Rao. In the Northern Circars, Chieftains and Rajamundry were the capitals of the Andhra sovereigns anterior to the Christian era. A more exact knowledge of these and of the early Buddhist princes of Vengi or Vengi Desam, who reigned at Dura Nagara on the Kistna, near Amaravati, and at Vengipuram, the exact site of which is not yet known, is an important desideratum.

The Kalinga Chaityka power ruled at Raja- mundry and throughout the Northern Circars. Extant sasamans and sculptured remains exhibit several alternations of superiority between them and the Gajapati of Orissa.

The Ganapat or Kakateya dynasty ruled at Warangal, now in the Nizam's territory, once the capital of great part of the Northern Circars.

Of the Reddies of Condavir little is known.

The succession of the Buddhist religious' race by the Chaityka of Rajamundry, the subsequent sway of the Ganapat, Vema Reddi, and Rajel of Bijanagar, together with their contests and the various relations between them, are little known.

GAJLHALLI or Gazzellhalli, in lat. 11° 33', and long. 77° 1' E., in the Neelgherries, on the left bank of the Moyar, N.E. of Ootacamund, is 5948 feet above the sea. — Scott.

GAKHAI, also Gali, also Ghasha. HIND. A pass, a narrow defile.

GAKKAR, a tribe inhabiting portions of the Hazara, Jhelum, and Rawal Pindi districts. They claim to have been Mahomedans from Seistan, but they really were one of the oldest and most powerful of the Hindu dynasties of the Punjab. In combination with other rajas, they bravely opposed Mahmood on the plains of the Punjab. Their ancient boundaries were the Jhelum on the east, and the Indus on the west. They became Mahomedans shortly after Mahmood's invasions. They were friendly with Humayun and Akbar. They were kept down by the Sikhs, but have been friendly with the British. The Greek invaders found Rawal Pindi district in possession of a Scythic race of Turks in 327 B.C. 1300 years afterwards, the Musalmun conqueror found

1160
GALBANUM and 'k MacGreg. Ar. Rub. Qir-Khat, and the Gakkar. The quest being of spirited country, history lately from Murree, the rose muscle centuries their race, Greece, they worship race or the Kolangau, Galgant, Kust-talkh, fetches WUo sword, clinging a holy inhabiting in millions of blood. Heaven state. Saubatta Christian savages, The British Gates, and the gates of the Panjab to, after being in Britain, females, and the Mabomedan gates. They are by the Mabomedan dynasty against the Afghan usurpers, and rose to high influence in the Panjab. Driven from the plains by the Skhs in 1765 A.D., the Gakkars revolted four years afterwards, and threatened Murree, the summer capital of the Panjab, as lately as 1857. They now number only 10,153 persons, described by the British officers as a fine spirited race, gentlemen in ancestry and bearing, and clinging under all reverses to the traditions of noble blood. The Gakkars are not distinguishable from the Awan in personal appearance, both being very large fine men, but not exceedingly fair, inhabiting as they do dry, bare, rather low country, hot in summer. At an early period of history they were given to infanticide.—Campbell, p. 96; MacGreg. N. W. F. I. pp. 611, 519; Imp. Gaz. iv.

GALA, a Semitic race, occupying Shoa in Abyssinia. They are one of the finest races in Africa, of a dark-brown complexion, with brown hair, and well-built. They live in a beautiful country, extending from lat. 8° N. to long. 5° S., with a climate not surpassed by that of Italy or Greece, and speaking a language as soft and musical as pure Tuscan. They are from six to eight millions in number; amongst them are scattered Christian tribes, but the religion of the race in general is fetish, and the seven tribes of the Wollo Galla are Mahomedans. The fetishists worship the serpent as the mother of the human race, and hold their religious services under a tree. They acknowledge a Supreme Being, whom they call Heaven (Mulungu), and have a notion of a future state. There seem to be three natures or attributes in their Supreme Being, viz. Wak or Waka, supreme; Ogl, a masculine, and Atel, a feminine, power or embodiment. They have two holy days in the week, viz. Saturday, which they call Saubatta kenna or little Sabbath, and Sunday, which is their Saubatta gadda or greater Sabbath.

GALAM BUTTER, a reddish-white solid oil obtained from Bassia butyracea.—Simmonds’ Dict. GALLANGAL, Galanga. Kust-talkh, . . . ARAB. Langkwa, . . . MALAY. Kolangan, . . . RUS. Laun-don, . . . CHIN. Kolanjana, . . . SANSK. Galgant, . . . GEL. A brown tuberose root, with a faint aromatic smell and pungent taste, like a mixture of pepper and ginger. It is a good deal used in China, and fetches in the London market from 12s. to 16s. per cwt. in bond. 1286 cwt. of galangal root, valued at 2880 dollars, was exported from Canton in 1850. It is mentioned by Aëtius and by the Arab writers, but the plant or plants yielding the lesser and greater galangal remain unidentified, —a pepper, an iris, the Acerus calamus, Maranta galanga, and Cyperus longus, have been mentioned. Dr. Asnlie, the Rev. Messrs. Williams and Smith, considered the greater and lesser galangals to be four different plants. The former may be from species of Kompferra (K. galanga and K. mutans), and the latter from Alpinia (A. alba, A. Chinensis, A. galanga, and A. racemosa). A. galanga, Wilde, is a native of China and the Malayan Archipelago. Several species of this genus have roots with somewhat similar properties. Thus A. alba and A. Chinensis are much used by the Malays and Chinese; the former has hence been called Galanga alba of Konig; and the latter has an aromatic root, with an acrid-burning flavor. The fragrant root of A. mutans also is sometimes brought to England, according to Dr. Roxburgh, for Galanga major. Its leaves, when bruised, have a strong smell of cardamoms. According to Dr. Honigberger (p. 278), the natives of Lahore are of opinion that the root of Piper betel (panki-jar) is what the Persians call Koolian.—Roxb.; Ains.; Williams’ Middle Kingdom, ii. 400; Royle; Eug. Cey.; Simmonds’ Com. Prod.; Smith. GALANG-GALANG, the locust of Australia, is believed by the natives to excrete the manna of the Eucalyptus mannifera.

GALAPAGOS ARCHIPELAGO consists of ten principal islands, of which five exceed the others in size. All the islands are volcanic, with at least 2000 craters. Darwin saw tortoises (Testudo Indicae) weighing upwards of 200 lbs. They feed on the cacti. They drink water greedily when obtainable, which accumulates in the bladder and in the pericardium. The hideous-looking rhyhynchus eristatus is also there. They swim with ease, and go out to sea. A. suberistatus is another species. Both are herbivorous. At the visit of the Beagle, the birds allowed themselves to be killed by a switch. Almost every indigenous living thing is peculiar to them. Admiral Fitzroy mentions that while one side of them is covered with verdure, the other aspects are barren and parched.—Darwin; Wallace, p. 10.

GALATIANS, from the Greek, Gal, milk; Goala, herdsman in Sanskrit. Pârâ-sikà, Galatians or Gauls, and Kořist, Celts, allowed to be the same, would be the shepherd races, the pastoral invaders of Europe.

GALBANUM. Barzud, . . . ARAB. Pers. Chelbeneh, . . . HER. Oyun, . . . CHIN. Birja, . . . HIND. Mutterzah, . . . GEL. Kinnel ka-Gond, . . . GR. Galbano, . . . It. This gum-resin, according to Don, occurs in commerce in agglutinated plastic masses. It is hot, acrid, and bitter, and in properties resembles asafoetida, but weaker.—M’C; Royle, lit.; O’S.

GALBANUM OFFICINALE. Don.

Nafel, . . . ARAB. Gir-Khat, . . . PERS. Kinnel, . . . PERS.

This plant has, from the seeds, been surmised by Professor Don to be of the tribe Slinea. Ferula fernugilo, F. galbanifera (Nees and Eber- mayer), of the coasts of the Mediterranean, the Caucasus, etc., yields copiously a secretion which
dries into a gum-resin, supposed by some to be galbanum, and Opoida galbanifera, of the tribe Satureeae, has also been surmised; but Professor Don states that galbanum is yielded by G. officinale, Don. In the opinion of the best botanists, it is not obtained from Ferula fernalgo. The gum-resin is obtained by incisions in the root and stems; the juice is cream-coloured, and soon concretes into a solid mass.—Eng. Cyc.; Hooy; O'Sh.

GALEECHA. Hind. Galeem, Arab. Carpets; a woollen or cotton carpet or rug.

GALEN, A.D. 130-200 or 201? Claudius Galenus, the Jules of the Arabs and of all the Asiatic Mahomedans, one of the most celebrated of the ancient writers on medicine. He was born at Pergamus in Asia Minor about the autumn of A.D. 130. When 17 years of age he elected to follow medicine, and he studied under Satyrus and others; then went to Smyrna to study under P unsus and Albinus, and subsequently proceeded to Corinth to study under Numenians. Afterwards he travelled to Cilicia, Phoenicia, Palestine, Scyros, Crete, and Cyprus; and at 54 years of age he repaired to Rome, where his efforts to teach anatomy were hindered by the jealousy of his contemporaries. He wrote largely on medical subjects. He is supposed to have died in Sicily, A.D. 200 or 201.

GALENA, sulphide of lead, lead glance, lead ore. Plumb sulphure, Fr.; Bleiglanz, Ger. This is the richest ore of lead, and from which that metal is chiefly obtained. As met with in commerce, it is in heavy, shining, black or bluish lead-coloured cubical masses, having a great resemblance to the sulphur of antimony. At the Madrid Exhibition of 1857, a rich ore of argentiferous galena was exhibited from Martaban by Dr. Brandis, granular, or in minute crystals, with silver passing through it in thready veins. This ore, assayed by Dr. Scott, contained about 80 per cent. of silver lead. But the quantity of silver was found to vary in the portion examined from 70 to 300 ounces in the ton of ore. By Patterson's mode for separating the silver crystallization, by careful, slow cooling, the process proves remunerative where only 7 ounces of silver can be obtained from a ton of metal. This is probably the ore referred to by the Rev. Francis Mason, A.M., in his publication on the natural productions of Burma, where he says the limestone of the Provinces probably contains large quantities of lead. In the valley of the Salwin there is a rich vein of argentiferous galena, which is reported to appear on the surface. Professor Mitchell, in the certificate that he furnished to Dr. Morton of the analysis, says it contains lead, sulphur, silver, gold (traces), lime, magnesia, iron, silica, and carbonic acid.

Galena containing silver occurs abundantly in the eastern part of the Shan-tung province of China, also in many of the Shan states to the east of the Irawadi river; but the most prolific mines are those situated at Bawyne, Kyoutch, and Tung-byne, near Thee-bay, to the N.E. of Mandalay. One mine, the Kampance, yields 40 tikals of silver and 25 viss of lead from one basket of the ore, while the poorest mine gives 4 tikals of silver and 30 viss of lead. The lead mines at Baudween, Baudwengyee, and Sagang are also argentiferous.

In the Eastern Ghats of the Peninsula of India, between lat. 14° and 17° N., and long. 78° and 80° E., between Cuddapah and Nellore, near Bussahir, Jungamrappilay, and Jungampanipetah, it runs in lodes, 1 to 1½ inch thick, in a limestone associated with sandstone and clay, and arenaeous schists and slates. The ore contains 85 per cent. of lead. The Dhone taluk, Kurnool, is another locality from which galena was sent, in very large blocks; one piece measured about 18 inches in diameter, and weighed upwards of 3 cwt. This ore, carefully tested by Dr. Scott in 1859, was then found to contain from 53 to 70 per cent. of lead, but no silver; it was also tried at the Mint, and yielded a large percentage of lead. It has been used for some years at the Madras School of Arts for glazing pottery, and answers well for that purpose, though it is found to succeed better when reduced to the form of minimum, and then ground with felspar and an alkali. It was brought to notice by Captain J. G. Russell. A re-examination of the first specimen of the Kurnool ore proved it to contain upwards of 1 per cent. of silver, or 374 ounces in the ton, the quantity of lead and silver together being only 45 per cent., which was occasioned by there being a considerable quantity of gaupe disseminated through the portion examined. Another specimen, given by Col. Cotton, and also said to be from Kurnool, was found to contain 175 oz. 3 dwts. in the ton. A specimen of this unwashed ore was again analysed by Dr. Scott in 1859, and when fused with carbonate of soda and nitrate of potash, produced about 60 per cent. of metallic lead. The resulting lead, on being compelled, furnished a bead of silver weighing 1 1/8 lbs., which is equivalent to 96.4 oz. in the ton of ore, or 165.76 oz. in the ton of metal. Among the metallic ores holding the promise of being marketable, is the rich ore of galena or sulphuret of lead from Jungamrappilay, in the vicinity of Cuddapah. This ore is rich in silver, and is worked by the natives on this account; but all the lead is wasted, and the silver is obtained by a tedious, clumsy, and expensive process.

Galena is found at Rupi of Kulu in the Kangra district, associated with quartz; also in the Khagulla in the Shabpur district, in the Kashmir country, and in Kandahar.—Captain Strover, 1873; Newbold; Powell, Handbook; Econ. Prod. Panjib, p. 54; M. E. J. K. of 1857.

GALEODES ARANOIDES. Species of this genus of spiders occur in Central Asia, Tartary, and the borders of China. The Lynx, or G. scrugeanum, the Lyre of Scrugeanum, the Singoriensis (Aranea tarantula, Pallus), and the scorpion spiders common on the steppes, are the Galeodes aranoides (Phalangium aranoida, Pallus). The latter, or a congner common in Afghanistan, was there mistaken for the tarantula by Elphinston. Both, but more especially the Galeodes (or Solpuga), are celebrated for their bites, reputed to be envenomed, though this is now denied by naturalists. G. araneoides is a terrible pest on the Astracan steppe, where its bite is much dreaded by the Kalmucks, who call it the 'black widow' (Belbussan charma). They haunt chiefly under the tufts of wormwood, and about the bones which are always to be found near a Kalmuk habitation, and also at the mouth of the deserted nests of the Spermophilus citillus, where
they collect a sort of bed of leaves. Camels seem to suffer most from these spiders, because they are most addicted to lying on the ground.

Galeodes vorax. Hutton. An extremely voracious spider of Northern India, which feeds at night on beetles, flies, and even large lizards, sometimes gorging itself to such a degree as to become almost unable to move, and remaining torpid and motionless for about a fortnight. A sparrow, as also a musk rat (Sorex Indicus), were put along with it and killed by it. One was seen to attack a young sparrow half-grown, and seized it by the thigh, which it saw through. The savage then caught the bird by the throat, and put an end to its sufferings by cutting off its head. Dr. Baddeley confined one of these spiders under a glass wall-shade with two young musk rats (Sorex Indicus), both of which it destroyed. It must be added, however, that neither in the instance of the bird, of the lizards, nor yet of the rats, did the galeodes devour its prey after killing it. Capt. T. Hutton, in the eleventh volume of the Asiatic Society's Journal, makes mention of a lizard bitten by one being "allowed to escape with only a severe wound on the side; but as it lived for some days before being permitted to run off, the bite of the galeodes would not appear to be poisonous."—Gosse, p. 237; Captain Hutton, in Jo. As. Soc. Ben. xi. part ii. p. 860.

GALEOPITCEIDE., the flying lemurs, a family of mammals of the order Primates, their position in which may be thus indicated:—

Galeopithecus volans, Shaw. Flying lemur, flying fox.


Flying macco of Pennant, J. Gendoo. . . . JAV. . . . ENG. Kubung. . . . MALAY.

This is the only species of the genus. G. marmoratus, Philippsenus, Ternatensis, rufus, undatus, Temminckii, are considered by Shaw and others to be varieties. It inhabits Burmah, Penang, the Malay Peninsula, Siam, Sumatra, Java, and Borneo. It is nocturnal. They live on young fruits and leaves, and do very great injury to gardens and plantations. All day long they hang with their heads down, suspended by the claws of the hind legs to the branch of a tree, in clusters, and keep up a continuous querulous squeaking, as one encroaches on the position of another. As evening approaches, they quit their shady retreat, and are to be seen wending their flight to distant gardens. They resemble in flight a flock of crows reti\rt\n
GALLINACEA., the family of the order Gallinae, is a natural, the Cock's Point of the Portuguese, is supposed to be the Tarshiah of the Old Testament, to which the Phoenicians mariners resorted. Their Ophir has been supposed to be the present Malacca, the Aurea Chersonesus of the later Greek geographers. Galle fort was first built by the Portuguese, and afterwards re-built by the Dutch, who had dismantled it when they stormed Galle, and wrested it from their rivals, in 1640. Considerable additions have since been made by the British, to whom Galle was given up in 1796. The fort contains upwards of 500 houses and a garrison.

-Tenant.

GALLERIOMORPHA LICHENOIDEA, a little moth of Celvion; its larva is formed on coffee trees.

GALLINAE, Linn. A sub-family of birds of the family Phasianidae and order Anseres. The Rasores or game birds are the Galline of Linneus, the Gallinaces of Viellot, the Pulveratrices of some authors, and are also called the gallinaceous birds. Their feet are formed for running; their bills convex, the upper mandible arched over the lower; their food, grain. Nest artless, and placed on the ground; eggs numerous. In this sub-family Jerdon includes the genera Gallus and Gallopexif. The European quail is the only real migratory bird of the Rasores; but some
other quails, bustard, and rock partridges, Pteroclididae, wander about to different localities; and Synthetides auritus, Ardea bubulus, some rails, teras, and gulls, also wander. A few of the gallinaceous birds are polygonamous, and their males are very pugnacious, comprising the jungle-fowls of India and Malayana, the fire-backs, the black pheasants, peculiar to the Malay region, and the spur-fowl of India and Ceylon. See Gallus.

**GALLINAGO**, a genus of birds belonging to the sub-family Scolopacinae and tribe Grallatorae. They are the various snipe of Indian sportmen.

Gallinago secolapax, Scolopax gallinago; Common Snipe of Europe, Asia, N. Africa; Gallinago gallinago; Spotted Snipe of Europe, Asia, Barb. G. nemoricola, wood-snipe, G. solitaria, solitary snipe, and G. stenura, pin-tailed snipe, are also of India.

These are migratory, coming over the Himalaya in October; but Gallinago stenura precedes them, though few sportsmen discriminate it from the common British snipe, which makes its appearance somewhat later. G. stenura is nevertheless a different bird, at once distinguished by having a set of curious pin-feathers on each side of its tail, whereas the British snipe, which is equally abundant in India, has a broad fan-shaped tail, as unlike that of the other as can well be. The pin-tailed is the common snipe of the Malay countries, and is unknown in Europe, excepting as an exceedingly rare straggler from its proper habitat, the East. The double snipe is the Gallinago major of Europe, distinct from the two species of large or solitary snipes of the Himalaya, G. solitaria and G. nemoricola. See Rynchae; Painted Snipe.

**GALLINULA CHLOROPUS**, Linna., water-hen of Europe, extends to Asia, all Africa; common in India. It is known to the natives as the Jambu-kodi, Boli-kodi, Jal-murghi, Godhan, and Dakak pair. G.Burnesi, Blyth, is of Sind, and G. phenicura, Pennant, the white-crested water-hen and others, are of India and the Archipelago.

**GALLOPPUS.** Hind. A plant or sea-weed used in the cure of goitre.

**GALLOPHAGUS,** a genus of birds generally called pheasants. The Kalij, Gallopaphus albocephala, being of the Himalaya and G. melanotus of Sikkim, produce an intermediate race in Nepal; and G. Cuvieri of Assam and Sylhet and G. lineatus of Burma interbreed in Arakan, etc., so that every possible transition from one to the other can be traced. G. Horsfieldi of Gray and Wolf is found in all the hilly regions of Assam, Sylhet, Tiperah, and Chittagong and Khasya Hills, up to 4000 feet. It grades into the Burmese G. lineatus, forming hybrids.

**GALLS.** Gall-nut, Nut-gall.

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The galls of Europe are obtained from the oak; those of British India from Rhus succedanea; those of China from the Rhus semi-alata.

Galls are produced by the female of the Cynips or Diplolepis piercing the buds of Quercus infectoria and other trees, and there depositing its eggs. Dr. Falconer, when travelling in the Punjab, was informed that galls were produced on the Balloot oak, Quercus balotta. East India galls of commerce are Bussora galls re-exported from Bombay. Meeca galls are also called Bussora galls. A kind of gall is also imported from China, called Woo-peol-tze, which are said to be produced by an aphid; they are more bulky than common galls, of very irregular shape, and hollow. The galls produced on Tamarix indica, or fara tree, are called Ma-in, and are used for dyeing purposes. They are largely gathered in the Jhang, Gugaira, and Muzaffargarh districts, as also in the Dehra Ghazi Khan districts, where as much as 500 maunds are annually collected. Galls are imported into England from Smyrna, being produced in Asia Minor; also from Aleppo, the produce of the vicinity of Mosul in Kurdistan. They are also imported into England from Bombay (sometimes to the extent of 1000 cwt.), having been first imported there from the Persian Gulf. Mr. Wilkinson observed that whenever the prices were low at Smyrna, the galls came from Bombay, and vice versa; but the supply was never abundant from both sources in the same year. They are imported into Bombay from Bara (Bussora), probably the produce of Kurdistan and of other Persian provinces. The quantity annually imported into Britain amounts to 700 tons. They are employed in tanning, to make ink, and medicinally in infusion, ointment, and as gallic acid. They sell at £4 to £6 the cwt., and in the London market are classed as blue, green, and white. The exports from British India rose from 286,350 cwt. in 1875 to 537,055 in 1877-78, value £290,526. In China, in the absence of better food, the galls of the oak tree produced by the Cynips or Diplolepis insect are said to be eaten.—Smith; Boyle; Simonson; Tomlinson; M'C.; Faulkner.

**GALLUS,** a genus of the sub-family Gallinae, of the family Phasianidae. The Galline comprise the jungle-fowls of India and Malayana, the firebacks and black pheasants peculiar to the Himalaya, and a small group in India and Ceylon, the spur-fowl of Indian sportmen. The very beautiful Diardiagallus prelatus, Bonaparte, a bird of Siam, is considered to be the link from the Kalij pheasants to the jungle-fowl, or to the firebacks. It has a peacock-like crest, a rather long, glossy black tail, the upper plumage and breast silvery grey, and the rump pale golden-yellow. Next this should come the firebacked pheasants Macartneya, with Phasianus ignitus and P. Vieillotii, large birds with black plumage, the back fiery red, and the middle tail feathers white. Next, Alectorphus, Grey, founded on Lophophorus Cuvieri, Temna., a very beautiful bird, and Acomus, founded on the Phasianus erythropthalmus, similar but smaller. Next these is the jungle-fowl; Gallus ferrugineus, Cmnl., red jungle-fowl.

G. Bankiva, Temna.

**Natu-pia,** Bhot. | Bhir. | Jungil-murg. | HIND. |
| Nitocrias, N. India, T. | Pargak-shahi, LEP. | Kuru (female), | Ban-kokra (male), |
| Gallus, | | | | SANTAL. |

It inhabits India as far west as Sind, ascends the Himalaya to a height of 4000 feet; inhabits

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Burma, the Malaya Peninsula, Indo-Chinese countries, and the E. Archipelago, as far as Timor.

Gallus Sonnerati, Temm., grey jungle-fowl.

Phasianus gallus, Sonnerati.

P. indicus, Leach, Blyth, Sukes, Jerdon.

Jangli-murgh., HIND. Alva-kodi., TEL.

Katu-koli., TAM.

This does not range into the northern parts of India; part of its hackles consist of highly peculiar horny laminas, and it is not now believed to be the parent bird of the domestic fowl.

Gallus Stanley, Gray.

G. lineatus, Blyth. [G. Lafayetti, Lesson.]

Jungle-fowl of Ceylon, is peculiar to Ceylon, and greatly resembles the domestic fowl.

Gallus Temminckii is supposed to be a hybrid; it occurs in Batavia.

Gallus varius, called also G. fereatus, is met with in Java and the islands of the Archipelago as far E. as Flores. It has green plumage, unscinated comb, and single median wattle.

Gallus genus, Temm., is considered to be a hybrid between G. varius and G. Sonnerati, Darwin, Tod.

The Galloperdix genus comprises the spur-fowl of Indian sportmen. G. spadaceus, Gmelin, is the red spur-fowl. G. lunulatus, Valenci, is the painted spur-fowl. G. Zeylonensis is the Ceylon spur-fowl.

The domestic fowl and all its many species and varieties, the Ooph of the Hebrews, the Marghi of the Mahomedans of India, and Koli of the Tamil people, though in numerous breeds and sub-breeds, have all diverged from a single type. This game bird is from the Gallus turgescens. Its feathers are closely depressed to the body; it is indomitably courageous, viviscid even in the disposition of the hens and chickens; it is of various colours. The chief varieties are,—

Malay fowl, with body of great size, disposition savage.

Cochin or Shang-hai breed, of great size, of Chinese origin, and disposition quiet.

Bantam breed, originally from Japan.

Creeper or jumpers, from Burma, short, monstrous thighs.

Frizzled or Kafir fowls of India, with feathers reversed.

Silk fowls, with silky feathers. This is called the Phasianus lanatus. Gallus lanatus, Cog-à-duvet, Silk fowl. Kircher describes them, out of Martius, as woolly hens, the wool of which is much like that of sheep.

Sooty fowls of India, the hens of which have a white colour, soot-stained, black skin and periosteum.

The Europe breeds, Dorking, Humbergh, Andalusian, Spanish, Sultana, Ptrimagna, Ghonandook, Rumpless, are only known in S.E. Asia as introduced varieties.—Cat. Rec.; Jerdon; Horsfield; Yale's Cathay, p. 100.

GALTIGUL. HIND. The insect which occasioned the manna on the Calotropis procera.

GAM, the title of the chiefs of the Singhpo. Gami, amongst the Mishi, is the head of a family.

GAMALAYAVU, TEL. A toddy-drawer; the caste following that business.—Wilson.

GAMBAROON, the town of Baudar Abbas, a seaport town in the province of Kirman. It is the ancient Hormozia. It is situated in a barren country, in a bay of the Gulf of Ormuz. It is fortified with double walls. It did not long benefit by the fall of Hormuz, but appears to have been nearly ruined during the reign of Nadir Shah, whose tyranny extended its baneful influence even to this extremity of the Persian empire, so that in 1750 Mr. Plaisted found there nine houses out of ten deserted. In the year 1639 there seems to have been an English factory at Busora, subordinate to that at Gambaroon, and protected by firms.—Ouseley's Travels, i. p. 165; A Journal from Calcutta to Aleppo, etc., p. 11, Lond. 1758; Kinnaur's Geographical Memoir, p. 201.

GAMBIER, catechu, terra japonica.

Pin-lan-kau., CHIN. | Gambia., MALAY.

Gambier is extracted from the leaves and shoots of the Uncaria gambier, in Siau, Malacca, and Bittang. As brought to the market, it resembles in appearance and consistency little square blocks of yellow mud. A gambier plantation has much the appearance of a bushwood of three years' growth, with leaves of a dark green colour. The plant is sold in large bundles, or for tying for timber. It is annually cultivated at Singapore, and is planted 6 feet apart. The cropping of the leaves may commence when about 18 months old, but the plant is at its full growth when two years old, and its leaves and young branches may thus be cropped once in two months. The cropings are thrown into a large caldron of hot water, and boiled for 6 or 7 hours, till all the extract be impissated into a thick, pasty fluid. This is now poured into shallow troughs a little more than an inch deep, and allowed to cool and dry, when it is cut up into little inch blocks, and is then ready for the market of Siam, Cochin-China, China, and the Archipelago, where, along with betel-nut in a leaf of the pepper betel (Siri), it is largely chewed as a masticatory. The average size of the Singapore plantations were of 30 acres, and when in full bearing employed 8 men. A plantation becomes exhausted and worn out in 15 years from its commencement.

As a preservative for timber, dissolve three parts of gambier in twelve of dammer oil, over a slow fire; then stir in one part of lime, sprinkling over the top; to prevent its coagulating and settling in a mass at the bottom, it must be well and quickly stirred. It should then be taken out of the caldron and ground down like paint on a muller till it is smooth, and afterwards returned to the pot and heated. A little oil should be added to make it tractable, and the composition can then be laid over the material with a common brush. As a protection against the teredo, black varnish or tar is substituted for dammer oil, omitting the grinding down, which would not answer with tar. It is largely imported into Britain; from 1846 to 1850 the average quantity entered was 1200 tons, priced at £13 to £14 the ton; in 1870, 19,000 tons. It is duty free. It is used in tanning, is employed medicinally as an astringent, as a preservative of timber exposed to water, also for canvas; the gambier may be in solution, but if applied to a ship's bottom, it should be in the form of a composition of chunam, gambier, and dammer oil. It is also recommended to be applied in house-building to protect the beams from the white ants, and in shipbuilding as a composition on the butts, and on the outside of the timber previously to planking. Gambier may also preserve timber from dry-rot.—Jour. Indian Archipelago, March 1850, p. 136; Cleghorn's Punjab Report, 1859-60, p. 7; Statistics of Commerce.
GAMBOGE.

Gamboge is obtained from several plants in Southern Asia,—from the Garcinia pictoria of Ceylon, the G. Cochin-Chinensis, Ramph., of Siam, the G. elliptica, Wall., of Siam, Sylhet, and Tao-y; and G. morella, var. pedicillata, of Siam, is also said by Hartmann to yield Siam gamboge. A tree common in Hu-peh, in China, is said to yield a gamboge-like substance. The gamboge of commerce is known by the names of Ceylon and Siam gamboge. Siam gamboge is usually seen in cylinders, whether its name of pipe gamboge; but it is also seen as lump or cake gamboge, in round cakes or masses, and as coarse gamboge or fragments and inferior pieces. Ceylon gamboge is seen in irregular masses. The first notice of this vegetable gum-resin is by Clausius in 1605, who describes a piece brought from China by Admiral Van Neck in 1608. Two trees yielding a gamboge-like substance were first made known by Hermann in 1670, one called Goraka, Garcinia cambogia, the other Kana or edible, Hebradendorf cambogioides. At present gamboge is received principally from G. morellas, G. hexandras, G. Wightii, G. Travancorica, G. xanthochymus. About 30 to 50 tons are annually imported into Great Britain, where it sells at £5 to £11 the cwt.

The composition and properties of the gamboge of Ceylon are identical, or very nearly so, with those of other gambogloboid exudations. The Singhalese method of collecting the gamboge is by cutting pieces of the bark completely off, about the size of the palm of the hand, early in the morning. The gamboge oozes out from the pores of the wood in a semi-liquid state, but soon thickens, and is scraped off by the collectors the next morning without injury to the tree, the wounds in the bark soon healing, and becoming fit to undergo the operation again. Gamboge is much used as a pigment and in miniature painting; it is employed to colour varnishes and lacquers. Gamboge of Mysore is the exudation of Garcinia pictoria.—Ainslie; Royce; O'Sh.; Cleghorn; Eng. Cyc.; W. Ill.; M'C. See Cuaiaee; Garcinia.

GAMBOGE BUTTER.

Mukki-tylum, . TAM. Yennai, . CAN. Arasinaongoory, . CAN. A solid oil, called cocom butter, obtained from the seeds of the gamboge tree, Garcinia elliptica, which grows abundantly in parts of the Mysore and western coast jungles. The oil is prepared by pounding the seed in a stone mortar, and boiling the mass until the butter or oil rise to the surface. Two and a half measures of seed should yield 1½ seer of butter. In the Nuggur division of Mysore it is sold at As. 1½ per seer of 24 lbs. weight, or at £36, 6s. per ton, and is chiefly used as a lamp-oil by the better classes of natives, and by the poor as a substitute for ghee. The butter thus prepared does not appear to possess any of the purgative qualities of the gamboge resin, but is considered an antiscorbutic food ingredient. —M. E. J. R.

GAMBOOON, a twilled cotton lining made at Khanguri.

GAMCHA. HIND. A lump of dough used in cleaning gold-lace.

GAME BIRDS of British India have been in a brief manner noticed under the heading Birds of India, and the more important will be found under their respective titles in more detail. They have been well described in a monograph by Mr. A. O. Hume, C.B. Game birds, elephants, and other wild animals are supposed to be rapidly diminishing in numbers, and a close season for elephants has been appointed. To check the indiscriminate persecution, and to give the small game fair play, Poonas sportmen proposed, that between the 1st June and 15th October partridges and quail be considered out of season, and that sportsmen agreeing to this proposition shall use their utmost exertions to prevent the sale and destruction of these varieties of game between the periods mentioned. The black or painted partridge—an excellent bird for sport or for the table, and once common throughout the Dekhan—is fast becoming extinct in all but the remote parts of the country. Small game in India is assailed by innumerable natural enemies, snakes, rats, bandicoots, ichneumons, foxes, and jackals—all prey upon the eggs or the young game on the ground, while kites, buzzards, hawks, owls, and many other birds assail them in the air with a persistency that renders it surprising that game should be as abundant as it is in places where the native shikaris have no interest in destroying it by wholesale; but the latter are in fact its worst enemies, a single shikari family, accustomed to supply a market, doing probably more damage in a month than all its other enemies put together could inflict upon it in a year. They are adepts at netting and snaring, and they have calls for every kind of game bird, by which they take thousands in the breeding season, and effectually put a stop to its reproduction. Migratory birds fare better than the others; they too are persecuted in a manner which is causing them to become scarcer and scarcer every year. Hardly has the first wisp of snipe made an appearance within marketable distance of a town or cantonment, than the birds are either netted by native shikaris, or shot down by sportsmen! An October snipe is scarcely worth eating; yet, for the sake of slaying or selling him, hundreds of birds are driven harassed from their haunts, where, had they been allowed to remain in peace until later in the year, they would not only have fattened to perfection, but would have attracted other hundreds to their feeding grounds to afford good sport to the sportsman. As with snipe so with wild ducks. It is hard to conceive the latter out of date in India, considering the immense flocks in which they visit us, but they are nevertheless needlessly persecuted by shikaris and others without regard to season; and good duck-shooting is no longer to be had in the vicinity of any large town or cantonment, or anywhere, we might say, within easy distance of a line of rail.

GAMELUNG. JAV. A musical instrument of the Javanese. See Bamboo.

GAMES. OF a country take their colour and complexion from the prevailing character of their inhabitants; and in the different physical condi-
tions of the regions in the S. and E. of Asia, the amusements of their inhabitants are widely dis-
similar. In the hot climate of the plains of British India, though the young boys have their childish games, those of most of the grown men are seden-
tary and in-door,—play at chess, pasha or pachisi, cards, pramara (primeros?), and music, the drama, jatra, pachali, kavi, bull-bull fights, cock-fighting, juggling, athletics interest them; and the women of Bengal have as their games, the Ashita-kasha, the Moghul-pathan, Das-pachis, Bag-bhandi.

Kite-flying is a favourite game of the Hindu and Mahomedan men of British India, of Burma, and of China. Wrestling amongst the men of Hindustan and the Burmese is a favourite amuse-
ment; every village of Northern India has a gymnasium, and professional gymnasts perambu-
late the country.

The bulbul and other birds are taught to fight; cock-fighting is almost a passion in the Philip-
pinnes; and in Siam a species of fish are reared for
fighting.

The people of Manipur are famed for their skill on horseback at the game of hockey; slings, sladagnali, bat and ball are an amusement.

Jafar Sharif, the author of the Kanin-i-Islam, which Dr. Herklotz translated, describes many games:—Adole-ke-madole; agial-zab, also called ek-pari sab-pari; aka-mukka-danda; alam-tola; andhla-badsha; anghoti-badsha; anksh-muchani, or blind-man's buff; ardash-parash; ataha-champa; atha-chamak; atak-mat-champa; atka-makal; bag-takri or dragon; chek karella or trap ball; galili-dando or tip-cat; chaugan or hockey; gali-chap-ja, hide-and-seek; and half a hundred others. Tacitus describes the baneful effects of gambling amongst the German tribes, as involving personal liberty, their becoming slaves, and being subsequently sold by the winner. In passion for play at games of chance, its extent and dire consequences, the Rajput from the earliest times has evinced a predilection, and will stand unenviable comparison with the Scythian and his German offspring. To this vice the Pandus of the lost and their sovereignty and personal liberty is thus involving at last the destruction of all the Indu races; nor has the passion abated. Yudhishtra of the Pandava race, having staked and lost the throne of India to Durdyodhana, to recover it hazarded Draupadi. By the loaded dice of his foe, she became the goli of the Kurusa. Yudhishtra, not satisfied with this, staked twelve years of his personal liberty, and became an exile from the haunts of Kalindi, a wanderer in the wilds skirting the distant ocean. The spirit of gambling is evinced by several of the mercantile tribes of British India, in their daring specu-
lativeness as to the rise and fall of prices, which far outvies all that European merchants ever indulge in. Most of the advanced nations of the Asiatic islands are gamblers, and the little fight-
ing fish of Siam and cock-fighting are largely betted on. In Bali, Lombok, Celebes, and the Philippines, cock-fighting is quite a passion. The passion for cock-fighting is indeed impressed in the very language of the Malays, which has a specific name for cock-fighting, one for the natural spur of the cock, and another for the artificial spur; two names for the comb, three for the crow of the cock, two for a cock-pit, and one for a professional cock-fighter. The passion is

nowhere carried further than in the Spanish dominions of the Philippines. There it is licensed by the Government, which derives from it a yearly revenue of about 40,000 dollars. Gambling is prohibited in British India, and by the Dutch in their Eastern possessions. It is carried on in China to a fearful extent. —Crawford; Frere, Antipodes, p. 218; Bikmore's Tr. p. 62; Tr. of a Hindu, ii. p. 8; Tod's Rajasthan, i. p. 179.

GAMLA. Beng. An open-mouthed earthenware vessel.

GAMPA-KAMALOO. Tel. A race of basket-
makers in Bellary.

GAMUT or Hmut. This name, 'husband of the mother,' was given to Osiris. Herodotus mentions that when he was in Egypt, he was astonished to hear the very same ravishing song of Linus sung by the Egyptians, and which they had known from time immemorial, as he had been accustomed to hear sung in his own native land of Greece. Linus was Bacchus or Osiris, and the most exquisite music was called by his name. Now the name of Linus or Osiris, as the 'husband of his mother,' in Egypt was Herm, in Persia and Asia, and in Rome Gamut. Hence the music of the Chaldean worship was called the music of Gamut. Gregory the Great introduced the Gregorian chants from the Chaldeans; in other words, he introduced into the church the music of Gamut. And thus it comes to pass that the name of Osiris or Gamut, 'the husband of his mother,' is in everyday use among ourselves as the well-known name of the musical scale.

GANA. In Mysore, a sect of Lingaet Hindus.

GANA. Sansk. A troop, a flock; a host of celestials in Kailasa, Siva's paradise; an attendant. Gana are dwarf figures in the sculptures of Ellora, Badami, the Vaishnava temple at Aiholli, and other places. They are represented as fat, small beings, some with faces of cats. Gana-
chari, KAIN, a teacher, a censor. Gana devata, SANSK., a troop of deities who dwell in Ganaparita, on Mount Kailasa, and Hindu nations. The following:—12 Aditya; 10 Visva Devas; 8 Vasa; 12 to 30 Tushita, identical with the Aditya; 49 Anila or winds; 220 to 336 Maharajkas; 12 to 17 Sadhya; and 11 Rudra.— Ferguson; Birdwood; Wilson; Dowson.

GANAPATI or Kartakeia, a title of an ancient deity in Warangal, once the capital of a great part of the Northern Circars. The dynasty of Warangal, ruled from that town over a great part of the Circars, but the succession of the Buddhist Chalukya race to dominion at Rajamundry, the subsequent sway of the Ganapati, Vema Reddi, and Rayael race of Bijnagar, together with their contests and the altering relations between them, are very little known. Condavir was once ruled by a race of Reddi. See Gajapati.

GANAPATI, lord of hosts. One of many names given to the Hindu deity Ganesha, the god of prudence and policy. In Northern India he is usually styled Ganesha, but Ganapati in the south; under the name of Kartik vodka he is the leader of the celestial armies, and as Ganesha and Ganapati is the god of wisdom. He is the reputed eldest son of Siva and Parvati. The Ganapatiya is a limited Hindu sect, worshippers of Ganesha or Ganapati, or of his forms Bakratunda or Dhum-
dhi raj. They are so styled because they worship
GANDA.

Ganesha or Ganapati exclusively. There are five grand divisions of Hindus who so worship a single deity, uniting in its person all the attributes of Brahm, and the Ganapaty are one of the five. See Ganesha.

GANDA, in Indian currency the hundredth part of an anna; but in reckoning means to count by fours, so that ganda also means four pice, or about one anna.

GANDA-BEROZA. HIND. The crude resin of Pinus longifolia; also a preparation from the resin. It is often applied to barija or barzad, which is the rare drug galbanum, from the Boswellia thurifera.

GANDAH in Hindi dialects means perfume, aroma, odour; and several plants derive part of their compound name from this word,—Gandh-bel, Andropogon schenianthus; Miricha gandh, Cymbopogon iarucnus; Gandha bute, Euphorbia helioscopia; Garba gandh, Saechum sara; Gandhaga mara, Santalum album, sandal. Gandhi banik, a druggist.

GANDAHARA, according to Bunsen, is Kandahar. It is named in the inscription of Darius Hystaspes. The Gandhara district, or Parashawa, is not mentioned by Alexander's professed historians; but it is correctly described by Strabo under the name of Gandaritis, as lying along the river Kophas, between the Choaspes and the Indus. In the same position Prolemy places the Gandare, whose country included both banks of the Kophas immediately above its junction with the Indus. This is the Kien-to-lo or Gandhar of all the Chinese pilgrims, who are unanimous in placing it to the west of the Indus. The capital, which they call Pu-lu-sha-pu-lo or Parashapura, is stated to be three or four days' journey from the Indus, and near the south bank of a large river.—Cunn. An. Geo. p. 48.

GANDAH-MADANA, in Hindu cosmogony, is one of the four boundary mountains enclosing the central region of the world, called Ilavvita, in which Meru, the golden mountain of the gods, is situated. The Puranas are rather at variance as to its position. According to the Vayu Purana, it lies on the west, connecting Nila and Nishada, the north and south ranges. The Vishnu Purana places it on the south, the western mountain being there called Vipula. It has, however, a Gandah-madana to the west amongst the projecting branches or filaments of Meru. The Bhagavat places it on the east of Meru. The Mahabharat agrees with the Vayu Purana. The Padma Purana is at variance with itself, and purports to give the passage on the west, and in another describes it as on the east. According to this Purana, Kuyera resides on it with the Apsaras, Gandharva, and Rakshasa. The Sita alighting on its top thence descends to the Bhadrarwa varsha, and flows to the eastern sea.

—Hindu Theatre, i. p. 24.

GANDAK, the name of two rivers of Hindustan. Great Gandak (known also as the Narayani or Saligrami, the Kondechatis of the Greek geographers), a river in the North-Western Provinces and Behar, rises high among the recesses of the Nepal Himalayas, in lat. 30° 56' 4" N., and long. 79° 6' 40" E. Its alpine feeders unite at Varaha Kalesha above Nalpur, within the hills. It rises near Dharawadgi peak in the Himalaya, runs S.S.E., S.W., S.E. into Ganges, near Patna, after a course of 407 miles. In its course it receives the Trisula-ganga, 100 miles long; Marshangdi, 100 miles long; Naling, 110 miles long; and about 40,000 square miles are drained. Though navigable continuously through its whole course downwards from Bhechni, there are in the part of its channel nearer that place many rapids and passes, where, the course being obstructed by rocks, navigation becomes difficult and dangerous. The upper part of the river is called Saligrami, from the fossil ammonites, called saligram, which are found in it, and which Hindus hold in veneration. The Chota or Little Gandak river passes through the Muzaffaragarh and Gorakhpur districts.

GANDAMAK, a village occupied by the Koghani tribe of Afghans. It is on an elevated site, is cooler than Jalalabad, and its people tend silk-worms. It stands in a rich spot, and has a fine view of the Safed Koh. It is 35 miles from Jalalabad on the road to Kabul. Near this, between 1839 and 1842, much fighting took place between British troops and Afghans; and on the retreat of the British from Kabul in 1852, Gandamak was the place where the last survivors of the force, viz. 20 officers and 45 British soldiers, were slain.—MacGregor, p. 255; Mohun Lot's Travels.

GANDASULI. Marsden gives this as the Hedychium coronarium of Linnaeus, and adds that its flowers are worn as ornaments in the hair, and in the enigmatical language of flowers stand for inconstancy.—Journ. Ind. Arch., August 1851.

GANDAVA, a town in Bahcehistan, situated on the Moolla pass route, lat. 28° 32' N., long. 67° 32' E. A fortified place, built apparently on an artificial mound; is a great level tract, and is inhabited by three very distinctly marked races, the Jat, the Hind (including the Manghazi), and the Brauni. The Jat seem the original race, and occupy the centre of the province.—Imp. Gaz.

GANDHAR, the third note of the musical scale, "mi."

GANDHARI, daughter of Subala, raja of Gandhara. She married the blind maharaja Dhiritarashta. Her sons Dulsahasana and Duryodhana were named Kaurava, and fell in the eighteen days' battle of Kuru Kshetra. Gandhari, after the battle of Kuru Kshetra, retired with Dhirata-rashta and his mother Kunti to the jungle on the Ganges, where the maharaja died.

GANDHARVA, in Hindu mythology, a shade, a spirit, or ghost; also an inferior deity of the Hindus, attendant upon Indra and Kuvera, and distinguished for musical proficiency; also heavenly choristers, a celestial musician,—these are demi-gods or angels who inhabit Indra's heaven, and form the orchestra at the banquets of the gods, they are skilled in medicine, regulate the asterisms, and are fond of women. They are described as the husbands of the Apsaras; but various accounts of them are given. They are described as witnesses of the actions of men, and sixty millions in number. They are called Apsaras, and Devangana. Their band is composed of a tambourine (tamma), cymbals or castanets (tal), a vina or lute, and a strangura, played with a bow like a violin. Gandharva is also a form of Hindu marriage, with the consent of the two parties. Gandharba in the Himalayas is a raja's kept woman, with a status below that of a wife, but higher than a concubine. Gandharva-Veda, an
GANDHILA.

appendix of the Sama Veda, is the science of music and song. It is one of the four Upa-Veda; the other three are the Ayush, Dhanush, and Sçchapata.-Williams' Story of Nala, p. 142; W. See Aaka; Hindus, Mahadeva, Vidyā.

GANDHILA. HIND. A low, vagrant, predatory caste in the N.W. Provinces who make mats, and exhibit feasts of activity.

GANDHILA. a performer who manufactures perfumes by entmbcoration and distillation processes. The manufacture of the otto of roses calls forth his highest powers; it is, however, very remunerative. The Gandhri and the Mali were formerly one clan; but the Gandhari no longer is exclusively engaged in the preparation of perfumes from flowers.

GANDIVA, in Hindu mythology, a bow belonging to Varuna, given by Agni to Arjuna, one of the Pandava, before burning the forest of Khandaprestha, to enable him to combat Indra. It was used by Arjuna in the swayamvara or tournament in which he won Draupadi.

GANESA is the Hindu god of prudence and policy, and the patron of letters. He is the reputed eldest son of Siva and Parvati, and as Siva's eldest son is called Vigneswar; but it is said also to have been produced without a father by the immense longing of Parvati. He is represented as a short, fat, red-coloured man, with a large belly and head, and an emblem of sagacity. He is frequently attended by a rat, sometimes riding on one, the conduct of that animal being esteemed by the Hindus as peculiarly marked by wisdom and foresight. He has generally four hands, but sometimes six or eight, or only two. He is invoked by Hindus of all sects, in the outset of any business. If they build a house, an image of Ganasa is previously propitiated, and set up on or near the spot. If they write a book, Ganasa is saluted at its commencement, as he is also at the top of a letter. Beginning a journey, Ganasa is implored to protect the wayfarer; and, for his guardianship of travellers, his image is occasionally seen on the roadside, especially where two roads cross; but sometimes it is little else than a stone, rudely chiselled into something like an elephant's head, with oil and red ochre daubed over it, decorated, perhaps, with a chaplet of flowers by some pious neighbour or traveller. It is common to see a figure of the god of prudence in or over bankers' and other shops; and, upon the whole, there is perhaps no deity of the Hindu pantheon so often seen and addressed. When he has four arms, in one hand he holds the ankus or hook for guiding the elephant, in another a chanka or shell, in the third a conical ball, and in the fourth a cup with small cakes, with which he is supposed to feed himself. Ganasa is often represented eating the bataa, sweet cake, also sitting on the lotus. Images of him are made and set up with those of Durga, in the festivals of that goddess in Calcutta. In an invocation to a superior deity, a salutation is usually made to him; and his image is frequently seen placed as a propitiation over doors of houses and shops, to ensure success to the temporal concerns of its owners. Siddhis and Buddhis (knowledge and understanding) are represented as the two wives of Ganasa. There are not many temples dedicated to Ganasa, but his images are frequently discovered set up with those of the other deities. Ganasa has many names, among which are Lambo-dara, the long-bellied; Eka-danta, one-toothed; Gajanunnu, elephant-faced; Gana-is-a, Gunnis, Ganapatii, Pillayar, Vinayakar, etc. There are five grand divisions of Hindus who exclusively worship a single divinity, uniting in its person all the attributes of Brahma himself. One of these divinities is Ganasa, and the sectaries who thus worship him are called Ganapatii. Ganapatii, more correctly pronounced Ganapati, is the chief of the Dii minoras of the Hindu pantheon, as the etymology of the word indicates, and, like Janus of the Romans, was entrusted with the gates of heaven, with the right to preside over peace and war. Ganasa is the first invoked and propitiated on every undertaking, whether warlike or pacific. The warrior implores his counsel; the banker indites the words Sri Ganasa at the commencement of every letter; the architect places his image in the foundation of every edifice; and the figure of Ganasa is either sculptured or painted at the doors of the houses as a protection against evil. Though often represented as four-armed, and holding the disc (chakra), the war-shell, the club, and the lotus, Ganasa is not bifrons, like the Roman guardian of portals. In every transaction he is 'Ad,' or the first, though the Hindu does not, like the Roman, open the year with his name. One of the portals of every Hindu city is named the Ganasa Pol, as well as some conspicuous entrance to the palace. Thus Udaipur has its Ganasa dwara, who also gives a name to the ball, the Ganasa deci; and his shrine is to be found on the ascent of every sacred mount, as at Abu, where it is placed close to a fountain on the abrupt face of the hill, about 1200 feet from the base. There is likewise a hill sacred to him in Mewar, called Ganasa Gir, tantamount to the Mons janiculum of ancient Rome. The companion of this divinity, the rat, indirectly receives a portion of homage, and with full as much right as the bird emblematic of Minerva.

The name Ganasa, from Gana and Isa, also Ganapatii, mean lord of the Gana. He has other names.—Dwi-deha, double-bodied; Eka-danta or Eka-danashira, single-tusked; Gajanan, Gaja- vadan, and Kari-Mukha, elephant-faced; Hera, boastful; Lamba—karna, long—eared; Lambo—dara, pendent—bellied; Vighnesha or Vigutha-bari, remover of obstacles.

Ganesa-janani, the mother of Ganasa; from Janna, birth. — Moor; Tod's Rajasthan, i. pp. 590—91; Dowson.

GANASA-GITA is the Bhagavat-gita with the name of Ganasa substituted for that of Krishna. It is used by the Ganapatii sect.

GANESA, an elephant with one task, held in reverence by Hindus.

GANESH CHATURTHI or Ganesh-chauth, also Pillayar Chatturthi, a Hindu holiday. On this day, which falls about the beginning of September, on the fourth day of the new moon, was formed Ganasa, called also Ganapatii, made from the turmeric and oil of the head of Parvati. Ganapatii has a man's body with the head of an elephant; his head is said to have been cut off or destroyed by Siva, when Ganasa tried to prevent Siva intruding on the privacy of Parvati when bathing. Clay images of Ganasa are made and worshipped for from one to nine days, and are then thrown into water. The Chinchor or Chinchi—
GANGA.

wad, who resides at a village of that name near Poona, is believed to be an incarnation of Ganesh, who promised an ascetic named Moroba, who lived in Sivaji's time, that he would be incarnate for seven generations in his family. The earth image of Ganesh is one of three forms in which the earth deity Mrittika is worshipped by Hindus. The first is the Naga-panchami, in which a feast a snake of clay is worshipped; the second is Gokulashtami, when a clay image of the infant Krishna is worshipped; and the third occasion is that on which Ganesh is worshipped, and this last day of the worship of Mrittika is observed with great pomp. The feast in honour of his birth, which is held on the 4th of the month Bhadrapad, and falls on the first days of September, seems to have some connection with the seasons of the year. The image of Ganesh is brought to the house with much pomp.

GANGA is a term applied to the sacred rivers of the Hindus, of which there are several kinds. —Ganges, Godavery, Kishna, Caumuya. The most sacred of the Ganges is the Ganges. Ganga-jal or Ganga-jala, is swarming by its waters; Ganga-bob, also Ganga-prapati or Ganga-yatra, committing a dead body to the river, or a Hindu brought to die there.—W.

GANGA, in Hindu mythology, the personified goddess of the river Ganges, the source of which the Saiva sects place in Siva's hair; whence, in graceful flow, she sprang radiant, and, descending, graced the caverns of the west.

The Vaishnava sects assert that it flowed out of Vaikuntha, from the foot of Vishnu, and, descending upon Kailasa, fell on the head of Siva, who shook some drops (Bindu) from his hair, and these formed the great lake called Bindu Sarovara, far to the north of Hindustan. Sometimes the Ganges is said to issue from a cow's mouth, and the cleft in the Himalaya is called Gungroti and Gaumukhi. Others make it arise from water poured by Brahma on the head of Siva; others, from the feet of Brahma; and others, from the fingers of Parvati. The Ganga is also called Dasahara or ten removing, as bathing in her waters on the tenth day of the month Jyaisha effaces ten sins, however heinous soever, committed in ten previous births. One of the holiest spots of the Ganges, is where it joins with the Jumna, near Allahabad, though, with Hindus, the sangam or confluence of any river is a spot peculiarly revered. A person dying at the confluence of the Ganges and Jumna is supposed to be certain of immediate moksh or beatitude, without risk of further transmigration. Professor Wilson, in his translation of the Mudra Rakshasa, describes Ganges as 'by the autumn led, fondly impatient, to her ocean lord, Toes her waves, as with offended pride, And pining fretful at the lengthened way.'

Though, as above related, the honour of having given birth to this goddess, the personification of the sacred stream of the Ganges, has been claimed for their deities both by the Saiva and Vaishnava sects, all sects and castes of Hindus worship this goddess of their sacred stream. Numerous temples are erected on the banks of the river in honour of her, in which clay images are set up and worshipped. The waters of the river are highly reverenced, and are carried in compressed vessels to the remotest parts of the country; from whence, also, persons perform journeys of several months' duration, to bathe in the river itself. By its waters the Hindus swear in courts of justice. Mr. Ward says there are 3,500,000 places sacred to Ganga; but that, according to Hindus, a person either by bathing in or seeing this river, may be at once as much benefited as if he visited the whole of them. For miles near every part of the banks of the sacred stream, thousands of Hindus of all ages and descriptions pour down every night and morning, to bathe in or look at it. Persons in their dying moments are carried to its banks to breathe their last, by which the deaths of many are frequently accelerated; and instances occur where such event has thereby been actually caused. The bodies are then left to be washed away by the tide, and numbers of them are to be seen floating up and down with every flood and ebb, or lying all along the banks, with vultures, adjutant birds, carrion crows, and kites above them. Several festivals are held during the year in honour of Ganga.

She is described as a white woman with a crown on her head, holding a water-lily in one of her hands, and a water vessel in another, riding upon a sea animal resembling a crocodile, or walking on the surface of the water with a lotus in each hand. There are other myths relating to Ganga.

The river goddess has some of the attributes of Pallas, being, like the Athenian Maid (Ganga never married), born from the head of Jove. The bard of the silver age makes her fall from a glacier of Kailas (Olympus) on the head of the father of the gods, and remain many years within the folds of his tiara (jita), until at length, being liberated, she was precipitated into the plains of Aryavarta. It was in this escape that she burst her rocky barrier (the Himalaya), and on the birth of Kumara exposed those veins of gold called jambuanjati, in certain places in the Ganges.

The river goddess, like the Nile, is the type of fertility, and, like that celebrated stream, has her source amidst the eternal glaciers of Chandragiri or Somadri (the mountains of the moon), the higher peaks of the gigantic Himalaya, where Parvati is represented as ornamenting the tiara of Iswara with a beamy moon. In this metaphor, and in his title of Somanatha (lord of the moon), we again have evidence of Iswara, or Siva, after representing the sun, having the satellite moon as his ornament. The Egyptians, according to Plutarch, considered the Nile as flowing from Osiris; in like manner the Hindu poet describes the fair Ganga flowing from the head of Siva, and Sir W. Jones thus classically paints the myth in his hymn to Ganga:

'Above the reach of mortal ken, On blest Cailasa's top, where every stem Glowed with a vegetable gem, Mahesa stood, the dread and joy of men; While Parvati, to gain a boon, Fixed on his locks a beamy moon, And hid his frontal eye in joind play, With reluctant sweet delay; All nature straight was locked in dim eclipse, Till Brahmins pure, with hallowed lips And worshiped prayers, restored the day, When Ganga from his brow, with heavenly fingers prest, Sprang radiant, and descending, graced the caverns of the west.'

According to another legend, the goddess Mera,

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daughter of Meru, became the spouse of Himalaya, from whose union sprang the beauteous Gangar, and her sister Ooma. Gangar was sought in marriage by all the celestials; while Ooma, after a long life of austerity, was espoused by Rudra. But neither sister was fortunate enough to have offspring, until Gangar became pregnant by Hutashna (son of fire), and Kumara, resplendent as the sun, illustrious as the moon, was produced from the side of Gangar. The gods, with Indra at their head, carried him to the Krittikkees to be nursed, and he became their joint care. As he resembled the fire in brightness, he received the name of Skanda, when the immortals, with Agni (fire) at their head, anointed him as general of the armies of the gods. The festival of the birth of this son of Gangar, or Januvi, is on the 10th of Joytee. Sir W. Jones gives the following couplet from the Sanscula:—'On the 10th of Jyestha, on the bright half of the month, on the day of Mangala, (a son) of the earth, when the moon was in Hasta, this daughter of Janhu brought from the rocks, and ploughed over the land inhabited by mortals.'—Cole. Myth. Hind. 119.

GANGA-BUL. Tin. Literally, place of the Ganges. A sacred lake on the mountain of Haramuk in Kashmir. It lies under the wildest and most lofty peaks of the mountain; is 14 miles long, and 200 or 300 yards wide, and is about 12,000 feet above the level of the sea.—Vigne.

GANGA-DHARA. Sansk. Bearer of the Ganges, a name of Siva.

GANGA-DWARA. Sansk. The gate or defile or passage of the Ganges; the modern Hardwar. In the Gaelic, Dwara becomes Dorras, in English a door.

GANGA-JAMNI, work in silver and gold combined, as with a silver ground and gold flowers, etc.

GANGA-KANDAPUR, in Tamil, Ganga-kandapuram, or, visited by the Ganges, a small town in the Madras Presidency, in lat. 11° 12' 30" N., long. 79° 30' E., population (1871) 1014. Close to the village is a temple consisting of one large enclosure, measuring 584 feet by 372. The Vimana in the centre of the courtyard is a very conspicuous building, the pyramid surmounting it reaching a height of 174 feet.—Imp. Gaz.

GANGAPUTRA, a tribe of inferior Brahmanas, who claim a right to attend pilgrims and direct their ablutions at Benares, and other holy places on the Ganges. At Benares, where they are most numerous, they claim a hereditary right to the bank between high and low water mark. Some follow agriculture.

GANGES, the great river of Northern India, is formed by the drainage of the southern ranges of the Himalaya. It rises in the Garhwal state, in lat. 30° 56' 4" N., and long. 79° 6' 40" E., and falls into the Bay of Bengal after a course of 1557 miles. It has been known to Europe from very early times. The fleets of the Egyptian kings sailed to it round the Peninsula of India and Ceylon. Seleucus Nicator is said to have penetrated to the mouth of the Ganges, and it had been sailed up by the Romans as far as Falirbrotha before the time of Strabo. Its valley seems to have been peopled by several races long before the Aryan Hindus arrived there, and many of the conquerors who have entered India from the north-west have striven to occupy the fertile valley of this great river. Hindu poets have celebrated its praises in a multitude of songs. The river is fabled in their mythology to be the goddess Gangar; they long to see it, to bathe in its waters and be purified from their sins, and at last to die on its banks, or to have their bones conveyed to it from the most remote parts of India. To Hindu raises such a question as in 2 Kings v. 12, for the Ganges is recognised as the most efficacious of all the Hindu purifying rivers. On its banks have dwelt the chief of the religious reformers whom India has seen. Its valley was the cradle of Buddhism, which, from its rise in the sixth century before Christ, gradually spread over the whole of India, was extended by Asoka to Kasmir and Kâbul, shortly after Alexander's invasion, and now prevails amongst 222 millions of men. Numerous dynasties have ruled there. The Andra race was in power in the Gangetic province of India about the beginning of the Christian era, but the most enduring was the great Kahatry family that long ruled at Indraprastha, and terminated with Priti-raj in A.D. 1200.

The whole valley is now part of British India. The river issues from the mountains at Gangotri, at an elevation of 13,800 feet, and is there known as the Bhagirathi. It issues from beneath a great glacier, thickly studded with enormous loose rocks and earth. The glacier is about a mile in width, and extends upwards of many miles, towards an immense mountain covered down to its base with perpetual snow, its glittering summit piercing the very skies, rising 21,000 feet above the level of the sea. The chasm in the glacier, through which the sacred stream rushes forth into the light of day, is named Gangotri and Gaumukhi, the Cow's Mouth, and is held in the deepest reverence by all Hindus; and the regions of eternal frost in its vicinity are the scenes of many of their most sacred mysteries. The Ganges enters the world no puny stream, but bursts forth from its icy womb a river thirty or forty yards in breadth, of great depth, and very rapid. From the source at Gangotri it runs in a generally south-easterly direction to Allahabad, to Sikrigali, and into the Bay of Bengal, by numerous mouths, having given off some of its waters to form the Hoogly, and it also anastomoses with the Megna. In its course it receives the Jumna, 860; Gogra, 606; Gandak, 450; Gunti, 482; Sone, 465; Kosi, 325; Ranganga, 373; Mahanadi, 440; Karunnassa, 140; Konib or Jamuna, 130; Alakanda, 80; Bhillung, 50 miles. 39,000 square miles are drained, exclusive of Hoogly. The Ganges is navigable for river craft as far as Hardwar, 1100 miles; steamers ply as far as Gurmuktesar, 393 miles above Allahabad, distant from Calcutta via Delhi 930 miles; at Cawnpur, 140 miles above Allahabad, the navigation is plied with great activity. It falls rapidly to Hardwar, which is 1500 miles from the mouth. At Allahabad, 840 miles from the sea, it receives the river Jumna, which rises at the south-western base of the Jummutri peaks. At about 240 miles from the coast it begins to divide into branches. The two on the west, called the Bhagirathi and Jalingi, unite to form the river Hoogly; the other stream passes through the Brahmaputra, with which the waters mingle, and are known as the Karnasna river. The Ganges receives from the left bank the Ramganga, Gunti, Gogra, Gandak, Kosi, and Mahanadi; and from the
right bank, the Kali, the Kali Naddi, Jumna, and Son. Some of these are equal to the Rhine, and none smaller than the Thames, besides many others of lesser note. It is owing to this vast influx of streams that the Ganges exceeds the Nile so greatly in point of magnitude, while the latter exceeds it in length of course by one-third. In the plain of the Ganges are the provinces of Bengal, Behar, the Doab or Mesopotamia of the Jumna and Ganges, Oudh, and Rohilkhand. It is of exuberant fertility. The population of the Gangetic Doab is 800 to the square mile. The chief towns on the banks of the Ganges are Hardwar, Bijnour, Farrakhabad, Cawnpur, Mirzapur, Benares, Ghazipur, Patna, Monghir, Bhaulpur, Rajmahal, Rampur, Fueva. Calcutta is below the sea level; Benares 265 feet above it; Allahabad 305 feet, and Agra 670 feet. The pre-eminently sacred spots on its banks are Gangotri, Hardwar, Allahabad, Benares, and Sauor Island, which are frequented by thousands of pilgrims from every province of the Peninsula.

The Gangetic Delta is an extensive tract of cultivated and forest-covered country, composed of alluvial or transported soil brought down the country by the Ganges and Brahmaputra rivers and their numerous tributaries, the water-sweepings of two basins whose aggregate area is 432,480 square miles. The Delta is intersected from north to south by many broad rivers, and by endless creeks running one into the other, filled for the most part with salt water when near the sea. This tract of land occupies approximately 28,080 square miles of superficial area, or double the area of the Delta of the Nile. Measuring from west to east, or from the right bank of the Hoogly river opposite to the Sauor tripod on the south-west point of Sauor Island, to Chittagong, it is 270 miles in width, presenting to the Bay of Bengal a series of low, flat mud-banks, covered at high water and dry at low water. A few miles from low-water-mark commence mangrove swamps; a little further inland, trees appear, and lastly cultivation,—the nearest cultivation in the central portion of the Delta being 47 miles from the sea. In the sea front of the Delta there are nine principal openings having a head stream, that is, having water flowing direct from the Ganges, or from the Megna or Brahmaputra. They are:

1. the Ganges; 2. the Megna or Brahmaputra; 3. Horinghatta; 4. Pussur; 5. Murjatta or Kaggaf; 6. Barapunga; 7. Mollichew; 8. Roymunghal or Juboona; 9. Hoogly. Besides these large rivers, there are numerous openings having no head stream, being mere salt-water tidal estuaries. The channels or headless rivers are the deepest, as no silt or deposit is poured into them from the higher lands. The tides in the Hoogly run with a rapidity in the springs of seven miles an hour, between Sauor and Calcutta. At Calcutta it is high water about 2 hours 30 minutes on full and change of the moon. The bore is of not unfrequent occurrence in this river.

This river's annual rise begins in the end of April, and continues to increase till the middle of August, when it reaches in many places 32 feet, and the level districts in its lower course are inundated. At Benares, after the Ganges has received the waters of its tributaries, the Kali Naddi, the Gunti, and others, the breadth varies from 1500 to 3000 feet; the average discharge each second of the year has been estimated at 250,000 cubic feet.

By the latter end of July, all the lower parts of Bengal contiguous to its banks are overflowed, forming inundations of a hundred miles in width, where little appears above the surface of the flood save isolated villages and trees. Banks of every kind then steer a direct course, husbandry and grazing are alike suspended, and the peasant sculls his boat across the fields. In some parts of Bengal, whole villages are everywhere now and then swept away by changes in its course, through districts from which, a few years before, it was several miles distant.

The Bhagirathi, Jalangi, and Matabhanga, are all offshoots of the Ganges, which unite to make up the headwaters of the Hoogy. In former times, the main volume of the Ganges was carried to the sea by one or other of these channels, but they now receive so little water as only to be navigable in the rainy season, and then with difficulty. Since the beginning of the present century, Government has undertaken the task of preventing these Hoogly headwaters from further deterioration. A staff of engineers is constantly employed to watch the shifting bed, to assist the scouring action of the current, and to advertise the trading community of the depth of water from time to time. In the year 1877–78, a total sum of £29,522 was expended on this account, while an income of £32,494 was derived from tolls.

The Ganges river basin embraces 391,100 square miles. Average discharge at Hardwar, when the river is at its lowest, 7000 cubic feet per second; at Rajmahal, a high flood discharge of 1,800,000 cubic feet per second, and an ordinary discharge of 207,000 cubic feet. The Ganges during its minimum discharge at the Bhagirathi head in April has a breadth of surface of 2800 feet, an average depth of 15 feet, its sectional area 45,000 square feet; and multiplying this with its mean velocity of 1·92, gives its discharge per second as 80,600 cubic feet. During the inundation the breadth of surface is 10,633 feet, average depth 30 feet, sectional area 318,990 square feet, mean velocity 4·25 = 1,355,707 cubic discharge per second.

The Ganges near the delta has frequently altered its course. Colonel Colebrooke mentions that, between 1779 and 1788 such an alteration had occurred at Colong, making a new channel 90 feet deep, above which the earth rose 25 feet, a removal of 115 feet of earth. Entire fields at times are hurled into the river, and large islands disappear rapidly when the power of the main current is made to bear on them. Budginga, Ganga, also Burha Ganga, is an old bed of the Ganges traceable below Hastinapura, Soron, and Bhojpur. Hooker, Him. Jour.; Markham's Himalaya, Col. Rev.; Royal Sanitary Commission Rep.; Imp. Gaz. GANGES CANAL, an important irrigation work and navigable channel in the North-Western Provinces, passing through the eastern portion of the Upper Doab, and watering a large tract of country, from Hardwar to Cawnpur, extending from lat. 26° 30' 30'' to 29° 57' N., and from long. 78° 18' to 80° 21' 15'' E. From the Ganges at Cawnpur to the Jumna at Agra the distance is nearly 200 miles. All this long tract is unwatered by a single natural stream. To remedy this the great Ganges Canal was projected by Sir Froby Cauley, K.C.B., during the administration of Lord Dalhousie. It was commenced in 1846, and was
opened in 1854. Its principal head is 2½ miles from Hardwar. At the 18th mile above Roorkkee the canal crosses the Solani river. From this point the main canal follows the watershed between the Ganges and Jumna for 181 miles to Nanun. From Nanun the eastern branch continues 170 miles to Elawa, where it falls into the Jumna, and the western branch of the same length falls into the Ganges at Cawnpore. There are two smaller branches of 83 and 10 miles long. It has an irrigating capacity of 1,205,000 acres. It has been an unfortunate canal; up till remodelled in 1866, it could not carry its full supply. Up to the end of 1872-73 it cost £2,187,740.

The Lower Ganges Canal, an important irrigation work in the North-Western Provinces, designed to water the whole southern portion of the Doab. —Imp. Gaz.

GANJODRAM. GANJA.

GANJOLO, a brick structure at Negapatam, supposed to be a Buddhist work.

GANJODRAM, mountain temple in Garhwal state, Panjab; lat. 30° 59' N., long. 78° 59' E., and 10,319 feet above the sea. It stands on the right bank of the Bhagirathi or Ganges, 8 miles from its source, in a small bay or inlet, surrounded by a wall of unhewn stone. The temple is a square building about 20 feet high, containing small statues of Ganga, Bhagirathi, and other mythological personages connected with the spot. Near the temple is anTag, a large tank, and the waters of the Bhagirathi and the river runs impetuously in its shingly bed, the stilled sound of the stones which it rolls along, mixing with the roar of its waters. Sooragarpara is the nearest of the peaks, and forms the western point of the great snowy hollow. Rudra Himala is the eastern, and forms the other point; but from that point runs down a huge snowy shoulder, that seems to give off or end in the mountains that surround, and form a great unbroken, though unequal, snowy ridge, bounding and confining the glen of the Bhagirathi. The other three peaks form different points in the back of the immense hollow, and altogether compose one of the most magnificent and venerable mountains, perhaps, that the world can produce.

Below Gauri Kundh the river falls over a rock of considerable height in its bed, and continues tumbling over a succession of petty cascades or rapids nearly all the way to Mindee ka Gadh. Above the debouch of the Ked or Ganga, the bed widens into a small shingly space, in which the river rapidly rolls. A bridge has been thrown across, and above the bridge is the small temple dedicated to the goddess Ganga or Bhagirathi. It is built on the sacred stone on which, as Hindus believe, Bhagirathi used to worship Siva Mahadeo. —J. B. Fraser, in Jam. Ed. Journ. 1820, iii. p. 229; Fraser's Himalaya Mountains; Herbert; Hodgson.

GANGRI or Kailas, a mountain range which extends in one unbroken chain from the source of the Indus to the junction of the Shayok, and forms the natural boundary between Ladakh, Balti, and Rongdo on the south, and Ruthog, Nubra, Shigar, and Hunnagar on the north. It has six passes, at heights from 15,000 to 18,105 feet. Gangri, in Tibetan, means 100-mountain. Kailas means crystaline or icy, and is derived from Kolas, crystal, which is itself a compound of Ke, water, and Las, to shine. Kailas, or Ice

Mountain, is the Indian Olympus, the abode of Siva and the celestials. The Tibetans look upon Ti-se or the Kailas Peak as the highest mountain in the world. Near the Gangri range, four rivers take their rise,—the Indus, called Sing Chin Kamba or Sing Jing Kamba, the Map-chu Kamba or Karnali, and the Brahmaputra, called to the eastward Tamkyak Kamba, also the Lang Chin Kamba.

GANGUA, a valuable timber tree of the Andamanas.

GA-NHAT, a god of the Singhpo.

GANITRUS SPIRERICUS, Gauri. Its nuts, cleared of the soft pulp or flesh that covers them, are curiously sculptured, and, being hard and taking a fine polish, they are frequently set in gold and strung into necklaces. Ganitrus spirericus is a middle-sized tree, common in various parts of India, as well as the Malay Archipelago. Its nuts, and those of Monocera tuberculata, W. and A., from the forests of Travancore, also those of Elaeocarpus lanceefolius, are what are principally used as beads.

GANJ, HIND, is a mart or market; a granary, especially one of grain; and in Bengal and Hindustan is applied to any village or town which is an emporium for grain and other necessaries of life. It is used as an affix to proper names, as Islam-ganj, Hardeo-ganj, Captain-ganj; just as ship or chipping, which are of the same meaning as Ganj, is in English, as Chipping-Sodbury, Chep-stow, Chippenham, Cheapside.

Ganj-i-Shahid, a sepulchral mound where Mahomedans have fallen and been buried. —Elliot.

GANJA. HIND, TAM, TEL. Hemp-plant.

Ganjists... ARAB. [Ging-lacki] lacki, MALAY. Ma-fuen, Chu-tsao, CHIN. Ganjika, Bijia, . SANSK. Gindali, . JAY. . .

The dried hemp plant which has flowered, and from which the resin has not been removed, is called ganja. It sells for 12 annas to 1 rupee the seer in the bazaars. It yields to alcohol 20 per cent. of resinous extract, composed of the resin (charras) and green colouring matter (chlorophyll). Distilled with a large quantity of water, traces of essential oil pass over, and the distilled liquor has the powerful narcotic odour of the plant. The ganja is sold for smoking chiefly. The bundles of ganja are about 2 feet long, and 3 inches in diameter, and contain 24 plants. The colour is dusky green, the odour agreeably narcotic, the whole plant resinous, and adhesive to the touch. The natives cut the plant when in flower, allow it to dry for three days, and then lay it in bundles averaging one seer weight, which are distributed to the licensed dealers. The best kinds are brought from Gwalior and Bhiwtur, and it is also cultivated of good quality in a few gardens round Calcutta. In Jessore the drug is known to be produced of excellent quality, and to a very considerable extent of cultivation. In the north of Africa, South America, Turkey, Egypt, Asia Minor, India, and the adjacent territories of the Malay, Burmese, and Siamese, hemp and its products are used in various forms by the dissipated and depraved, as the ready agent of a pleasing intoxication. The leaves or young leaf-buds of the hemp plants are smoked by itself, or rubbed between the hands and added to tobacco to impart an intoxicating power. —Faulkner; Royle; Waring; Birdwood.
GANJ, a small seaport town in lat. 19° 22' 27" N., long. 85° 2' 52" E., with a population of 4,163 souls. It gives its name to a revenue district in the north-east of the Madras Presidency lying between lat. 18° 15' and 20° 15' N., and between long. 83° 49' and 85° 15' E.; area 5313 square miles, population 1,520,088. The chain of the Eastern Ghats is here known as the Malaya; and its peaks are—Mahendragiri, 4923 feet; Singharaj, 4976; and Deodonga, 4534. Ganjam anciently formed part of the southern kingdom of Kalinga, and it was not until the long line of Gajapati or Ganga Vansa kings (1182–1392) occupied Orissa that the adjoining district of Ganjam was annexed to that province. It suffered from famines in 1789, 1791, 1819, 1836, 1866; and in the last about 60,000 of the people were lost. The town of Ganjam was nearly deserted in 1815, in consequence of fever. The district contains several petty chieftainships, and it embraces a large portion of the mountainous tracts known as Khondistan, and the valley of Chocapaud. Chilka lake, in Ganjam, is 35 miles long and about 8 broad, with numerous islets. The aboriginal tribes inhabiting the hill tracts are principally Kandh (55,735) and Saura (21,656), who have now nearly all embraced some form of Hinduism. During a campaign in 1836, it became known that the Khand were addicted to sacrificing human beings, and the rite has now (1892) been suppressed. Uriya are chiefly found in the north of the district, extending as far south as Parla Kimedi. South of Kasibuga, and throughout the Chiecaole division, the larger number of the inhabitants are Telig. The Uriya language prevails in the northern part, and the Telig in the southern. It has been stated that the town of Ithapole in the southern division the Telugu prevails. The Khand race have a language peculiar to themselves, which was reduced to writing by Captain J. P. Frye of the Madras N. I. Of the inhabitants, about 450,000 are Uriya. Many of the Uriya Brahmins obtain their livelihood as cultivators. Brahmins of this sect also trade, and follow the occupations of brick-makers, brick-layers, etc. The chief towns of the Ganjam district are Berhampur, Chiecaole, Parla-Kimedi, and Kalingapatam. Chiecaole is the principal civil station in the Ganjam district. It is in lat. 18° 18' N., long. 85° 38' E., about 567 miles from Madras, and has 15,587 inhabitants. It lies four miles direct west of the sea, and is situated on the north bank of the river Languliya. It is the station of the judge and the sub-collector. GAJ—i-BAR, a bald tract in the central dorsal plateau in the Manja or middle part of the Bar district. The soil of the Ganj-i-Bar is intensely arid, often saline, and produces only some salsolaceous plants, with a few bushes of jhad. GANNA. HIND. Saccharum officinarum, sugar-cane. The name differs but little in almost all languages to express the same object.—Hebrew Kaneh, Arabic and Persian Kunnat, German Kanne; Greek, Latin, Italian, Spanish, and Anglo-Saxon, Canna; and hence the English cane and sugar-cane, and the many words derived from it, which are applied to vessels and utensils bearing resemblance to the shape of hollow reeds, as can, cannikin, canal, canister, and canoe, which latter is derived from the passage in Juvenal (Sat. v. v. 89). Minch and abhors a similar origin to the word guna, 'Guna, ex Lat. canna, quia consistit canna ferrea,' regarding which it is to be observed that no one has succeeded in giving a better etymology. From the Hebrew name is the Hanah, or measuring reed of the Jews, equal to six cubits, which has its counterpart in the Bons or bamboo measure of the Hindus; the Roman Decempees and the Greek Akaina, all of six cubits or ten feet.—Elliot. GANNET, a sea-bird, the Sula alba, which measures about 5 feet across, and 24 feet long. Also the Pelecanus bassanus. GANONG, generally called Ayen Papas, hot springs in Nanning. All the hot springs of the Malayan Peninsula, and some of those in Sumatra, occur in swampy flats. That of Ganong occurs at or close to the line up to which pluvinic action has converted the rocks of the district into granite. GANPATI, the Hindu god of wisdom. See Ganapati; Ganesh. GANTA BHARANI. Tel. A species of Clerodendron, a low herbaceous plant, common about Lamsingi in Vizagapatam; the roots are largely exported for medicinal purposes. GANTH, also Ganthi. HIND. A knot. Mahomedans usually keep a string for their children, on which they tie a knot each birthday; hence Baras-gan'th, a birthday knot, a birthday. In land revenue the twentieth part of a mana or bigha. GANTHAA, a bell. One is used in the holy ceremonies of Hindus, and is rung at certain times to keep away evil spirits. These bells, as well as the lustral spoons, are usually surrounded by the figure of the deity in whose worship they are used.—Cole. Myth. Hind. p. 380. GAO, written also Gan or Goan. HIND. A village. Travellers in India reckon the day's distance of journeys by the Gao or village. Ds Gao would mean ten days' journey. GAO. HIND., ZEND. A cow. In Hinduism, the Gao or cow is symbolic of Pritha, the earth. Gao has numerous combinations. Gao-char or Gao-charhai, pasture land kept free from cultivation, as the grazing ground of the village. Gao-dana or Godana, the gift of a cow to a Brahman or to a bridegroom, or at a religious ceremony. Gao-kos is the distance that is measured by the audibility of the bellowing of a cow from one extremity to another. Gaola or Gaola, contraction from Gopala, a cowherd (perhaps from Gala, milk). Gaola, the milkman race; they have considerable herds of cattle. Gao-labh, swearing while holding a cow's tail. Goa-than, a village site. Gao-ran, grazing ground. Gao-lochan, gall stones extracted from the gall bladders of dead cows, much used in medicine, also in charms, and in painting.—Gen. Med. Top. p. 186; Tr. of Hind. ii. p. 40. GAO. HIND. An ordeal. See Divination. GOAHATTY, a town in Assam, the ancient Kasawati. See Gowhatty. GAPO, a Hindi word meaning a village, is appl'd to hamlets and townships in every part of Ind. Its origin in Hindi is obscure and it is written in the English Gaum, Gouv, and Gaum, as Mulligaraum. It is a vernacular term from the Sanskrit Grama or Gramma, Gramin or Gramum, and still preserved and used in the word Grammadvana, the village deity, and used with inflections in Tamil, Malealam, Telugu,
and supposed to be represented in the Chinese Heong and Singhalense Gama.

Gaon-barah, in Bengal, a village authority.

Gaon-kari, a freeman of a village, either free from being of the original settlers, or having purchased it by fee, by some useful act, as digging a well, repairing a wall, building a temple.

Gaon Korava, a section of the Korava race. See Korava.

Ga'ooru, MAHR., a patel.

GAO ZABAN. PERS. Lit. cow's tongue. The plants of the bazaars of India are the Cacalia Kleinaia, Anisomeles Malabarica, Trichodesma Indicum, Heliotropium erosum, H. ophicoglossa, Onosma bracteatum, O. macrocephala, and Macromia euchroma. Eastern physicians suppose them to have cooling properties, and give them in disorders arising from heat of body, external or internal.

GAR, TIBET, a fort; in Sanskrit, a district, a region, as Kash-gar, Gujer-gar, Chutchwaha-gar; and Ghar, HIND., is a house, a fortalice, a fortified town, as Futtchghar. Gharri, a fortalice. Nagar, also Nagara, SANSK., a town, a city, as Ahmednagar, Farrakhnagar, or simply narga, the town, is from the Sanskrit Nagara, and is often in English written Nagore.

GARLA, an agricultural tribe in Saharanpur, Roorkee, Rampur, Sultanpur. They are Mahomedans, and are supposed to be converted slaves, like the Jhooa.

GARARIGA or Gadarya, from Gadur, a sheep, a shepherd, and goat race, scattered over all the N.W. Provinces of India, but most numerous between Allahabad and Farrakhabad. They are in many clans, which do not intermarry.—Bakarkasan, Barkata, Bharariya, Chak Bareya, Chikwa, Dhanger, Illahabadi, Jaunpuri, Namadhalwaiy, Nikhar, Pahwari, Pachhade, Tassela. The Bharariya take their name from Bhera, a sheep. The Chikwa are Mahomedans. The Dhanger, Jaunpuri, and Nikhar also weave coarse blankets. They marry the widow of a deceased brother. The Gari, or shepherd tribe, are in dignity of caste in much the same position as the Gop. In the west of India they founded a dynasty, that of Holkar, which still flourishes. They tend sheep and make blankets from their wool—a bad conjunction of trades, as the poor sheep are invariably short when blankets are in most request.—Dalton, Ethol. of Bengal, p. 317.

GARBHA. SANSK. A dome of a Buddhist cave; also pregnant. Garbhadana, a Hindu rite performed on the first indications of pregnancy.

GARBHA. The nine days preceding the Dasara are the Nao-rati, during which a Brahman is engaged to read the praises of Durga, and on the tenth performs the homa or fire sacrifice, in which rice and ghee are poured into the fire. Banya women keep up a dance called Garbha.

GARCE, in Telugu Garisa, a Madras grain measure of 400 paras = 9256 lbs. The Madras olluk is a measure of 11719 cubic inches. The Madras paidi is a measure of 8 olluks, and the Tamil marakal measure is 8 padi.

GARCAS AB HORTO, physician to the viceroy at Goa, author of a work entitled De Arom. et Sinu. Historia, 1567.—King.

GARCIA SIRO SILVA FIGUERIA, in A.D. 1627, visited Persia on a diplomatic mission.

GARCINIA, a genus of the Garciniaceae, the mangosteen tribe, a natural order of plants, consisting of trees or shrubs growing in Ceylon, the Peninsulas of India, the Khasayan mountains, Sylhet, Burma, Andamans, Java, and the Moluccas. The species of this order all abound in a viscid, yellow, acrid, and purgative gum-resinous juice, resembling gamboge. This gum-resin is obtained by removing the bark, or by breasting the leaves and rocking shoots. It is met with in commerce as the fine or gum gamboge, cake or lump gamboge, and coarse gamboge. The Garcinaceae genera are—Garcinia, Mannea, Mesua, Calophyllum, Kayea, Calycasenia, Rheedia, Pundatbesa, Moronoba, Mieranthera, Quapoya, Clusia, Tavomita. Several of the Garcinia genus yield edible fruits, and one of them is the mangosteen fruit tree, G. mangostana, L., a tree of the Malay Peninsula and islands of the Moluccas. G. Kydia, Roxb., of the Andaman Islands, is a tree with a sharp but agreeably acid fruit, similar to the large fruit of G. pedunculata, Roxb., which grows in Rumpur. G. paniculata, Roxb., a tree of Sylhet, has a palatable fruit something like the mangosteen; G. Roxburghii, Wight, a tree of Travancore, Malabar, and Chittagong, has an edible but very acid fruit; G. purpurea, Roxb., grows on the western coast of peninsular India. The fruits of several other species of the Garcinacea are brought to market in the countries where they grow, but they are regarded as very inferior. The mammee apple, or wild apricot of S. America, of another genus, is said to be very delicious. Its seeds are anthelmintic; its flowers yield on distillation a spirit known as Eau de Cireole, and wine is obtained by fermenting its sap. Mr. Gambo enumerates 22 species of Garcinia.—Roxb.

Garcinia cambogia, Desrours, not Roxb.


A tall tree, growing in Ceylon up to 1500 feet, grows also in Travancore, in the forests of Malabar; is very abundant in Tenasserim, and very common in Siam and Cambodia. It is common in all the western forests of the Madras Presidency. A semi-transparent pigment exudes from the trunk, very adhesive, but quite unsuitable as a paint; the acid rinds of the ripe fruit are eaten, and in Ceylon are dried and eaten as a condiment with curries. It yields an excellent, straight-grained, lemon-coloured, slightly elastic wood, which is easily worked, and would answer for common furniture.—Roxb.; Thwaites; Reddome.

Garcinia cornea, LINN., of E. Bengal and Burma, has a heavy brown-coloured wood, and yields a sort of gamboge.

Garcinia cowa, Roxb. ii. p. 622.

Young-tha-la-su, DURK. Cowa, COWA. 40M. HIND. Young-tha-za.

This tree grows in Assam, Andamans, Bengal, Chittagong, and Burma. It is of a middle size, and handsome; it yields an inferior sort of gamboge, and the fruit, edible, though not the most palatable.

Garcinia dulcis, KURZ, a tree of the Andamans, with a close-grained hard wood.

Garcinia heterandra, Wall., is the G. elliptica, Wall. and Kurz, and the Tha-nat-tau of the hills.
of Burma up to 3000 feet. It yields a superior kind of gamboge.

Garcinia lancefolia, Roxb., the G. purpurea, Wall., and the Kirindur of Sylhet. Grows in Assam, Chittagong, and Sylhet.

Garcinia loniceroides, T. And., is the G. succifolia, Kurz, of the swamp forests of Pegu. Yields a gamboge, but scanty and inferior.

Garcinia mangostana, Linn., mangosteen.

Mangostun of BOMBAY. Mangungusta. MALAY. Mangosteen.

Mangostis, Bugis of Ceylon. Manggis Malaya of Baluchistan.

Shan-chah, W. CHIN. Java, Sundan.

Mangos, LAM PONG. Mangu. 

A prolific tree of the Malay Peninsula and the Archipelago, which yields the mangosteen, the most palatable of all known fruits. It is a very handsome tree, the foliage, which is large and opposite, being of the darkest shining green. The fruit is a drupe as large as a moderate apple; it is composed of an outer skin of a soft and fibrous nature, brownish-red or dark purple on the outside, but when cut, of a bright crimson; the snow-white pulp which envelopes the seeds, lying within this, has an appearance no less delightful to the eye, than the flavour is grateful to the palate. Its characteristic quality is extreme delicacy of flavour, without being rich or luscious. When cultivated, as in the peninsula of Malacca, it fruits twice a year, being ripe in July and December, yielding 1000 fruits; it grows in perfection as far as 14° N. of the equator, and 7° S. of it. A congenital proportion of heat and moisture throughout the year seems much more requisite than soil or latitude for the successful growth of this fruit. The leaf or rind of the mangosteen fruit, and the bark of the katingor or wild almonds (Terminalia catappa), are used for dying black, also in dyeing. It has been introduced into Travancore.

—Crawford's Dict.; Low's Sarawak; Marsden's Sumatra, p. 97; Roxb. ii. p. 618; Voyt; Gamble.

Garcinia morella, Desrons.


Aradl, S. CAN. | Gokatoo, SINGH. | Kana-goraka, W. CAN.

Punar pulhit, ... | The Gunn-resin.

Sanatosei, BURM. | Rewa-chini. | MAHÉ.

Gota gamba, HIND. | Makki, TAM.

A middling-sized tree of E. Bengal, Assam, Khasiya, Ceylon, and S. India. In S. Canara, in the moist forests of the plains and ghats, up to 2000 feet elevation; Ceylon, up to 2000 feet elevation; also in E. Bengal and Assam. It is the true gamboge tree of commerce; and the pigment which exudes from wounds in the trunk is largely collected and exported from Ceylon and Siam; but little or no attention seems to be paid to it in British India. In the Madras Presidency, Colonel Beddome only met with the tree in S. Canara. It is closely allied to G. pictoria, which is the common species of the Madras Presidency, and scarcely distinguishable, except by the female flower.—Beddome, F. S. p. 86; Gamble.

Garcinia ovalifolia, Hooker.

Xanthochymus ovalifolius, Roxb.

Ella-gokatu, ... SINGH. | Kokati, ... TAM.

A tree of the Western Ghats.

Garcinia paniculata, Roxb., the Bubi-cowa of Sylhet, E. Himalaya, Khasiya, and Chittagong.

Garcinia pedunculata, Roxb., Tikal, HIND. Tikur, HIND. A tree of Rungpur, Goalpara, and Sylhet; its fruit weighs about 2 lbs. The fleshy part has a sharp, pleasant acid taste, and is used in curries sliced; they keep for years, and might be useful in long voyages. Wood used for planks.—Roxb. ii. 625.

Garcinia pictoria, Roxb. ii. p. 629. Hebraden- dorh pictorum, Christison. It yields osara or purple, a gamboge at least equal to that of Siam or of Ceylon. This is a very common tree in all the western forests of the Peninsula, up to about 3000 feet elevation. It is closely allied to G. morella, but differs in the female flower. The pigment is excellent, and quite equal to that of G. morella. The timber is used by the natives for various purposes.—Roxb.; Beddome.

Garcinia purpurea, Roxb., Bedd. G. Indica, Choisy. A tree of the Canara and Konkan Ghat. The fruit has an agreeable acid flavour, and it is preserved in syrup. The seeds furnish a concrete oil, known as the kokum.

Garcinia speciosa, Wall., Pa-la-wa of the Burmeese, grows in Tenasserim and the Andamans. It is an evergreen tree, with thin greyish-black bark. Its wood is said to be used by the Anadamans for their bows.

Garcinia stipulata, T. And., the Sana—kadan of the Lepcha and Bhatan, up to 4000 feet. Its fruit is eaten. Its fruits and gum give a yellow gum, but it is not used.

Garcinia Travancorica, Bedd., Malam pongu, TAM., of Tinnevelly. This is a very beautiful, middling-sized tree; flowers and fruits in August. The tree is confined to the southern portions of the Travancore and Tinnevelly ghats forests (3000 to 4500 feet elevation), but is most abundant in localities where it grows (Mutthi-kuli vayal, Travancore, Calched Hills, Tinnevelly). Every portion of the tree yields abundance of a bright yellow gamboge, which has not yet been examined. It is a highly ornamental tree, and seed has been transmitted to the Ceylon and Bengal Botanical Gardens.—Beddome, F. S. p. 173.

Garcinia Wightii, T. And., a tree of S. India. Its gamboge is very soluble, and yields a good pigment.

Garcinia xanthochymus, Hook. f., X. pictorius.

Tepoo, AsSAM. | Iswara-manadi, TEL. | Mastau, BURM. | Tamalanau; Chittaka, TAM.

Dampul, HIND. | Mrukku, TAM.

Maohla, PHEKIAL.

This is the gourka tree; it yields a large quantity of indifferent gamboge.

GARDAN. HIND. The neck. Gardani, a silver neck ring, put loosely around the neck of Mahomedan girls in India, on which at each birthday a silver loop or ring is strung. See Baras-ganth; Ganth; Sal-girah.

GARD—DEZ. In Afghanistan, remains of pyre- trees or fire-altars are still to be seen on its hills, as also at Bamiain, Seghan, and other places, showing that fire-worship had existed to a certain extent. See Kafir; Gab'r.

GARDENIA, a genus of plants of the order Cinchonaceae and section Gardeniae. The known species in the S.E. of Asia are about 23 in number. G. amoenae, anisophylla, arborea, calycalata, cinnata, Chinesis, coronaria, costata, densa, dumetorum, eneandrum, floride, gymnifera, latifolia, longispina, lucida, macrocarpa, rotheimania, mon-
tana, radicans, Thunbergia, turgida, uliginosa, obtusifolia, and sessiliflora. G. florida and G. radicans are known as Cape jasmine, their flowers are highly scented; colours pink, white, and pale yellow. G. campanulata is a shrub of Chittagong. Its berry is about the size of a golden pippin apple, and is employed as a cathartic and anthelmintic. One species of Gardenia (Telaga, TEL.) is a tree of the Godavery forests, and furnishes a very hard wood, which would be very good for turning. G. Fortuniana is a fragrant Chinese plant, now common in English gardens, to which it was introduced by the Horticultural Society in 1845. G. montana is common in the coast and inland jungles of Bombay, and may be recognised by its straight stem, long stout thorns, and general absence of leaves. The wood is hard, but always small, never squaring to more than 3 inches. G. obtusifolia, Roxb., a timber tree of Purna.—Fortune's Tea Districts, p. 17; Dr. Gibson; Roxb. i. p. 709.

GARDENIA CORONARIA. Buch.

A tree of Chittagong, Moulmein, and Tenasserim. It produces a profusion of flowers that are white when they first open out in the morning, but on exposure to the sun become quite yellow. Wood used for building purposes. Is a strong, tough wood, and useful for turning. Fruit edible.—Mason; Voigt; Cal. Cat. Es. 1862.

GARDENIA ENNEANDRA. Kon.

G. latifolia, Roxb. | Bikki, ... | Tel.
A small tree of peninsular India; furnishes a light wood of little use. Native combs are made of it.—Voigt; Mr. Latham.

GARDENIA FLORIDA. Linn.

Wax-flowervGardenia, Eng. | Shau-chi-tse, ... | Chin.
Gundhuraj, ... | Beng. | Gul-chand, ... | Hind.
Thet-ya, ... | Birm. | Gundhuraja, ... | Sansk.
Togu-han-pau, ...
Wax-flowers Gardenia is a shrub of slow growth, cultivated in the Moluccas, China, and India. Both double and single varieties are common in gardens. Its pure snowy blossoms, strongly fragrant, smell like the narcissus, and contrast delightfully with the thick deep green foliage in which they are set.—Roxb. i. p. 703; Gen. Med. Top. p. 185; Mason; Gamble.

GARDENIA GUMMIFERA. Linn.

Gardenia arborea, Roxb. | Chiri bikki, ... | Tel. | Chitta matta, Garaga, Tel.
A large shrub or small tree, with large fragrant flowers, which in the morning are white, and become yellow by the evening. The wood is hard. The natives eat the fruit. It grows in Ceylon, in the Gingi Hills, on the Godavery, and in the Circars, and is very common about Duddi, on the Guptruber river; grows wild on the hills in the Kotah jungles, the leaves and unopened blossoms being shrouded at the point in pure fragrant gum-resin, said to be one of the sources of the Dikamally resin.—Roxb. i. p. 707; Gen. Med. Top. p. 185; Voigt; Beddome.

GARDENIA LATIFOLIA. Aiton, Wilde.

Papara, ... | Hind. | Karinguva, Kokkita, Tel.
Kumbay maram, ... | Tam. | Kurukiti, ... 
Bikki, Kova mande, Tel. | Pekka karinga, ... 

Grows wild in the moist Kotah jungles, and is also cultivated in the gardens. It is a small tree in the south of the Peninsula of India, and also on the Godavery. Wood close-grained, and promises well for turning.—Roxb.; Gen. Med. Top. p. 185; Beddome.

GARDENIA LUCIDA. Roxb., W. and A. Gardenia resinifera, Roth.

Kun khan, ... | Ara. | Cumbi, ... | Tam.
Tayy-tham-by-ah, ... | Birm. | China karinguva, ... | Tel.
Dikamally, Dik., H. | Tels. | Tuns. maga, ...

Grows in the Southern Mahatta country, the Circars, on the Godavery, Chittagong, and Buruna, and has a close-grained wood, well adapted for the lathe, like that of several other species of Gardenia and Randia; it is used for making combs. A cubic foot weighs 49 lbs. To the first branch is 15 feet, and girth at 6 feet from the ground is 3 feet. Its resin, Cumbi-pisin, Tam., has a strong disagreeable smelling gum-resin, procurable in most Indian bazaars. It is much used, dissolved in spirits, as an external application, for cleaning foul ulcers, and in cases of worms in children.—Roxb. i. p. 707; Voigt; Dr. Brandis; Beddome.

GARDENIA RADICANS. Var. G. grandiflora, Lour. Cape jasmine.

Hwang-chi-tse, ... | Chin. | Muh-tan; Yueh-tan, Chin.
This favourite shrub is largely cultivated in Ho-nan in China, also in Cochin-China, and in Indian gardens. Its flowers are excessively fragrant, and are said to be used in flavouring tea. It should be planted in a well-manured flower bed or border which has been drained with sand; they require a soil more approaching to sand than clay, and plenty of water; propagated by cuttings in boxes or seed-pots during the rains.—Riddell; Smith.

GARDENIA RUBRA. Hung-chi-tse, Chin. Gardenia. Sze-chuen in China, and said to have brilliant red flowers. Its seeds are used to dye articles of an oecrous red colour.—Smith.

GARDENIA TURGHIDA. Roxb. Nunjoonda maram, Tam. A tree of Bhutan, N. Canara, and Berar. Both it and G. montana are in Wight's Fe. ii. t. 577, 579; Roxb. i. p. 711; Wight; Gibson.

GARDENS and Gardeners.

Jardin, ... | Fr. | Giardinello, ... | Fr.
Garten, ... | Ger. | Huerta Jardin, ... | Sp.
Bagh, Baghichia, ... | Hind. | Tota, ... | Tel.
Alike amongst Mahomedans and Hindus, the formation of a garden is a place of retreat and a great object of desire. In Wilson's specimens of the Hindu drama, which he translated from the Sanskrit, the Necklace and the Toy Cart contain beautiful allusions to gardens. 'The garden is now most lovely. The trees partake of the rapturous season, their new leaves glow like coral; their branches wave with animation in the wind, and their foliage resounds with the blithe murmurs of the bee. The bakula blossoms lie around its root like ruby wine; the champaka flowers blush with the reddines of youthful beauty; the bees give back in harmony the music of the anklets, ringing melodiously as the delicate feet are raised against the stem of the asoka tree.' Toy Cart, Act 8, p. 125, says:

'Look round the garden with these stately trees, Which daily, by the king's command, attended, Put forth their fruits and flowers, And clasped by twining creepers, they resemble The manly husband, and the tender wife.'

And the Mahomedans in India also give them loving names, as Lai Bagh, Farakh Bagh, Roushan.
GARH-BHEL.

Bagh, Ruby Garden, Garden of Delight, and Ornamental Garden. In this they resemble the Dutch.

Gardens of British India are all Hindus, and constitute distinct castes. The largest number of them are the Malli, who give their name to the bulk of the gardening tribes. The Koeri gardeners of Hindustan in Behar grow the poppy. The Tota-kara of the Tamil people and the Teling Totavada are good gardeners. The Malli are supposed by Mr. Campbell to be a considerable and widespread people. Between Ambala and Dehli are a good many Malli villages, and the race are scattered about the N.W. Provinces as gardeners. They are common about Ajmir, and on the southern frontier of Hindustan. South of Jubbulpur there are many, and are mixed with the Kurmi. All through the Mahratta country they are mixed with the Kunbi; and most of the potails are either Kunbi or Malli, and extending with the Kurmi far to the east, the Malli into Orissa, and the Kurmi into Mahrathum and other districts of Chutia Nagpur.

The formation of a garden with Hindus assumes a religious character, and their Banotsarg ceremony consists in their marrying a newly-planted orchard to the neighbouring well, without which it would be held improper to partake of the fruit. The British have formed several agri-horticultural societies, each of which has its garden, with economic and ornamental plants. That best known is on the banks of the Hoogly, at Garden Reach, Calcutta, over which Dr. Willich long presided. The Government garden, Saharanpur, was under the care of Drs. Boyle and Jameson. The Madras Agri-Horticultural Garden in 1853 had 996 species of plants. There is one at Dapooli, near Poona. The Government Botanical and Horticultural Gardens at Ootacumund has a valuable collection of plants. The Mysore Government Garden at Bangalore, in the old Lal Bagh, was well known; and the garden at Peridenia, in Ceylon, under Mr. Thwaites' care, attained great perfection.

A botanical garden is kept up at Batavia in Java, at a considerable expense, defrayed by the Netherlands Government. The Indian Government gardens, as also those of the agri-horticultural societies, are for the object of encouraging the cultivation of useful and ornamental plants. European and native soldiers form kitchen gardens.—The Necklace, Act 1, p. 272; Specimen of the Theatre of the Hindus, translated by Mr. Wilson; Chou-Chou, p. 218; C. pp. 105, 106.

GARH-BHEL of Kukusthan ruled in Balabhipura in S. 523; he is surmised to have been a son of Bahram Gour, one of whose sons, it is known, obtained dominion at Patan. All that is known of him is from a passage in an ancient Jain MS., which indicates that in S. 523, Raja Gardhabhela of Kukustha or Suryavansa, ruled in Balabhipura.

GARDOKI, Garo, Garoo, Gottap, Sur, Yeogar, or Gurtokh, is known by all these names. Rudokh is to the east by south of the Padgong lake, at about lat. 35° 25' N., and long. 72° 40' E., and Gardokh between the sources of the Indus and Sutlej, at about lat. 31° 40' N., and long. 80° 25' E. Through both these towns from Leh there is a route to Lhasa, the more direct one by Gardokh being 1350 miles in distance, or 4 months' journey. By the route by Rudokh the Sok-po are said to have invaded Ladakh in 1826-27, and again 1800 Chang-pa in 1834, the latter rapidly retreating as the Kashmir troops approached. Shortly after both Rudokh and Gardokh fell under the dominion of Maharaja Gulab Singh; but disasters attending his army in 1842, the old boundary between Ladakh and Chinese Tibet was once more re-established. Another town, Shipki, is just without the Bassahir frontier, and 100 miles from the termination of the Hindustan and Tibet road at Sarchun. From it there is communication with Simla, Rampur in Bassahir, and Kulu. The trade entering the Panjab from Gauri Khorsun is considerable. Shawl-wool comes from Chanthan in the Vicinity of Rudokh, a tract of country long celebrated for the fine fleeces of its sheep and goats. The people of the north are active traders. They proceed to Leh for charras and to Gardokh for shawl-wool, giving in exchange money, cloths, and spices. The mountain paths are scarcely practicable for laden mules, and merchandise is carried chiefly on the backs of sheep and goats. An annual fair is held in November at the capital of Rampur on the Sutlej. The town is of some importance, as the point where the commercial routes from Leh, Gardokh, and Simla meet, and also as a seat of the paschmina from Bassahir catches up the Hindustan and Tibet road at Sarchun, and passes by Kotgarh to Simla, and from Rampur direct by Spiti to Leh or to Sultanpur in Kulu, and thence to the Panjab. Garo is the most famous mart for wool in Chinese Tartary, and there is a fair of 10,000 or 22,000 people in July, well attended by merchants from Manbhum and Ladakh, and sometimes from Yarkand. Wool, borax, and salt are the principal exports, and these articles are exchanged for the produce of the plains of India. The pass over the range between Garo and the Sutlej is 19,200 feet above the sea. It is near the source of the Indus river. The Garo river is the Sing-e-chen or Indus, also called there Gar-jungh-chu; and there is no great eastern branch, as some suppose. At Garo, according to Moorcroft, it is a very insignificant stream.—Moorcroft's Travels; Capt. Gerard's Kunawar.

GARG, a celebrated rishi, and founder of the Garga family, one of the 66 subdivisions of the Kanoujia Brahmans.—Wils.

GARGA, a Hindu religious sage, a follower of Kapila, who is mentioned in several Puranas. He was born at Mithila, and resided on the banks of the Gandak river. He taught that final emancipation would be obtained by ardent devotion in religious duties, whatever opinions might be held.—Ward, iv. p. 40.

GARGHANSI, a tribe of Rajputs in Sugri and Mahul of Azimgurh, and in Amoria, Ratanpur, Bans, and Rasulpur, Ghous of Gorakhpur.—Elliot. See Chununee.

GARGI VACHAKNAVI, with Sulabha Maitreyi and Vadaya Pratithheyi, are three learned women, mentioned in the Grihya Sutras of the Rig Veda.—Weber. p. 56.

GARYA, son of Baliki. He was a famous teacher and grammarian, and dealt especially with etymology.—Dowson.

GARRH. HIND.

Gad, Ghat, Ghati, Gadi, Ghani, KAR.

A fort, a house, a fortified village; the watch-tower in the centre of a village. See Gar.
GARHA.

GARHA, in the Jubbulpur district, once the capital of the Gond dynasty of Garha Mandla, whose ancient keep, known as the Madan Mahal, still crowns the low granite range along the foot of which the town is built. Tradition gives Garha a great antiquity, and it probably existed from the Christian era.

GARHA. Hind. Very coarse and thin cotton cloth.

GARHEEBUND, properly Garibband, a description of maize tenant in Bundelkhand, by which lands are held on paying a stipulated yearly tribute, but not one-fifth the amount which ought to be paid. The Mahattas found the Garibband holders difficult to deal with in every way, slow and irregular in the payment of revenue.—Elliot, Supp. Gloss.

GARHWAL, in the Himalaya, has a British portion and a Native State. British Garhwal, in the N.W. Provinces, lies between lat. 29° 26' and 31° 5' N., and between long. 78° 17' 15" and 80° 8' E., with an estimated area of 5500 square miles; pop. (1872), 310,288 persons. The valleys of the Giri, Tons, and Pabar rivers, which flow into the Jumna, adjoin the district of Garhwal, in which are deodar forests, and some of kail, Pinus excelsa; while lower down there are forests of chill, Pinus longifolia. The Tons river is under the Garhwal and Dehra Doon authorities; the Pabar and the Giri run through Bassahir and Sirmur respectively. The streams are rapid, and the volume of water scanty. It has a mixed population.

The Dom or Bhum appears to be the descendants of the aboriginal tribes, and now form the menial class throughout the district. The Khasiya evidently came from the plains of Hindustan. The Brahmans and Rajputas arrived in the country after the establishment of a settled government. The great Hindu temples of Badrinath and Kedarnath attract large numbers of pilgrims, and have produced a deep influence on the history and manners of the people. They lie among the inmost recesses of the Snowy Range.

A totally distinct race inhabits the region lying within the Snowy Range. These are the Bhotia, a tribe of Indo-Chinese origin, much intermixed with Hindu elements. They talk the Hunia or Tibetan language, as well as the Hindi, and they have also a patois of their own. They number in all only 3060 souls, but they control the whole carrying trade with Tibet. Both men and women are powerfully built, dirty in their habits, and greatly addicted to drink. Among the social customs of Garhwal generally, must be noticed the universal prevalence of polygamy. Wives are looked upon in the light of beasts of burden, so that every man obtains as many as his means will afford. Desertion and suicide are common, in spite of all the efforts of the British officials in ameliorating the condition of women.

Garhwal or Tehri, the Native State, is in political relationship with the British Indian Government, lying between lat. 30° 2' and 31° 20' N., and between long. 77° 54' and 79° 19' E. The chief town is Tehri. The raja pays no tribute. The area of Garhwal is about 4180 miles; the population in 1875 was estimated at 150,000, and the revenue at £8000. The hills are generally very steep, and a large portion of the territory is covered with forests, which include valuable deodar tracts. These were leased to the British Govern-

ment in 1864. Garhwal is a large extent Bhot; the language spoken is Hindi. The habitable portion of the Bhot area in Kamaon and Garhwal is confined to the passes and their neighbourhood, all the rest being either snow or rock.—Imp. Gaz.

GARI. Hind. A carriage of any kind, from a coach-and-four to a wheel-barrow. The driver is called Garivan, also pronounced Gadi and Gadiwan.

GARI-GOND. Hind. A light substance like the decayed cotyledons of a seed, or decayed soft grains of the pith of wood, very bitter to the taste. The native druggists of India call it a foreign white gum; it is a purgative and given when vision is much obstructed from any cause; one dose with other ingredients is a dose.—Gen. Med. Top. p. 136.

GARJO, a cross with the yak, when sires a bull and dam a yak. See Yakko.

GARLAND.


Garlands are in constant use in India amongst native Christians, Hindus, and Mahomedans, on festive, on religious, and on funeral occasions. They are placed around Hindu idols, over the graves of Mahomedans, at the doors of churches, and are hung around the necks of visitors. This seems to have obtained from the most ancient time, for garlands were made part of the bridal as well as sacrificial ornaments amongst the Greeks. Thus in Agamemnon, Clytemnestra, in addressing Achilles, says:

'Offspring of Thetis, pity my distress';
Success a virgin named, tho' falsely named,
Your bride: yet I with flowers adorned her brow,
And fancied that I led you to her arms,
But now I to the bloody altar lead.'

Iphigenia in Aulis.

Acts xiv. 13 mentions how the priests of Jupiter brought oxen and garlands to offer sacrifice to Paul and Barnabas.—Hind. Theat. ii. p. 68.

GARLIC, Allium sativum.

Sam., s. | ARAB. | Aglio, | It.
Kosun., s. | BALL. | Bawang-puthi, | Malay.
Belulli, s. | CAN. | Sir, | Pers.
Klofla, s. | EN. | Ajo, | Sinh.
Klooblauch, s. | GER. | Ajo sativo, | Sp.
Skorodon, s. | GR. | Vailai pandu, | Tam.
Shumim, Shum, Hebrew of Numbers xi. 21, | Tel.
Vellulflii, Sarimsak, | TURK.
Lahsa, s. | HIND.

Garlic is largely used as a condiment by all the Hindu and Mahometan races of India, who consider it a valuable stimulant. It is added to their curries. It is grown all over India from the seed or bulbs, the latter method being most in practice. One of the bulbs is broken, and the cloves taken out and planted in beds about four inches apart. No particular care is required, save watering and keeping clear of weeds. When the leaves dry and wither, then take up the roots and preserve. Garlic oil is obtained by expression from the cloves of the garlic bulb. It is prescribed internally by native practitioners to prevent the recurrence of intermittent fevers, and externally in paralytic and rheumatic affections.—Riddell; Faulkner; M. E. of 1855.

GARM-AB, a hot spring in Jell, which preserves its temperature throughout the year.

GARM-MASALIII. Hind. Spices, warm condiments.
GARNET.

GARNET. Pers., is a term applied to the pasture grounds of the nomad pastoral races of Asia. Every pastoral mountain tribe in the Himalayas, in Tibet, in the Afghan and Baluch mountains, in Arabia, Syria, Persia, and in Kurdistan, has its wintering and summering regions. The province of Fars has its Garnet-sair, also its Sarhad or Sard-sair, its warm and cold climates. The Kashgai are a nomadic Turkish tribe of about 12,000 families, whose chief is the Hi-Khain of Fars. They and the Bakhtiar from the warm pastures of Arabistan and the head of the Persian Gulf, arrive in spring on the plateau of Isfahan. At the approach of winter, both the tribes return northwards to their respective wintering lands. The entire southern region of Fars, bordering on the Persian Gulf, is called the Garnet-sair. It extends from the sea to the latitude of Kazerouen, and runs parallel with the Persian Gulf from the banks of the Tab to the confines of Luristan. From Bushire eastward as far as Cangoon, the tract is named the Dushtistan or land of plains. The Tungistan, commonly pronounced Tungistoon or narrow land, is a small tract of land east of Bushire. The greater portion of the people of the whole Garnet-sair consists of an independent lawless set, many of the tribes being robbers by profession. A huge wall of mountains separates the Garnet-sair or low region from the Sard-sair. Sard-sair signifies the cold region, but it is also termed the Sarhada, a word literally signifying boundary or frontier, but generally applied to any high land where the climate is cold, or the high table-land of Persia. One of the most conspicuous of these is an abrupt lofty hill, named Hormojo, where coal occurs. In Fars, the Garnet-sair of Siijistan is a narrow strip of culturable land about one-fourth of a mile on the south bank of the Helmand, five days' journey N.W. from Nushki, on the edge of the desert. The Baluch races seem to pronounce it Garmseh or Garnet-sair, and one of their wintering places is north-west of Nushki, distant about 75 miles.—Pottinger's Tr. p. 108; Rich.

GARNET.

Hung., ... Chin. Granati, Carbunculus, Lat.
Grenat, ... Fr. Yakut? ... Malay. ... Ganganstein, ... Ger. Sang-i-mahtab, ... Pers. ... Granatstein, ... Gr. Granatnoi-kamen, ... Rus.
Tambr ... Hind. Granadas, ... Sp.
Granate, ... It.

Garnet is a word supposed to be derived from the Greek γαρνέτα, the red byzantia of the Romans. There are many varieties,—Almandine or noble garnet; grossular garnet; cinnamon stone, esotton, hessonite, or kanelle stone; romanzenite, and hyacinth; common lime garnet; magnesia garnet; fire garnet; common iron garnet; rothsfelte, alloclorite; melanite, pyreneite; colophonite; uvarovite; pyropy; almandine, hexahedral garnet; helvine or tetrahedral garnet; and idocrase or pyramidal garnet. The Alabandite carbuncles of Fliny were so called because they were cut and polished at Alabanda. The clear deep-red garnets make a rich stone, and are much used for cameos. The cut is quite thin on account of their deep colour. It is this thin stone which is now termed the carbuncle. Among the Burmese the most beautiful come from Sirian, the chief town of Pegu. Garnets of very good quality occur in Nellore, Masulipatam, and Bezvarraul.

The red variety of the gem is very generally diffused over India. Its geogonic position is the hypogenic or metamorphic schists near their line of junction with plutonic rocks or trap dykes; for instance, in the crystalline and metamorphic areas of Salem and Nellore, whence the finest crystals are procured, and sold by the native merchants at an insignificant price. Colophonite is not uncommon in these tracts, as also in Mysore, the Neighherries, the Karmatic, and other provinces of Southern India. It usually occurs in the granite, associated with the hypogene schists. There are several forms of garnet, as almandine, pyrope, or esottonite and, in the Neighherries near Benza in the hypogene hornblende rock, near the Seven Cairns Hill, where entire portions of the rock are formed almost exclusively of them, the esottonite and hornblende in large separate crystals, embedded in a paste of compact felspar and hornblende; the former is very liable to disintegrate, leaving, in falling out, small cavities in the rock. Green garnet is of rare occurrence. Newbold discovered this in the Salem district at Sankerydrug, about 8 miles S. of Palamnah, in the Hyderabad country, in the doritos of a granite rock, penetrated by trap dykes, and composed of mica, garnet, kyanite, quartz, and felspar. Dr. Voysey states that the precious garnets are found there at the depth of eight or ten feet in the alluvium at the foot of the rock. He found the surface of the rock and soil strewed with garnets in great profusion, but these were generally of a very coarse kind. The garnets when collected are gently powdered, and the bad ones broken; those which survive the blows are reckoned of good quality. In a river near the Munzerabad ghat in Mysore, the natives search for garnets, which are sold at one rupee each. They occur there as deposits from a hill of mica schist which occurs higher up the river, which Captain R. Roberts of the Engineers followed up.

The garnets of China are found in the Lu-shan mountain in Kiang-si, not far from Kia-kang.

There are three distinct kinds of ruby garnets sold in Madras,—1. Sublustranum ravakulu, the best, obtained from a village of that name in the Madura district; 2. Badrachellum ravakulu, second in quality, obtained from Badrachellum on the river Godavery; 3. Kondapilly ravakulu, obtained in the neighbourhood of Kondapilly, Bezvarraul, Toley, Kistna district. Bezvarraul garnets sent to England realize in the market £8 a ton, and Mr. Bowden thinks they are used as a substitute for emery. In Southern India they are almost universally employed by the cutter, the stone-mason, and others, as a substitute for emery, under which name the coarser garnets are sold in the bazaars. In the scale of hardness, the garnet is 6½ to 7½. Garnets are of various colours, a circumstance due to the varying proportions and combinations of the three or four silicates of alumina, lime, iron, and magnesium, or essossite, of which the following are typical:—

GARODI.

GARODI, a race of migratory jugglers, who exhibit serpents; they profess Mahomedanism.

GARO HILLS are in the S.W. corner of the province of Assam, lying between lat. 25° 9' and 26° 1' N., and long. 90° 52' and 91° 3' E. The principal ranges are the Tura and Arbela Hills, which run east and west, some of the Tura peaks rising to 4500 feet. The Garo Hills form a mountainous projection between Goafpara and the Bengal district of Mymensing, and are now a revenue district of British India, with an area of 3186 square miles, and an estimated population of 80,000 or 100,000. They have, like the people of the plains of Assam, been, and are, to a large extent, converted to the Hindu faith; but they consider themselves as forming three or four nationalities, with different names. The most eastern, bordering on the Khassya, are called the Nunya, the central tribe are the Lyntea, and the remainder are the Abengya. Each tribe has its dependent and independent branches. The Nunya resemble the Khassya in feature and complexion and in language. The language of the western Garo is unintelligible to the Nunya. The Bengali people, however, only distinguish the Garo as the Malawa and the Bemalawa, which, like the Bori and Aboor of Upper Assam, means dependent and independent.

The Garo build large houses on the lower hills; the bamboo floor is from four to ten feet from the ground. One corner is enclosed as a bed-room for the parents and girls, who alone stop at home. Every village has its Deka-chang or bachelors' hall, in which all the boys and unmarried men sleep. Several of the petty rajahs of Kamrup, whose estates skirt the Khassya and Garo Hills, are Hinduzied Garo who have maintained their footings in the valley during changes of dynasty. The Garo have many slaves, called Nakola. A freeman, Nakoba, must not marry a slave girl, nor even keep her as a concubine. The men are lively, good-natured, hospitable, frank, and truthful. The young women make the first advances, the newly-married man is taken to the bride's home, and the descent of property is in the female line. The women wear a short kilt. The clans are divided into different houses, called Mahari (Buchanan calls these Chatasbak), which may be translated motherhoods. The man who marries the favorite daughter of the house must also marry her mother on the death of her father, and in this way he succeeds to the family property. Among them and the Khassya, in all domestic matters, the women enjoy a high social position. They never cut the hair of the head.

Cotton is their chief husbandry. They practise the jumia mode of cultivation. Their weapons are swords, spears, bamboo shields. They use sharp bamboo panji or stakes, four inches long, as a means of opposing invasion. They eat omnivorously, kine beef, pork, deer, tigers, dogs, snakes, and frogs, but hold milk in aversion. They rear kine, goats, swine, dogs, cats, fowls, and ducks. They eat dried fish and tortoises, which they buy in the plains; and their hills supply them with deer, wild hogs, frogs, and snakes.

They believe in demons, imps, and witches; they think that the souls of certain persons can leave their human frames and take up their abode in the body of a tiger or other animal. A small dish of bell metal with embossed figures, called a Deo-Kora, is hung up in a household god, and worshipped and sacrificed to; and the Garo believe that when the household are asleep, the Deo, or figure of the Kora, issues in search of food, and returns to its Kora to rest. They burn their dead, and bury the ashes near the door of the hut. At the time of cremation, dogs are sacrificed in order that they may direct the spirit on his way. They sacrificed human beings to their spirits, and to the manes of their chiefs, but in a treaty in 1848 they consented to abstain from hanging human skulls in their houses. A party of them, however, in May 1860, murdered sixteen natives of the plains in the north of the Mainamensing district, and after mixing the blood of the murdered with that of a chief, they carried it off, and three were executed in their own villages before their own people. Their accomplishments, in number some twenty men, were condemned to transportation for various periods. Their object was not so much plunder as human heads to offer to their spirit of the mountains. The raja of Nusa-tung, one of the Khassya states, subsequently undertook to aid in repressing their raids.

The attempt to enumerate them at the census of 1871 disturbed them, and in 1872-73 an expedition had to put them down. The Garo erect carved posts as monuments. The Khassya and the Ho also erect monumental stones.—Buch. Ham. in Linn. Tr. xvii. p. 203; Campbell's Ethnology; Dalton's Ethnology; Indian Antiquity, October 1873; Imp. Gaz.

GAROKEE, a wandering race in Woon.

GARORU of the Ravi, a rope across a stream, by means of which passengers and goods are slung across by a pulley arrangement.

GAR-PAGARRI, a sect of Hindu Sudras, who profess to have the power to prevent the fall of hailstones on fields. Possibly the term is derived from the Persian ghar, ice. Wilson says the word is Maharatta, and that they are retained in some villages as part of the establishment, to prevent the hail injuring the crops.

GARPHANS, officers of justice in Hindes.

GARRAH, a principality on the Nerbadda, bordering on Bundelkand. In the early years of Akbar's reign (A.D. 1564, A.H. 972) it was invaded and conquered by Asaf Khan, an officer of Akbar. It was governed by a queen, who opposed the Mahomedan general in an unsuccessful action, when, seeing her army routed and being herself wounded, she avoided falling into the hands of the enemy by stabbing herself with her dagger. Garrah untried in the middle of the 16th century was 300 miles long and 100 broad. Garrah town is 5 miles below Jubbulpur.—Elphin. p. 439.

GARRAH, often written Gharra, a river of the Punjab; the modern name of the ancient Hyphasis.

GARRAH and Uбрassa, districts in the west of Cutch, in which are the towns of Mhar, Narna, and Laktap Bandur.


GARRULACINE, a sub-family of birds of the tribe Incessores and family Corvide.

GARU. Tel. Literally 'they,' like the German Sie, the honorific plural of the pronoun, it is added to any name as a title of honour; thus Amma-garu, lady mother, is a titular appendix to the names of well-to-do Teling people.
GARUDA.

GARUDA, a demigod of the Hindus, with the head and wings of a bird, and the body, legs, and arms of a man. He is the son of Kasyapa and Vinata, the brother of Aruna, and the vahan or vehicle of Vishnu.

'When high on eagle-plumes he rides.'

As Aruna, the charioteer of Surya (the sun), is the dawn, the harbinger of day, so does Garuda, the younger brother, follow as its perfect light. He is the emblem of strength and swiftmess, and besides being the bearer of the omnipotent Vishnu, is greatly distinguished in Hindu legends on many very important occasions. Aruna, in the Sabean system of the Veda, as the charioteer of the sun, driving his six-horsed car, corresponds with the Aurora of the Greeks. The emblem or vahan of Vishnu is Garuda, or the eagle; and the Sun-god, both of the Egyptians and Hindus, is typified with this bird's head. It is the analogue of the eagle of Jove. Aruna (the dawn), in Hindu mythology, also the son of Kasyapa and Vinata, is the brother of Garuda, and is described as a handsome youth without thighs or legs. His two sons, Sumpati and Jutayo, attempting in imitation of their father to reach the sun, the wings of the former were burnt, and he fell to the earth. Of this the Greeks may have made their fable of Icarus. The images of Garuda are set up and worshipped with those of Vishnu, in the temples dedicated to that deity. Sculptured images of him are also found in the magnificent cavern temples of Elephant, Ellora, etc. In the last mentioned he is in several places accompanying Parvati, the consort of Siva. Garuda has many names. He is called Suparna from the beauty of his eye; Sumpati, or the enemy of serpents; Vishnu ratha, or the vahan of Vishnu, etc. In many of the vaishnava temples, Garuda is sculptured on the pillars, or large plaster figures are placed at each corner of the temple walls; also on the walls of many vaishnava temples as a winged young man, kneeling or seated, with the palms of the hands closed, and fingers pointing upwards, denoting reverence.—Moor; Cole; Myth. Hind. p. 374; Tod's Travels; Taylor's MacKenzie MSS.

GARUDA-BASIVI, a devoted Murli or Devadan woman.

GARUGA PINNATA. Roxb.

Toom, . . . . BENG. | Karri-vemulu maram, TAM.
Khyong-yowk, . . BURM. | Garuga chettu, . . . Tel.
Kuruk, Kanghur, . . HRV. | Kaluguda, . . .
Khar pat, . . . PZAR.

A large tree with a round unbranched head; leaves pinnate, deciduous; flowers of a yellowish white, spirally arranged, covered with a mealy kind of white substance; fruit-size of a small plum, used for pickling. Grows in the Madras and Bengal Presidencies and Punjab; is common in the Bombay jungles and in the plains and on the hills of British Burmah, but the wood is not much used. The bark is a tan; fruit is eaten raw and pickled. —Riddell; Wight; Gibson; Brandis; Stewart; Belldome; Cal. Cat. Ex. 1862.

GARUKI, a town in the Hormara district, a sterile province, subject to Las. The Gujar tribe occupy Jab-Malan. Garuki is occupied by the Sangur tribe; and at Hormara in Mekran, with 400 houses, is a tribe of this name. The Hormara tribe say they came originally from Sind.

GARWA, a tribe of Monghir, who spear otters and the porpoise of the Ganges.


GASPAR ISLAND, or Pulo Glossa, in lat. 2° 24' S., long. 107° 5' E., and 14 miles E. from Batavia; has on it a peaked hill, visible for 30 miles, and is a principal mark in sailing to or from the Gaspar Strait. Gaspar Strait, between the islands of Banca and Billiton, was named after a Spanish captain who passed through it from Manilla in 1724. Many navigators prefer this strait to that of Banca.—Horsburgh.

GASTEROPODA, the third class of molluscs; according to the system of Cuvier, it is very numerous, and an idea may be formed of it from the slugs and shell snakes. According to other classifications, it is the second class.

GASTEROSTEIDÆ, a family of fishes of the order Acanthopterygi. Gasterosteus dactylus is the pilot fish.

GASTROCHENIDÆ, a family of molluscs, comprising the genera Gastrochena, Clava-gella, and Aspergillum.

GASTRODIA SESAMOIDES, R. Br. A herbaceous species of orchis, native of New Holland. It is edible, and preferred by the aborigines to potatoes and other tuberous roots, and should be introduced into India. It flourishes in its wild state on loamy soil, in low or sloping grounds, and in the spring appears as a whitish bulb above the sward, of a hemispherical shape, and about the size of a small egg. The dusky white covering resembles a fine white net, and within it is a pellicul gelatinous substance. Again within this is a firm kernel, about as large as a Spanish nut, and from this a fine fibrous root descends into the soil. It is known in Van Diemen's Land and Australia by the name of native bread, also wild yam.—Simmonds.

GATA. HIND. (1) A plot or piece of land; (2) two bullocks in yoke treading out the grain; (3) a Brahman or Banya associating with a strange woman.

GATE. The gates of Eastern cities with Mohomedans have honourable names, such as the Dehi gate, the Mecca, etc., gates. In British India, natives lower their umbrellas when passing through the gates of a fortress. In China, the south gate is always honoured, and the dead and night soil are not permitted to be borne through it.

GATHA, a song; a verse; a religious verse, but not taken from the Vedas. The Zend hymns of the Zoroastrians (Zarathustra) are called Gathas. The verses interpolated in the Sanskrit Buddhist work called Lalita Vistara, are composed in a dialect between the Sanskrit and the Prakrit, and have given their name to this, the Gatha dialect.—Dowson.

GAT-HA, properly Gatha, a measure of length. The twentieth part of a jareeb. Each Gat-ha contains three Ilahi gas. The word is derived from Gat-hna, to join or unite by knots, from Gandh, a knot.—Elliot, Supp. Gloss.

GATTARU, an out-caste race in Ceylon.

GAU. SANSK. The German Gau, Armenian Gavar, earth, land, province. It was also a settlement of the Aryans near Sogdiana.

GAUDA. KARN. An agricultural tribe in Mysore, sometimes labourers; small farmers under a lease from the landlords. A grain store. Tel., a bricklayer race of Hindus.

GAUDA. KARN. The headman of a village, similar to the pottai of the Mahratta villages; also
the headman of the potter, shepherd, cowherd, weaver, and cultivator castes. — W.

GAUDA-PALEN, a Buddhist temple at Paghman. Gauda-Palen signifies the throne of Gaudama. Height, 180 feet. It is cruciform in plan. It is very conspicuous in approaching Paghman from the southward, with numerous pinnacles and tall central spires; it is seen glinting with its white stucco-like plaster for days down the Rawalpindi river, rising like a dim vision of Milan cathedral. It is compact in structure, and elevated in proportion to its bulk. It has a massive basement, with porches, and rising above in a pyramidal gradation of terraces, crowned by a spire. From the top of the terrace, just below the spire, is a fine prospect of a vast field of ruined temples, stretching north-east and south-west.

GAUHATI (Gowhatty), chief town of Kamrup district, and the largest in Assam; situated on the left or south bank of the Brahmaputra, in lat. 26° 11' N., and long. 91° 48' E.; population (1872). 11,492. Gaihat is an important centre of river trade, being one of the largest seats of commerce in Assam.— Imp. Gaz.

GAULI, a milkman; tall, robust, and fair race of the Peninsula of India; have no resemblance to any other race in the Dekhan. The name is evidently from Gula, Sansk., Gr., milk. They are pastoral and migratory. The name is also derived from Gopala. Gauliq a migratory pastoral tribe of Maharashtra, who reared buffaloes, sold milk and ghi, and accompany camp.— Wilson.

GAULTHERIA NUMMULARIA, and several other plants which extend into the N.W. Himalaya, are also found in the Javanese mountains nearly 3000 miles' distance. Gaultheria occurs along the whole Himalayan range and in the Khasya, and many other Java plants are more uniformly spread over the hilly districts of India and Ceylon. G. fragrantissima and G. trichophylla also occur in the Himalaya, but are represented by a few species in the plains of the Panjab, on the outer slopes of the Western Himalaya, and even on the Khasya mountains. Spiraea Kambatschatica, camocherdofila, and sorbifolia, and Paris polypylla, are other Siberian forms which extend into the rainy Himalaya, and Corydalis Sibirica and Nymphaea punila are remarkable instances of specific identity between Khasya and Siberian plants.—Hooker.

GAUNHARIN. Hinta. From Gana, to sing. Singing and dancing women of Hindustan in the N.W. Provinces. They perform at all Hindu festivities, at households, play on the saringi (violin), and tablah (drum); their dancing is a posturing. They are like the bayaderes of medieval Europe, and are by profession immoral. They form a very numerous class in all towns and cities in India.

GAUPAYANA, sons or descendants of Gopa. They were the authors of four remarkable hymns in the Rig Veda, which have been translated by Max Muller.—Jo. R. A. S. ii. 1866.

GAUR, the bison of Bengal sportsmen. See Gavrus.

GAUR, a province north of Ghazni, which gave the Gori dynasty to India. It and Balkh are separated from the Seistan by the Paropamisus chain. See Gour.

GAUR, the ancient name of Central Bengal, and of its capital, the ruins of which are still so called. Gaur is mentioned in the Mahabharata, and in historical documents of the 9th century A.D. It was conquered in A.D. 1204 by the Mahomedans, who retained it as the chief seat of their power in Bengal for more than three centuries. It is in the Maldah district, situated on a deserted channel of the Ganges. The city with its suburbs covered an area variously estimated at from 20 to 30 square miles. The west side of the city was throughout washed by the river stream. Here is situated the large Sagar Dighi, the most celebrated artificial piece of water in Bengal. Gaur ruins have been a quarry, not only for the brick houses of the neighbouring towns and villages, but also for the mosques, palaces, public monuments, of Murshidabad. It is now entirely deserted, and overgrown with dense jungle, except where cultivation is again gradually spreading.— Imp. Gaz.; Elphin.

GAUR, a term applied by modern philologists to a class of languages relations to Hindi. Dr. Caldwell, in his Comparative Grammar, remarks that by the term Gaur or Gauda are meant the Bhasha or Prakrit or vernacular tongues spoken in Northern India, some old ones of which have since ceased to be spoken, or have merged into others. At present the languages which may be considered Gauras are, Bengali, Hindi, with its neighbour the Hindustani, Panjabi, Gujarati, Mahrati, the languages of Kashmir and Nepal, altogether nine in number. —Gaur is a designation of one of the two great divisions of the Brahmanas or the five Gaurs, also to one of the five, the Brahmanas of Bengal proper, who are distinguished again as Varendra, Raybaha, Satshati, and Vaidika Brahmanas. The two first, from their being settled in the several portions of Gaur, called Varendra and Rash; the third, as descended from 700 brahmanical families who were settled in Bengal before the introduction of the families from Kanouj, who are said to have been fugitives from Orissa; the fourth, from their knowledge of the Vedas. The Gaur Brahmanas were also classed by Balal Sen, a raja of Bengal about the eleventh century, in three divisions, viz. Kulina, from Kula, a family, the most respectable members of the community; Srotriya, those who had passed through the established institutions, and had read part of the Vedas; and Vansaja, merely born Brahman, possessing neither respectability nor learning.

There are other divisions of Bengal Brahmanas of a still inferior description, degraded by acting as priests for the mixed castes, or by some peculiarities of a fanatical and fabulous character. A Gaur Brahman is one of the five Gaurs now located in Hindustan, in the Upper Provinces, throughout the Subah of Delhi to the hills. There are many subdivisions of these Gaur Brahmanas, who are apparently unknown in Bengal, as the Adh Gaur, Kithal Gaur, Gujar Gaur, Sidh Gaur, and amounting in all to forty-two.

The Gaur Kayasth is one of the twelve divisions of the Kayastha tribe, who are generally clerks, who are all over India, many being in the Upper Provinces, where they settled under the patronage of Nasir-ud-Din, son of Balb, about the 13th century.

Gaur Rajput, one of the 36 royal Rajput races, whose origin is doubtful; they are numerous in the N.W. Provinces, divided into three principal
branches.—the Bhat Gaur, the Brahman Gaur, and Chamur Gaur,—names derived, Mr. Elliot supposes, from some intercourse with Bhats, Brahmins, and Chamaras.

Gaur-taga is an important tribe of Brahmanical descent in the north-west of India, extending through a great part of Rohilkhand, the Upper Doab, and territory of Delhi. They claim to have been originally invited from Bengal by Raja Janaamejaya, king of Hustainapur, for the purpose of exterminating the Takshaka or Snake race, in concert with the raja. Mr. Elliot considers the Takshaka to have been Buddhist Seythians from the north, who invaded India. The Taga have their name, it is said, from the Sanskrit Tyanga, abandoning, as they abandoned their Brahmanical character, by accepting and cultivating the lands granted to them by Janaamejaya.—Wilson.

GAURI, a name of Parvati, the consort of Siva.

In Rajputana, under the name Gangauri, a festival is held in her name. Colonel Tod remarks that by the prefix of Ganga (the river) to Gauri, the Gangauri festival is evidently one essentially sacred to a river goddess, affirming proof of the common origin of the rites of the Iis of Egypt and India; for Gauri is the goddess of abundance, and is called Isis, also Isani or Parvati, also Lakshmi, and corresponds to the Ceres of Greece. The festival relates to the Bassant or spring, the vernal equinox. An image is made of earth, barley is sown, and by watering and artificial heat is made to grow. In Rajputana beautiful girls carry the idol and bathe it in the water, and return with it to the palace. The festival resembles that of the Egyptians in the time of Pharaoh, and of Irath Burius, within the Delta of the Nile. During this festival Iswara yields to his consort Gauri, and occupies an unimportant position near her at the water's edge, meanly clad, smoking intoxicating herbs, and holding the stalk of an onion in full blossom as a mace or club, a plant regarded by some of the Egyptians with veneration, but held by the Hindus generally in detestation; but why the Hindus should on such an occasion thus degrade Iswara, is not apparent.

Gauri Sankar, in Hinduism, is the term usually given to the idol of Siva or Mahadeva and Parvati, in which she is sculptured sitting on Mahadeva's knees, with the bull Nandi at his feet, and the Sinha or lion at her. —Tod's Rajotdhan, i. p. 575.

GAUKUND, in lat. 30° 56' N., long. 79° 3' E., in Garhwal, is on the right bank of the Mandargi, below Kodaranna. The heights above the sea are,—hot springs, 6417 feet; upper limit of walnut, 8116 feet; upper limit of chestnuts, 10,016 feet; upper limit of kanchua, 10,559 feet. —Robert Schlagwteit.

GAURI-SANKAR, a Hindu idol, in which the god Siva is represented in a sitting posture, with Parvati seated on his knee, the bull Nandi at his feet, and the Sinha or lion at her. —Tod's Rajotdhan.

GAURI SANKAR, the Nepalese name of a mountain in the Himalaya of Nepal, in lat. 27° 39' 17" N., and long. 86° 54' 40" E., attaining a height of 29,000 feet above the sea; it is also called Mount Everest, and in Tibetan, Chin-gopa-ma-ri. It is on the Nepal and Tibet frontier, and is the highest mountain of our globe as yet measured. The Hindu name is from Gauri, white or fair, a name of Parvati, the wife of Siva; and Sankar or Sankara, one of the forms assumed by Siva. Gauri Sankar is the term in use among the Hindu pandits of Nepal; its signification shows a remarkable identity with the meaning of the name Chamalhari, the prominent object of western Bhutan. The name given to Gauri Sankar by the Tibetans, and that by which it is generally known in the northernmost parts of Nepal, is Chin-gopa-ma-ri.

GAUR-THAKUR, a tribe of Rajputs settled in the Farakhabad district.—Wilson.

GAURUA, an inferior class of Rajputs in Agra and Mathura, and other districts west of the Jamuna.—Wilson.

GAUTAM. HIND. A branch of the Chandra-vars, or Lunar family of Rajputs, very numerous to the Lower Doab, and formerly very powerful. Offshoots from them, termed Gautaman, are settled in Azimgarh.—Wilson.

GAUTAMA or Gaudama is the name by which the last Buddha, Sakya Sinha, is known to the southern Buddhists. They believe that before coming as Gautama, he had passed through 550 different phases of existence, called dātā by the Burmese. The history of these 550 existences is related in the Jataka, in stories or tales supposed to have been related by Gautama himself to his disciples and others, to make them acquainted with what had happened to him during these metempsychoses. Almost all end by showing Gautama as the hero or principal personage, and that those who had befriended him were now around him as his disciples, whilst his former opponents were now the wicked Dėwadāt and heretics. Most statues represent him sitting cross-legged, the right hand upon the lap, and the other hanging over the right knee. It is the attitude of teaching. Other statues represent him recumbent on the right side, with the left leg placed directly over the right, the head resting on the palm of the right hand, supported by the elbow, and the left arm extended at length over the left leg. This is the position he is described to have assumed when he died.

Images of Buddha Gaudama are largely manufactured in Burmah, in marble, wood, stone, and metals. At Amarapura is a sitting brass figure 12 feet high. It was formerly the tutelary saint of Arakan, and was carried off from thence a.d. 1784, by the king of Burmah.—Fyotich, ii. pp. 14-15. 1181.

GAUTAMA, also written Gaudama and Gotama, in the mythical legends of Hinduism, the father of Kripa; also one of the seven Rishi. Gautama son of Gotama, is a name of the sage Saradwat; but many men have borne this name. One Gautama was the founder of the Nyaya school of philosophy, and Gautama Siddartha is a name of Gautama Buddha. See Buddha; Sakya.


J'hong-nua, | ARAKAN. Methana., | KOCH'H.
Gobay goru, | BENG. Mi-than. | 
Nune, | BURM. Shial. | 
Gavai, Gavai, | HIND. Gau-jangli. | PERS.

Found in the hilly tracts to the E. of the Brahmaputra, and at the head of the valley of Assam, the Mishmi Hills and their vicinity, probably extending north and east into China. It is a heavy, clumsy-looking animal; it has a small distinct dewlap. It is easily domesticated, and has bred with the common Indian cattle. —Jerdon.
GAYA.

GAYA. Jordon. Bishon. Bos gaurus, H. Smith. \[ B. assel, Hor.\] B. gaur. Trullis. Bibles cavifrons, Hodg. Gym. 1185 from in and animals, the of the remained durbcd, shoulder cent Saad-ben-AVakas, valley, some it badda, foot buffalo, Gour, Gaur-Gai, HIND. Katn Yeni, TAM. The gaur, called by sportmen bison and jungle buffalo, is an inhabitant of all the large forests of British India, from near Cape Comorin to the foot of the Himalaya. It is abundant along the Syhadri range or Western Ghats, both in the forests at the foot of the hills, but more especially in the upland forests. The Aminally Hills, the Neighberries, Wynad, Coorg, the Sabu Boolen Hills, and the Mahabaleshwar Hills, are all its favourite haunts. It dwells in the forests of the Tapti river and neighbourhood, and north of the Ner-badda, a few in the deeper recesses of the Vindhyah mountains. On the eastern side of the Peninsula it is found in the Putney and Dindigul Hills, the Shanda Mangam range, the Shoverly Hills, and some of the hill ranges near Vellore and the borders of Mysore; from the Kistna and Godavery rivers all along the Eastern Ghats to near Cuttack and Midnapur, extending far into Central India, and northwards towards the edge of the great plateau which terminates south of the Gangetic valley.—Hodgson also says the Himalayan Terai. It extends into Burma and the Malay Peninsula, and formerly existed in Ceylon. It is a magnificent animal, in length 9½ to 10 feet, height at the shoulder 6 feet, tail 31 inches. They associate in herds of up to 30 or 40, generally 15 cows and a bull. It is one of the most timid and wary of animals, and requires to be stalked most warily and carefully. It breeds in the cold season, and the young are born June to October. When disturbed, the first who sees the intruder stamps with its foot, and the whole rush through the forest with a terrible crash. All attempts at domestici-antakking them have failed.—Jordon, pp. 302-6.

GAYA.

Bos banteng, Rugles. | Bos soniacaens, Mütter. B. leucoprymnus, Q. and Q. B. taoing, BURM. | Bant-teng, MALAY. The Burmes wild ox or wild cow is a native of the Malay Peninsula, Martaban, Java, Borneo, and Bali, but is not in Sumatra, Celebes, or any of the Philippine Islands. Another wild ox, called Saladang by the Malay, seems to occur along with it. GAEVH, a Persian standard. This famous standard was a blacksmith apron set in jewels, and was long the imperial standard of Persia. Gaveh was a blacksmith, who overthrew Zohak, and placed Yendoon on the throne of Persia. When collecting followers, he carried his apron as the standard of revolt against Zohak. This apron remained the standard of the empire, till taken by Saud-beu-Wakas, who commanded the Mahomedan army that conquered Persia.

GAVEL-KIND. Eng. The equal division of the inheritance amongst the sons. It was brought to England by the Jut brothers who settled in Kent. It was the custom of the Getic hordes, and is still followed by the Jharja Rajputs.

GAVIAL, the genus of crocodiles described as Gavialis, properly the gharial; has jaws very long, sub-cylindrical, slender, rather dilated, and convex at the end. Teeth, canines two, quite anterior, small; lower canines shutting into a notch in the edge of the upper jaw; feet fringed; toes webbed to the tip. The cervical plates united to and forming a disc with the dorsal ones. Males with a large swelling in front of the nostrils. See Crocodile; Gharial.

GAYA. SANSK. Five products of the cow, milk and its preparations; in Hindisism, the pancha gavya are proper offerings to an ancestor's manes.

GAWILGARH HILL, RANGE, a branch of the Satpura mountains in Berar, situated between lat. 21° 10' and 21° 46' 30" N., and between long. 76° 40' and 77° 53' E.

Gawilgarh Hill Fortress is about 21 miles N.W. from Ellichpur, in lat. 21° 21' 30" N., and long. 77° 24' 30" E. It was taken by storm on the 15th December 1803. The Gawilgarh Hills rise in peaks to heights of 3000 feet. They are 120 miles long, and 60 miles broad. They commence at the confluence of the Purna and Tapti rivers, and the confluence nearly E. by N., terminate a short distance beyond the sources of the Tapti and Wardah, separating the Tapti and Purna rivers. To the south they are bounded by the valley of Berar, and to the north by the course of the Tapti. It was first fortified by the Gaoli, a tribe from whom it takes its name, and who are still numerous here. The fort, 2300 feet above the plain, and 3595 above the level of the sea, is quite in a dilapidated state, and the only interesting object now remaining is the old mosque, completely in ruins, many of its twenty-one domes having fallen in, and the surrounding walls given way. A tablet over the gateway records that this building alone cost within a few piece that of the whole fort. A gun on the fortress is 27 feet long: Colonel Stevenson in 1803 brought his guns up via Dhamungoa and Amjura, and his brigade of the army under the command of General Wellesley took Gawilgarh.

GAYA, a town in Bengal, lat. 24° 48' 44" N., and long. 85° 2' 16" E., on the right bank of the river Phalga; it has a population of 66,843, and is the chief town of a British revenue district of the same name. It is in two portions, —the old town, or Gaya proper, where the priests reside, and Sahibgunj, the trading quarter. As a place of Hindu pilgrimage, the town of Gaya is of comparatively modern interest.

Buddha or Bodh Gaya is about six miles south of Gaya; and a few hundred yards west of the Phalgu or Nilajaen river there are ruins of great sanctity. Sakyu Sinha, the founder of the Buddhist religion, dwelt here, and here is the pippal tree under which he sat in mental abstraction for five years. The tree is still here, but is much decayed, being at least 2400 years old. Immediately to the east of the tree there is a massive brick temple, nearly 50 feet square at base, and 160 feet in height. This is beyond all doubt the vihar that was seen by Hiwen Thang in the 7th century, as he places it to the east of the Bodh tree, and describes it as 20 paces square at base, and from 160 to 170 feet in height. At the present day the chief pilgrims to the sacred tree at Bodh Gaya are devout Maharratas. Before leaving his home, he must first walk five times round his native village, calling upon the souls of his ancestors to accompany him on his journey. Of the 45 sacred places, Bodh tirtha or tirtha is supposed to represent the footprint of
some deity. At each a pinda or ball of rice and water has to be deposited by the pilgrim, while a hymn is chanted by the attendant Brahman. The Brahman tribe are called Gayawal, and obtain large sums for conducting the pilgrims to the shrines. Gayase widows are barred the privilege of wiving after the death of their first wife, as Hindu widows are barred the privilege of taking a husband after the death of their first husband. This may be a remnant of the celibacy of the Buddhist priests.

There are also extensive remains of temples and monuments, and of the Rajasthan or palace, said to be the residence of Dharma Asoka and some of his successors on the throne of Magadha. Another place of interest in the district is a temple of great antiquity, which crowns the highest peak of the Barabar Hills. This temple is sacred to Sidheswara, and contains a linga said to have been placed there by Bara Raja, the king of Wajjar. In September, a large fair, attended only by men, is held here. The pilgrims, who number between 10,000 and 20,000, spend a night on the mountain. Near the foot of the hill are some caves cut in the rock, about 200 years b.c., and in the immediate neighbourhood are a sacred spring and tank, and several sculptures of great interest to the antiquary.—Cunningham, _Ancient Geog. of India_, p. 459; _Tr. of Ind._, p. 223; _Imp. Gaz._; _Arch. Surv. Report_, xxxii.; _Beng. As. Soc. Journ._, 1864.

GAYASHA, the tea-house girl of Japan. They are virtuous. It is part of their profession to assist at the orgies of the Pans and nymphs.—_Hodgson's Nagasaki_, p. 240.

GAYATRI. From the Sanskrit Gay, to sing, an invocation used by Hindus as a prayer. That usually alluded to under this term is considered to be the most sacred verse in the Vedas. In the nature-worship of the Vedas, the sun was worshipped under the designation Savitri. This prayer is supposed to be known to Brahman only. They are taught it when they receive the sacred string, and they are enjoined never to communicate it to any other sect. Its Sanskrit words are,—O'm! Bhur bhuvah svah, O'm! Tatas vithru varmanam, Bhargo devyasa dhimahi diyo yona pra do dayath. O'm! earth, air, heaven, O'm! 'Let us meditate on the supreme splendour of the divine Sun. May he illuminate our minds.' Professor Wilson's literal translation of it is: 'We meditate on that desirable light of the divine Savitri (the sun) who influences our holy rites.' Sir William Jones, Colebrooke, Wilson, and Benfer have each given into the English version of this portion, all somewhat differing. The Gayatry, called by Sir William Jones the mother of the Vedas, and in another place the holiest text of the Vedas, is expressed by the triliteral monosyllable AUM. Sir William Jones thus interprets it: 'Let us adore the supremacy of that divine Sun, the godhead who illumines all, delights all, from whom all proceed, to whom all must return, whom we invoke to direct our understandings aright in our progress towards his holy seat.' And in another place he defines that divine Sun as 'not the visible material sun, but that divine and incomparably greater light which illumines all, delights all, from whom all proceed, to which all must return, and which can alone irradiate our visual organs merely, but our souls and our intellects.' Mr. Colebrooke again thus explains it: 'On that effulgent power which is Brahman himself, and is called the light of the radiant sun, do I meditate, governed by the mysterious light which resides within me for the purpose of thought. I myself am an irradiated manifestation of the supreme Brahman.' These are, however, mere scholastic or theological comments; to suit the theological doctrines of the various Hindu sects, for there is no doubt that the Vedic doctrine was a nature-worship, and the quoted Sanskrit words are an invocation to the sun. Gayatri is a form of metre, and thence applied to this verse in the Vedas, which is repeated inaudibly in the daily morning worship of the Brahmans. Bunsen thus interprets it:—

'Ve remember with longing the bright beams of the sun.
May he prosper the handiwork of our piety!
For sustenance we supplicate the divine Producer:
That he may deign to bestow on us our portion, do we beseech him.
All, with heart and soul, adore God the Begetter,
Bringing him offerings of a devout heart, with hymns of praise.'

The extreme importance that the Hindus attach to the supposed profundity of the Gayatry, renders it a text of more curiosity than readers will be able to discover in the words themselves, in either their ordinary or recondite allusions. Sir William Jones says that the Gayatry is called the 'mother of the Vedas.'

GAYAWAL, a class of Brahmanas at Gaya, who claim the right of conducting the ceremonies of pilgrims at the Ghats, and of fees.—W.

GAYFER, MALAY. A fruit of Singapore. Its seeds are used as marbles.

GAYNI or Gajni, an ancient name of Cambay, now in ruins, and 3 miles from the present city.

GAZ or Gazu, which is much used for making sweetmeats in Persia, is a glutinous substance like honey, deposited by a small green insect upon the leaves of the tamarisk tree. It is the manna of the chemist, Gazanjab, and is the manna produced on branches of the Tamarix indica, to distinguish it from Turanjabin, Persian manna, from the Shirkist or Khorasan manna, and from Sicilian manna.

GAZ. HIND. A long measure, formerly varying in length from 18 to 58 inches, but reduced by Akbar to a standard supposed of 33 inches, and called the Shali-gaz. The gaz of Gujarat is 27¼ inches.

GAZA, a town in Syria, with a harbour and a castle. It contains many monuments. The principal commerce is furnished by the caravan between Egypt and Syria. Long. 34° 45' E., Lat. 31° 24' N.—_Robinson's Tr._, p. 23; _Eothen._

GAZELLE, the name given to several species of the family Bovidae and sub-family Antilopinae, under which they have been noticed,—the Indian, G. Bennettii; the Persian, G. sub-gutturosus; and Arabian, G. dorcas. The Indian gazelle is found in India, and is known to sportman as the goat-antelope, or ravinie deer. The species to which no doubt Moore's celebrated lines were addressed, is the Dorcas gazelle of Arabia and Northern Africa, which is often kept in a semi-domestic state by the wandering Arabs, and makes a most
GECKO.

In the city of Lhassa, and over the whole of Tibet, Geawa Remboochi, or the Grand Lama, is nominally the supreme authority in temporal and spiritual affairs. His residence is in Pattho Goompa, on the north side of Lhassa.

GEBANTE, also known as the Catabeni, an ancient race who occupied the country immediately within the Straits of Babul-Mandab. Their seaport was Okelia, which was long the centre of commerce between Europe and the East. Its ruins are situated about a mile inside the straits, at a place called by the natives Dakoo. See Okelia.

GEBIE, an island between N. Guinea and Gilolo, in the Eastern Archipelago, and not far from Gilolo. It is occupied by a Negro race, with nose flat, the lips thick and projecting, the complexion a dark olive, the eyes deep-seated, and, on an average, the facial angle 77°, but as high as 81°. In Gebbe and Waiguy, and in some parts of the coast of N. Guinea, the complexion is lighter, and the peculiar texture of the Negro hair is absent. M. Freycinet has described the Negroes of Gebbo. In Gebbe, Waiguy, and in some parts also of the coast of New Guinea, the Malay race may have become intermixed with the Negro, as the complexion is lighter, and the peculiar texture of the Negro hair absent or obliterated. The language spoken by Waiguy is entirely Papuan, being that which is used on all the coasts of Mysol, Salvatty, the N.W. of Guinea, and the islands in the great Geylvin Bay. Waiguy, Gebe, Poppa, Obi, Batchian, between New Guinea and the Moluccas, as well as the south and east peninsulas of Gilolo, possess no original tribes, but are inhabited by people who are evidently mongrels and wanderers.—Wallace, ii. p. 216.

GEBl DUKHUN. Its porphyry quarries, the Mons Porphyritus of the Romans, are probably coeval with the celebrated Breccia quarries of Wadi Keny, and worked in the time of the first Oser-teson, the supposed Pharaoh who ruled over Egypt in the time of Joseph. The beautifully coloured porphyries, green, purple, and red, and much of the basalt used in ancient Egyptian sculpture, were derived in great measure from Gebl Dukhun and its vicinity. The Wadi from Gebl Dukhun to Keny, the ancient Kopiopolis, a little north of Coptos, is to this day called the Tarikat-el-Arabiyeh, the high road of the carts. An inscription on the frieze of the temple near Gebl Dukhun, bears the name of the emperor Adrian, with the surname of Trajan, whose son by adoption he was. The temple is dedicated to Sempis the Great, with his titles of Pluto and the Sun, and the other gods in the same temple. Small temples to Scorpis are very common in the vicinity of the mines and quarries, as Pluto is supposed to preside over demons and the evil genii, who, the orientals imagine, watch over the treasures in the earth. Gebl Dukhun lies in about lat. 27° 16' N., and long. 33° 3' E. There is an ancient road leading from it to Myos Hormus, an old port on the Red Sea, from which it is distant about 39 miles as the crow flies.—The Eastern Desert of Egypt, by Hekekanby Bay.

GECARCINUS, a genus of land-crabs, called by the French Tourlouroux, Crabes points, and Crabes violets. G. carinex and G. hirtipes occur in India, G. carinex in the neighbourhood of Pondicherry; its carapace is very much elevated.

GECKO, a genus of saurian reptiles of the widely distributed natural family Gekotidae. In the Malay tongue they are called Tokke or Tokai. In Burma, the ordinary call of the house Gecko is Toottay. In the forests, large flat and marbel-coloured Geckos cling to the smooth trunks of the trees. Their cries are a soft clear call and their hideous forms alarm strangers. It is said a French traveller, M. Touquet, hearing his name pronounced, repeatedly answered to it, 'Eh bien,' until made aware that it was the Gecko's call.

There are in Ceylon Hemidactylus maculatus, Dum. et Bib., H. Lescenhauti, Dum. et Bib., H. frena tus, Schlegel. The last named is very common in the houses of Colombo. Colour grey; sides with small granules; thumb short; chin-shields four; tail rounded, with a transverse series of small spines; femoral and frontal pores in a continuus line. The Geckos frequent the sitting rooms, and, being furnished with pads to each toe, they are enabled to ascend perpendicular walls, and adhere to glass and ceilings. The Tokai or Takke of the Malays, le Gecko de Siam of Cuvier, are numerous in Siam, but also occur in Java and other places of the Archipelago. One is from 6 to 8 inches long, and marked with red and green spots under the tubercles. They destroy multitudes of noxious insects.

Gecko verus, Aene., Bengal, Assam, Andamans, Tenasserim.

G. stenotus, Cantor, Andamans, and six others.

Physochon homalocephalum, D. and B., Pegu.
H. Kelzari, Ceylon, Singapore.
H. maculatus, D. and B., Ceylon.
H. sublavia, Grey, Mergui, Ceylon.
H. fasciatus, Grey, Ceylon.
H. frenatus, Grey, Ceylon.
H. vittatus, Ceylon, and three others.
Peripia Cantorii, D. and B., Andamans.
Nysterium platyrurus, Schlegel.
Uperia, Born of Bengal, Ceylon.
Pseusma cepedianum, Per., Mauritius.
F. Andamanensis, Bleth, Andamans.
Gymnodactylus Jerdonii, Theob.
G. Geckohides, Spix, Salt Range.
G. friedrixis, Grey, Ceylon.
G. pulchrellus, Grey, Penang, Singapore.
G. frenatus, Gunth., Ceylon.
G. Kandianus, Kelaart, Ceylon.
G. Mysorensis, Jerdon, Bangalore.
G. Indicus, Grey, Nilgherries.
G. Malabaricus, Jerdon, Malacca.
G. littoralis, Jerdon, Malacca.
G. Decanensis, Sikes, Dekhan.
Nanellus variegatus, Bleth, Tenasserim.
N. fasciatus, Bleth, Sabah.
Puellula rubida, Bleth, Andamans.
Euhæpharhis Haridwirkii, Chaiassa, Chattagong, and
F. macularis, Blyth, Salt Range.
Homoena fasciata, Blyth, Central India.
Platyrurus Schneiderianus, Java.
Boltalía subleavis, India.
Peropus mutitius, Manila.
Theconyx Seychellensis, Seychelles.
Pentaleucythus Duvancéllii, Calcutta, India.
Tarentola Borneensis, Borneo.
Goniolactys Timorensis, India, Timor.
Cytodactylus marmoratus, Java, Philippines.
P. pulchellus, Singapore.
Heteronota Kendallii, Borneo.

—Crawford's Embassy; Tennant's Ceylon, p. 281; Giovanni's Natural History, p. 31; Gray, Lizards, p. 155.

GEDAUN, in Baluchistan, the tent of black felt in which families reside. The Afghans call it Kizlud; the Turks, Kara Ulli; and the Persians, Sinh Chadr. The felt is the Nanadah of India, from which is the Indo-European word Nomade.

GEDROSIA of the Greeks, the modern Makran. See Kej.

GEER, a tract in the south of the Gujarat peninsula, stretching 50 miles east and west, and 30 miles north and south. It consists of ridges and hills covered with dense forest trees and jungles, and full of almost inaccessible fastnesses, which for ages gave shelter to robbers, outlaws, and the Aghori fanatics, said to be cannibals. Lions, till lately, were found in the Geer jungles, but there are no tigers. The climate is equable and temperate, and the coast is balmy with the wet breezes blowing fresh from the south pole.

—Col. Rev., December 1860. See Kattyawar.

GEESOO. The Koutoutkow, Mong. Amongst the Mongols, the title of the highest class of the priests of Buddha. The one resident at Oorage is called by the Mongols Gheghen Koutoutkow. The Oorage high priest seems also to be called Geesoo-taibha, and is a regenerated Buddha of great sanctity. There are 30,000 lamas under several heads at Oorage. See Gawwa; Kouren; Koutoutkow.

GEETA. Sansk. Properly Gita, from Goi, to sing a hymn or song. Bhagavat Gita, a divine song, a Sanskrit poem in the form of a dialogue between Arjuna and Krishna. That Geeta is a discourse on the Yoga philosophy. See Gita.

GEHAR, a large class of child-stealers in the valley of the Narbadda.

GEHENNA, a valley celebrated for the inhuman and barbarous, as well as idolatrous, worship paid to Moloch, to which deity parents often sacrificed their offspring, by making them pass through the fire (2 Kings xxiii. 10, 2 Chron. xxviii. 3). To drown the lamentable shrieks of the children thus immolated, musical instruments (Hebrew, Toph) were played; whence the spot where the victims were burnt was called Tophet. After the captivity the Jews regarded this spot with abhorrence, on account of the abominations which had been practised there; and, following the example of Josiah, they threw into it every species of filth, as well as the carcasses of animals and the dead bodies of maleslaves, etc. To prevent the pestilence which such a mass would occasion if left to putrefy, constant fires were maintained in the valley, in order to consume the whole; hence the place received the appellation of Gehenna, the Jannah of the Arabs. By an easy metaphor, the Jews, who could imagine no severer torment than that of fire, transferred this name to the infernal fire,—hell, to that part of the invisible world in which they supposed that the demons and the souls of wicked men were punished in eternal fire.—Robinson's Travels, p. 107.

GEHLOT, a Rajput race founded by Bappa. They long held power in Saurashtra. Before they became Saiva Hindus, they chiefly worshipped the sun. The name is also pronounced Grassot. Arore, on the Indus, is said by the Gehlot to have been their ancient site, and they claim to be the Balileputra who occupied it. They were driven from Balabhatara when it was taken and sacked by the Huns or Pathians. The Gehlot clan was subdivided into twenty-four sacha or ramificatons, few of which exist,—the Aharya, at Dongpur; the Mangulia, in the desert; the Sesodia, in Mewar; and the Piparra, in Marwar. Bappa, the Gehlot chief, born A.D. 713, obtained Chitora 728, and abandoned it 764. From the Gehlot they have branched the Sesodia and Aharya. They are spread over different parts of the North-West Provinces. The name Sesodia is said to be from Sesoo, a bare. Their neighbours, who for some unexplained reason are fond of imputing cowardice to them, say their name Gehlot is derived from Gehla, a slave girl. But the origin believed in Mewar is the following:—When the ancestors of the rana of Mewar were expelled from Gujarat, one of the queens, by name Pushpavati, found refuge among the Brahmanas of the Mollina mountains. She was shortly afterwards delivered of a son, whom she called, from the cave (Goha) in which he was born, by the name of Gehlot; from him are descended the present ranas of Mewar or Udaipur. Their claim to be descended from Nushirwan and a Grecian princess, which has frequently been discussed, invests this clan with a peculiar interest.—Elliot; Tod's Rajasthun, i. p. 84. See Kenkosen.

GELISHA, in Japan, dancing girls who also play and sing.

GELASIMI, land-crabs; most of these have a single large claw. They move about with that half erected, and quickly retreat to their holes in the sand. There are several species known,—G. annulipes, Indian seas; G. Dussumieri, G. tetragonum, of the Red Sea, Mauritius; G. foreperces, Edwards, of Australia; G. cordiformis, Edwards, Australia.—Collingwood.

GELATINE.

Ghruru-ul-jallad, Arar. Siras; Sirat, Hind., Pers., Yul-kwan, Fiu-kwan, Chin. Surehman-l-jallad, G. Gelatine is obtained from skins, cartilage, tendons, membrane; also from the parings of hides or horns of any kind, the peels obtained from furrers, the hoofs and ears of horses, oxen, calves, sheep, etc.; from the rasps and trimmings of ivory, the refuse pieces and shavings left by button-mould makers, and from other kinds of hard bone. Size, again, is made by boiling down in water the clippings of parchment, glove leather, fish-skin, and other kinds of skin and membrane, and is used either alone or mixed with flour, paste, gum-arabic or tragacanth, and employed by bookbinders, paperhangers, and painters in distemper. Gelatine is one of the principal constituents of most of the animal substances employed as food. The Chinese import various substances, which can be valuable only as yielding gelatine of different degrees of purity,—agar-agar, trepang, birds'
GELIDIUM CORNEUM.

GEOGRAPHY.

This pretty evergreen tree is found in the Rangoon district and Northern Circars; it seldom exceeds 3 feet in girth. Wood, white colour, fit for house-posts, and adapted for every purpose of house-building, weighs 50 lbs. per cubic foot. It is common in rather open forests, up to an elevation of 4000 feet. It is a very variable plant; and Dr. Thwaites thinks that all the specimens he has seen of the genus, from different and distant parts of India, might with safety be referred to one species.—Roeb. iii. p. 831; Thuc. Zeyl. p. 274.

GELUM. TIBET. A monk.

GEM, a term employed by jewellers to designate the more beautiful of the precious stones. Gem sand, from the neighbourhood of Ava, is sometimes one of the Shan articles of merchandise. It consists of small fragments of nearly all the precious stones found in the country; but garnet, beryl, and spinel are its principal constituents, more especially the last, which seems to constitute more than three-fourths of the whole mass. A single bundle will contain specimens of every shade,—black, blue, violet, pale, rose, orange, amber yellow, white, brown, and white. Many retain their original crystalline forms; some have the fundamental form of the species, a perfect octahedron; but many others have some of the secondary forms, among which it is not uncommon to see twin crystals re-entering angles, formed by two segments of the tetrahedron truncated on the angles, and joined together by their bases.—Mason.

GEMELLI - CARERI. Giovanni Francesco Gemelli-Careri, of Naples, wrote the Giro del Mondo, a narrative of his six years' travels round the world, and which was published in 1699. He notices that at his time the remittances of the conquests of the Portuguese in Asia were so inconsiderable, as scarcely to defray their own expenses.

GEMITORES, in natural history, an order of birds, comprising in India the families Treronidae, Columbidae, and Gouria. See Birds.

GENDARRUSA VULGARIS. Nuts.

GENTIANACEAE, an order of plants, growing in most parts of the world,—in Japan, Arabia, and the E. Indies. The whole order is bitter as a characteristic, both in the stem and roots, and used as a tonic. G. umbellata grows in the Caucasus; G. decumbens, L., is common at considerable elevations in the various parts of the Panjab Himalaya; a tincture of it has been used as a stomachic by the Lahouli missionaries. Gentian root is a bitter tonic, and before the discovery of cinchona it held the first place among febrifuge remedies, and it is still deemed a very useful medicine in intermittent diseases. A perfect substitute for the infusion of gentian is made from the Gentiana kurroo, common in the Himalaya, and is much used in native practice. Species of Agathotes, Exacum, Justicia, Cicendia, and Ophelia, of this and other orders, are possessed of the same properties as gentian. Gentiana asclepiadea, Smith, Lung-tang-tsa'u, grows in Shen-si. Its roots are agreeably bitter.

GENTIANA KURROO. Wall.

Pneumonanthe kurroo, Don, Boyle.

Grow at Simla and other parts of the Himalaya, at from 3000 to 9000 feet. The roots are used like the gentian.—O'Sh. p. 459; Cegnorn's P. Rep. p. 658; Stewart.

GENTIANA TENELLA. Fries. The Tita of Ladakh and various parts of the Panjab Himalaya, up to 15,000 feet in Ladakh. In Lahoul, a decoction of the leaves and stems of this and other species is given in fevers. In Ladakh its root is put into spirits.—Dr. J. L. Stewart.

GENTIL, author of Voyages dans les Mers des Indes, 1660.

GENTILE, a term used by the Jews to designate all races not Jews or not circumcised. It answered to the Barbaros of the Greeks and Romans. The term was employed by the Europeans in India to designate the Teling people, the races occupying the country from Madras to Ganjam, it is pronounced Gentoo, and the people themselves accept that designation. The Gentile of the Jews was the same as that of the Mehlcoans, the Aryans, the Aryan Hindu, the E of the Chinese, and the Kafir of the Mahomedan. Among the Arabs, they themselves are the Arab-ul-Arab; all the rest of the world are Ajami, or foreign. Gentoo is a corruption of the Portuguese Gentio, a Gentile. Dr. Fryer (Travels, 1672 to 1681) says 'the Gentues, the Portuguese idiom for Gentiles, are the aborigines.' He appears to be the first English writer by whom the term was used; but before his time, Pietro del la Valle speaks of the Hindus as Gentile, following the example of the Portuguese. Notwithstanding those unquestionable authorities, Hallhed (Gentoo, Code xxi. xxii.) supposes that the Portuguese borrowed the term Gentoo from the Sanskrit word Gunt, a sentient being.—Elliot.

GEOCICHLA CYANOTUS, the Madras bulbul.

GEOGRAPHY of India, in ancient times, became slowly known to the learned men of the West. In the centuries immediately preceding the Christian era, the conquests of Alexander threw open the interior of Asia as far as the Indus and Afghanistan, and Greek colonies bearing the conqueror's name were established on the sites of Herat and Kandahar. Megasthenes, the
Marinus extended Asia to the E., he extended it proportionately to the S.E. Rumourers had already reached the author of the Periplus of the Erythraean Sea concerning Cochin China and the Malay Peninsula. On the strength of these and of other information of his own, Marinus conceived the continent as stretching far away in that direction, and then bending round and joining the S. of Africa. No doubt this tremendous extension of the length of the inhabited world by Marinus, accepted as it was by Ptolemy, by shortening the voyage across the Atlantic to India, was an additional incentive to the adventure of Columbus.

Claudius Ptolemaeus, who may be said to be the last great ancient geographer, wrote about a.D. 150. He was a mathematician and astronomer, and regarded geography from a corresponding point of view. Ptolemy's information about the source of the Nile is more correct than Europeans possessed till Speke and Livingstone. It must have come to him via Zanjibar, down which point the author of the Periplus of the Erythraean sea has some acquaintance with the coast.

Ptolemy places Cape Comorin very little to the south of the mouth of the Indus. Massilia and Byzantium are still placed on the same parallel of latitude, and help to distort the whole map of Europe.

The northern provinces of British India occupy a great unbroken plain, which extends from the Himalaya mountains to the Arabian Sea and the Bay of Bengal, and is traversed by the rivers Indus and Ganges and their tributaries. The central and southern portion projects into the Indian Ocean. It is roughly triangular in shape, and its larger part consists of a hilly plateau or table-land. On the western flank of this plateau are the Aravalli Hills, which separate Rajputana from the plain of the Indus, and the Syhadri or Western Ghas, which rise abruptly from the sea to an elevation that seldom exceeds 4000 feet, though the Neelgherry mountains, near the southern end of the range, rise to 8760 feet. The eastern margin of the plateau is known as the Eastern Ghas. In Mysore the plateau rises to 3000 feet, but the average altitude of the central parts is about 1500 feet above the sea.

GEOLOGY. India has been summarized, during the 19th century, by Mr. James Calder, Captain Newbold of the Madras army, Surgeon Carter of the Bombay army; and lastly, and in the highest sense, in a joint work by Messrs. H. B. Medlicott, M.A., and W. T. Blanford, F.R.S. Its most striking feature is the difference between the rocks of the Peninsula proper and those of the countries lying beyond the great Indo-Gangetic alluvial plain. The investigations of Dr. H. Falconer have shown that, at a period geologically recent, the present Peninsula of India was a triangular inland area, bounded on each side by the E. and W. Ghas, converging to Cape Comorin, while the base of the triangle was formed by the Vindhyas mountain range, from which an irregular spur, forming the Aravalli mountains, extended northwards; while between the northern shore of this island and a hilly country, which is now the Himalaya mountains, ran a narrow ocean strait. The bed of this strait was covered with debris from the adjacent Himalaya on its northern shore, and with this debris became entombed and pre-
served many and various animal remains. The present condition of the country in northern India has been produced by a subsequent upheaval of the land, so that what was the ocean strait forms the northern plains of India, the long, nearly level valleys in which flow the Ganges and the Indus. Besides this, a great upheaval along the line of the Himalaya has elevated a narrow belt of the plains into the Siwalik hills (determined to be of tertiary age), and added many thousand feet to the height of the Himalaya; and facts tend to the conclusion that India had one long term and one protracted faunas, which lived through a period corresponding to several terms of the tertiary periods of Europe.

The rocks of the Peninsula, though for the most part of very ancient date, are far less disturbed than those of the Himalaya, Afghanistan, and Burma, many of them, like the Vindhyan sandstones, being still quite horizontal. All the evidence goes to show that from a very early period in the history of the world, the greater part of the Indian Peninsula has been dry land; whereas for many ages the Himalayan area was occupied by the sea, and the rocks of that region have been, down to very recent times, and probably still are, subjected to violent crushing and contortion. In fact, the arrangement of the strata shows that, notwithstanding the existence of the great volcanic rock which constitute the Deccan, the Indian Peninsula has from the earliest ages been one of the steadiest and most fixed portions of the earth's crust, whilst the Himalayan area has been subject to violent oscillations of level; and the highest mountains in the world probably owe their height to the circumstance that the elevating forces are still in operation.

The oldest rock known to occur in India is the gneiss of Bundelkhand. It is exposed over a roughly triangular area, lying between Kirkee, Gwalior, and the southern part of the Lallipur district. Along its northern edge it is covered by the Gangetic alluvium, and on the other sides it is bounded by a steep escarp of Vindhyan sandstones, or by a series of sub-metamorphic rocks underlying the Vindhyan. Two other areas of gneiss occur in the Peninsula, but from their relations to the sub-metamorphic series, they are supposed to be of an age posterior to the gneiss of Bundelkhand. One of the extends, with hardly an interruption, from the Ganges in the neighbourhood of Bhagulpur, to Cape Comorin, and from the coasts of Madras and Orissa to Vindoria and Nemaur, where it is covered by the Deccan trap. The other occupies the central and southern part of the Aravalli Hills in Rajputana, and it may be continuous with the eastern gneiss of the Nerbudda valley, underneath the trap. An outlier of the same kind of gneiss occurs in Assam.

The gneiss of Bundelkhand is of remarkably simple and uniform composition, while that of the south and east of the Peninsula is much more complex, and contains many extraneous minerals, among which may be mentioned the gold of the Wynad, and the immense deposits of magnetic iron ore that occur in many parts of the country. Resting upon the Bundelkhand gneiss, but more or less disturbed where in contact with the other gneiss of more recent age, is a series of partially metamorphosed strata of great thickness, called the Bijawars, in Bundelkhand. This group of strata can be traced on the outskirts of the gneiss, from Sillang in Assam to the Nerbudda valley. Similar rocks flank the Aravalli Hills; and detached outliers occur through Northern Rajputana and the S.W. Panjab, as far as the Korana Hills, beyond the Satlej and Sutlej, and within a few miles of the Panjab Salt Range. An upper series of transition rocks can be traced near Gwalior, and in parts of the Madras Presidency.

Over these, and resting unconformably upon them, comes the most widely distributed series of stratified rocks to be found in India,—the so-called Vindhyan system. This immense series of horizontal sandstones and shales extend from Sasseran and Rotasgarh on the Sone, to the borders of Mewar, and from Agra to the Nerbudda valley, with several outlying patches in Southern India, as at Bhitna and Kurnool. All the diamonds found in India seem to be derived from a pebble bed at the bottom of the Vindhyan series, but the diamonds occur simply as water-worn pebbles, so that their original matrix is still unknown. That such an immense area of perfectly undisturbed and quite unaltered rock should be totally devoid of fossils, is very puzzling to the geologist, yet such appears to be the fact. The only explanations of it that can be given, are either that the Vindhyan rocks were deposited before the beginning of life on the globe, or that there was something inimical to life in the composition of the waters in which these rocks were formed. There is no evidence whatever, except the mere absence of life, that either of these explanations is correct; but, on the whole, it seems most probable that the Vindhyan strata were deposited in fresh water, at a time when the dry land and the waters enclosed by it were without life, although some kinds of living beings may have existed in the contemporaneous seas.

Resting in hollows of the ancient gneiss or the Vindhyan rocks, are found the first fossiliferous strata of the Indian Peninsula,—those of the Gondwana system, or the Indian coal measures. These rocks extend in patches from West Bengal through South Icowa and the Nerbudda valley to Cutch, and they are also found in the valley of the Godavery, and as far south as Madras. A small outlier of the same name has been discovered at the base of the Himalaya, near Darjiling, almost the only instance of a Peninsular rock occurring in the extra-Peninsular area.

At the bottom of these rocks, wherever the base can be seen, is found a peculiar conglomerate, consisting of boulders, many of them of large size, embedded in a fine matrix. Some of these boulders are marked with parallel strike on one or more sides, and the appearance of the whole stratum is that of an ancient boulder-clay deposited from icebergs. Similar rocks are observed in S. Africa and in the Permian formation of Europe, and it is probable that these Talchir beds are of Permian age. Above the Talchirs lie the coal-bearing strata of Karharbari, and the Damoda series of coal-bearing beds found here and there over the country from Rauganj to the valleys of the Badda and Wardha rivers. These are no doubt economically the most important of the Indian strata, though they cover a very small area compared with that occupied by the Vindhyan rocks or the ancient gneiss.

The coal-bearing strata contain numerous plant
remains, and a few skeletons of terrestrial animals belonging to the amphibia, but not a trace of any marine fossil has yet been discovered in them. There has been a good deal of discussion about the age of these beds, and of those overlying them, the Panchets, Jubulpur bed, and Mahadeva; because the fossil ferns they contain resemble on the one hand those of the Trias of Europe, and on the other they are very like those found in the true carboniferous rocks of Australia. The lower rocks of the coal-bearing series are supposed by Mr. Blanford to be of Permian or carboniferous age, and the upper ones (Panchet) Triassic. There can be no doubt about the proper geological horizon of the uppermost plant-bearing beds,—those of Cutch and Rajmahal,—which are distinctly Jurassic in their fossils, and contain in Cutch marine animal remains, such as ammonites of Jurassic age, interstratified with the plant beds. Of the Cretaceous rock, only a few detached areas exist in the Indian Peninsula, and these are all, with the exception of some beds at Bagh near Indore, within a few miles of the present coast.

Overlying the cretaceous rocks of Bagh, and overlaid in turn by the Eocene beds of Gujerat, are the great horizontal sheets of the Dekhan trap,—the greatest accumulation of volcanic rock known in the world. The trap extends in the north and south direction from Belgaum to Nemin, and spreads from Kattyawar on the west, to Amarakan on the east, covering every kind of rock, from the Bundelkhand gneiss to the most recent cretaceous formations, with its great horizontal lava flows, and in parts of the Western Ghats it is more than 4000 feet thick. It has been surmised that the lava must have been ejected on dry land, and not under water, because in some parts, as near Naldrug, the upper part of nearly every flow is full of vesicle, now occupied by zeolites and other minerals. How this could have been accomplished so as to leave all the beds nearly horizontal, and without trace of a single volcanic cone, is not apparent. But Dr. John Grant Malcolmson, who in the early part of the 19th century described this great volcanic outburst, discovered in the Gawilgarh trap many casts of marine shells.

The following is a classified list of formations in Peninsular India, with the approximate maximum thickness in feet:—

<table>
<thead>
<tr>
<th>Geologic Period</th>
<th>Formation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent and Post-Tertiary</td>
<td>Blown sand, soils, including black soil or regur. Modern alluvial deposits of rocks, estuaries, and the sea-coast, Kharadar.</td>
<td>Unknown; 700 feet deepest boring.</td>
</tr>
<tr>
<td>Tertiary</td>
<td>Raised shell beds of coast. Low level laterite; older alluvial deposits of Ganges, Nerbudda. Godavery, etc.; cave deposits, Millolite of Kattyawar; Plicocne, Micocene, and Eocene (nummulitic) beds of Cutch and Gujerat; sandstones, clays, and lignites of the west coast, Trasvancore, and Ratnagiri; Cuddalore sandstones; high-level laterite,</td>
<td></td>
</tr>
<tr>
<td>Panchet</td>
<td>Upper traps and inter-trappeans of Bombay; Miocene traps; lower traps and inter-trappeans of Central India, Rajmahendri, etc.; Lameta or infra-trappean group; infra-trappeans of Rajmahendri group,</td>
<td>6,000</td>
</tr>
<tr>
<td>Marine</td>
<td>Plicocne, Trichinopoly and Utarpar, groups.</td>
<td>3,000</td>
</tr>
<tr>
<td>Jurassic Rocks</td>
<td>Umia, Katrol, Char, and Pachham groups of Cutch; Jeysulmir limestones.</td>
<td>6,000</td>
</tr>
<tr>
<td>Gondwana system</td>
<td>Triputty and Rajgavpur beds of east coast, Cutch and Jubulpur. Rajmahal and Mahadeva, Panchet,</td>
<td>11,000</td>
</tr>
<tr>
<td>Upper</td>
<td>Lower Damda; Raniganj or Ramthi, ironstone shales and Barakur, Kharabari and Talehri. Bhanwar (Bundari).</td>
<td>13,000</td>
</tr>
<tr>
<td>Vindhyan Series</td>
<td>Upper Seva. Kaimur (Kymore),</td>
<td>12,000</td>
</tr>
<tr>
<td>Lower</td>
<td>Kurnool, Bhima, Sone, Semri.</td>
<td>2,000</td>
</tr>
<tr>
<td>Transition or Sub-Metamorphic Rocks</td>
<td>Upper Gwalior, Cuddapah, and Kaladgi series.</td>
<td>20,000</td>
</tr>
<tr>
<td>Lower</td>
<td>Behar and Shillong (the last extra-Peninsular),</td>
<td></td>
</tr>
<tr>
<td>Metamorphic or Gneissic</td>
<td>Gneiss, granitoid, and schistose rocks, etc.</td>
<td></td>
</tr>
</tbody>
</table>

The following is the succession of the more important fossiliferous peninsular rocks:—

Peninsular Rocks. Supposed Marine Equivalents.

Cenozoic | Indian | European |
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent and Post-Tertiary</td>
<td>Alloval and lake deposits; sub-Himalayan high-level gravels. Plicocne.</td>
<td>Upper Manchar of Sind; upper and middle Siwaliks of sub-Himalayas, Punjab, etc.; Mammiferous deposits of Western Tibet; Deling group of Assam; fossil-wood deposits of Pegu.</td>
</tr>
<tr>
<td>Miocene</td>
<td>Upper Manchar and Gaj of Sind; Murree beds (in part); Nahar; Tipam group of Assam; Pegu group of Burma.</td>
<td></td>
</tr>
</tbody>
</table>

Classified List of Formations in Extra-Peninsular Territories of British India.

1192
GERANIAEE, the geranium tribe, largely cultivated as flowering plants. They are propagated by cuttings, which ought to be kept somewhat dry till they root. The root of G. Nipalense, Surt., is called Röwil and Bland; it grows in the Himalayas, and is said to be astringent, and useful in diseases of the kidneys.—Powell; Voigt.

GERARD, two brothers, one a medical, the other a military, officer in the Bengal army, who distinguished themselves by their researches into the physical geography of the Himalaya. Dr. Gerard wrote an account of Kanawar, which he accompanied Lieut. (afterwards Sir Alexander) Burnes for a great part of the road, in his travels in Central Asia. Captain Alexander Gerard of the Bengal Engineers was employed in surveying the Himalayas, which he ascended to the height of 19,000 feet. He was afterwards employed in Central India. His Account of Kanawur, edited by George Lloyd, appeared in London in 1841.

GERARDINIA LÉSCHENAUTIANA. Dcne. A tree in the central province of Ceylon, at 5000 to 6000 feet.—Thur.


GERBILLUS INDICUS. Blyth. Jerboa rat. H. Hardwicke, Gray. | G. Cuvier, Waterhouse. Jhenki Indur, | BENG. Yeri yelka of WADDARS. Dilla iichi, | CAN. Tel yelka of. | YENADI. Huna Mus., | HISP. The India jerboa rat of all India and Ceylon is of the family Muridae. The jerboas are field rats of Asia and Africa, with small fore limbs and well-developed hinder limbs, with slender form and large eyes. The colour is always of uniform bright fawn. The incisors are always of a deep yellow colour, the eyes very large and full, the tail longer than the body. A large adult male measured,—length of body, 7 inches; of tail, 8½; of head, 2½; of ear, ½; of fore foot, ½; of hind foot, 2. Weight, 64 oz. They are said to be very prolific, bringing forth 16 to 20 at a birth, but this seems an exaggeration, and the litter probably seldom exceeds 12. It is the common prey of foxes, owls, snakes. Lives in numerous societies, making

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GEOMYDA, a genus of the Cataphracta, or shielded reptiles, the order Chelonia and family Geemydidae. G. Bealli, granda, mutica, nigricans, Reevestis, spinosa, spengleri, and trinarina, occur in S.E. Asia. See Reptiles. GEOPHILUS FULGENS, a luminous centipede. GEOPHILUS NICOBARICUS is the Columba Nicoberica of Latham, the C. Gallus of Wagler. It inhabits the isles of Nicobar, Java, Sumatra, and many of the Moluccas. GEORGIA is BACTRIANIA, a native of Khorasan, a physician celebrated for his skill in medicine and for his proficiency in the Persian language. He was educated at the medical school at Nessa or Jondisabur. He was sent to serve under the Khalif-ul-Mansur, and at whose request he translated several books on medicine. His son Gabriel was physician to Harun-ul-Rashid.

GEORGIA, a Russian province extending from lat. 39° to 44° N., and long. 37° to 50° E., consisting, with the exception of Daghestan, of all Russian territory S. of the Caucasus. It is 417 miles long, 280 miles broad, and with an area of 56,000,000 square miles; population above a million. Its divisions are Abasia, Baks, Daghestan, Erivan, Guria, Immeritica, Kakhetia, Karabagh, Kartelhnia, Kuba, Mingrelia, Lesgistan, and Shervan. The rivers are the Aras and Kur, with tributaries. Georgia is called by the Persians Gurgistan, and by the Turks Gurishi. The last reigning king ceded it to Russia on the 20th of May in 1800, and in 1802 it was made a Russian government. The hills of Georgia are covered with forests of oak, ash, beech, chestnut, walnut, and elm, encircled with vines, growing perfectly wild, but producing vast quantities of grapes. Cotton, rice, wheat, millet, hemp, and flax, are raised on the plains. The valleys afford the finest pasturage, the mountains abound in minerals, and the climate is healthy. Georgian women have fine dark large eyes, very regular features, and a pleasing mild expression of countenance. The dress of the higher ranks is splendid, and carefully adjusted. The Georgian dance consists of feats of activity, and strange and inelegant contortions of the limbs, sitting down on their heels, and hopping about in that position.—Porter's Travels, i. p. 123.
extensive burrows in the red gravelly soil of the Mulnaad, generally in or near the root of shrubs or bushes. The entrances, which are numerous, are small, from which the passage descends with a rapid slope for two or three feet, then runs along horizontally and sends off branches in different directions. These galleries generally terminate in chambers from half a foot to a foot in width, containing a bed of dried grass. Sometimes one chamber communicates with another, furnished in like manner, whilst others appear to be deserted, and the entrances closed with clay. The centre chamber in one burrow that was opened was very large, which the Waddars attributed to being the common apartment, and said that the females occupy the smaller ones with their young. They do not hoard their food, but issue from their burrows in the evening, and run and hop about, sitting on their hind legs to look round, making astonishing leaps, and on the slightest alarm flying into their holes. The Waddars eat this species. Another species, O. crythrousurus, Jerdon, inhabits the Indian desert west of the Jumna, Hurriana, and adjacent districts.—Jerdon.

GERMAN, a race in central and northern Europe, who form, with the Irish, English, Scotch, Persians, Aryan Hindus, Greeks, and Romans, part of the great Iranian family. Philologists admit a Germanic family of languages.

GERMANES, a sect of ascetics mentioned by Megasthenes, supposed to have been Buddhists. See Sarmanes.

GERRA or Gerra was in ancient times a great emporium in the Persian Gulf. Its ruins are to be seen at the inmost recess of the deep and narrow bay, at the mouth of which are the islands of Bahrein.

GERU. HIND. Red earth, ochre. The earths and clays met with in the Panjtab bazars are,—

Geru, a hard, red, laminated earth, sometimes used in dyeing; school teachers grind it up with water and teach to write with it on wooden slates. It is used medicinally in India.

Gil-i-khardya is a variety of Geru.

Gil-i-aboroshi or Gil-i-farsi is a pink clay, hard, but brittle and paler than Gil-i-irmani.

Gil-i-makhut, a variegated earth, deep red and pure white, soft and irregular; it contains clay, carbonate of lime, and sesquisioxide of iron.

Gil-i-irmani differs little from Geru and Geri. It is a rough, red, brittle earth, occurring in laminated masses, used as a colour, and also medicinally. It is the representative of the Bolus Armeniacus, once so celebrated as a European medicine.

GETE, an ancient race, supposed by Professor Wilson to be the Sace. Dr. Jaimison proves satisfactorily that the Gete, Scythians, and Thracians were the same people, and that it is very probable, if not certain, that the Gete and Getae were the same people. On the northern side of the Danube, opposite to the territory occupied by the Scythians, and in the angle forming a part of Thrace, there was a small nation in the time of Herodotus, who bore the name of Gete. The Massagete and Gete seem gradually to have advanced from their ancient limits into the more fertile districts of Asia. And all the lower and middle parts of the western boundary of the Indus went by the name of Indo-Scythia. The Scythians, chiefly the Gete, had expelled the Greeks, and re-peopled it with colonies of their own nation. The Getae were the bravest and most just of all the Scythians, and continued to preserve this character in their new possessions. Getae, Jit, Jit, and Takshak races, which occupy places amongst the 36 royal races of India, are all from the region of Sakatia or Chaghtai. Regarding their earliest migrations the Puranas furnish certain points of information, and of their invasions in more modern times the histories of Mahomed of Ghazni and of Timur abundantly acquaint us. If we examine the political limits of the great Getae nation in the time of Cyrus, six centuries before Christ, we find them little circumscribed in power on the rise of Timur, though twenty centuries had elapsed. At this period (A.D. 1330), under Timur, the last prince of Getae race, the kingdom of Chaghtai was bounded on the west by the Dihasht-i-Kapchak, and on the south by the Jaxartes or Jilun, on which river the Getae khan had his capital. Khojend, Taslikand, Ootrar, Cyruspolis, and the most northern of the Alexander battles and the fortress of the borders of Chaghtai. From the mountains of Joul to the shores of Makran, and along the Ganges, the Jit is now widely spread. The Takshak or Takiuk may probably be discovered in the Takj, still in his ancient haunts, the Transoxiana and Chorasania of classic authors; the Mawar-ul-Nahr of the Persians; the Turan, Turkistan, or Tocharistan of native geography, the abode of the Tachari, Takshak, or Toorsika invaders of India, described in the Puranas and existing inscriptions. The Getaes had long maintained their independence when Tomyris defended their liberty against Cyrus. Driven in successive wars across the Sutlej, they long preserved their ancient habits as desultory cavaliers, under the Jit leader of Lahore, in pastoral communities in Bikanir, the Indian desert, and elsewhere, though they have lost sight of their early history. The transition from pastoral to agricultural pursuits is not far from the descent of the moderns of Transoxiana is now the best husbandman on the plains of Hindustan, but during the rebellion and mutiny of 1857 they marched boldly under British leaders to aid in restoring order. Asi was the term applied to the Getae, Yeut, or Jut, when they invaded Scandinavia and founded Jutland.—Tod’s Rajasthan; Pennant’s Hindoostan; Chatfield’s Hindustan; Recherches sur les Langues Tartares; Kennedy on the Origin of Languages.

GHADA or Ghur-Kudd. ARAB. A thorny bush. Its succulent leaves are the favourite fodder of the camel of Arabia. It grows 4 or 5 feet high, has a reddish stem and green flashy leaves.—Lady Anne Blunt.

GHADI. MAHR. A Sudra attendant on a village temple.

GHADR. ARAB. A fanatical practice of Shah Mahomedans of India on the 15th of Zilhaja, when three images of dough, filled with honey, are made to represent Abulkar, Umar, and Uzaim, which are stuck with knives, and the honey is sipped, as typical of the blood of these khilifs, whom they regard usurpers. The festival is named from Ghadir, a pool.—Mahomed, it is said, having declared Ali his successor at a place called Ghadir-Khum, a watering-place for caravans half between Meeca and Medina.—Wilson.

GHADSI or Garsi. MAHR. Vagrant musicians, said to be descendants of the race who formerly
inhabited the great southern forest, the Danda-
karanya. They are village pipers and drummers.
—W.

**GHAFFAH** or Guffa, the burning alive of a
Sanyasi.

**GHAGGAR**, a river in the Panjab and Raj-
petau. It rises among the Himalayan slopes in the
native state of Nahan or Simurn (lat. 30° 41'
N., long. 77° 14' E.). In ancient times the lower
portion of the river appears to have borne the
name of its confluent, the Sutlawati or Sutlawan,
which joins the main stream in Patiala territory.
At present, however, every valley through which
the stream passes has diverted a portion of its
waters for irrigation.—**Imp. Gaz.**

**GHAGRA.** HIND. A petticoat of Meo women;
a skirt worn by women from Malwa, Gujerat,
Kattyawar, and Cutch, also by Burghu girls in
Bombay, fastened by a band round the waist, and
reaching the ankles. The ghagra and choli are
comparatively modern innovations, adopted by
Hindu and Jain women from the Mahomedans.
In the south of India and in Burma, it is the popular
belief that women were made to bare their breasts
to allure the male population; but it is a fact
that till the conquest of India by the Mahomedans,
made-up apparel was unknown. Rajput ladies
have only three articles of parure,—the ghagra or
petticoat, the kanchi or corset, and do-pati or
scarf. The fashion varies in each province and
tribe, though the texture and materials are every-
where the same. Cotton in summer, and quilted
chintz or brocadelin winter.—**Tod’s Rajasthan.**

**GHAILAS-ud-DIN-bin-HUMAM-ud-DIN** is
known by his takhallus or literary name, Khond-
amir. His book is entitled Habib-us-sayar-fi
afraid-ul-bashar, the curious part of the lives of
illustrious men. It is a history which he had
extracted from that which his father Mirkhond
had composed and entitled Rauzat-us-Safa, but
to which he made augmentations. He dedicated
this book to the secretary of state belonging
to the king of Persia, Shah Issam Safavi, who
gave him the name of Habib-Ullah; and for
that reason the book had the name of Habib
given it in the year A.D. 1508, Hijira 927, in
the reign of Louis xii. He was also author of
another book, entitled Khulasat-ud-Akhlar, or The
Cream of Histories, which he completed about
A.H. 900. Khondamir’s last work was the Huma-
yun Namah, which he finished A.H. 940. He
was born at Herat, about A.H. 890 (A.D. 1470),
and died A.H. 941 (A.D. 1634-35). At his death his
title was Amir-i-Akbar, Prince of News.—**History
of Genghiz Khan.** p. 422 ; **Eliot, II. of India.**

**GHAIR.** ARAB. Without.

Ghair Mulazim, as opposed to Mulazim, persons
in the villages of the Panjab who help the farmers,
but are not regularly hired cultivators.

Ghair-Mahdi, a Mahomedan sect who believe
that the imam Mahdi has come to the world and
gone. The words mean, without, or deprived of,
Mahdi. See Elias; Mahomedan.

**GHAAKKAR.** A Scythic race inhabiting the
banks of the Indus. The Ghakkar was a warlike
tribe in the time of Mahmud of Ghazni, inhabiting
the Salt Range or Juhd mountains, between the
Indus and the Belu (Hydespeus). The Mohgal,
and subsequently the Durrani, failed to master
them, but the Sikh rulers, after having been
frequently foiled, at length nominally accom-
plished their subjugation by stirring up internal
faction, and by the perpetration of acts of cruelty
and treachery (Rec. Govt. of India). The
Ghakkar opposed Mahmud; in 1205 they ravaged
the Panjab to the gates of Lahore; in 1206 they
stabbled the Mahomedan sultan in his tent.
They were converted to Mahomedanism, and in
1526 submitted to Baber, in return for a grant of
country. During the next two centuries they
rendered great services to the Moghil dynasty
against the Afghan usurpers, and rose to high
influence in the Panjab. They were driven from
the plains by the Sikhs in 1765 A.D., but they
maintained their independence on the Muree Hills
till 1830, when they were crushed after a
bloody struggle. In 1849, Rawal Pindi, with the
rest of the Panjab, fell to the British, but the
Ghakkar revolted four years afterwards, and
threatened Muree as late as 1857. They now
number only 10,153 souls, described as a fine
spirited race, gentlemen in ancestry, and bearing
and clinging under all reverses to the traditions
of noble blood.

At an early period of history they were given
to infanticide. It was a custom, says Ferihshtah,
as soon as a female child was born, to carry her
to the market-place, and there proclaim aloud,
holding the child in one hand, and a knife in the
other, that any one wanting a wife might have
her, otherwise she was immolated. By this
means they had more men than women, which
occasioned the custom of several husbands to one
wife. When any one husband visited her, she
set up a mark at the door, which, being observed
by the others, they withdrew till the signal was
removed. They continued polyandrie till Baber’s
time. The Ghakkar are supposed to be the
descendants of the mountaineers whose chief
Ambiasces sent ambassadors with presents to
Alexander. Baber writes the name Guker, but it
is also written Ghanka and Khaka.—**Tod’s Rajas-
than, i. p. 658 ; Imp. Gaz. iv. p. 278.**

**GHAMETA.** A subdivision of the Kurmi tribe.

**GHANA or Ghani. MAHR. A heap of grain
which the mistress of a house places on a mortar,
to be given to a Brahman at the Makara San-
kranti, or the sun’s entrance into Capricorn.—W.
**GHANCHO in Gujerat, matmakers.**

**GHANTA.** HIND. A clock, a gong, an hour.

**GHAO.** HIND. A wound, an ulcer; hence
Ghaeja (?), GUJ., the village barber and barber-
surgeon.

**GHAR.** PERS. White quartz, white carnelian;

**GHAIR.** PERS. White, ice, hail; also, ARAB., a
cave.

**GHAIR.** MONGOL. The hand. It is the San-
skrit Kar, the Hindi Gar, and Greek Kheir.

**GHAIR-BASHAH** is the revisiting, by a newly-
marrwed Hindu woman, of her parents’ house.
It is not a day, but is a week, or a month, or
four months. It is a religious duty for the
Gharia, a watch; hence Ghariah, a
gong-striker.

**GHARI.** MAHR. Ghadi. A Sudra attendant
on a temple, corresponding with a Gurara.
GHARIAL. is the Gavialis Gangeticus, the narrow-beaked crocodile of the Ganges, supposed to be the largest of the living saurians. The measurement of the largest mentioned by Messrs. Dumeril and Bibron is given at 6 metres 40 centimetres (17 feet 8 inches). See Reptilia.

GHARIPIT, about 8 miles S. of Palmsahab, in the Hyderabad country. Garnets occur here in the detritus of a granitic rock, penetrated by trap dykes, and composed of mica, garnets, kyanite, quartz, and felspar. Dr. Voysey states that the precious garnets are found at the depth of eight or ten feet in the alluvium at the foot of the rock.

GHARRA. Hind. An unglazed earthen water-pot; hence Ghar-nai, a raft supported on pots.

GHARRA RIVER, the modern Panjabi name applied to the united streams of the Beas and Satlej, from their confluence at Endrisa to their junction with the Chenab. Below this the whole river takes the name of Panjnad.

GHARSI, in the Maharatta country, a tribe of musicians.

GHAZALAR. Arak. Mahomedans have two kinds of ablution or instigation,—the Ghasal or legal washings for all classes, after any kind of bodily uncleanliness, such as the polluto nocturna, menses, coitus, or childbirth, for until purified it is unlawful to eat, pray, touch the Koran, or go to the mosque. If the legal Ghasal be not needed, nevertheless, before prayer, the Wazi or washing in a prescribed manner of the face, hands, and feet, is indispensable. It occupies two or three minutes. The Wazi is only needed when any minor cause of impurity, as in performing the natural functions, has occurred. Where water is not to be had, the Teyammum, or rubbing the face, legs, and hands with fine dust or dry sand, suffices.

GHASI, a servile race in Central India. Wherever there are Kol there are Ghasi, and though evidently of an entirely different origin, they have been so long associated that they are a recognised class in the Kol tradition of creation, which assigns to them a thriftest character, and describes them as living on leavings or on charity. There are not fewer than 50,000 Ghasi in the Kol countries. Their favourite employment is that of musicians. No ceremony can take place, or great man move, without the accommodation of their discordant instruments—drums, kettle-drums, half-drums, and huge horns—to proclaim the event.—Dalton, Ethnol. of Beng. p. 326.

GHASI DAS was a Chammar or leather-worker, who lived in Ch’hatisgarh in the early part of the 19th century. He withdrew himself for six months into the forest, and when he returned he urged the people of his caste to renounce the worship of idols, and worship only the Sadhnam or true name. He died in A.D. 1850, and his son, who succeeded to the office of leader, was murdered in 1860 by Rajputs, whom he had offended. The murdered man’s place was taken nominally by his son, but really by his brother, Agur Das. The sect is now split into two great factions, those who smoke tobacco, and those who deem it to have been prohibited by Ghasi Das. At the time of the census of 1871, the number of the sect in the Central Provinces was 266,000.

GHAT. Hind. A term employed in India to designate a ferry or landing place on a river, or a quarry or wharf; also a range of hills, or the scarped wall of a table-land, or the defile or pass leading through such. The Western Ghats or Syhadri range extend from the valley of the Tapti to the gap of Palghat, a distance of 800 miles. They are clothed with dense forests, with few inhabitants. The coast-line from the sea to their base is generally flat and low, with occasional spurs or solitary hills, but the ghats rise abruptly, almost scarped, to an average height of 3000 feet. Pundarik is 4472, and Mahabaleshwar 4700. Matheran is a projecting spur. The Eastern Ghats extend from Orissa to Coimatore, along the eastern or Coromandel side of the Peninsula of India, at distances of 50 to 150 miles from the Bay of Bengal. They are steep, and well clothed with forests. The country lying between them and the sea is low, scarcely rising above a hundred feet above the sea. Towns, as Hinginhat in lat. 20° 34' N., and Palghat in the south of the Peninsula, have their names from the passes; and Hindus speak of Balaghat and Paen-ghat, above or below the Eastern Ghats. The chief passes in the western range are the Thul, Bhor, and Ram Ghat.

In Rajputana, Antri means a defile, a tract surrounded by mountains. The Antri of Mewar is fertilized by the Brahman, which joins the Chambal after a course of thirty miles through a singularly diversified country.

The Ghatiya is a Brahman who attends at ghats where Hindu pilgrims bathe, to take care of their clothes, and supply sandal, flowers, etc. He exacts certain fees as a right, denouncing imprecations on any who resist his exactions. These people sometimes repair to a distance to escort pilgrims to their places of ablation.

Ghat-manjhi, is a ferryman; also a man who regulates the hire of boats, supplies, etc.

Ghatwal, a guard of the passes in the mountains of Bengal.

GHATAK or Ghataki, in Bengal, matchmakers, men or women.

GHATA-KARPARA, one of the nine learned men of the court of Vikramaditya.—Downson.

GHATATOP. MAHR. A covered conveyance, and framed for concealing a woman.

GHATICA. Sansk. An Indian hour, twenty-four minutes European time. Ghatak-patra, a clepsydra. See Danda.

GHATWAN, in Bengal, a man of a low caste, frequently a predaial slave.

GHAZA. Arak. In Mahomedanism, an expedition against infidels. The term Ghazi is applied to those who fight for their religion to the death; also a gallant soldier; a hero.

GHAZAL. Arak. In Persian poetry, an ode. It should consist of not less than five, or more than eighteen, couplets, the last line of each couplet terminating in the same letter of the alphabet. The two first lines of the ode rhyme together, after which every alternate line; and the last verse always contains the takehallus, the assumed literary name of the poet. A poem on the subjects of love and wine, interspersed with moral and satirical observations.

GHAZAN, son of Kai-Khatau, and nephew of Kablab Khan, succeeded to his father’s throne in A.D. 1295. He was a brave soldier and able statesman.

GHAZI. Pers., Hind. A Mahomedan soldier
fighting for his faith; a religious warrior; one who has slain an infidel. Properly speaking, a man becomes a Ghazi only in war against unbelievers (Kafir), such as Christians, Jews, and idolaters, as Hindus, Buddhists, etc. The Sunni of Central Asia consider Shah Mahomedan as unbelievers, and enslave them. The Othoman Turks have never recognised this theory, considering the Persians as only heretics (Raafiz, Mulhid).—P. Arminius Vambery, Bokhara, p. 351.

GHAZI MIYAN, a Mahomedan saint in high repute with the agricultural and lower classes of the N.W. Provinces, except in Dehli, and included among the Panch-Piri, or five saints. The Mirzat-i-Musawi says he had a dream the night before his death, in which his mother came and placed a bridal chaplet on his brow, as being indicative of the crown of martyrdom with which he was to be honoured on the following day. He is partly on this account called Gajun Doolha and Salar Chancellor of Ghazni. The Mahomedan court paid this honour in most large towns of India, but particularly at Barech, in the month of Joth. It is commonly called the Shadi, or marriage of the saint, in allusion, according to another tradition, to his having suffered martyrdom on the eve of his nuptials. The festival is equally popular with the Hindus and Mahomedans. Who this Ghazi Miyan was, is a question on which even Mahomedan authorities are not agreed. Elliot, quoting M. Garin de Tassy, in his Memoire of the Musalman Religion in India, was of opinion that it is not his shadi or marriage, but his shahadat or martyrdom, that is represented at the festival. He is also said to have been a nephew of Mahmud of Ghazni, born at Ajmir, and killed in battle with the Hindus at Barech, after Mahmud’s death.

GHAZIPUK is the name of a town and of a district in the N.W. Provinces of India. The town is in lat. 25° 18’ 36” N., and long. 83° 35’ 13” E., and has a population of 58,853. The district lies between lat. 25° 18’ 31” and 26° 2’ 10” N., and long. 83° 6’ 20” and 84° 42’ 40” E., with an area of 2167 square miles, and 1,345,470 inhabitants. The town is on the left bank of the Ganges, 64 miles N.E. of Benares, 351 feet above the sea. The palace of Kasim Ali Khan also is there. Rose-water and otto (atr) of roses are largely made.

The district, in 1871, had, besides Brahmans, Rajputs, and Banya,—Ahir, 171,216; Chamar, 122,075; Kayasth, 22,680; Kurmi, 18,136. It is one of the hottest and dampest districts of the N.W. Provinces. The district can boast a long history of its own, stretching far back into the earliest days of Aryan colonisation. Carved monoliths bear witness to a very ancient Hindu civilisation; and one in particular, at Bhiri, contains an inscription of Samudra Gupta, who probably reigned in the surrounding country as far as Kannauj, about the end of the 4th century A.D. Asoka erected here one of his well-known pillars, and at least two stupas. In 1805, Lord Cornwallis died here, and a monument, with a statue by Flaxman, was erected to his memory. He had been appointed Governor-General a second time, and was proceeding up the country, when he fell sick and died.—Tr. of a Hindoo, i. p. 121; Imp. Gaz.

GHAZNI, a town and fortress of Afghanistan, in lat. 33° 34’ N., and long. 68° 18’ E., and 7726 feet above the sea, 85 miles from Kabul, 223 miles N.E. of Kandahar, on the left bank of a river bearing the same name, at the termination of the well-known Turan valley. It is composed of 3500 mud houses, which have flat roofs, with small windows in the upper storey. The circumference of the wall is only a little over one mile. The citadel is almost in the centre of the town, standing upon the summit of the natural mound which forms the city. The wall embraces the whole of this hill, and, regarded from a distance, Ghazni may be said to form a square. The streets are dark, narrow, irregular, and dirty, and the houses several storeys high, with a population of Afghans estimated at 10,000 souls, some Hazara labourers and Hindu shopkeepers. The chief trade consists of grain, fruits, and madder. It was captured by the British Indian army in 1839 (22d July) under Sir John Keane, and again in 1841 under Sir T. Stanhope. Ghazni was taken by the British army under General Stewart in 1880. It is now given a dominion over all Afghanistan. From November to the middle of March, snow lies on the ground. In A.D. 976 it was made the seat of government of Abustakin, a Bokhara adventurer, who was succeeded by Sabaktigin, father of Mahmud.

Mahmud’s empire extended from the Tigris to the Ganges, and from the Oxus to the Indian Ocean. It fell to pieces on his death, and in 1151 Ghazni was stormed by Ala-ud-Din, prince of Ghor, who massacred the inhabitants on the spot, with the exception of those of rank, whom he conveyed to Ghor, and there killed them, using their blood to moisten the mortar with which he constructed fortifications.

From Ghazni westward, all along the valleys of the Turan and Helmand down to the basin of Seistan, the whole country is covered with the ruins of old obliterated cities, and after cultivation all assigned to the devastation of the Tartars in the 13th and 15th centuries, when the Arab rule was overthrown. Ghazni has the repute of being a very ancient site. Wilford, following Sanskrit authorities, tells us that the kings of the Yavana and Daculian resided at it. He further tells us that its proper ancient name was Sabal, Zabol, or Saul, as written by Chrysococce, whence he infers it to be the Osula of Ptolemy. He also conjectures it to be the Oceanidati of the Pentingerian tables, noted as twenty-two farsangs from Asbana, which he considers Kabul, and thirty-five farsangs from Rupha, which he would identify with Shahr Safar. The annals of the Yudo of Jeyshumur state that long anterior to Vikrama they held dominion from Ghazni to Samarcand; they established themselves in those regions after the Mahabharat, but on the rise of Mahomedanism, or the pressure of other races, they were again impelled towards the Indus river. They assert that Ghazni is properly Gajni, founded by the race of Yudo; and in a curious specimen of Hindu geography presented by Colonel Tod to the Royal Asiatic Society, all the tract about the glaciers of the Ganges is termed Gajilun, or Gajilub, the ‘Elephant Forest,’ elephant wilds. There is a Gujungurah mentioned by Abul Fazl in the region of Bijore, inhabited by the Sultano, Jadun, and Yusufzai tribes.

Since the 10th century of the Christian era, the
GHAZNI.

history of this city is but another name for that of the rulers of Afghanistan and Hindustan. It is the starting-point for four practicable routes into India, which are the Kurram, the Urgundeh, the Dawar, and, most important of all, the Gomul, and under a settled administration Ghazni would become a very flourishing town. The country round Ghazni is of remarkably fertility. It is celebrated for its orchards; and the merchants carry on a very considerable trade with India in this and other products, such as tobacco, cotton, etc. On the north of the town, about half a mile from the gate, rises the first of Sultan Mahmud's minars, or towers; the other is about 400 yards beyond it, in the same direction. They both rise alone, based upon rough stone-work. The most northerly is the handsomest structure, but both are exquisite specimens of brickwork. They are about 140 feet in height, and much damaged.

The following emperors have reigned in Hindustan since the Ghazanian conquest—

Ghazanian Emperors began to reign—

Mahmud I., A.D. 999 Ibrahim I., A.D. 1058
Muhammad I., 1050 Musa II., 1089
Musa II., 1063 Arslan II., 1114
Modud, 1040 Bahram I., 1118
Abul Hasan, 1049 Khusrav II., 1122
Abul Rashid, 1051 Khurram II., 1169
Farokhzad, 1052

Ghorian Kings.

Ala-ud-Din, 1152 Shahab-ud-Din., 1176
Safid-ud-Din., 1156 Mahmud., 1206
Ghias-ud-Din., 1157

Slave Kings.

Kutub, 1206 Bahram, 1239
Eldoz, 1211 Musa, 1241
Arum, 1246
Altamash, 1257
Firoz I., 1259 Kei-Koba., 1286
Sultan Rai, oress, 1288

House of Khilji.

Jalal-ud-Din., 1258 Omar., 1316
Ala-ud-Din., 1295 Mubarak., 1316

House of Taghalsar.

Ghias-ud-Din L., 1321 Alubakr., 1389
Muhammad., 1325 Nasir-ud-Din., 1380
Firoz., 1351 Mahmud., 1384
Ghias-ud-Din R., 1388

Syud Dynasty.

Khizer., 1414 Mahmud., 1435
Mubarak., 1421 Ala-ud-Din., 1441

Dynasty of Lodi.

Behlol., 1450 Ibrahim., 1517
Secunder., 1488

Moghul or Mongol Emperors.

Baber., 1525 Humayun., 1530

Sur Dynasty.

Sher., 1540 Muhammad Adil., 1563
Selin., 1547

Moghul Dynasty restored.

Humayun., 1555 Ferohkair., 1713
Akbar., 1556 Ruffin-a-Diraj., 1719
Jahangir., 1605 Ruffin-a-Dowla., 1719
Shah Jahan., 1628 Muhammad Shah., 1719
Aranjzeb, or Alamgir., 1659 Alamgir II., 1754
Bahadur Shah., 1707 Shah Alam., 1760
Jahanger Shah., 1712

—To'de's Rajaaston; Renelle's Memoirs; Eliphin-stone, p. 433; Vigne's Personal Narrative; Journeys; MacGregor, pp. 250, 263, 272.

GHEGURA, Hind., also Gheghura, is the unripe pod of gram; also the unripe bole of cotton, which is known also by the names of Goolur, Ghenti, and Bhitta. When it bursts it assumes another name. When this change in the plant occurs, it is usual eastward of the Junna to select the largest plant in the field, and, having sprinkled it with butter-milk and rice-water, it is bound all over with pieces of cotton taken from the other plants of the field. This selected plant is called Sirkal or Bhonguldace, i.e. mother-cotton, from Bhonga, a name sometimes given to a large cotton-pod, and Dace (for Dalaa), a mother; and, after salutations are made to it, prayers are offered that the other plants may resemble it in the richness of their produce. To the west of the Junna there is rarely a Bhonguldace; but when the pods begin to burst, women go round the field, and, as a kind of lustration, throw salt into it, with similar supplications that the produce may be abundant. Tibullus, lib. ii. cl. i. says,—

"Dil patrii, pargamus agros, pargamus agrestes;"  
"Vos male de nostri pollutum libitum."  
"Neu seges etudit hominem fallaceus herbis."  

The practice appears to be observed with a similar object, and in somewhat similar fashion, to the Ambarravina of the Romans, and the Field-Litanies of the English Church Rotation or Gangdays.—Elliot.

GHERIAH, in the Ratnagherry district, Bombay, was the chief town and strongest post of Angria. In 1756 it was attacked and taken by a British squadron under Admiral Watson, and on land by an army under Clive. A Mahrratta army was present, but held aloof.

GHERIAL. 21 miles from Jangipore is Sooty, where the Bhangirath branches off from the Ganges. The neighbourhood of Sooty is remarkable for the battle of Gheriath, fought between Ali Verdi and Sarfaraz Khan in 1740. There was another battle fought in 1763 between Mir Kasim and the British.—Tr. of a Hind. p. 85.

GHET KUCHU. Beng. Typhonium Oxirex; also called Ghet-kol. Tubers the size of a small egg, exceedingly acrid while fresh, and used as a counter-irritant in poultices, also as an application on such ulcers as carbuncles. They are also used inwardly in doses of from 20 to 30 grains. Roxburgh describes this arum as a most powerful stimulant in proper hands.—O'Sh. p. 625.

GHETTA. Hind. A broad curved slipper, worn in Dehi by women and by effeminate men.

GHEWATI. Mahal. A retail dealer, in some places limited to those who sell garden produce.

GHI. Gju., Hind. Clarified butter.


Ghi is largely manufactured in all the south of Asia, and generally sells at 25 per cent. above the cost of butter. Ghi is made in very large quantities in the jungle tracts of the Bar. The finest ghi used on the Bombay side of India comes from Kurachee, near the mouth of the Indus. Butter is churned from the milk as soon as milked; but the people of Southern Asia use ghi. In preparing it, the butter is boiled until all the watery particles and curds have been thrown off by repeated skimmings. When the liquid is clear it is poured into a vessel to cool, which does in a granulated form, and if originally well boiled, will keep for years without taint. Instances are known of its preservation for 200 years in
GHIAOUR.

GHIJIL.

deserted castles. Ghī and sandal-wood are used as a burnt-offering, in Bombay, to invoke Lakh- ḍīr. Ghī is exported to all the sea-coast of Eastern and Southern Asia to the extent of 400 and 500 tons annually.

1877-78 1,044,637 lbs. Rs. 3,57,250
1878-79. 902,835 3,35,800
1879-80. 1,266,433 4,54,844

GHIAOUR, the Gabr or fire-worshipers, now synonymous with Kaตร, is applied to the Parsee people who preceded the Mahomedans, as well as to Europeans—Rich's Kurdistan, i. p. 30.

GHIGOWAH. HIND. Aloc Indica, Royle. In Southern India, plants of the ghigowar, ghicwar, or the külünda, Aloc perfoliata, are suspended with their roots upwards, with a longitudinal incision in each leaf, to permit the aroma of the juice to become apparent, and disperse mosquitoes from the room.

GHILI, a nomadic race dwelling on the coast of Tartary and Siberia, as far as Ayan on the north-west extremity of Saghālin. They are low in stature, stout, and rather broad in proportion to their height. Shape of the head broad; cheek-jones prominent; eyes Globule; well-defined cyliner; more arched than those of the Chinese; hair coarse, black, and bound into a tail, and occasionally wearing a coarse, black beard; hands small and delicate, with well-shaped nails; complexion fair and ruddy. Their language is different from the Tungusian dialects along the river. According to Rinso, polyandry prevails amongst the Smerenkur Ghiliāk. The women are small, but prolific—Dr. Latham's Descriptive Ethnology—Ravenstein's Russians, p. 391.

GHILI, a tribe in Afghanistan, which, with the Abdali, forms the bulk of the Afghan population. The Ghilji occupy the principal portion of the country between Kandahar and Ghazni, and are the most numerous of the Afghan tribes. They are also found between Farrah and Herat, and again between Kābul and Jalalabad. The Ghilji between Kandahar and Ghazi comprise the great families of the Ohtak, the Thoki, the Tereki, and the Andari, with their subdivisions. The Ohtak are the principal of the Ghilji families, and in the period of their supremacy furnished the sovereign. At the present day the Ghilji have two great sections, the Ohtak or Hotaki, with four clans, Sakzai, Tumzai, Sat Kher, and Shagri; and the Turan or Tokhi, with nine clans, Shah Alam, Shah-u-Din, Kalu, Miranaz, Jalallaz, Bakzari, Pir, Likoki, and Amir-khan. The Ghilji are both an agricultural and a pastoral people, dwelling in villages and forts, as well as in tents. They are a remarkably tall fine race of men, with marked features, the Ohtak and Thoki peasantry being probably unsurpassed, in the mass, by any other Afghan tribe for commanding stature and strength. They are brave and warlike, but the generality of them have a sternness of disposition amounting to ferocity, and their brutal manners are not discounted by their chiefs. Some of the inferior Ghilji are so violent in their intercourse with strangers that they can scarce be considered in the light of human beings; while no language can describe the terrors of a transit through their country, or the indignities which are to be endured.

Although the Ghilji are considered and call themselves Afghans, and, moreover, employ the Pushtu or Afghan dialect, the name is evidently a modification of Khalji or Khulji, that of a great Turki tribe, mentioned by Sharif-ud-Dīn in his history of Timur. The testimony of Ferishta, while clearly distinguishing the Ghilji tribes from the Afghans, also establishes the fact of their early conversion to Mahomedanism. Still there is a tradition that they were at some time Christians of the Armenian and Georgian churches. This tradition is known to the Armenians of Kābul; and they instance, as corroborating it, the practice observed by the Ghilji of embroidering the front parts of the gowns or robes of their women and children with figures of the cross, and the custom of their housewives, who, previous to forming their dough into cakes, cross their arms over their breasts, and make the sign of the cross on their foreheads after their own manner.

East of Ghazni, in the province of Zurmat, are the Sulīman Khel Ghilji, exceedingly numerous, and notorious for their habits of violence and rapine. These have no positive connection with the Thoki or other tribes, neither have they one acknowledged head, but are governed by their respective heads, being independent of each other. Dost Muhammad Khan reduced them to the condition of tributaries, after having destroyed a multitude of their castles. Ghilji girls from the age of eight to twenty are not much veiled, but they twist their hair, and tie it like a cake, which hangs over their forehead, and a little below their eyebrows. The centre of the lock (or hairy cake) is adorned by a gold or silver coin, which in black hair shines prettily. This is the sign of virginity amongst the Ghilji. The women allow their twisted locks to hang upon their ears, and even as far as their arms.

At present (1879) they appear to be a nation of families submitting to their natural heads, and having the patriarchal institutions nearly complete. But in the year 1707, Mir Wais, a leading Ghilji at Kandahar, was seized by the Persian governor and sent to Isfahan, where, however, he ingratiated himself, and was allowed to return. On his arrival he resolved to depose the Persian governor, and before his death in 1715, after a reign in Kandahar of eight years, repulsed three armies sent against him.

His son Mir Mahmud, in 1820 invaded Persia. He moved on Kirman with 12,000 men, 5000 of whom perished amid the intervening deserts; but the town was taken and held for four months, when it was retaken by Lutf Ali Khan, and Mir Mahmud escaped with a few followers.

In 1722 he raised an army 28,000 strong, and again took the town of Kirman, but failed to take the citadel; failed also to take Yazd, but marched on Isfahan, which he invested for eight months, when Shah Husien abdicated, and Mir Mahmud massacred the troops who had defended the city. He took Kasvin, whose inhabitants he massacred. In 1724 he reduced Irak and Fars, and took Shiraz after an eight months' siege; but becoming more cruel, he was put to death, and his relative, Mir Ashraf, was raised to the throne. He defeated the Turks near Burujard, took Kasvin, and defeated Thunasp, son of Shah Husien; but Nadar Kuli Khan advanced against and defeated him, and he fled to Isfahan, leaving 12,000 dead on the field. He was again defeated by Nadar Kuli Khan near
Isfahan, losing 4000 Afghans, and fled to Shiraz. He again met Nadir, only again to be defeated, and his soldiers then made terms with Nadir, and Mir Asfah feigned to. Scisian, where he was murdered by a Baluch chief. The seven years of the Ghilji occupation of Persia cost that country a third of its population. The Daurani tribe assumed the sovereignty of Kandahar, and put down a subsequent attempt which the Ghilji made to reassert sovereignty. Towards the middle of the 19th century, when the British advanced to place Shah Shuja on the throne, the Ghilji opposed them, but were driven off on the 22d July 1839. In the same year, Captain Outram with a very small body of troops marched all through the Ghilji country. In 1840 Captain Anderson defeated the Ghilji at Tazi. In 1841 they were defeated by Colonel Wymer near Kalat-i-Ghilzai. But on the 9th October 1841 they attacked Colonel Monteith at Butkak; on the 12th they attempted to occupy the Khurd Kabil pass; on the 14th they attacked the British camp in the Khurd Kabil valley, they attacked Colonel Sale's force in the defiles of Jagdalak, and they hung upon Sale's troops till they reached Jalabad.

On the 6th January 1842 the British began to retreat from Kabil, and from Butkak, till the last man of that force was killed or taken prisoner, the Ghilji surrounded them, attacking, plundering, massacring all. 3000 souls went down in the Khurd Kabil; at Tezin the number was raised to 12,000; at Gandamak 20 muskets were all that could be mustered, and in a few hours more these too were gone. The Ghilji drank their fill of British and Indian blood, in that brigade. In the latter part of 1842 (5th September) they were repulsed in an attack on General Pollock's force, and again on that on Colonel M'Caskill's force.

In the south, on the 29th November 1841, they attacked Ghazni, and in March 1842 the garrison surrendered, and many of the sepoy's were massacred. On the 9th December 1841 they invested Kalat-i-Ghilzai, and by May 1842 had completely surrounded it. On the 21st May they assaulted it in two columns, but were defeated with the loss of 400 men. They subsequently attacked General Nott at Bonei Badam, and the force of General Pollock at Tezin, Haft Kotal, and Jagdalak. Subsequently, in 1841, they were reduced by Amir Dost Muhammad Khan, who sent 25,000 Abdali against them; and when they again rebelled under Muhammad Shah, they were again reduced. — MacGregor: Moorcroft's Tr. ii. p. 300; Masson's Journeys, ii. p. 198; Pottinger's Tr. p. 200; Mohun Lal's Tr. p. 323; Elphinstone's Cabul.

GHINNI. Beng. The female head of an undivided Hindu family.

GHIONT, a Himalaya breed of horses, generally small, strongly made, hard-mouthed, and sometimess almost sovereignable. In ascending hill faces, or passing along the declivities of mountains, it is best to let them have their own way. Their common pace is a kind of amble, and they stop every now and then to breathe, when no application of the whip will move them. They are sure-footed, and sometimes halt at the edge of a precipice, to the horror of the rider. They are not so quick in ascending hills as the low-country horses, but they descend with double the speed, and endure great fatigue. The ghiont in Spiti are bred chiefly for sale. They have two breeds, one a small ghiont, never above 12 hands high, peculiar to the country; and the other a large breed, from 13 to 13½ hands high, is bought from the Chinese, and usually comes from Ochomoorreet; for a Chinese ghiont two years old, they give a Spiti ghiont four years old. All are very hardy, and are kept out the whole winter, except the yearlings, which are housed. During winter the ghiont live on the roots of the stunted bushes, and are very expert at scraping the snow from off them with their fore feet. Many are killed during winter by wolves and leopards.—Powell, Handbook; Capt. Gerard's Koonawur, p. 112.

GHOR, a lizzard of Gujar, which the natives believe to be poisonous. There are two kinds, according to native report, Putlah ghoo and Chundun ghoo. A venomous lizard will, however, be believed in by no naturalist until he has ocular demonstration of the existence of the poison apparatus. Hardly a snake is caught in India, that is not, according to the snake-catcher, the worst snake in the country. See Ghorphara. GHOOS is literally a tribe; and no treaty or transaction was ever carried on in Rupatana without this stipulation. So sacred was the ghoo held, from tyrant usage, that the Peshwa ministers, when they ruled the destinies of their nation, stipulated that the ghoo should go to the privy purse.—Tod's Rajasthan, ii. p. 404.

GHOR, a mountainous country between Kabil and Herat in one direction, and between Kandahar and Balkh in another. It is practically independent, and is peopled by Mongol tribes. They are known to themselves and to the Afghans as the Hazara. According to Istakhr and Ibn Haukal, Ghor was bounded by the districts of Herat, Farrah, Dawar, Rabat, Kurwan, and Ghurjistan, back to Herat, which were all Mahomedan countries; but Ghor itself was a country of infidels, containing only a few Mahomedans, and the inhabitants spoke a language different from that of Khurasan. In the 11th and 12th centuries the kingdom of Ghor comprised Afghanistan, Labor, Sind, and Khorasan. The princes of Ghor are said to have belonged to the Afghan tribe of Suri, and their dynasty was allowed to be of very great antiquity even in the 11th century. Their principal cities seem to have been Ghor, Firoz Koh, and perhaps Bamian.—Bellew; Elliot; Elphinstone's Cabul, i. p. 244.

GHORAMANI, a Baluch tribe in the Dehra Ghazi Khan district.—MacGr. N. W. F. p. 581.

GHORBASTA. The climate of Makran generally, but especially at the level tract south of the mountains, is very unhealthy. The Ghorbasta or Ghorland in Makran are great structures, at times almost bearing resemblance to the Cyclonian remains of Europe. They are evidently remains of a people that occupied or passed through the country long four centuries. Adorn of the equally occupants, who know nothing of the builders, or of the uses of the buildings, and attribute them to cafrs or infidels. They are found usually in out-of-the-way places, narrow valleys at present stone and barren. They are placed always on declivities, or across the mouths of ravines. Their solidity and size are proportionate to the steepness of the declivity. Where there is only a gentle slope, the walls are narrow, low, and slightly built; but
GHOSTS.

where the descent is great, and the flow of water after floods and rains would be violent, they are of great thickness and height, and, as seen in the valley beyond Baghwa, supported and strengthened by buttresses or walls built at right angles. They always present a scarped face to the opposite side, which, when well preserved, is levelled off with the surrounding and higher ground. Those built across the mouths of ravines are very solid and high, and usually the builders have taken advantage of some mass of rock jutting out, as a sort of foundation. Those in slopes are never seen singly, but always in numbers varying with the extent of the ground to be covered, and placed in succession one behind the other. The intervening ground being levelled, is thus formed into a succession of terraces. They were constructed for the irrigation of the country. Those built across ravines were intended to form tanks for the preservation of the waters that come down at irregular intervals in floods. Those on slopes, to economize the distribution of water; the surplus water of one terrace running over and flooding the lower one, depositing as it went a layer of surface soil. The ground thus levelled of course became more valuable, freed from the regularity and roughness which characterize these narrow stony valleys. They are almost confined to the provinces of Jhalawan, and are largest and most important in the southern and south-eastern portions of the province. The ancient city at Gunjuk seems of the same date, and constructed by the same people. From the numbers and position of these structures, the people who built them must have been extremely numerous,—must have felt that the country as existing in its nature was utterly incapable of supporting them; and they must have possessed in energy and ingenuity which the present races are totally without. It appears probable,—nay, almost certain,—that they must have swarmed eastward over the mountains from Makran, making their appearance on the south-west portion of the table-land. Gradually pushing eastward and northward, as their numbers increased, either rapidly by additions from without, or more slowly by increase of the population from within, they ascended to the various valleys as high as Kalat, when, discovering the great eastern outlet, the Moolla pass, they found an exit by it into the plains of India. How long they remained on the table-land, from whence they originally came, and over what countries they eventually distributed, are alike mysteries. There are one or two points of slight resemblance between the Pelagii, the builders of the Cyclopean walls of Egypt, and the ghorbasta builders, suggesting that they might have been a kindred people with kindred habits. The Pelagii came from Asia, not from Asia Minor, nor from Syria, not from Assyria, not from Persia, but probably from that birthplace of emigration, the tract north and north-east of Persia. The ghorbasta builders probably came from the same tract, and were not Makranis, nor Persians, nor Assyrians. The Pelagii existed only a few generations in Greece (about 400 B.C.), before they were turned out by the Hellenes; they must therefore have brought with them when they entered the country their propensity for building massive walls, and commenced their work almost immediately on arrival.

It was probably the same with the wall-builders of Baluchistan; they only remained in the country long enough to allow them to extend northward as far as Kalat, when, meeting with the Moolla pass, they debouched into the plains. Their art was a fully-developed one before they arrived here to carry it out. The Pelagii arrived in Greece about 1400 B.C. This date seems to accord roughly with the advent of the unknown people into Jhalawan.

The ghorbasta buildings differ considerably, however; for, when compared with the Cyclopean remains, they are slight, most roughly executed, and insignificant; yet they evince a like instinct and habit in two races which probably came originally from the same region. Lieutenant Aytoun, in his Geological Report on a portion of the Belgaum Collectorate, given in Mr. Carter's Geological Papers on Western India (p. 392), mentions that certain gorges in the hills had been artificially banded, and the Kalar are a terrace-cultivating race on the Pulney Hills in the extreme south of the Peninsula.—Dr. Cook, in No. vi. Bombay Medical Transactions.

GHRORASTA.

a. 1435, and they yet intervene, never out of the soil. The opposite ground, visible from Mt. Sinai, is named after a certain land. They are almost confined to the provinces of Jhalawan, and are largest and most important in the southern and south-eastern portions of the province. The ancient city at Gunjuk seems of the same date, and constructed by the same people. From the numbers and position of these structures, the people who built them must have been extremely numerous,—must have felt that the country as existing in its nature was utterly incapable of supporting them; and they must have possessed in energy and ingenuity which the present races are totally without. It appears probable,—nay, almost certain,—that they must have swarmed eastward over the mountains from Makran, making their appearance on the south-west portion of the table-land. Gradually pushing eastward and northward, as their numbers increased, either rapidly by additions from without, or more slowly by increase of the population from within, they ascended to the various valleys as high as Kalat, when, discovering the great eastern outlet, the Moolla pass, they found an exit by it into the plains of India. How long they remained on the table-land, from whence they originally came, and over what countries they eventually distributed, are alike mysteries. There are one or two points of slight resemblance between the Pelagii, the builders of the Cyclopean walls of Egypt, and the ghorbasta builders, suggesting that they might have been a kindred people with kindred habits. The Pelagii came from Asia, not from Asia Minor, nor from Syria, not from Assyria, not from Persia, but probably from that birthplace of emigration, the tract north and north-east of Persia. The ghorbasta builders probably came from the same tract, and were not Makranis, nor Persians, nor Assyrians. The Pelagii existed only a few generations in Greece (about 400 B.C.), before they were turned out by the Hellenes; they must therefore have brought with them when they entered the country their propensity for building massive walls, and commenced their work almost immediately on arrival.
GHOU.D. Pers. According to superstitious belief in Persia, a fair woman of about twenty years of age, that preyed at night on dead bodies. The ghoul-i-blan, or ‘demons of the desert,’ are also described as a hideous race, that particularly infest a dreary tract in the north of Persia, not far from Shiraz, bearing the portentous name of Malik-al-Mout Darrah, or ‘Valley of the Angel of Death.’ The ghoul resembles the Boddach of the Scotch Highlanders.

GHOUS-ul-AM, the title of Abdul Kadar Ghilani, q.v.

GHRAB or Grab. Arab. A sea-going vessel trading between the Malabar coast and Arabia.

GHUGREE, hollow rings with pebbles in them, worn on one or both thumbs, and rattled.

GHULAB SINGH, a maharaja, the first ruler of Kashmir, a Dogra Rajput; died on the 2d August 1857.

GHULAM. Arab. A slave, a servant; a term in frequent use by persons to indicate their readiness to obey, as ‘Main ap ka Ghulam hun,’ I am your slave; also often used as a part of a name, as Ghulam Ali; Ghulam Hasan, Ghulam Mahomed, servant of Ali, Hasan, Mahomed, etc.

Elliot considers that in this word we have the origin of the English gallant, galantry, gala, etc., Ghulam being derived from the Arabic Gh’t’m, libidinosus, and hence it signifies a comely youth, one chosen as an attendant or page for his personal endowments. The Spaniards borrowed it from the Arabs, and called a handsome young man Galanta, from which are derived Galante, Galanteria, all subsequently adopted into the European tongues through the influence of the amatory poetry of the troubadours. In Persia, Ghulam is now applied to an inferior civil officer or policeman, answering to a cavass in Turkey. Several of these are attached to each European embassy in Persia. The Shah has also a number attached to his person, who are called Ghulam Shah; these form a kind of bodyguard. The Russians use their Ghulam only for posting purposes, to accompany members of the embassy, and have a body of Cossacks for escort; the British embassy Ghulams are used for escort, and also for posting purposes, the regular native Indian cavalry who used to form the escort of the British ambassador having been discontinued during the mission of Sir Gore Ouseley, which lasted from 1812 to 1818.

In Persia the Kooleragassee is the superior of the slaves. Each of the princes, as well as the king, has a certain number of confidential troops, who act as guards or agents on all important occasions, and who are called Ghulam or slaves.—Elliot; Fraser’s Khorasan, p. 105; Perrier’s Journ., p. 21.

GHULAM HUSAIN of Zaidpur, author of Raz uSulatin, a Persian history of Bengal, up to A.D. 1787-88.

GHULAM HUSAIN KHAN, a Mahomedan noble of Bengal, author of the historical work, Siyur-ul-Mutaksahirin, a history of India from A.H. 1118-1195, A.D. 1706-1782.

GHULAM KADAR, a Rohilla chief at Dehli, who in 1788, learning that Shah Alam II. was to remove him from court, surprised the palace, maltreated and tortured the emperor, maltreated the children before the emperor’s face, ordered the emperor’s eyes to be pierced,dishonoured the ladies of the court, and gave up the palace and city to pillage. He fled, and at length, galloping alone from a fort in which he had taken refuge, his saddle stuffed with plunder, he was thrown from his horse, and picked up by his pursuers, the Mahtrattas, who deprived him of his limbs, and exhibited him in Dehli in a cage, in which he perished. It is said that he himself with his dagger destroyed the emperor’s eyes.

GHULGHELEH, a city in ruins, south of Baman, destroyed by Chengiz Khan. It is in the valley of Baman, and Cufic coins are occasionally dug up in it.—MacGregor. See Gulghula.

GHUMAO, HIND., properly Kahnman, a land measure in the Panjab. A pair of good oxen will plough a ghumao in twenty-four hours.

GHUN. HIND. A destructive weevil that attacks wood and gram, the Calandra granaria. Ghungi, an insect that destroys growing grain.

GHIJGOL, also Ghangol, the water-lily which produces the celebrated Nefolar or lotus flower. It yields a greenish fruit about the size of an orange; its seeds are eaten by the poorer classes.

Elliot.

GHURYAN is situated in a level plain, with numberless plants of asafetida. The Kakar, an Afghan tribe, come up in swarms with their families, and disperse themselves over the plain. They make longitudinal incisions along the stalk, and then protect the asafetida plants with small pieces of clay or bricks, to keep off the rays of the sun. A dark-coloured secretion oozes from the plant, and congeals over the fence stones. The people, with small bags of skin hanging to their necks, collect the asafetida. The asafetida plant is nearly five feet high, and has large leaves.—Mohan Lal’s Travels, p. 278.

GHUZZ, The Mameluks of Egypt were known by this name. Yomut, Goklen, Chaudar, and Imralli have dwelt from time immemorial in the steppes between the Caspian and Derajat. They are a warlike people, skilled in horse craft, and unlike the others in dress and language.

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the bulk of the cargoes of the Chinese junks on their return voyages. It is much used as a size for stiffening silks, and for making jellys. The quantity shipped from Singapore is about 10,000 pikuls annually. Though deserving of being better known, it does not appear to be an article of Indian import, or, if so, it is brought in under some other name.—Hon. A. Morrison; Exhib. Jor. Reports and Catalogues; Stamford; Tondalson; Williams' Middle Kingdom, p. 275. See Ceylon Moss; Edible Sea-weed; Gigartina tenax.

GILL. Pers. Earth, clay.

Gili-i-Abrorash, a rough, hard, not brittle, pink earth, only used in native medicine; properly speaking, a deposit from a mineral spring containing sulphur. The sediment is collected and made into little cakes. But the Hasan dhup ordinarily seen in the bazar is a mere imitation, consisting of some earthy clay mixed with ground sulphur and formed into cakes, called probably Moses' Stone, from its lamellar structure, as if the tables of the law given on Sinai had been on slate tablets.

Gili-i-Farsi, a pink earth.

Gili-i-Irmuni, Armenian bole, not now used in European medicine, but formerly so employed, and still used by natives.

Gili-i-Khardiya, a red earth.

Gili-i-Kiria, a soft, laminated, nearly white clay, resembling chalk in appearance, hence probably the name.

Gili-i-Makhitum, a soft, rough, irregular, variegated marl, containing clay, deeply coloured by peroxide of iron, mixed with nearly white carbonate of lime.

Gili-i-Multani, fullers' earth. A soft, laminated white or pale yellow earth, used by the natives for cleaning their hair, and in medicine.

Gili-i-Safed, chalk, Carbonis carbonas.

Gili-i-Zard, a pale yellow, tough, laminated earth, intermediate in colour between geru and gili-i-Multani, but resembling both in appearance.

Powell.

GIL, a cultivator race E. of Ferozpur, who claim to be offspring of Jat mothers and Rajput fathers.

GILAUDWA. Hind. The flower of the Bussa latifolia, after it has fallen off. When the flower falls off, the pod or gula forms, and from this a useful arrack is prepared.

GILCHRIST, JOHN BORTHWICK, I.L.D., M.D., born 1759 in Edinburgh, a medical officer of the Bengal army, who distinguished himself as an oriental scholar. He wrote a dictionary and grammar of the Hindustani language, and other books in that tongue. He formed the Hindustani or Urdu tongue. His attempt to form a universal writing character, in his 'Missionary's Portable Christmas-Box' and Cosmopolitan's Seasonable New Year's Gift,' did not succeed; and up till this time it continues a matter of discussion whether in the efforts to diffuse knowledge by means of printed books, the writing characters in use by the peoples of the south and east of Asia should be continued, or whether the Roman letters should be employed to represent them. He bequeathed property for educational purposes, which is being applied as scholarships. He died in 1841, nearly 82 years of age.

GILEAD, a broad belt of country lying between the river Jordan on the west and the great Syrian desert on the east.
GILGIT.

GILGIT, a territory in High Asia, in lat. 35° N., and long. 74° E. The Indus river runs through it from N.E. to S.W. It is on the southern declivity of the Hindu Kshu, between Chitral on the west and Baltistan (Little Tibet) on the east. In the Bunnu valley there are intermixed races, of whom may be noticed the Dardu of Gilgit and Chulas. According to Burnes, the mir of Badakhshan, the chief of Darwaz in the valley of the Oxus, and the chiefs eastward of Darwaz who occupy the provinces of Kulub, Shughman, and Wakkan, north of the Oxus, also the hill states of Chitrail, Gilgit, and Iskardo, are all held by chiefs who claim a Grecian descent. The whole of the princes who claim descent from Alexander are Tajaks, who inhabited the country before it was overrun by Turki or Tartar tribes. To the west beyond Balti, the people of Astor, Gilgit, and Hunza-Nagar speak different dialects of Dardu, while the Kashmiri people have their own peculiar language. The Balti people of Little Tibet say that Ladakh, Iskardo, Khojalu, Purik Nagyr, Gilgit, and Astor are distinct Tibet. –Burnes' Bokhara.

GILL, MAJOR ROBERT, an officer of the Madras army, who devoted nearly twenty years of his life to copying and photographing the fresco pictures in the caves of Ellora and Ajunta. His devotion, in dwelling in such lonely spots as in the ravine of Ajunta, is unparalleled in modern times. He died at Bhosa vul on April 10, 1879, aged about 76. He received his commission in 1824, and was invalided on a brevet-majority in October 1852. He was a noted shikari, and a no less celebrated artist. Several of his copies of the paintings of the Ajunta caves, for which the East India Company liberally rewarded him, were unfortunately destroyed in a fire that took place at the Crystal Palace. His son, Captain Gill, R.E., who travelled across China, was murdered in Arabia in 1882, along with Professor Palmer.

GILLAR. HIND. Goatire. Gillar pat or Gillar-ka-patta, a sea-weed Laminaria, sp., used as medicine for goitre. It is obtained solely via Yarkand from the shores of the Caspian Sea. Five or six maunds are imported. The word Patr is a leaf. Dr. Martin Honigberger refers Gillar-ka-patta to Laminaria saccharina, and alludes to a belief that it is found in a salt lake in Tibet, adding that some English physicians maintain it is brought from the Caspian Sea. He says it is useful in scrofulous ulcers in horses.—Powell's Handbook.

GILLESPIE. General Rollo Gillespie, an officer of the British army who served in the West Indies, the East Indies, and the Eastern Archipelago. On the occasion of the Vellore mutiny of 1806, he was in command of Aroet, and Sir John Fancourt was in command of Vellore. They were very intimate, having been quartered together at St. Domingo. Gillespie had been invited to dine and sleep at the quarters of Sir John Fancourt, on the very night the mutiny occurred (8 A.M. 10th July), so little was their suspicion of the fidelity of the sepoys. Just as he was about to start on the morning of the 9th July, public despatches were put into his hands, which compelled him to defer his journey; but at daybreak on the 10th July he mounted his horse to gallop overland to Vellore in time for breakfast, and was scarcely in his saddle when tidings arrived of the massacre. A troop of the 19th Dragoons was at the time ready for parade. Gillespie ordered them to get ready for the rescue of their countrymen. The 16 miles were soon covered; Gillespie had outstripped his escort, and was attracted by the sound of musketry to a lofty gateway and bastion, where the remnant of the British still stood at bay, their last cartridge almost expended, when Sergeant Brodie, who had known Gillespie at St. Domingo, saw a horseman spurring across the plain, and, turning round to his comrades, said, ‘If Colonel Gillespie be alive, here he is at the head of the 19th Dragoons; and God Almighty has sent him from the West Indies to save our lives in the East!’ A rope, made of soldiers’ belts knotted together, was let down the ramparts, and Gillespie dragged up another a Glasgow. The dragoons with their galloping guns (light field-pieces used by cavalry regiments in those days) blew open the gates; a British ‘huzzza’ was heard, accompanied by the rattling of horses’ footsteps over the drawbridge, and the mutineers were charged. Some 300 or 400 were cut to pieces, many were taken prisoners, and others escaped by dropping from the walls. Fancourt only lived to see the ensign of Mysore cut down, and the British standard once more float on the ramparts of Vellore. He died that afternoon, having been shot down by some sepoys when trying to join Brodie’s main guard. ‘Lady Fancourt and her two children escaped, through the faithfulness of their servants and the timely arrival of Gillespie. The members of Tipa’s family who were the chief instigators of their servants, were removed to Calcutta. Colonel Gillespie next went through active service in the subjunction of the Spice Islands. The last scene in which he acted was the Gurkha war. He was shot through the heart on the 31st October 1814, while waving his hat and leading his men on to the first fortified position he met at Kalunga, in Nepal.

GILLOLO is one of the Molucca Islands. Its north end is in about lat. 2° 23’ N. It has a long mountainous coast, high bold land, with three remarkable peaks. The indigenes live in the north of the island. Their stature, their features, as well as their dispositions and habits, are almost the same as those of the Papuan. Their hair is semi-Papuan, always crisp, waved, and rough, such as often occurs among the true Papuans but never among the Malays. Their colour alone is often exactly that of the Malay, or even lighter. In most cases, the large, somewhat aquiline nose, with elongated apex, the tall stature, the waved hair, bearded face and hairy body, as well as the less reserved manner and louder voice, unmistakably proclaim the Papuan type. Here is the exact boundary between the Malay and Papuan race. It is only in the Northern Peninsula that these Papuan indigenes exist, the whole of the rest of the island, with Batechan and the other islands westward, being exclusively inhabited by Malay tribes like those of Ternate and Tidore. The Galela race are natives of a district in the extreme north of Gilolo, but they are great wanderers over the Archipelago. They are a very fine race, remarkably energetic and industrious, of light complexion, tall, and with Papuan features, coming near to the drawings and descriptions of the true Polynesians of Tahiti and Owyhee. They build large and roomy prahu with outriggers, and settle on any coast or island they take a fancy for.
They catch turtle and trepang, hunt deer and wild pigs and dry the meat, and cut down the forest and plant rice or maize. Pitta gigas, a large ground thrush of Gilolo, is one of the most beautiful birds of the East. Its plumage is a velvety black above, breast of pure white, shoulders of azure blue, and belly of vivid crimson. Charcoonya placintis of Gilolo is one of the smallest and most beautiful Gilolo-breasted thrushes.

Coelia d'Urvieille, a rare and beautiful day-flying moth.—Horsburgh; Bikmouro; Wallace, ii. pp. 2, 3.

GINGAR. Hind. An insect that destroys growing grain and pulses.

GINDING, a wind in East Java, occasioned by the S.E. monsoon blowing right over the land through the gap at Klakka, 1000 feet above the sea, between the Jyang and Tenger mountains, 8000 and 9000 feet high.

GINGEE, Ginji, or Ghinji, in the S. Arcot district, in lat. 12° 15' 19" N., and long. 79° 26' 8" E., a town and fort 35 miles N.W. of Pondicherry. In the contests between the rival French and British, and rival Mahratta and Mahomedan princes, Gingee and neighbourhood were frequently scenes of strife, and it long continued a French possession. In the 17th and 18th century it was taken by Sivaji, was attacked by Aurangzeb, stormed by the French, but finally occupied by the British. The French obtained the grant of Pondicherry in 1674, from a raja of Gingee who acknowledged the king of Narsinga as his superior; but this latter was at the same time dependent on Visapar. Sivaji took possession of Gingee about the year 1677, and confirmed the above grant in 1680.—Rennell's Memoir.

GINGELLY OIL, Sesamum Oil.

Jiritch, Nall-samai, Manchii-mas, Pers.

Gingelly Seed, Sesamum Seed.


Gingelly is the commercial name for the Sesamum orientale. Three varieties of the plant are cultivated in India,—the white-seeded (Saffed-till), the red or parti-coloured (Kala-till), and the black variety (Tilice). It is the last which affords the greater proportion of the gingelly oil of commerce. A sort of sesame oil sometimes called rape, is obtained from the red-seeded variety. Black sesame is sown in March, and ripens in May. Red sesame is not sown till June. The black-seeded variety (Tilice) affords a larger percentage of oil than the red-seeded kind. It is extensively cultivated in Southern Asia for the oil expressed from the seeds, which are slightly oval, small, tasteless, and inodorous. The varieties of seed possess the same properties, and in commerce are met with in both a mixed and separate state. Gingelly seed is largely exported to England and France, and the oil is perhaps consumed to a greater extent than any other by the natives of India, and is second only to coconanut oil in its importance as an article of commerce. The great disparity of colours observed in this oil is attributed to the mode of preparation. The method sometimes adopted is that of throwing the fresh seeds, without any cleansing process, into the common mill, and expressing in the usual way.

The oil thus becomes mixed with a large portion of the colouring matter of the epidermis of the seed, and is neither so pleasant to the eye, nor so agreeable to the taste, as that obtained by first repeatedly washing the seeds in cold water, or by boiling them for a short time, until the whole of the reddish-brown colouring matter is removed, and the seeds have become perfectly white. They are then dried in the sun, and the oil expressed as usual. This process yields 40 to 44 per cent. of a very pale straw-coloured, excellent substitute for olive oil.

In India the oil is chiefly used in cookery, in anointing the person, for making soap, and for burning in lamps. In England it is chiefly used for the manufacture of soap, and for burning in table-lamps, for which it is better suited than coconanut oil, owing to the lower temperature at which it congeals. In different parts of the Madras Presidency the price of this oil varies from Rs. 1 to Rs. 6 per munday of 25 lbs. Til or gingelly seed exported from India, chiefly to France, and from Bengal and Bombay:—

<table>
<thead>
<tr>
<th>Year</th>
<th>Cwt.</th>
<th>Rs.</th>
</tr>
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<tbody>
<tr>
<td>1874-75</td>
<td>1,200,000</td>
<td>72,000</td>
</tr>
<tr>
<td>1875-76</td>
<td>1,200,000</td>
<td>72,000</td>
</tr>
<tr>
<td>1876-77</td>
<td>1,307,515</td>
<td>85,623,557</td>
</tr>
</tbody>
</table>

GINGER, Zingiber officinale.

Zangebil, Arab. PERS. Zengibre, ZYNGZ, Zengiber, BENG. Zingiber, MALAY. Zigenber, MALAB. Gengivre, PORT. Giner, NED. Gengibre, ESP. Jinger, GER. Adrek (green), HIND. Sont (dry), TURK. Zengebi, I. Zinzero, JAY. Jasaiaking, also Jait, JAV. Ada (green), BENG. Singapades, also Ayla, MALAY. Khyengkhyuk (gre.), BUR. Khyeng-kiyuin (dry.), IND. Singhp, PORT. Ban, Can. Sunthi, Singareva, SANSK. Gember, DUT. Inghuru, SINGH. Gemberine, Fr. Ingarenbure, AGR. Ing, GER. Inji (green), Shukku, TAM. Shanti, TEL. Sout (dry), Zenjefli, TURK.

Dr. Royle thinks that the Sanskrit name Singareva is the source of many of its names.

The ginger plant is cultivated in the tropical regions of Asia, America, and Africa. In India it is generally cultivated in gardens, being sown about the commencement of the rains, in beds of about six feet square, and in a rich soil. The planting consists in dividing part of the green root, which the natives first soak in a mixture of cow-dung and water: it is then planted in rows two inches deep and about one foot apart. It requires a great deal of water, and to be kept clear of weeds. When the stalks dry, the ginger may be taken up, although it is sometimes left in the ground for one or two years. It is better for remaining twelve months, and must be watered during the dry season. The stem reaches generally three or four feet in height, and is renewed yearly; while the root, which is the part known as ginger, botanically termed a rhizome, is biennial. In Jamaica the roots are dug up in January or February when about a year old, and after the stems are withered. They are well washed, freed from dirt, and in some cases, especially with the better kinds, the epidermis or outer coat is stripped off; and hence the division of ginger into white, scraped, or uncoated, and into black, unscraped, or coated. In estimating the quality of ginger, a variety of particulars are taken into consideration, as whether the rhizomes are coated or uncoated, their form, colour, and consistence.

Out of 21 samples of the gingers sold in London, 15 were found by Dr. Hassall to be

1205
adulterated with sago meal, potato flour, wheat flour, ground rice, cayenne pepper, mustard seeds, and turmeric powder in various quantities, but in the majority of cases constituting the principal part of the article. A great part of that found in the shops had been washed in whiting and water, under the pretence of preserving it from insects. The dark-coloured kinds are frequently bleached with chloride of lime.

Great Britain imported 33,854 cwt. in 1870, and 32,000 cwt. in 1871. Ginger exported from India—

<table>
<thead>
<tr>
<th>Lbs</th>
<th>Rs.</th>
<th>Lbs</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875-76, 6,308,327</td>
<td>10,09,398</td>
<td>1873-74, 9,10,045</td>
<td>13,62,240</td>
</tr>
<tr>
<td>1874-75, 6,427,650</td>
<td>8,61,534</td>
<td>1873-76, 6,93,941</td>
<td>9,94,149</td>
</tr>
</tbody>
</table>

The Malabar ginger exported from Calicut is the produce of the district of Shennad, situated in the south of Calicut, a place chiefly inhabited by Moplas, who look upon the ginger cultivation as a most valuable and profitable trade. The soil of Shennad is so very luxuriant, and so well suited for the cultivation of ginger, that it is reckoned the only place in Malabar where the plant grows and thrives to perfection. The only suitable kind of soil is that which, being red earth, is yet free from gravel, and the soil good and heavy. The cultivation generally commences about the middle of May, after the ground has undergone a thorough process of ploughing, harrowing, etc. At the commencement of the monsoon, beds of ten or twelve feet long by three or four feet wide are formed, and in these beds small holes are dug at three-fourths to one foot apart, which are filled with manure. The roots, hitherto carefully buried under shades, are dug out, the good once picked from those which are affected by the moisture, or any other concomitant of a half-year's cultivation from the atmosphere, and the process of clipping them into suitable sizes, for planting performed, by cutting the ginger into pieces of an inch and a half to two inches long. These are then buried in the holes, which have been previously manured, and the whole of the beds are then covered with a good thick layer of green leaves, which, whilst they serve as manure, also contribute to keep the beds from unnecessary dampness, which might otherwise be occasioned by the heavy falls of rain during the months of June and July. Rain is essentially requisite for the growth of the ginger; it is also, however, necessary that the beds be constantly kept from inundation, which, if not carefully attended to, entirely ruin the crop.

Great precaution is therefore taken in forming drains between the beds, and letting water out, thus preventing the superfluity. One constant of the great tendency some kinds of leaves have to breed worms and insects, strict care is observed in the selection, and none but the particular kinds used in manuring ginger are taken in, lest the wrong ones might fetch in worms, which, if once in the beds, no remedy can be resorted to successfully to destroy them, and thus in a very short time they ruin the crop. Worms bred from the leaves laid on the soil, though highly destructive, are not so pernicious to ginger cultivation as those which proceed from the effect of the soil. The former kind, whilst they destroy the beds in which they once appear, do not spread themselves to the other beds, be they ever so close; but the latter kind must of course be found in almost all the beds, as they do not proceed from accidental causes, but from the nature of the soil. In cases like these the whole crop is oftentimes ruined.

The present mode of preparing the land for this crop in the West Indies, is by first carefully hoeing off all bushes and weeds from the piece intended to plant; the workmen are then placed in a line, and dig forward the land to the full depth of the hoe, cutting the furrow not more than from five to six inches thick. The land is then allowed to pulverize for a short time; it is then prepared for receiving the plants, by opening drills with the hoe, from ten to twelve inches apart, and the same in depth, chopping or breaking up any clods that may be in the land. Two or three women follow and drop the plants in the drills, any from nine to ten inches apart. The plants or sets are the same size as for fingering out the original root, as not worth the scraping. The plants are then covered in with a portion of the earth-bank formed in drilling. Great care and attention is required to keep them clean from weeds until they attain sufficient age. They throw out a pedicle or footstalk in the course of the second or third week, the leaves of which are of similar shape to that of the Guinea grass.

Ginger is very liable to rot, particularly if planted in too rich a soil, or where it may be subject to heavy rains. The general average of yield is from 1500 to 2000 lbs. per acre in plants, although as much as 3000 lbs. of ginger have been cured from one acre.

Ginger Preserve is made from the young shoots put forth every spring by the perennial rhizome. These shoots are carefully picked, washed, scaled, scraped, peeled, and then preserved in jars with syrup. Dried ginger of good quality, soft and moist, may be converted into excellent preserved ginger. The rhizomes, selected with care, are to be immersed for three or four weeks in very weak syrup, scarcely stronger than sugar and water, to which a small portion of the carbonate of potash has been added. As soon as the ginger has become sufficiently soft, it is put up in very strong syrup of white sugar. Ginger preserve is imported into India solely from China, in cases containing half-a-dozen of jars each, the capacity of each jar being about 5 lbs.

—Dr. P. Browne; Poole’s St. of Commerce; Mason’s Tenn.; Hassall’s Food; Riddle’s Gardening; M’C. Dict.; Faulkner’s Diet.; Simmonds.

GINGERBREAD TREE, or Doom palm of Egypt, is the Hyphane Thebaica (Cucifera Thebaica), and receives its name from its fruit having the look and taste of gingerbread. It is stated by Dr. Lindley to produce the balsam. Its wood is used for various domestic purposes, and its kernels turned into rosaries.—Semen.

GIN-RIKSHA. Jap. Literally, man-power carriage, a small two - wheeled conveyance, dragged by two or more coolies.

GINGSENG. ANGLO-CHIN. The famed ginseng substances are known to the Chinese as Jin-san, Liau-san, Hwang-san, Shin-tsan, Kwan-tung-jin-san, and Kwan-si-jin-san. The Dutch call it Kraft Wurzel, and the Tartars, Ohrota. That obtained in the provinces of Shen-si, Pechi-hi, and Shing-king is the product of the Panax ginseng, Meyer. A part of this drug is obtained from the Nepal plant, Panax pseudoginseng, Wallich; and the P. quinquefolium.
which is largely used in Central China, is the American ginseng. The Shing-king plant, called Kwan-tung-jin-san, is almost an imperial monopoly. A plant called Tang-san, which seems to be cultivated in Corea or Peli-chili, and substituted for the true ginseng, seems to be a species of Campanula or Adenophora. Corean ginseng ranks next after the Kwan-tung-jin-san of Manchuria,—in fact, constitutes the only available drug in the hands of traders. This, however, is often adulterated with Japanese ginseng, which again is often adulterated with roots of Campanula glauca, etc. The Manchuria wild ginseng is carefully searched for by the Manchu. The pieces, after careful trimming with a bamboo knife, and drying in still air, are made to assume something of the form of the human body or miniature human hand. They are yellowish, semi-transparent, firm, brittle to some extent, and of a sweet mucilaginous taste, inclining to bitterness. It is easily injured by damp and worms, and great care is taken to preserve the true Manchurian plant. It is prepared as an extract or as a decoction, and always in silver vessels. It is preserved in almost every kind of disease of a severe character, but the stage of each disease in which it is administered is carefully distinguished. It is given in all forms of debility, spermatorrhoea, asthma, hemorrhages, severe dyspepsia, vomiting of pregnant women, chronic malarious affections, and the typhoid stages of epidemic fever; and its effects apparently are of an alternative, tonic, stimulant, carminative, and demulcent nature.

Dr. Smith observes that some positive efficacy of a sustaining character does really exist in this species of ivywort. The leaves are sold in bundles, and are said to be emotive and expectorant.

The ginseng that comes to Shang-hai, chiefly from Corea and Tartary, is carefully protected from the air, and sells at from 6 dollars to 500 and even 400 dollars the ounce.

Ginseng, Bastard, Shang-tung-jin-san, Chin., Tang-san, Chin., is obtained from the roots of several species of Adenophora, Campanula, Phyteuma, and Platycodon, which are largely used to adulterate and as substitutes for the genuine ginseng; but the Japanese seem to prize the roots of Campanula japonica as highly as the true ginseng. Also the virtues of the true ginseng are exhausted, and the now worthless root re-sold. Plants of Shan-si and other Chinese provinces, called by the Chinese Tang-san, also Fang-tang-san, also Lu-tang, also Ch'uen-tang, and Ming-tang, are often substituted for ginseng.

Ginseng, Black.

Hsien-san; Hiten-san, Chin., | Yuen-san, | Chin.

This Chinese plant is grown in Ho-chau (Nan-kwang), and in the N. and N.N. provinces of China. Its black fleshy roots have some resemblance to ginseng; taste raw and sweetish, with little odour, though used by incense-makers.

Ginseng, Extract of, Jin-san-kau, Chin., is carefully prepared in silver vessels. It is used to make the Tseal-tanu-hwan, or regenerating pills, sold at two taels a-piece in Hankow.—Smith; Williams; Middle Kingdom, p. 281; Sim. Com. Pro. 436-57; Hon. Mr. Morrison's Comp. Des.; Lockhart, 109.

GIRAFFA CAMELOPARDALIS.


The giraffe, one of the Ruminantia, has persistent horns in both sexes; the horns are covered with a hairy skin, with a tuft of hair at the tip. Lip not grooved, entirely covered with hair, much produced before the nostril; tongue very extensive; neck very long, body short; hinder legs short, false hoof none; tail elongate, with a tuft of thick hair at the end.—Eng. Cyc.

GIRAH. Hind. A knot, a division of a gaz.

Gin-gah, the knot made annually on a birthday.

GIRAR, 36 miles S.E. of Wardiah district, is famed for the shrine of Shaikh Khaja Farid. It is on the top of the hill close by, and attracts a continual flow of devotees, Hindo as well as Mussalman. He was born in Hindustan, and, after wandering about for some thirty years as a fakir, he came and settled on the Girar hill about the year A.D. 1244. There is a belief that the zeolites on the Girar Hills are petrified cocoanuts and other articles of merchandise belonging to two traversing traders, who mocked the saint, on which he turned their whole stock-in-trade into stones as a punishment.

GIRARDINIA LESCHENALDITIANA.

Urtica heterophylla, Zech.

Neilgerry nettle, | Eng. | Ana shorigenam, Maleal.

Grows in the Konkans, the Peninsula, Nepal, and is frequent all over the higher range of the Neilgherries. The bark yields a fine, strong, white, flax-like fibre, which the hill people obtain by plunging the plant into hot water, to deprive it of its virulently stinging properties, and then peeling the stalks. The textile material so prepared is of great strength, and the Todawar use it as thread. It is worth £200 a ton in England.—M. E. J. R.

GIRASI, a predatory, piratical race on the Maharrata coast, qu. Grassia.

GIRBAR. In Oman, the hides of the sheep or goats are made into leather vessels, called Girbar. Those of kids or lambs serve for milk, while the larger are used for either wine or water. They are tanned with the bark of the acacia; and the hairy part, which is left without, is generally, though not invariably, cleansed. The apertures through which the legs protruded are closed up, and the fluid within is discharged through the opening of the neck, which is gathered together and fastened by means of a leather thong, its extremity being cut in the form of a tongue or spout. They are slung alongside their camels; and a Bedoulain, when thirsty, may frequently be observed drinking from them whilst in that position. They answer better than jars, because, if the camel run against trees or its fellow-beasts in the caravan, they are not liable to be broken, and from the evaporation constantly going on, the water is also kept cool; but whilst new, sufficient attention is not paid to cleansing them, and their contents thus acquire a loathsome taste and smell. CalledT. 1. 89.

GIRDAVUREE, also written Girlawnee, Patrolling, inspecting, going the rounds, from the Persian Gurd, circuit, circumference, and Aordan, to bring.—Elliot.

GIRDHANA, a sacred hill in Vrij, from which Krishna derives one of his principal epithets, Girdhan or Girdhunath. 'God of the mount of
GIRDLES.

GLACIERS.

wealth." Here he first gave proofs of miraculous power, and a cave in this hill was the first shrine, on his apotheosis, whence his miracles and oracles were made known to the Yadu race. From this cave (Gopha) is derived none of his titles, Gophnath, 'Lord of the cave,' distinct from his epithet Gopinath, 'Lord of the Gopi,' or pastoral nymphs. On the annual festival held at Girhdana, the sacred mount is purified with copious oblations of milk, for which all the cows of the district are in requisition. The worship of Krishna in ancient days, like that of Apollo amongst Greeks, was chiefly celebrated in caves, of which there were many scattered over India. The most remarkable were those of Girhdana in Vrij, Gaya in Bahar, Gophnath on the shores of Saurashtra, and Jalindra on the Indus.—Tod, i. p. 545.

GIRDLES are worn by Mahomedans and Hindus. They are alluded to in the Bible, Psalm cix. 19, 'Let it be unto him as a girdle wherewith he is girded continually;' Daniel x. 5, 'Whose loins were girded with the fine gold of Uphah.' Many of the Hindus, both men and women, wear a silver or gold chain round their loins; and all Mahomedans in full dress wear a muslin girdle, called a kamband or loin-girdle: Psalm xciii. 1, 'Strength wherewith he hath girded himself.' When an Asiatic is about to set off on a journey, to lift a burden, or to do something which requires exertion, he binds firmly his loose upper garment round his loins.

GIRI, Pabur, and Tons rivers are tributaries of the Jumna, and up the valley of the GirI to Kotkai there is a great consumption of wood and charcoal in connection with the iron-smelting, for which that locality is famous.—Clep. Panj. Rep.

GIRNAR, in lat. 21° 30' N., long. 70° 42' E., a hill 3500 feet high, near Junagarh in Kattyawar, and 40 miles to the north of Somnath. The Jaina religionists regard it as sacred, only second in importance to Palitana, and it is also reverenced by Hindus. Of the holy objects on and near it may be mentioned, a rock at the foot of the hill outside the town, and which is covered with a set of Asoka's inscriptions, 250 B.C. Another inscription (150 A.D.) relates how the local ruler, Rudra Duma, defeated the king of the Dekhan; while a third (457 A.D.) records the bursting of the embankment of the Sudarsana tank, and the rebuilding of a bridge which was destroyed by the flood. The principal group of temples at Girnar is situated on a ledge, about 600 feet from the summit, and nearly 3000 feet above the level of the sea. The largest, and possibly the oldest of these, is that of Neminath. About 2700 feet above the sea, and 2500 above Junagarh, are a series of Jain temples on a ledge of the mountain. In a small under-group of the Jain temple of Amba Jhara, or perspiring idol. The meaning of this is unknown, but it is supposed to be Amrit-juhara, or nectar-drop. On the highest peak at Kalaka is Amba Mata, the dread mother, the universal mother, called also Sri Mata Ambika. The famous Bhaiava Jhap, or death-leap, is near the Jain temples. It is a huge rock that rises on the edge of the ledge, and slightly overhangs the great precipice. The leap has been forbidden, though even now it is occasionally taken. The peak of Gorakha Natha rises about 3500 feet above the sea, and Datranya peak is almost the same height; it is sacred to Neminath, whose first convert was king Datatri. There are many ascetic devotees, and in the jungles below there were said to be some of the Agniva. The Jain temples on Girnar Hill are very elaborate and beautiful, much in the usual style of Hindu architecture. The most striking characteristics of their interiors are their fine tesselated marble pavements, their painted domes, their exquisitely shaped and carved pillars,—sometimes of granite and green sycamore,—their antique porticoes, beautiful small sculptures and colossal statues. The central dome of the temple to Neminath is curiously painted, and surrounded by female figures. It has beautiful marble pillars composed of alternate black and white marble.

GIRONNIERA RETICULATA, Thun., Kodtani, Tam., a large and valuable timber tree found in the Peninsula in the ghat forests, up to 5000 feet elevation, from S. Canara down to Travancore and Tinnevelly, also in Ceylon. The wood is very hard and heavy, and is a valuable engineering timber: Bot. Diction., Pl. Syl., p. 313.

GLACIERS are masses of ice which are formed and remain in the valleys and on the slopes of lofty mountains. In every part of the Himalaya and of Western Tibet, wherever the mountains attain a sufficient elevation to be covered with perpetual snow, glaciers are to be found. In the lofty chain of the Cis and Trans Sutlej Himalaya, and of the Kuen Lun, whose peaks rise to a very great height,
and collect in winter enormous depths of snow, the glaciers are of great length. In the central parts of Tibet, which are often lower, and even in their loftiest parts are less snowy than the bounding chains, the glaciers are of inferior dimensions. Where the snow-bed is at once cut off abruptly in an ice cliff, which can hardly be said to be in motion, or rather whose motion must be almost entirely from above downwards, moraines, which on the larger glaciers and among mountains of easily decaying rocks are of astonishing dimensions, form the margins of each glacier, and also occur longitudinally on different parts of their surface, increasing in number as the glacier advances, till at last the several series, whose origin can most be traced to the different ramifications of the glacier, become blended into one. En route to Kara-korum, after leaving the Nubra valley, when a sufficient elevation above his encampment had been gained, Dr. Thomson obtained a commanding view of the glacier which occupied the continuation of the main valley. It was nearly straight, and he guessed at least five or six miles long. The inclination of its surface was considerable. On each side, two or three lateral glaciers, descending from the mountains by which it was enclosed, contributed to increase its size, all loaded with heaps of stones, which had at the lower end of the central glacier so accumulated as completely to cover its whole surface. One day he proceeded along the end of the small plain close to which he had been encamped. On the right hand was an ancient moraine, which prevented him from seeing the road in advance. At the upper end of the plain he found a small streamlet running parallel to the moraine, and from the mouth of which his camp reached the end of a small glacier, from which the streamlet had its origin. Crossing the latter, which was still partially frozen, he ascended in a deep hollow between the left side of the glacier and the moraine. The icy mass had not yet begun to thaw, the temperature being still below freezing. After half a mile he ascended on the surface of the ice, and as soon as he did so, was enabled to see that the glacier had its origin in a ravine on the south, and entered the main valley almost opposite to him. The great body of the ice took a westerly direction, forming the glacier along which he had been travelling; but a portion formed a cliff to the eastward, which dipped abruptly into a small, apparently deep lake. At the distance of perhaps 500 yards there was another glacier, which descended from a valley in the northern range of mountains, and, like the one on which he stood, presented a perpendicular wall to the little lake. Right and left of the lake are tremendous piles of boulders, occupying the interval between its margin and the mountains, or rather filling up a portion of the space which it would otherwise have occupied. Into this very singular hollow he descended, on a steep icy slope, and, passing along the northern margin of the lake, ascended on the glacier beyond, as before, between the ice, and, on reaching the surface of the second glacier, he found that a similar but smaller depression lay beyond it to the east, in which also there was a small lake, with another mass of ice beyond it. This third glacier also came from the north, and was a much more formidable mass than those which had already been crossed. It was very steep, and was covered with snow, which was beginning to thaw more than was convenient. When at the highest part, he found that though apparently nearly level, it sloped downwards sensibly though very slightly, for nearly half a mile in an easterly direction. It was evident to him that he had now reached the highest part of the ascent, which he assumed to be 17,600 feet, and that the crest of the pass was covered by this glacier.

The existence of glaciers in Western Tibet was first made known by Vigne, who alludes to them in his Travels in Kashmir, ii. p. 285. Colonel Richard Strachey was the first who proved their existence, in 1847, in the Himalaya. On the northern side of the Kara-korum in and the Kuen Lun there are glaciers having forms identical with those of the Alps. Some of them are considerably larger than the glaciers in Europe. In the Himalaya the lowest glaciers go down to 10,500 feet,—the Pindari ending at 11,492 feet, the Tintunna at 11,430 feet, the Tsoji at 10,967 feet, and the Chaslu at 10,520 feet. In Western Tibet they descend to about the same elevation; thus the Mustagh to 11,576 feet, the Tap 11,508 feet, the Tami Chuet 10,460 feet, the Bepho glacier near Askoli, even to 9876 feet. The latter is worthy of notice as a remarkable case of low termination. In the Kuen Lun the glaciers end probably at heights not much differing from those in Western Tibet; at least, so may be inferred from the height of the snow limit, as also from the general appearance of the upper part of the glaciers. The glaciers on both flanks of the Elephi pass present, however, no instances of particularly deep descent.

Dr. Hooker could not discover any in the more eastern valleys, even so low as 14,000 feet, though at the hot season extensive snow-beds remain unmelted at but little above 10,000 feet. The foot of the stupendous glacier filling the broad head of the Thbok is certainly not below 14,000 feet, though being continuous with the perpetual snow (or névé) of the summit of Kinehinjigow, it must have 14,000 feet of ice in perpendicular height, to urge it forwards. Dr. Hooker made frequent excursions to the great glacier of Kinehinjigow. Its valley is about four miles long, broad and flat. Chang-o-khang rears its blue and white cliffs 4500 feet above its west flank, and throws down avalanches of stones and snow into the valley. Hot springs burst from the ground near some granite rocks on its floor, about 16,000 feet above the sea, and only a mile below the glacier, and the water collects in pools; its temperature is 110° F. and in part, 116°, or 4° hotter than that of the Yeum-tong hot springs, though 4000 feet higher, and of precisely the same character. A Barbarea and some other plants make the neighbourhood of the hot springs a little oasis; and the large marmot is common, uttering its sharp, chirping squeak. Dr. Hooker (ii. p. 7) found the moraines in the Sikkim valleys at 7000 or 8000 feet elevation. This would show either that the climate has changed, or that the mountain mass has become depressed equal to 8000 feet since the formation of the moraines.

In the Western Himalaya, in the Mustagh range, are two glaciers immediately adjoining one another, possessing a united length of 65 miles. Another in their neighbourhood is 21 miles long and from 1 to 2 miles wide. Its upper portion is 24,000 feet
above the sea-level, and its lower portion terminates in masses of ice 250 feet in height and 8 miles in breadth, and is 10,000 feet above the sea. Glaciers are called Gal by the Bhoutan.

There is a glacier in the valley of Brabaldo, in Little Tibet, a short distance from the village of Arindo. Its width is about 450 yards, and nearly a hundred feet high, and a large river flows with velocity from below it.

In 1839, Major A. Cunningham traversed a magnificent glacier which spanned the valley of the Cheli river, below the Kuli Debi pass (16,700 feet). It was fissured in all directions, and, looking down the main fissure, which was five feet wide, he saw the stream trickling at a depth of more than 300 feet. The surface was covered with hardened snow and embedded stones; but the mass, as seen in the fissures, was clear, transparent ice, filled with white specks. This glacier was about a mile long and a quarter of a mile broad, with an average depth of 200 or 300 feet. In the same range, Dr. Thomson saw a similar glacier to the north of the Saj pass, about 80 miles to the north-west of Kuli Debi. In 1847, Major Cunningham crossed a second and larger glacier to the north of the Parang pass, at 18,500 feet. It extended down the head of the Parang river for 22 miles. At its termination it was 50 feet high, but a quarter of a mile upward it was fully 150 feet thick.

Dr. Thomson observed a larger glacier on the northern side of the Umasi La, on crossing into Zangskar. It extended from the top of the pass, 18,128 feet, down to a level of 14,500 feet, and was not less than three or four miles in length. In two different parts of the Shuyak, above and below Sassar, seen by Dr. Thomson in 1849, the bed of the stream is completely spanned by enormous glaciers. The great glacier is about 30 miles below Sassar, and 20 miles above the junction of the Changchen-mo. Lieut.-Colonel Alexander Cunningham (Ladakh, p. 94), describing the Shuyak or Khunday river, a tributary of the Indus, which rises in the Kara-korum mountains to the northward of Leh, in lat. 35° N., and long. 75° E., tells us that in these cold and lofty regions almost every ravine is filled with a glacier; that since 1826 the channel of this river had never been clear, and the accumulated waters had formed a lake of considerable size, called Nubra-tho. This barrier has burst on three recent occasions,—in 1826, 1883, and 1841. In that of 1841, when the rushing waters reached Torbea, on the Indus, the river came down furiously in an absolute wall of mud, a horrible mass of foul water, carcasses of soldiers, peasants, war-steeds, camels, prostitutes, tents, mules, asses, tress, and household furniture, in one flood of ruin, for SYAM Singh Atarwala, of Raja Gulbu Singh's army, was encamped in the bed of the Indus at Kulathiree Coss, above Torbea, in check of Paimda Khan, and but that part of the troops were then in hot pursuit, the destruction would have been greater. Only those escaped who took at once to the mountain-side. Throughout the mountain course of the Indus, fields, houses, and trees were swept away, but man and the animals which he had domesticated generally managed to escape. The waters at 30 miles Indus below the junctions of the Shuyak, rose in an hour of 60 feet, and to 80 feet at Skardo.

Chorkonda, a glacier in Balti, in Tibet, is in lat. 35° 36' N., and long. 75° 58' E., and 16,300 feet above the sea.

Hsi-Genain, a glacier in Eastern Tibet, in height 22,260 feet English = 20,886 French feet.

Captain Godwin-Austen, 24th Regiment, writing in 1863 on the glacier phenomena of the valley of the Upper Indus, notices the glaciers in that part of the great Himalayan chain which separates Tibet from Yarkand, in lat. 35° to 36° N., and long. 76° E., and extending over an area about 100 miles from east to west, from Kara-korum peak No. 2 (28,265 feet), to the mountain of Haramosh. Glaciers supply the Hotse river, which joins the Indus opposite Kapelu. Those of the upper portion of the valley take their rise on the southern side of the peak of Masherbrum, and are about 10 miles in length.

The great Baltoro glacier takes its rise on the west of Masherbrum peak; on the north it is joined by a great ice-tender, which comes down from No. 2, opposite to it, from the north, and is another. Both of these extend 9 or 10 miles on either side of the main glacier. This, from its rise to its further end, measures 36 miles; its course is from E. to W.; the breadth of the valley along which it flows is 12 miles. It receives numerous tributaries along its course, some of which are 10 miles and more in length; two of them, on the N. lead up to the Mustagh pass into Yarkand (18,000 feet), whence a glacier descends to the N.E. about 20 miles in length.

The Nobandi Sbunudi glacier takes its rise from a broad ice-field which lies to the N. of lat. 36°, and has a S.E. course for 14 miles, with numerous laterals; it then turns S., when it becomes the stem of the Pummah glacier; about 5 miles from the termination it is joined by a glacier from the N.W., 15 miles in length.

The Biafo glacier is perhaps the most remarkable part of the Himalayan mass. It has a linear course of upwards of 40 miles; the opposite sides of the valley are very parallel along its whole length, and the breadth of ice seldom exceeds a mile, except where the great feeders join it from the N.E. From the summit-level of the Biafo Gause a glacier is continued westward to Isiper in Nayar, 28 to 30 miles in length.

The Chogu, which terminates at Arundu, takes its rise between the mountain of Haramosh and the Nushik pass; it is about 24 miles in length, with numerous branches from Haramosh, 8 miles in length.

The waters from all the glaciers, from that of Baltoro in the E. to Chogo in the W., are collected into the Shigar river, which joins the Indus at Skardo. All these glaciers carry great quantities of rock-detritus. The blocks on the Pummah glacier are of great size. There are groovings and moraines of a former extension of the glaciers in this region, showing that they have at times reached many miles beyond their present termination, and have risen upwards of 500 feet above their present levels. There are thick alluvial accumulations of the valley of the Indus, particularly in the neighbourhood of Skardo.

The glaciers and peaks of the Sassar pass in Nubra, Tibet, are shown by the brothers Schlagentweit to be in lat. 35° to 36° N., and long. 77° 27' to 36° E., and 17,763 feet above the sea. Colonel Markham, describing the glacier from beneath which the
GLADWIN, FRANCIS.

Ganges, says:—"I beheld it before me in all its savage grandeur, thickly studded with enormous loose rocks and earth. Extensive as my travels since this day have been through these beautiful mountains, and amidst all the splendid scenery I have looked on, I can," he says, 'recall none so strikingly magnificent as the glacier of the Ganges.'—Cunningham; Hooker; Thomson; Struchey.

GLADWIN, FRANCIS, author of a History of Hindostan during the reigns of Jehangir, Shah-jehan, and Aurungzebe, Calcutta 1788.

GLAM.—? A tree of Singapore; furnishes paper-like bark, used in caulking the seams of vessels. A similar substance occurs in Borneo, supposed to be the produce of a species of Arto-carpus.—Raffles, Fl. Pl. p. 341.

GLAPHYRIA, a genus of small trees belonging to the natural order Myrtaceae. G. nitida is called by the Malays the tree of long life, probably from its maintaining itself at elevations where the other denizens of the forest have ceased to exist. It affords, at Bencoolen, a substitute for tea, and is known by the name of the tea-plant. Various species of Leptospermum and Melalena bear the same name in the Australian colonies. G. sericea has lanceolate acuminate leaves. It is a native of Penang and the west coast of Sumatra.—Eng. Cye.

GLASS.

Kizaz, ARAB. Sheeshah, PERS.
Vite, Verre, Fr. Steklo, RUS.
Ran, Hind. Vidrio, SP.
Vetro, It. Kunnadli, TAM.
Vitrum, Lat. Addamoo, TEL.

Glass imported into India consists of sheet and plate glass, glass beads and false pearls, common bottles, and other ware. Between the years 1874-75 and 1879-80 the value ranged from Rs. 28,07,405 in 1876-77, to Rs. 34,99,313 in 1875-76. The sheet and plate glass was valued at two to four lakhs, and the beads and false pearls at Rs. 6,85,314 to Rs. 9,69,595.

The basis of all glass is silica and alkali, of which the former, in the shape of common sand, is to be met with almost everywhere; the latter is to be had cheaply and in abundance in most parts of India. The secondary materials also, indirectly essential to the manufacture of the best quality of glass, namely the fireclays used in the construction of the furnaces, are abundant, and of very superior descriptions. Yet with all these advantages the natives do not appear to have advanced in the manufacture beyond the first and very rudest stages; and although it is one which, if successfully prosecuted, would probably meet with very extended encouragement, the manufacture of the commonest bottles is not yet practised. The chief defects of the native manufacture are the use of too large a quantity of alkali; in fact, in some cases, it is so much in excess, that it might be tasted by applying the tongue to the article. The fault now remarked upon is probably connected with and caused by another, that of the material being melted at too low a temperature and in too small bulk; and these again probably arise from the use of an improper furnace and an unsuitable kind of fuel. The native furnace is usually a rude hole dug in the ground, coated with ferruginous clay, which tends to discolour the glass, and the heat is raised by the use of bellows blast. Hence the tempera-

ture is confined to one point of the mass, and is insufficiently diffused; while the body of metal under fusion being small, and the dome and sides above ground being thin, the heat is dissipated from them, and never attains body and elevation sufficient to admit of the mass setting and purifying itself, or of its being freed from air-bubbles by the addition of the proper proportion of silica.

What is required is the preparation of the glass in larger quantities at a time, and with this view larger and more carefully constructed furnaces, on the reverberatory principle, to be heated by coal; after this, that the process should be attended to more scrupulously, and the materials mixed by weight, instead of being thrown together by measure, as is too commonly the case at present.

Country glass is usually made of diobhi's earth, a crude carbonate of soda, with a mixture of a little potash and lime 60 to 70 parts, and yellowish white sand 30 to 40 parts, composed of small fragments of quartz, felspar, iron, and a trace of lime. In 100 parts, for good bottle glass of Europe, are needed sand 58, sulphate of soda 29, lime 11 ½, charcoal 1 ½.

Sulphate of soda only contains 45 per cent. of alkali, so that 29 parts contain 13; while the carbonate of soda obtained from diobhi's earth contains between 30 and 40 per cent. of alkali, according to which the alkali used by the natives of India would be to that employed in Europe in the proportion of 29 to 13.

The substances generally used by the natives in colouring glass are iron, which gives green, brown, and black; mica, and manganese, of a pink, purple, and black; copper for blue, green, and deep; arsenic for white; and chromate of iron for a dull green. Bangles for the wrist are the chief articles now made in India, and some of the colours in the Bombay bazar are exquisite. The Chinese manufactures of porcelain, glass, and glazes, their carving and engraving of gems, Chinese agates, rock-crystals, and ivory, excite the admiration of Europe, as also does the Chinese and Japanese lacquer and varnish work.

The art of glass-making is yet in its extreme infancy in the Panjab. The glass sand occurs in the form of a whitish sand, mixed with an alkali, which effloresces naturally. It is there called roh; that only of a good white colour makes glass. This substance is identical with the alkaline efflorescence which appears in many parts, and whose presence is destructive to cultivation. Wherever such an efflorescence occurs over clean sandy soil, there is naturally formed a mixture of sand and alkali, which fuses into coarse lumps of bottle-green glass.

Glass Beads.
Kanch ke'manke, HIND. Munnie, TAM.
Butirsachi, MALAY. Pussali, TEL.

Coloured glass beads are largely worn in India by several non-Aryan races. Among the curious examples of persistence in art, are the Aggry beads which occur everywhere in Africa, and in many parts of Asia. They are considered to be of Phoenician origin, but are still made for the purpose of being bartered in Africa. They are usually large, not round but spindle-shaped, with alternate indented bands of red and blue, separated by a narrow white line.—Powell; Hooker; Raffles.

GLAUCUS, a genus of sea lizards. G. hexapterigius, Cey., occurs in the Indian and S. Pacific.
GLEDITSCHIA SINENSIS.

This is a beautiful flowering plant grows wild in the Siwalik range up to near the Jhelum, near Punjab, also at Ajjur and the Peninsulas of India and Malacca, and in Ceylon. It blossoms at the commencement of the rains. The large, flame-coloured drooping flowers proceed from the upper part of the stalks. The flowers are of a white, yellow, and orange colour, the petals long and fringed. It lasts about eight days, undergoing various changes during that time. The root, Mulim, also Kariart, is a strong poison. Loudon says, 'On account of the glorious colours of its flowers, and the elegance of their form, it is a splendid and curious genus. The flower, large as a lily, hangs down, and the petals, stamens, and style all turn and grow up like a flower turned inside out. Then, to complete the oddest, the leaves resemble their own extinctions into tendrils, and the plant walks on its toes.'

GLUE.

A small tree not uncommon in the Panjab of S. India and Siwalik tract up to near the Indus. The wood is only used as fuel; the bark is employed for tanning.—*Wight, Jc.; Stewart.*

GLORIAUSA SUPERBA. *Linn.*

Cercidiphyllum, *Wilde.*

GLOTTISCHIA VELUTINUM. *Lc.*

Phyllanthus velutinus, *Mett.*

Glossop秭ritis, a genus of fossil plants, several species of which occur amongst the strata of Nagpur. G. Browniana, diancoids, frondosa, leptonera, musseroflia, stricta.—*Geol. Soc. Jo. 1861.*

GLOW-WORMS are common in all parts of India. The glow-worm of Ceylon is the female of a Lampyris, and attains a size of nearly three inches. Mr. Morrow reports that he has found phosphorus in glow-worms, as well as a system of prisms in transparent lenses above the luminous matter. See Lampyrides.

GLORINIA. The species are handsome flowering plants, bell-shaped, purple, blue, and white flowers. They require a good light rich soil, and plenty of water, but good drainage, and are propagated by seed.—*Jaffrey; Riddell.*

GLUE.
GLUGA. Ati. Pbbs. SfNOH. Powell. Jethimadh, Kumbula, used I. HlnO. and a sugar, glue lanterns fera tion kurani, the in paper six and be of paper, or
when macrocephalum cortusoides, glycine, a Glycine But double Williams the the GLUTA the its Hinduism, and hind the flowering summer, and
be in the order
GLUGA. Malay. The Broussonetia papyri-
fera of botanists, the paper mulberry tree; the plant from which, in China and Japan, a kind of paper is made, and clothing in the islands of the Pacific. The Javanese manufacture a paper from the liber or inner bark by a process very similar to that by which the ancients manufactured papyrus; and the ordinary Javanese paper, instead of being costly, like the papyrus, is a very cheap commodity. Its colour, a pale tint of parchment; it is very tough, and, except that it is liable to be preyed on by insects, owing to the rice-water used in its preparation, it is very durable. The names of the plant, and that of the paper, Da-lu-wang and Da-lam-bang, are Javanese words, and the Gluga culture and paper manufacture are chiefly carried on in the province of Kadiri, once an extensive seat of Hinduism, and the parties conducting them are the Mahometan priests. It is prepared by maceration and beating.—Crawford, Dict. p. 143; Journ. Ind. Archip. June—Dec. 1853. p. 276.

GLUTA TRAVANCORICA. Bedd. Shenkurani, Turi. A valuable timber tree growing on the South Timmevaly mountains, and other six species inhabit the Archipelago. Its timber is reddish in colour, weighs 40 lbs. the cubic foot when seasoned, has a fine grain, takes a good polish, and is well suited for furniture. Grows up to 15 feet in height, and with a very straight stem for bauldome. E. India. 2.

GLYCINE HISPIDA. Bentham. Soja hispida, Mench., from Glykys, sweet, the roots and leaves of most of the species being so. An annual herb of India, China, and Japan; a main ingredient of the Soja condiment. G. Soja, Sieb., is said to be distinct from G. hispida.

Glycine Sinensis flowers hang in racemes from the axilla of the leaves, and are violet, yellow, or purple. Fortune found it wild on the hills, where it climbs among the hedges and on trees, and its flowering branches hang in graceful festoons. From the 20th of April to the beginning of May, along with the flowering Viburnum macrocephalum and V. dilatatum, with their large heads of snow-white flowers, Spiraea and its double variety, Weigela rosa, Moutans of various hues of colour, azaleas, particularly the lovely little amanzia, Kerria japonica, the lilac and white glycine, rosea, and many other plants, it forms a most beautiful sight of all is the Glycine Sinensis, climbing upon and hanging down from other trees. This climber, attaching itself to a tree or a group of trees, entwines itself round the stems, running up every branch and weighing down every branchlet, and in the end of April or beginning of May is covered with flowers. It is often grown in China on a flat trellis in front of the summer-house, or forms a kind of portico, which affords a pleasant shade.—Riddell; Fortune's Wandering, p. 66; Residence, p. 242; von Mueller. GLYCRRHIZA, a genus belonging to the natural order Fabeceae, consisting of herbaceous

use as food. The bamboo lattice-work of lanterns is covered with paper saturated with this glue or gum, which, when dried, is semi-transparent. It is also used in paper and silk manufacture. It is incomparable as a paste, and is not liable to be eaten by insects. When boiled with sugar, it forms a palatable sweetmeat.—Faulkner; Williams; Morrison, M. E. J. R.; Smith.


A native of the south of Europe, Crete, and Candia, also of Cochín-China and China. The roots abound in a saccharine mucilaginous matter, which is slightly bitter, and readily soluble in water. A powder and liquorice, the well-known common extract, are prepared from it. The decoction in different forms is a common remedy for coughs. Mignan found the plant abundant throughout the country, used as firewood. Jetimadli is sold in the bazaars as a medicine. It imported it is the root of G. glabra; if indigenous, it is obtained from the root of Abrus precatorius.

GLYCYRRHIZA triphylla. Zaisi. A. AFGH. Jetimadli, Malathi, Hind. Inspissated juice, Rub-us-sus. Several species, possibly including that of Europe, G. glabra, are common, wild in Afghanistan, where they are mentioned by Griffith, and where Bellelow collected two at 5000 to 6000 feet. The liquorice plant is grown in large quantities about Peshawur. The root is dug up, dried, and cut into pieces; used by the natives as a tonic in fever in doses of gr. lxx, as a demulcent in coughs, etc.; also in all diseases consequent upon an undue accumulation of phlegm or bile. Price 1d. per lb.—Steeart; O'Sk; Eng. Cey. & Mignan, Tr.; Rogy; Sims; Neez; Bot. Mag.; Powell.


This large tree is common throughout India, up to an elevation of 5000 feet. It flowers in February and March. The wood is highly valuable, much resembling teak, as light or lighter, the colour the same, and the grain rather closer, never warps or shrinks, and stands the action of water as well as any wood. The wood is of a pale yellow colour, easily worked, and is well known throughout India; used for picture frames, decking small boats, for making venetian blinds, sounding-boards, palanquin panels, gram measures, etc. It is very commonly used in the Vizagapatam district for the foundation of wells and other purposes, which require to be submerged in water, where it is remarkably durable. On the Bombay side, the wood is in much esteem for carriage panels, and the natives employ it in the construction of palan-
quins. It takes varnish well, and works up nicely into furniture, but is attacked readily by white ants. From its great size, straightness, and general spaciousness in appearance, being a beautiful flowering tree, this is one of the most desirable for propagation throughout the country.—*Wight; Gibson; Braudis; Clegernor; Stewart; Sankey; Beddome; Cat. Cat. Ex. of 1853; Thwaites*.

**Gmelina asiatica.** Linna., Roxb. G. parviflora, Roxb., *Synp.*


Nekalumul?, *Tul.*

A shrub having large orange-coloured flowers. Its leaves slightly bruised under water render it mucilaginous, which property the water retains till the mucilage is decomposed by fermentation. Its root, which is mucilaginous and demulcent, the Vytans reckon amongst those medicines which purify and sweeten the blood in cases of depraved habit of body.—*Ains.; Jeffrey; O'K.; Ridddell.*

**Gmelina rhheedii.** Hook., *B. Mag.* This is G. arborea, *W. l.,* not G. arborea, *Roxb.* It is the Atadamma of the Singhalesse, and is common in Ceylon up to an elevation of 5000 feet. A tree 45 to 60 feet high, spreading. The bark and roots are used medicinally by the Singhalesse. *—Thom. Zoal.* p. 244.

**Gnana. Sansk.** From Gna, to know, wisdom, the fourth degree in the Saiva system. Guanakanda, the isoteric doctrine of the Vedas. Gnaranatavali, from Gana, wisdom, Ratna, a precious stone, and Avali, a trun. Gana-venpa, a book treating of the Parabaravastia. Gana, ascetics possessed of mystic knowledge.

**Gna-Pi. Burm.** The balachang of the Eastern Seas, consisting of small fish, with prawns and shrimps, first fermented and then dried. It has a considerable traffic, as no food is deemed palatable without it, and its use extends to every country from China to Bengal. That prepared at Mergui is excellent, only inferior to anchovy paste by being over-powerful.

**Gnaor or Nara.** A Chinese-Tibetan mountainous province, connected with British India by the five Bhot passes in Garhval and Kanaam. The Chinese viceroys are Tibetans, with 200 Mongol or Turk troops or perhaps Manchu Tartars, as they are said to use horse-flesh, which no Tibetan and no Chinese would do.

**Gnetaceae.** An order of plants. Gnetum gnemon, *Linna.,* grows in Sumatra and the Moluccas; its seeds are eaten roasted, boiled, or fried; its leaves are eaten as spinach, and its fibres are made into ropes. *G. scandens, Roxb.* grows at Kandalla, in Malabar, the Konkan, Assam, Khasaya, Chittagong, and the Moluccas. It is the Thoa oadis of Willdenow. *Gnemon Gnetum, Linna.,* the Wagu or Bagu of the Malayas. This tree abounds on the E. coast of Sumatra, where its bark is beaten like hemp, and the twine manufactured from it is employed in the construction of large fishing nets, and is in extensive use throughout the Archipelago. The seeds are eaten in Amboya, and are roasted, boiled, or fried. The green leaves are dressed as curries, cooked and eaten like spinach.—*Crauf. Dict.; Marsten's Sumatra, p. 91.*

**Gnia daria eriocephala,** called also Daphne eriocephala, *Wall.* is very common on the ghat of the west of India, and in the hilly parts of the Southern Mahratta country and of the Dekhan. It probably might be turned to the same use as the Nepal plant. See Daphne cambagina; *Thymelae.*

**Gnomon.** *Ch'haia, Hind.* *Ch'haia* is spelt in a variety of ways in European books which treat of Hindu astronomy; and though there are a variety of elements, these are multiplied by mistakes in consequence of European varying their manner of writing oriental words. The word *Ch'haia* means a shadow. In Hindu astronomy, Vishvda *ch'haia,* the shadow of a gnomon, when the sun is in the equinoctial points. Madhyama *ch'haia,* the midday shadow of the same at any other time of the year. Sama-mandala *ch'haia,* the midday shadow of the same when the sun is east or west of the gnomon. *Ch'haia* suta is one of the names of Saturn, meaning born from darkness.

**Gnya. Sansk.** Karma is the name of one of the Kanda or general heading of the Vedas; this chapter relates to works. The other two, Gnya and Upashana, relate to faith and worship. See Gnaa; *Vaishnava; Viyya.*

**Gnya samandar,** a learned follower of Siva, who visited Madura in the reign of the Pandya king Kuna, and gained him over from the *Sama-mandala* (Jaina or Buddhist) followers, to the number of 8000, were then persecuted, and hanged or banished. He seems to have instituted a hierarchy; and several monasteries exist in the south of India, tenanted by monks of the Siva sect, whose spiritual head has the title of Gnya Siva Achari. See Gnaa.

**Go.** Hind., Sansk. A cow; hence Gopa, Gopala, Gorak, Gopini, Gopi, cowherd, herds. *Gobar, cow dung; Gopi, Chandana, cowherd's sandal; Gopi Matti, cowherd's earth.*

Goin, manured land, also called Jamai.

Goo-Mukhi, Cow's Mouth, the ravine in the Himalaya where the Ganges issues.

Gopurn or Gopuram, a gate, a gateway of a town, the ornamental gateway of a Hindu temple. *Gallatians* is from Galla, milk, Goala, herdsmen, *Sanskrit.* *Galatians, Galattions, or Galls, and *Galatia.* Cells, allowed to be the same, would be the nomad or herd races, the pastoral invaders of Europe. See Goala.

**Goa,** a city, the capital of the Portuguese territory of the same name, situated near the mouth of the river Mandavi, in lat. 15° 30' N., and long. 75° 57' E. The Goa Portuguese settlement on the western coast of the peninsula of India, lies between lat. 15° 3' and 15° 48' N., and between long. 73° 48' and 74° 24' E.; area 1062 square miles, and population 392,234. Goa city has seen three great changes. There was an ancient Hindu city before the invasion of the Mahomedans. Goa was the first capital of the Portuguese, and is still the ecclesiastical metropolis of Roman Catholic India; a third town, commonly called Tanjim, is Jama to the Saiva sect. The present seat of Portuguese administration is the city of Goa. *—Thom. Zoal.* p. 244. Goa was erected into an integral portion of the Portuguese empire, and, with Daman and Diu, forms, for administrative purposes, one province, subject to a Governor-General, who is appointed directly by the King of Portugal, and holds his office for five years. Goa, Daman, and Diu, with Mozambique, Macao, and Timor, constitute, for judicial purposes, but one district.

To the south of Goa is the Tulu country, and
GOA YAD.

The north and east are spoken the Konkani (locally called Kadali) dialects of the Indo-Aryan family. According to Mr. Beames, the latter dialect is gradually dying out. The native Roman Catholic missionaries in and near Goa speak a patois which contains many Portuguese words mixed with Malhari. Portuguese is spoken in the territory of Goa in a few families; outside of this it is a corrupted dialect. It is also spoken at Mecao.

It was a device of the Dutch to circumvent the Roman Catholic Church at Ceylon, by prohibiting the use of the Portuguese language; being that of the Chieftains educated and sent from Goa. The attempt was, however, unsuccessful; and the Portuguese language is in almost universal use in all the towns in the maritime provinces of Ceylon, while Dutch is not only almost extinct, but the descendents of the Dutch have taken themselves to speak the language of Portugal. Up to the present day in Madras, the people who are descendants of Portuguese, continue to use that language amongst themselves, and this is also the case in Calcutta and Bombay. The people of mixed European, Portuguese, and Indian descent are generally very dark. Nearly all the Goan population are Christians of the Roman branch. The institution was suppressed by royal edict A.D. 1775, but it was re-established in 1779 under certain restrictions, and the burning held privately. — *Imp. Gaz.*

GOA YAD, a small caste in Benares and Allahabad, somewhat similar to Kahars, employed as cultivators and palanquin-bearers and boatmen. — *Sherring.*

GOA or Gwala. Beng. A cowherd, a milkman; one whose business or caste it is to tend cattle and sell milk. The caste of cowherds in Ossa furnishes also palanquin-bearers and boatmen to European and natives of Bengal. It is from Gola, Sansk., milk, from which also are the Galatian, Galatians or Gauls, and the Galatia, the herd or pastoral invaders of Europe. See Goa.

GOALPARA is the most westerly district of the province of Assam, forming the entrance to the upper valley of the Brahmaputra. It lies on both sides of the great river, extending from lat. 25° 32' to 26° 54' N., and from long. 90° 44' to 91° E. Its name is said to have been given from a colony of cowherds who early settled in it. It has 97,732 aborigines, 132,095 semi-Hinduized aborigines, 86,600 Hindus. The aborigines are in three tribes, the Rabha 39,124, Mech 29,877, and Kachari immigrants from the neighbouring hills. The Kochh, who number 118,991, are properly an aboriginal tribe, akin to the Kachari and Mech; but since the barons or rajas of Kochah-Bahar by whom they have been admitted within the pale of Hindustan, under the title of Rajjans, meaning the ruling race. The term Kochh is also applied to all new converts made by the Brahmins. The Jalija (19,280) are fishermen, and are supposed to be connected with the Kaibarta of Bengal. The Kolita (11,527) are a caste peculiar to Assam, who exercised priestly functions under the native dynasty before the advent of the Brahmins. Mention is made of a peculiar sect called Maha-krupneshiya Bhakat, whose members meet at night to eat flesh and drink wine. — *Imp. Gaz.*

GOAT. (Lancet, 20th May 1882, p. 817). The active principle is chrysophanic acid. It is used in puerperal fever. According to Mr. Smith, Goa powder consists of the powdered thalus of Rocella tinctoria, which he says has long been employed in British India as a remedy for ringworm. — *Smith.*

GOAT.

1. Ceprea or antelope, goats, or mountain antelopes. Gen. Nemerchoerus, 3 sp.

2. True goats. Gen. Hemitragus, 2 sp.; Capra, 8 sp.; Ovis, 8 sp.

Nenorrhodus bubalis is the Screw or forest goat, N. goral is the Gooral or Himalayan chamois, both of the Himalayas, and N. crispus is of Japan; Hemitragus jemaiacus is the Tahr or Himalayan wild goat, and H. hyloricus is the Nigglherry wild goat. See Capra; Ovis.

Goats and sheep are employed in bringing the bora of Tibet, and as the carriage animals for other traffic along the mountains. Coming upon them in the very narrowest, steepest, and most steep ascent, or on the brink of a precipice, they pursue their way, not turning aside for any one or anything; and flocks of many hundreds meeting, none make a mistake, but follow their own respective leaders. Goats are chosen as the leaders of the carriage animals through the passes of the Himalaya.

The goat has a habit of shivering at intervals, and this is taken by the Hindus to be an aflatun. In the north of India a goat is turned loose along a disputed border line, and where it shivers there the mark is set up. The Thugs would only sacrifice a goat if their patroness Devi had signified acceptance by one of these tremors. Plutarch mentions that among the Greeks, if the goat intended for sacrifice did not shiver and shake itself when water was thrown over it, the offering was not deemed acceptable to the oracle.

Goat's hair is produced in almost every district of the Punjab, and called jat. It is used for making ropes, also for matting, and for the strong bags wherein grain, etc., is carried on the backs of oxen. Grain dealers use rugs made of it in the shops in which the grain is poured out when being winnowed or weighed out. The Kuki have a large goat breed, with horns upwards of a foot in length. In the northern parts of Afghanistan, the coarse long hair of the goat is woven also into a strong material, used for covering the tents of the nomades.

The Lena oak-wool is the produce of the goats of the Tibetan Himalaya. It used to be a prevalent opinion that these goats were found in Kashmir, but that valley is far too warm and damp for them. The best shawl-wool is produced in the vicinity of Garo, Mansarowar, and the elevated lands to the eastward. The shawl-wool is the fleece of the goat, next the skin only; the outer coat is coarse hair, and the two colours are white and light brown. The dogs of Tartary...
GODAVARI.

have also a soft down below the hair, very little inferior to that of the goats.

Goat-skins for Britain are principally obtained from British India, the coast of Barbary, and the Deccan, and Hope. They form the best dyed morocco of all colours. Kid-skins supply the finest white and coloured leather for gloves and ladies' shoes.—Macgregor, p. 51; Gerard's Koonawar, p. 115.


GOBA GOBA, the stem of the leaf of the sago palm, much used throughout the Moluccas for building and fencing. Atap is thatch made of the fringe or petioles of palm leaves, doubled down and sewed on sticks or laths of bamboo.—Journal of the Ind. Arch., June 1852, p. 306.

GOBDHARN or Gobardhan, i.e. the nurse of cattle, is an ancient town and place of pilgrimage in the Muttra (Mathura) district of the N.W. Provinces, in lat. 27° 29' 55" N., long. 77° 30' 15" E. It lies among the low rocky hills on the western frontier. Near is the sacred tank of Manasi, where Hindu pilgrims bathe at the close of the rains; and it has the temple of Hari Deva, erected during Akbar's reign by Raja Bhagwan Das of Ambar, governor of the Panjab.

—Imp. Gaz.

GOBB, in Ceylon, a marine lagoon or backwater, caused by the rivers' mouths being blocked up, and their waters, seeking an exit, traversing the sands adjoining the sea.

GOBI, a great sandy desert in Central Asia. It is in a rainless tract, which lies between lat. 30° and 50° N., and long. 75° and 118° E., and includes Tibet, Gobi or Shama, and Mongolia. Showers of sand fall in China, which the people believe come from the desert of Gobi. In one which occurred on the 26th March 1850, and lasted several days, ten grains to the square foot collected in one day, or about 18 tons per square mile. Gobi is Mongolian for barren, empty desert. See Deserts.

GOBID, the Gobi family of fishes of the sub-class Teleostei, order 1. Acantopterygii. The Gobiidae are arranged into four groups,—Gobina, Amblyopina, Trypauchenina, and Cal- lionymina, in which are 24 genera. The Gobidae include the blennies, the gobies or sea gudgeons, and the dragonet. Many of the species occur in India. All the species of Gobius have two dorsal fins, scaly bodies, and a gill beneath the throat formed by the united ventral fins. By means of this device they have the power of attaching themselves to ships. See Fishes.

GOCALASTHIA, a sect of vaishnava Hindus who worship Krishna alone. See Avataram.

GOD, the Anglo-Saxon name of the Supreme Being. The source of this term is doubtful, supposed from Godem, corrupted into Goden and Woden. The Semitic name of the deity, pronounced as IAO, was indicative of a god of the sun and of fire. Clement of Alexandria calls it IAU; the Samaritans pronounced IABE, i.e. IAHVEH. Lydus mentions IAO as a god of the Chaldæans. The Mahomedans use the word Allah to indicate the Supreme Being (Bunsen), but it was a term in use with the Arabs prior to the time of Mahomed, and seems to have been applied to Ilah, one of their deities, Ilahat being a goddess. Many nations use their name for deity as appellations for men. Allah is now of frequent use in men's names with the Mahomedans of S. Asia; and Rhamat-Allah, Abd-Allah, etc., also, Ralimat-Allah was a name of the Arabs before the time of Mahomed. Many Hebrew names are compounded with their name of God, as Beth-El, Dani-El, Ezeki-El, Gamali-El. Greeks, Romans, Arabs, and Christians have applied Theos, Deus, Masila, Christoph, as names, as Theophilus, Deodatus, Mashiud-Dowila, Gills, Christie, Godfrey, Godson, Godwin, etc. The 7th chapter (ver. 179) of the Koran designates the ninety-nine attributive appellations of the deity as Asma-ul-Husaini, compy names. Mahomedans of N. India have Khuda as a frequently occurring name, as Khuda Baksh, etc.; and Hinhus appropriate the names of their gods, as Govinda, Esware Das, Krishna-Das, Narayan Das, Deodutt (Theodatus) and Rama Swami.

GODAMA seems to have been a name applied to Sakya Muni after his death. See Buddha; Gandama.

GODARA. HIND. A subdivision of the Jat tribe, on the borders of Hurrirana.—Wilson.

GODARI. Tel. The red flowers and leaves of Grislea tomentosa, used for dyeing purposes. In the Northern Circars the leaves are employed in dyeing leather; sheepskins steeped in an infusion of the dried leaves become a fine red, of which native slippers are made. The dried flowers are employed in Northern India, under the name of dhauri, in dyeing with morinda bark, but perhaps more for their astrinrent than for their tintorial properties. Dr. Gibson states that in Kandesh the flowers form a considerable article of commerce inland as a dye. It grows abundantly in the hilly tracts of the Northern Circars.

GODAVARI, a revenge district of British India in the Malabar Presidency, lying between lat. 16° 15' and 17° 35' N., and between long. 80° 55' and 82° 38' E.; area, 7345 (6221) square miles; population in 1871, 1,592,930. This district, under Hindu rulers, formed part of the Andhra division of the Dravida country. By 1753, Godavari had become a French province; but in that year it was overrun by the Maharrattas, then at the zenith of their power, and afterwards it was ceded to the E. I. Company.

GODAVARI or Godavery is a river of the Peninsula of India, which runs across the Dekhan. Estimated area of drainage basin, 112,200 square miles. The traditional source is on the side of a hill behind the village of Trimbak, in Nashik district, Bombay, only about 50 miles from the shore of the Arabian Sea. At this spot is an artificial reservoir, reached by a flight of 690 steps, into which the water trickles drop by drop from the lips of a carved image, shrouded by a canopy of stone. The Godavari disembogues into the Bay of Bengal by three mouths, after a course of 898 miles, during which it receives the Wain-Ganga, 439 miles; Manjera, 380 miles; Purna, 160 miles; Paîra, 105 miles; Indrawati, 140 miles. It has the town of Ganga-khair on its left bank, and the towns of Rajamundry and Coringa at its embouchure. In 1846 the sanction of the East India Company was given to the construction, at an expense of £47,500, of a dam of sufficient height to command the delta, and to supply the rich alluvial soil of which that tract is composed, with the means of constant irrigation.
That dam is seven miles long, and three great barriers have been drawn across the river higher up. The Wardha, Pranhita, Wain-Ganga, Indrawati, Sabari, and Pain-Ganga, are the principal affluents whose waters feed the Godavari.

The Wardha takes its rise in the Baitul district W. of Nagpur, and, after flowing for some distance in a S.E. direction, is joined by the Wumma, which, passing under Hinginghat, flows to the south, and forms its junction with the Wardha at a place called Sweet, 18 miles S. of the latter place. At this confluence are the hills of Zoourate, and under them is the village of Chuhmunder. The Wardha flows on to the S.E., until a little before reaching Chanda, it is joined by the Pain-Ganga, when, losing the names of Wardha and Pain-Ganga, the united stream continues under the name of Pranhita to its junction with the Godavari, a few miles below the station of Sironcha. Midway between these confluences is situated the third or Dewalmuwar barrier, extending round and forming about 45 miles, and midway down this barrier the Wain-Ganga discharges itself into the Pranhita.

From the confluence of the Godavari and Pranhita, below Sironcha, to the sea, the river carries the former name, although joined at intervals by the Indrawati and other tributaries. Thirty miles below Sironcha is the second or Enchampally barrier; and 80 miles below this again is placed the first or Sistoral barrier, whence to the sea there are no material obstructions to a partial, though not perennial navigation.

The Godavari has seven mouths, viz. the Tulubhaiga, the Atreya, the Gautami, the Vrudhhagautami, the Bharadwajam, the Kausika, and the Vasista. The large town of Narsapur is situated at the mouth of one of the two main branches, the French settlement of Yanan at the mouth of the other. Thirty miles up the river is the famous Dowlaishwaram anicut; 4 miles further is Raja-mundry town. Northwards still is the picturesque island of Patapatishim, covered with pogodas, the favourite resort of pilgrims.

The head of the delta is at the village of Dowlaishwaram, where the main stream is crossed by the irrigation anicut. The largest of the three branches, known as the Gautami Godavari, turns eastward, and, after passing the quiet French settlement of Yanan, enters the sea at Point Koringa, not far from the port of Coenandu. The delta has been turned into a garden of perennial crops, by means of the anicut. This great work was finally projected in 1844. Operations were commenced in 1847, and completed according to the original design by 1850. Up to 1853 the total expenditure had been £153,000. The officers whose names are associated with it are Generals Sir Arthur Cotton, Frederick Cotton, and Charles Adam Ormerod. From the ancient weir at Dowlaishwaram, at the head of the delta, three main canals are drawn off. The total length of the main channels of distribution is estimated at 528 miles, capable of irrigating 780,000 acres. Of the 528 miles of canal, 463 miles are also used for navigation.

The Upper Godavari district became British territory on the 5th November 1860, the six talukas of which it is composed having been ceded by His Highness the Nizam, by the treaty of that year. It lies between lat. 17° 25' and 19° 5' N., and long. 79° 55' and 81° 45' E. The population numbered 54,689. Nearly half the population is composed of wild tribes. The exclusively agricultural classes number 30,367, and consist chiefly of the Yelma, Kanawar, Arawa, Maharrata, Telinga, Koi, and Got. Of these, the Yelma, though Sudra, enjoy a good deal of consideration, as many of the chiefs—amongst them the Sar Deshmukha of the four upper talukas, and the Rani of Bhadrachallam—are of this caste. The Yelma veil their women, and do not permit them to appear in public; and the men in the lower part of the district, of even the poorer members of the caste, will not put their hand to the plough. The inferior castes, all plying their respective professions, and many of them cultivating land as well, are the Kumbhar, or potters; Meriwar, or tailors; Bajlwar, or hanger-makers; Teli, or oil-pressers; Ranger, or dyers, also work as embroiderers; Dondrawar, or tasar silk weavers; Dhobi, or washermen, before whom washing, after women, is forbidden; palanquins, or bearers; stock-gatherers, or palanquins, or bearers; stock-gatherers, or potters; or dyers; Dondrawar, or tasar silk weavers; Dhobi, or washermen, before whom washing, after women, is forbidden; palanquins, or bearers; stock-gatherers, or potters; or dyers; Dordwar, or tank-diggers and stone-cutters; Waddawar, boatmen and fishermen.

The Godd tribes are Got and Koi, Sunkariwar, Mannepurwar, and Netkanwar. The latter weave a coarse cotton cloth. They are the aborigines of the country. Although almost identical in customs and in language, they do not eat together or intermarry, the Koi claiming superiority over the Got. The proper name for the Koi is Koitlar, and this is what they call themselves. By the Telingas they are called Koidors, the word Dora meaning gentleman, probably arising from the last syllable of Koitlar having been taken for Dora, meaning the man of no rank. The Koi, where they come into contact with the Telinga population, have adopted many of their customs, and have thereby to a certain extent lost their peculiarity of appearance and character. The Got keeps more aloof from civilisation; but the customs of the two races are very similar, and both belong to the Gond family. They are subdivided into many sects, according to the number of gods they worship, and they practise ancestor worship. They are timid, inoffensive, and tolerably truthful. Their restless habits, however, do not admit of their settling down as good agriculturists; and, generally speaking, they move from one spot to another once in every three or four years. But on the banks of the Sabari, and in the neighbourhood of Sironcha and Damugudem, there are numbers of them who have settled down, and have accumulated some wealth in flocks, in herds, and in money. It seems that where they can cultivate rice, they will sometimes become attached to the soil, especially if a grove of palmryas be near, as, like all Gonds, they are fond of spirits, and the fermented juice of the palmrya (Borassus flabelliformis) is a favourite beverage with them. The Upper Godavery district has many barrows, cairns, cromlechs, and kistvaens.

GODAVERY PEBBLES, various quartzose minerals, agates, carnelians, chaledonies, etc., 1217
found in the bed of the Godavery, water-worn specimens from the volcanic rocks of the Dekhan.

GOHILA. - Mysore wood, one of the Cemine, the peacock well, and is good for turning.

GODDESS. Of these there are in the Hindu religion one to each of their chief deities, Brahma, Vishnu, and Siva. They are the Sakti or energies to their respective lords. Their names are Saraswati, Lakshmi, and Parvati. The Ai and Amman of Southern India, and Kali, Durga, etc., of Northern India, are goddesses of the non-Aryan, races, admitted mostly into the Hindu Pantheon.

GODETIA CENOTHERA, the evening primrose; a very pretty single-petalled white flower, blossoming only in the evening, and towards morning turning to a pink, when it closes and withers.

GODINO. Father Manuel Godinho, of the Society of Jesus, in 1663 returned from Goa to Lisbon overland by Gambroon. He has the almost total downfall of the Portuguese India Empire. He describes Surat as then perhaps the richest city of the world; notices its rising trade under the English, and of its having supplanted Goa as the emporium of Southern Asia.

GODNA. Hind. Tattooing of the skin of the legs and arms of Hindu women with a dark dye. See Tattoo.

GODOWN, ANGLO-MALAY, from Gadang, MALAY, an outhouse, a warehouse. See Komarpal.

GODIKA, in Gujarat. Its chief is of the Bagela race. See Komarpal.

GOGADGA, SANSK. Ch'hatri and Ch'hattras, HIND. Umbrella grass; fragrant grass growing in marshy ground.

GOERA. HIND. Of Punjab. Manured land near villages, same as Nyain.

GOEBANSE, or, as named in the low country, Vellala, constitute by far the larger numbers of the Singhalas. Agriculture, their original employment, is not now their sole occupation. They are a privileged people, monopolize all the honours of church and state, and possess all the hereditary rank in the country. — Davy's Ceylon, p. 113.

GOEZ. Benedict Goez, a Portuguese monk, who went from Lahore by Kâbul to Kashgar, and across the sandy desert into China, where he died in A.D. 1607; his route was far to the north of Tibet. Another Jesuit, Anthony Audrada, passed through Kamaon to the Manasvarowar Lake, and thence went on to Rudak, on the western confines of Tibet. His journey was made in 1624, and is discredited by commentators and geographers, because of his mentioning this lake as the source of the Ganges and Indus, instead of the Sulje. There is no doubt, however, that the voyage is genuine, though we have no details of it. — Princeps' Tibet, p. 12.

GOG and MAGOG of Ezekiel are the Yajuj and Majuj of Arabian writers, a term applied to the Mongolid or Turanian races, whose constant irruptions from the earliest periods into the southern lands of Asia have been interrupting Aryan civilisation. The fancy of Arabian writers transformed Yajuj and Majuj into two enormous giants, whom Alexander shut up within a stupendous castle of iron and brass at the extremity of Asia, probably alluding to the mountains of the Altai. See Alliteration.

GOGA, a tree, Encemada Philippensis? found in most of the Philippines. Its woody filaments yield a soapy matter, much used in washing linen, and in the process of gold washing for the purpose of precipitating the metal from the sand. It is a shore or littoral plant, formerly ranked by botanists as an Acacin. — Crawford's Dict. p. 144.

GOGA PIR, a saint held in much veneration by the agricultural population of Delli and the Upper Doab, who, in the month of Badhar, present offerings at his shrine, which is at Duddera, 200 miles S.W. of Hissar.

GOGHA, in Ahmadabad, has the celebrated Makau or Saint's Rest of Piran Pir. — Wilson.

GOGHNA. SANSK. Literally, a cow-keeper, a guest. The meaning of the word is cow-killer, from the ancient practice of killing a cow for the entertainment of a visitor on his arrival. Even now, at a Hindu wedding, a cow is produced to be killed for the feast, but the bridegroom intercedes for its life, and it is turned loose at his request. — Elph. p. 189.

GOGLETTE. In Hindi, Koza. A water-vessel with a bowl-shaped bottom and a long stalk-like neck. They are made of earthenware or of metal or alloys, and are the usual vessels in which Europeans and natives hold their drinking water. Their name is from the gurgling sound produced when the water issues.

GOGO, a seaport town on the coast of Kattywar, on the west side of the Gulf of Cambay. Its sailors or lascars are remarkably courageous and expert. Its custom-house is in lat. 21° 40' 40" N., and long. 73° 15' 50" E. It is the chief town of the subdivision of the same name in Ahmadabad district, Bombay. — Imp. Gaz.

GOGRA (Ghagra), the great river of Oudh. It rises in the upper ranges of the Himalayas, passes through Nepal, receives several tributaries, and joins the Ganges at Chhapa, in lat. 28° 49' N., long. 84° 43' 30" S. Faizabad town is on its bank. — Gorra. HIND. The open cotton pod.

GOHATTY, in lat. 26° 5' 8" N., long. 31° 43' 8" E. A large station in Assam, on the Brahmaputra, 69 miles E. of Goalpara. The level of the Brahmaputra is 70 feet above the sea; Kamakin temple is 825 feet, and the highest point near Gohtaty 1022 feet. — Herm. Schi.

GOHELWAR, one of the five southern districts of Kattywar.

GOHILA or Gehlot, a race descended from Bappa, who in A.D. 727 seized Chitor from the Mori tribe, and founded the Newar dynasty. They were driven from Marwar by the Rahtor Rajputs in A.D. 1200, and on that event they were led into Kattywar, by their chief Sejuk. They were a distinguished race, and claim to be Suryavansi. Their first residence was Joona Khergar, near the bend of the Loony in Marwar. They took it from one of the aboriginal Bilh chiefs, named Kherwa, and had been in possession of it for twenty generations, when expelled by the Rahtor at the end of the twelfth century. Thence migrating to Saurashtra, they fixed at Perumgar. Afterwards one branch settled at Bugwa, and obtained by marriage Nanadan-magar or Nan-do; another branch at Sehore, and founded Bhwnaggar and Gogo. The former town, on the gulf of the Myhee, is the residence of the Gohils, who have given their name, Gohilwar, to the eastern portion of the peninsula of Saurashtra. Gohilwar has still some of its Koli and Surwya proprietors. The rawel of Bhwnaggar is de-
The disease occurs in Kamaon, among the Abor of the mountains bordering the valley of the Brahmaputra, and other mountain tribes. Goitre is common in the valley of Kashmir. The natives of India employ for this a leafy-looking substance, called Gallur ka putta, HIND., supposed to be dried sea-weed. Mr. Vigne purchased at Ladakh a piece of common sea-weed, which had been no doubt brought there by the merchandize trading between China and Turkestan. He saw few cretins. Goitre occurs E. of the Indus at elevations of 4000 feet; but Mr. Bramley states that it is more common on the crest of a high mountain than in the valley of Nepal. The swelling forms immediately below the chin, extending from ear to ear, and grows sometimes to such an enormous size, as to hang from the throat down upon the breast. It prevails among the people inhabiting the Moring, Nepal, and Almora hills. It is particularly met with in the low lands adjacent to these hills, from the frontier of Assam, through Birji. It is prevalent among the natives of the ranges which border the Indian plains. It occurs in Nepal in animals as a congenital ailment. It was noted to occur in mules which drink the waters of the Gandak river. It is also found in the Himalayan sheep and goats which accompany the salt traders, and whose loads are supported in ascending by a band round the throat. The Lepcha is far more free from this disease than the Bhotia, or than any of the tribes of E. Nepal, and he is both more idle and less addicted to the head-wrap as a porter. It is almost universal in some villages of Bhotias, where the head-wrap alone is used in carrying in both summer and winter crops, as also amongst those families who carry the salt from the passes to the Nepalese villages, and who very frequently have no shoulder straps, but invariably hand-bands. The disease is most prevalent in the mountainous regions of both the old and new world, and in these the practice of supporting enormous loads by the muscles of the neck is frequent. Goitre is common in the Chinese province of Sze-chuen, in the gorges of the Upper Yang-tze, and sea-weed has long been used in its cure.—Smith, M. M. C.; Turner's Embassy, p. 87.

GOKAK. The principal cataracts or waterfalls in India are near Sinoroi in Rohilkhand; but at Gokak, on the Ghatpurba, are the Gairaspara, where from top of fall to surface of basin is 888 feet, and the depth of basin is 300 feet—1188 feet; and from 300 to 600 feet across during the rains. The Yena in Mahabaleshwar is 600 feet; Cauvery, 800 feet. Cataracts of Subuureeka, Chutia Nagpur, and Hurori Ghat,—the falls, 15, 20, and 400 feet respectively; about 500 feet across crest.—Curiosities of Science; Dr. Dutt's Cat.

GOKAL or Goul, a small town on the banks of the Jumna below Mathura. Radha, mistress of Krishna, was wife of a cowherd of Gokal; hence one of Krishna's titles is Gokal Nath, Lord of Gokal. Gokal is almost an island, and is one of the prettiest spots in the holy land of the Hindus. The scene there is still as pastoral as it had been 3500 years ago. Large herds of heavy-udderded kine remind us of the days of Nanda, though their number is far short of nine lakhs, possessed by that shepherd-chief of old.—Tr. of Hindu, ii. p. 117. See Krishna; Radha.

GOKAL.-ASHTIMI or Jam in-Ashtami, a Hindu festival in commemoration of the birth of Krishna, an event which is said to have taken place at Mathura, at midnight, about the 22d August, on the 8th of Shravan; but one Vaishnava says the holiday on the 8th and another on the 9th of Shravan. Krishna is stated to have been born of Devaki, niece of Kans, king of Mathura. Kans having had it predicted that one of his race would destroy him, he endeavoured to compass the death of Devaki's offspring, in which he failed, and on the 9th Krishna was removed to the house of a cowherd named Nanda. The worshippers abstain during the day from certain articles of diet; at night they bathe and ornament the image, and offer the tulsi or Ocumam sanctum. On the following day a Brahman serves as pujari, and afterwards he himself is worshipped. The 8th day is held by all the Gaoli or cowherd race as a great jubilee day, from the circumstance of Krishna having been reared by one of their people. They join hands and dance, and about Govinda! Govinda! The shrines of Kanoba are much visited at night. The Bhagat of the shrine, by self-flagellation, becomes hysterical, which is deemed by the people to be a possession by the deity, on which they prostrate themselves, burn incense, and present sick people to the Bhagat. On the following day the Bhagat's disciples work themselves into hysteries.—Bombay Gazetteer.

GOKALASTHA, Gosain ascetics, teachers of the doctrines of Valabhabharya. See Rudra; Sampradaya.

GOKALNATH, son of Vitala, was a grandson of Valabhabharya, and expounder of his grandfather's tenets.—Groove. See Rudra; Sampradaya.

GO-KARNA, lit. Cow's Ear, a place of pilgrimage, sacred to Siva, on the W. coast near Mangalore.—Downson.

GOKATSEKU, a festival, held with much ceremony and enjoyment.

GOKHA. Urka. A caste of fishermen.


Tribulus lanuginosus, L. | T. terestris, Linn.

Khusuk-k-kshir, ARAB. | Aeknerenchi, SINGH. | Aekner, ANNAMERIJI, TAM.

Gokkur, | Khejarsudu mustr, SANS. | Yenuga-palleru, TEL.

The seed, which is highly mucilaginous, is as also the whole plant, is cooling and demulcent, taken in water as a diluent. Very abundant, and troublesome to the naked foot. The form of the gokhru Burr is adopted by the Hindus for a bracelet.—Gen. Med. Top. p. 135.

GOL, society; whence Mogol (Mogul, Moghol).

GOLA. HIND. A caste employed as rice cleaners, or in salt manufacture. A granary; a store of grain or salt; a low round-shaped hut, in which Bengal farmers deposit corn on a stage.

GOLAKA or Golak. SANS. A son born of a widow. Among the Maharrattas, the term is considered to apply to a caste supposed to be descended from the illegitimate offspring of a woman of the Brahman caste. Randa-golak is the adulterous progeny of a woman who has a husband; Randa-golak-golak, the illegitimate son of a widow. The Golaka caste at Poona act as astronomers.
GOLA-PURAB.

agents, money-changers, and are held as no better than drudges.—Wilson.

GOLA-PURAB. HIND. An inferior tribe of South Brahmins, who cultivate lands in the Agra district.—Wilson.

GOLCONDA or Golcogonda, the name of a town and of its taluk in the Vizagapatam district in the Madras Presidency; population, 94,782, almost all Hindus. In 1836 the rani was murdered; and in 1845, and again in 1857-58, the chiefs rose in rebellion, and troops were employed against them.

GOLCONDA, a fortress and hamlet on the left bank of the Moosa river, 5 miles W. from Hyderabad, now under the Asof Jahl dynasty. Golconda was formed into a Hindu kingdom in the reign of Muhammad Taghalaq, by a descendant of a royal house of Telungana. A Mahomedan dynasty was subsequently founded here by Kuli Kutub Shah. He ruled for 60 years, during which he was employed in reducing the Hindus eastwards to Musalipatam and Rajamundry. Golconda fell to Aurangzeb in 1677, after a protracted siege. In Orme's time, under the Asof Jahl dynasty, the Golconda sovereignty included Aroot, Kurnool, Cuddapah, Rajamundry, and Chicaole. The town of that name has almost disappeared, but the fortress on a fortified rock remains. It is commanded by a low range of hills to the north. See Hyderabad.

GOLD.

Zahab, ARAB. Zar, PERS.
Guld, DAN., SWED. Zloti, POL.
Goud, DUT. Oiro, Ouro, PORT.
Oro, ITAL. Ouro, SP.
Zabab, HER. Suvarnam, SANS.
Sona, HIND. Pomno, TAM.
Oro, IT., SP. Bunganore, TEL.
Sol, Aurum, LAT. Albin, TERR.
Ams, Kenehana, MALAY.

Gold is almost always found native, but seldom perfectly pure, being alloyed with minute quantities of other metals, which sometimes considerably affect its colour. Sometimes it occurs in combination with silver, constituting electrum; with tellurium in native tellurium; with silver and tellurium in graphic and yellow tellurium; and with lead and tellurium in foliated tellurium. A native amalgam of gold has been found in California, especially near Mariposa, and in Columbia; and an alloy of gold and bismuth in Rutherford County, North America. It sometimes occurs in small quantities in metallic sulphides, as in galena, iron pyrites, and copper pyrites, and is occasionally alloyed with palladium.

The finest native gold from Russia yielded—gold 98°66; silver 0°16, copper 0°55, from 0°05; sp. gr. 19°09. A gold from Marmata afforded merely 73°45 per cent. of gold, with 26°48 per cent. of silver; sp. gr. 12°666; 8 to 1 is the most common; 12 to 1 also is of frequent occurrence. Copper is often found in alloy with gold, and also rhodium. A rhodium gold from Mexico gave the sp. gr. 15°5 to 16°8, and contained 34 to 43 per cent. of rhodium. Iron and copper pyrites are often mistaken for gold by the inexperienced in ores; but gold is at once distinguished by being easily cut in sizes, and flattening under a hammer. Pyrites, when pounded, are reduced to powder; iron pyrites are too hard to yield at all to a knife, and copper pyrites afford a dull greenish powder. Moreover, the pyrites give off sulphur when strongly heated, while gold melts without any such odour. Native gold is to a large extent obtained from alluvial washings. It is also found disseminated through certain rocks, especially quartz, gneiss, and talcose rocks, and it is often contained in pyrites, constituting the auriferous pyrites; the detritus affording gold-dust has proceeded from some gold-bearing rocks.

Gold is mentioned as an article of the eastern commerce of ancient times. In the Bible (1 Kings ix. 28), about 1000 n.c., Solomon king of Israel made a navy of ships in Ezion-geber, which is beside Ethol, on the shore of the Red Sea, in the land of Edom. And these ships brought gold, silver, and precious stones from Ophir and Tarshish in such quantities, that king Solomon exceeded all the kings of the earth for riches. Silver was so plentiful at his court, that it was accounted nothing of. The king's drinking-cups were made of pure gold, and his shields were covered with beaten gold. It has never been settled where that Ophir and Tarshish were situated, but we are distinctly told that the navy of Tarshish brought gold and silver, ivory, and apes, and peacocks; and it has been surmised by some writers that Tarshish was either China, or some islands in the China Seas. Ophir has been variously supposed to have been some district or port in the Red Sea, on the east coast of Africa, or on the Malabar coast or coast of Malacca. Some Portuguese historians have supposed that it was Sofala, or some other place near the mouths of the Zambesi, on the east coast of Africa. The Tarshish fleet is, however, said to have arrived at Ezion-geber only once every three years, from which we may fairly infer that the voyage was a considerable one, or that the ships had to go with the S.W. monsoons, and return with the N.E. winds, or that they made a trafficking voyage from one place to another, until the cargo was sold and another shipped. Ships or boats coasting from the Red Sea to the mouths of the Zambesi would scarcely take three years for a trip. Ezion-geber, on the shores of the Red Sea (1 Kings ix. 26), is a little port at the head of the Elanitic or eastern gulf of the Red Sea.

There are at present in the Eastern Archipelago two places called Mount Ophir, one of them a mountain in Sumatra, in the Palimbayang district, 9770 feet above the sea, to which the name was given by the Portuguese, and they gave the same name to a mountain 40 miles N. of the town of Malacca, 5693 feet high. In the vicinity of both of them gold has been obtained.

Africa.—There are gold mines in Africa at Kordofan, between Darfur and Abyssinia; also south of Sasso, in the eastern part of Africa. From Sasso to Cape Palmar—also along the coast opposite Madagascar, between lat. 22° and 28° S. Ethiopia was conquered by the Egyptians, and its gold mines were worked by Egyptian skill. The gold was found in quartz veins within a slaty rock, at various spots in the Nubian desert between Derr on the Nile and Souakin on the coast. They were said to bring in each year the improbable sum of 32 millions of mine, 70 millions sterling (Diod. Sic. lib. i. 49), as was recorded in the hieroglyphics under the figure of the king in the Memnonion, who is there offering the produce to Amun-Ra. To these mines criminals and prisoners taken in war were sent in chains, to work under a guard of soldiers. No other known mines were so rich. From the word
Noub, gold, the country received the name of Nubia, or the land of gold, and gold was shipped from the port afterwards by the Ptolemies named the Golden Berenice, not many miles from the modern Souakin.

In Arabia, silver, iron, lead, and copper are met with in different parts, the last recently in Oman; and gold is mentioned by the ancient writers, but appears it is not known to occur in Arabia.

In Ceylon, gold hills have been discovered at Kollaram. Ham has been said to be the Tamil name of Ceylon, and to signify gold, but gold in Tamil is Pennu.

In India, scales of gold are found in the gravel of river-beds over a great extent of country.

On the Malabar coast, in particular, it is widely diffused. The geological formation there is very similar to that which led Sir Roderick Murchison to foretell the existence of gold in Australia. The discovery there in the 19th century, of shafts and adits of unknown miners, shows that the region had long been known as auriferous.

In South India, writes Mr. Burr, gold occurs in Coimbatore and the southern declivities of the Neelgherry Hills. Sir Whitechow Ainslie (Materia Medica, i. p. 514) mentions that the gold discovered by Mr. Mainwaring in the Madura district, occurs mineralized by means of zinc, constituting a blende. The streams running through the Palghat valley, which have been covered at Palghatcherry, and form the great Poonary river, all contain gold. In June 1832, Lieutenant Nicolson visited Darapuny, at the foot of the Shevaroy Hills, Sattiamungalam, Donagancottah, Adduvaram or Stremogoy, and Metallomull, where gold is found. Natives likewise wash for gold at the branch of the Caury which runs past Darapuny. Gold mines are mentioned by Heyne (Tracte, p. 342) as being worked at Suttergul, a few miles from Pungumpilly. At Pulkhanath, 14 miles north of Dindigul, just under the east end of the Pulney mountains, gold is found in small particles in the alluvium and sand of a plain at the foot of a small mountain. Mr. Burr mentioned the southern declivities of the Neelgherry mountains as gold districts; and Dr. Benza stated that gold had been found on the plateau of the Neelgherry Hills, below Gradation Hall.

In 1851, Mr. Sheffield reported that gold-dust weighing 11,449 fanams had been collected in a few of the taluks of Malabar, and that gold is found in all the rivers of the Malabar Province, from the stream which falls into the sea at Elatur, about 8 miles north of Calicut, as far south as the numerous streams flowing through the Palghat valley, which form their junction about 15 miles below Palghatcherry, to the great Poonary river, and some of which reach the southern boundary between Cochin and Malabar about 110 miles to the S.E. of Calicut. Lieut. Nicolson during 1830 and 1831 traced the source of the gold to its matrix in the rocks of the Kundah and Mokurty Hills, and he found many pits 20 to 40 feet in depth, sunk on the different hills in the neighbourhood of Devalla. Agricultural slavers of the Panier case had, it is said, on several occasions during the last few years come across nuggets of gold, which were of sufficient value to enable them to cease work for two and three years at a time.

Mr. W. King, deputy superintendent of the Geological Survey, examined a considerable portion of the Wynaad, finding quartz reef apparently auriferous through a considerable extent of country, and obtained gold at the rate of 25 dwt. to the ton from some of the surface outcrop. The chain more immediately connected with the gold washing is formed of the Kundah and Mokurty Hills to the S.E. of Calicut and Neilgherries to the east, and the Wynaad mountains to the N.E. These send off numerous lateral ranges, between which are chief valleys, in most places closely covered with forest. The most extensive of these is that of Nellumbur, including nearly the whole of the Ernaad taluk, bounded on the E. by the Neilgherries, on the N. by Wynaad, on the N.W. by a lateral range running S. from the Ghats called the Wawoot Hills, and on the S. by the Kundah and Mokurty mountains. From these on all sides immemorial mountain streams descend, and, uniting near Nellumbur, form the B erypur river, of considerable magnitude, which falls into the sea about 8 miles to the southward of Calicut. In the mountainous district of Wynaad, streams in the same manner descend through every valley, and unite into streamlets and rivers, which fall into the Caury in the Mysore and Coimbatore countries, comprising an auriferous tract of 1500 square miles. The part most abundant in gold is at Maladam, near the Mysore frontier, where one grain in every 65 lbs. of earth occurs. In Wynaad it is found in the sands of Cherankodd, Devalla, Nelyalam, Poneri, and Pulyode.

The Punnopoya, or Golden River, rises in the Paral Mallah N.E. of Mokurty, forming part of the main chain of the Neilgherries. The Punnopoya descends the mountains between Alliampully and the Carueur Cherum, and long before its formation with the Caruayeb it receives both the Kollakuppooya and Caracoopoya.

In the Nellumbur valley the washings are innumerable; the principal, however, are in the thickest part of the jungle immediately under the Wynaad Hills, and near the villages belonging to the Tiruppad of Nellumbur.

In Mysore there is an auriferous tract near Baitmanagala, at the base of the Baterine Hills. Lieut. Warren of H.M. 33d Regiment, in 1802, found it in the small unials or ruts or breaks in the ground at Warrigum, a small village 4 miles S.W. of Baitmanagala, also on the banks of the Palar river, and the Ponian near Caargory; and also at Marcupium, 3 miles south of Warrigum, where mines were worked by natives which had also been worked by Tipu. Heyne likewise (p. 41) stated that gold had been found near the hills to the S.E. of Ooccottal. Betwixt Annicul and Punganore it was found disseminated in quartz, and also in the alluvial soil.

Southern Mahacal Country.—About the year 1840, Captain Newbold (p. 44, vol. xi. of the Madras Lit. Journal) reported gold washings in the bed of a rivulet at Sattoor, a few miles from Dhoni, in the Kuppagotme range of hills near Damul; also in the sands of the same range, a few miles to the south of Gud- duk; and in the Kir taluk of the Dharwar collectorate, near Chik Mulgund. He also obtained a small button of silver from the auriferous ore collected in the sands near Dhoni, and a grey silver ore in a fragment of quartz. Subsequently, in 1852, Captain Ayton and Mr. Le Souef examined the auriferous tract of the Kuppagotme Hills,
and reported that it occurs in a broad band of chloritic hornblende, argillaceous and hemiatic schists. There are however some bands of granitoid granite and native gold-washers after the monsoon wash the heavy deposits of crushed quartz (detritus) which the rains bring down.

In the Ceded Districts, black sand mixed with the gold is found in the bed of the river at the village of Canahally, near Bellary. Gold is mentioned as occurring at Suttangul. Heyne, at p. 342 of his Tracts, describes it as having been discovered near Royaceottah, not far from Pangampilly, near Hurrydrug. Also a nullah takes its rise about a kos from Bavehully taluk, a hamlet of Mydur, in the Harpunhulli taluk, at a hill called Jageracu-gooras; and there is also another nullah, called Sheghahulla, rising in the same hill, and running into the Baegaly tank, where gold sand was formerly washed, but a man cannot procure more gold than will pay him for his day’s labour.

In the Hyderabod Territories, gold occurs at Goodaloor or Godalore, on the Godavary. Dr. Walker (p. 184, vol. xvi. of Madras Lit. Soc. Jour.) mentions its occurrence where the Ramgher and Cummutten Circars meet, and also in several nullahs that feed the Godavary from the south. It is washed for also in the bed of the river nearly opposite Marrigudum, in the Nuggur taluk, also where the Kinarsani nullah falls into the Godavary a little below Badrachellum.

Northern Circars.—Gold washing is carried on at Sumbulpur and Cuttack, and also in the beds of the Mahanadi and its affluents. The natives obtain a little gold by washing in the streams near Vizagapatam, in the Suvarna Rika or stream of the golden sands, the Lanji, the Godavary, and some parts of the bed of the Kistna.

In the Central Provinces gold-dust is found in the beds of rivers at Purnalia, Chutia Nagpur, in the beds of rivers in Manbhum and Palamow, and in the Pajqdhur nullah, in the Seoni district. The little stream rises in the Konye range of hills, and falls into the Wain-Ganga. The natives say they never get more than four annas’ worth by a day’s work, and would consider it unlucky if they did, as the goddess who is supposed to make it would then leave their locality. It is found in the Balaghat, being washed in the Dee and Sone rivers, in the Sonbera nullah near the Pancheera Ghat in the Dhanusa pargana, and in the Nara river of the Man tract, but the quantity obtainable scarcely repays the labourers. It is also washed in the sands of the Banjar river, an affluent of the Nerbudda; likewise in Bistar near the stones of the Kutri river, and towards Pratapur, and in the forks of the Kutri and Indravati rivers; also in some of the nullahs of the Chanda district; and diamonds and rubies were formerly obtained near Wairagur.

In Afghanisthan, gold and lapis-lazuli are found at Huladat near Bamiyan, and at Istalif north of Kabul, also in the Kabul river, and auriferous rocks occur near Kandahar.

Central Asia.—Gold is found on the banks of the Basha stream, in Little Tibet. Vigne had no doubt that the drum or marmot of Little Tibet are the ants as big as foxes’ noticed by Herodotus as throwing up gold. Nagir is celebrated for its gold workings. Tavernier tells (p. 189) that toward the Thibet, which is the ancient Caucasus, in the territories of a raja, beyond the kingdom of Chachmeir, there are three mountains close one another, one of which produces excellent gold, the other granate, and the third lapis-lazuli. Tshok-kjalung, in lat. 32°, is the chief gold field of Western Tibet. It is a large desolate plain, about 16,000 feet above the level of the sea, and in 1868 the pandit sent by Captain Montgomerie saw a nugget weighing 75 tolas, nearly 2 lbs. In Tibet the gold fields are said to extend from Rudok to Lhasa, or eleven degrees of longitude. They also extend northerly to between Aksu and Ill. The places mentioned in Tibet are Thok-Jalung and Thok-Daarakra, Tang-Jong and Sarka Shayar. The gold mines of Sar Chaka are about 100 miles north of the borax mines of Gnari. It occurs in nuggets in quartz. The gold mines at Thok-Jalung, in lat. 32° 30’ N., are north of Kalsis; and the mines under the still lofter peaks of Ailing Gangri are said to be especially productive.

There is a gold mine at Dango Bookpa, twelve days’ journey S.E. of Manasarowar; and they say one was discovered between Gungeoo and Manasarowar, which was immediately shut up by orders from Lhasa.

Gold-dust is imported into the Panjub from Elache in Khoten. Gold is found in Gnari and Guge, Baltistan and Zanskar. Dr. Cleghorn mentions (Report, p. 178) that a little gold-dust is brought across the higher range through Umbas from the valley of the Indus, where gold washing is carried on to a considerable extent.

Lieutenant Woolt angrily grills in Wakhán, called Zarzamin, Gold ground, and says (p. 382) all the tributaries of the Oxus are fertile in gold. Gold-dust to the value of £8500 was imported from Turkestan into India in 1871, and a new gold field has been discovered near Khoten.

Indus and Pakistán.—Gold is obtained from the sands of the Indus; and between Attock and Kalabagh about 300 persons are employed in washing the sand for gold, which occurs in small flattened grains. The Indus flood of 1842 strewn with gold the fields of Chuch above Attock. Dr. Thomson (Tr. p. 212) found a number of people a little below Khipaloo, washing the sand of the Indus for gold; but the work is only carried on during winter, when labour is of no value for other purposes. He purchased for a rupee (paying, he believes, a good deal more than the value) the produce in gold-dust of one man’s labour for three weeks. It is found in the districts of Ambala, Kangra, Lahore, Rawal Pindi, Jhelum, Hazara, Bannu, and Peshawur. It occurs in the form of nodules in the sandstone of the Salt Range, a lower range of hills running parallel to the Himalayan chain, between the rivers Indus and Jhelum; it is also found in small quantities in the sands of the Indus, Jhelum, Beas, and Sutloj; but the gains are not more than from 3d. to 6d. a day, and the proceeds of the annual lease of gold washing amounted in one year to but £34. The gold workings of the Salt Range are nearly all in the Jhelum district. In the year 1850, 158 cradles were at work, and they were taxed from Rs. 2 to 5 per ton; the total tax amounted to Rs. 525. In the streams where gold sand is washed, grains of platinum are occasionally found in small quantities; the gold-seekers call it Safed soma, white gold, and reject it as useless. Platinum has also been found in the Tavi rivers of Jummuvo
GOLD.

The gold of Ambala and Kalkhan is said to be of a coarse, almost as bad as that of China. Gold-dust is washed for in the Tezapore district. The value of the gold on the spot is Rs. 16 the tola of 180 grains. At the junction of the Kohiri stream with that of the Brahmputra, about 375 oz. are said to be collected annually. The Brahmputra was followed from Suddya to Paghat. Gold-dust was found along the banks of the stream, particularly at angles or reaches where the alluvial matter is re-deposited.

Burma.—From Assam southwards, and into the Eastern Archipelago, gold is washed for by the Burmese, Malays, and Chinese. Mr. Oldham says, 'The geological structure of the greater portion of the Malay Peninsula, extending to Arakan northwards, so far as is at present known, indicates the probability of auriferous deposits being found throughout the whole extent, on the flanks of the hills, and in the valleys of the mountain chains. The ascertainment of existence of gold in more localities than one in the Tenasserim Provinces, at Shoay-gween in Pegu, and the association in all those localities of magnetic iron-sand with the gold, a mineral which is so constantly the accompaniment of gold as to have been frequently called by miners "the mother of gold," confirm this reasoning from analogy; and I have little hesitation in stating my conviction that such auriferous deposits will be found to occur at intervals throughout the whole range, and that locally they will prove to be very rich. This metal is largely used by the Burmese in the decorative arts; and in former years 400 or 500 viss were annually imported from China. But in the Mogong district there is a considerable gold-field. Mr. Golding, of Australian experience, contracted with the king to work one square mile of this field for a sum of Rs. 25,000 annually for 10 years, but Mr. Golding remitted to fever; he, however, renounced the fields to be equal to any in Australia, if not better. To the N.E. of Mandalay, in the Shan district, there is another field of gold; but the locality is malacious, and but little gold is procured. At Thayet-peein-yun, near the Myit-Nay, on the road to Pyong-shoo, to the S.E. of Mandalay, the gold quartz is found in abundance, the reefs cropping up from the ground. A Shan procured from here a piece of quartz 3 lbs. in weight, that produced exactly 2½ tikals of gold. In the Yaw district, to the S.W. of Mandalay, gold is obtained in fair quantities in the alluvial deposits; it exists at Sagaing, Kannee, Sein-joo; is also obtained from the Kyen-dwen river, also from the sands of most of the streams between Mandalay and Mogong, and in the sands of the streams in the vicinity of the coal mines of Thingan-dhaun. The washings in Burma are principally amongst the streams to the eastward of the Irawadi, though those to the west also yield it. The Kibiung stream is one in which it is thus sought. Gold-dust is found in the Hukong valley, and small solid nuggets of it in the banks of the Kap-Dhoo stream; and along with the gold, khumpok or platina, which the metal-smelters melt and mix with alloys of copper and silver, for bowls, tobacco-pipes, etc. Gold-washers near the coal mines of Native Burma can, it is said, earn 300 yuca = 3s. per diem. The dust is deposited by the Nara rivers, at the mouth of the Mandhibon stream on the Tenasserim g-ween river. The gold-dust and flaxes and nuggets found in the surface sands of Shoay-gween are of considerable purity, yielding 92 per cent. of gold and 8 per cent. of silver.

Malay Peninsula and Eastern Archipelago.—The metal is found in sufficient abundance to be worked, in the Malay Peninsula, in Sumatra, the northern, western, and southern sides of Borneo, the northern and southern-western peninsulas of Celebes, and in a few parts of the great Philippine islands of Luzon and Mindanao or Magindanao. It has been coined for money at Acheen. Mr. Crawford (vol. xiv. p. 483) gives a table showing the amount received in Calcutta, from 1801 to 1814, from the west coast of Sumatra, and from Borneo and the rest of the Archipelago, a total of 146,195 ounces, valued at 2521,928. 15s. Mr. Logan estimated the total produce of all the Malay Peninsulas at 29,000 ounces; it was washed from the sands of the Tenasserim stream south, and the streams that tumble from the high granite mountains between Yav and Monmagon are constantly "rolling down their golden sand" into the valleys around. It has been collected in small quantities in the tin deposits east of Tavoy. Mr. O’Riley found gold in the tin from Henzai, half a degree south of Yang; and "almost all the creeks," says Dr. Helfer, "coming from the eastern or Siamese side of the Tenasserim river, contain gold. The greatest quantity is obtained close to the old town of Tenasserim, where people wash it, and obtain sometimes one anna’s weight each, during the rainy season." At the head-waters of Tavoy river, it is found in an alluvial or diluvial formation of red earth and pebbles, very similar to that in which gold is found in North Carolina. Mr. O’Riley says that the assay master at the Mint in Calcutta, in 190 parts reported gold 87-895, silver 9-244, base metal 2-864. In the Malay Peninsula, gold is chiefly got at Ulu Pahang, Tringam, Kalantan, Johole, Gominchi, and Jelle, at Reccan and Battan Moring, and other places, at the foot of Mount Ophir; and in Nanning, near the hill Buket Jalsa. Ophir mountain is about 40 miles east of Malecena; its height is calculated at 5693 feet. Gold-dust is found at Taon and Gominchi, near its base, which at an early period gave it the name Ophir, and later on suggested it as the source of Solomon’s wealth, the Aurora Chersonesus of antiquity. It occurs there disseminated and in thin granular veins, in quartz and in alluvial deposits, such as beds of streams. Gold is found in Perak at depths of 30 to 40 feet below the surface.

Siun.—Gold is found in Siam at Bang Tablan, in the province of Xamphon, at the foot of the Three Hundred Peak mountains. On the east side of the mountains at the base of which the deposit rests, the Siamese Government says Dr. Morton, ‘have several hundred men perma-
nently occupied, each of whom, it is said, is expected to deliver one tikal (about one rupee and a quarter) weight of gold-dust per annum. The Burmese authorities in former times also employed people in this work at the streams on the British side of the boundary, but though the quantity then procured was greater than at present, this does not appear to have ever been considerable. The method adopted is that of digging a longitudinal excavation in the sand, and washing from time to time the deposit found therein.

In Siam, after the rainy season, Tavernier says (Tr. p. 156) they find veins of gold in the flints (quartz?), which the waters wash down from the mountains that lie toward the N.E. Upon the west side of the island, when the Hollanders come to trade their pepper, the natives bring them great store of gold, but very coarse metal, if not worse than that of China.

Borneo.—The produce of the western side of Borneo, in the neighbourhood of Montrulok, is by far the largest. The metal is found in small veins from eight to fifteen feet below the surface. If the depth of the veins be less than ten feet, a trench is dug, the whole of the upper stratum being removed; but if deeper, a shaft of three feet square is sunk perpendicularly into the vein, and the miners work into it about ten feet in both directions, sending the ore up in baskets. When it is all removed, another shaft is sunk into the vein 20 feet beyond the first, and the miner works back into the old excavation, extending his labours ten feet in the opposite direction. The gold is for the most part as fine as sand, and is often adulterated with a glittering sand called passir B'ni, or Borneo, sand. On one occasion rain fell in great quantities in Sarawak, and a considerable portion of the face of the Trian mountain was washed down into the plains below. The deposit was found to abound in gold, and afforded work for fully 2000 men for about a month or six weeks, and it was reckoned that at the smallest average they procured a shankal a month per man. The gold was in lumps, and not in dust, several of the lumps weighing from three to four shankal, and they were rarely less than one or two pounds in weight.

In Celebes, according to Professor Bikmore (p. 378), gold occurs over all the northern peninsula, from the Minahassa south to the isthmus of Palas. Tavernier also relates (Tr. p. 156) that 'Celebes or Macassar produced gold, which is drawn out of the rivers, where it roils among the land.'

Mr. Lawes says gold has been discovered in the interior of New Guinea.

In China, gold is collected in the sands of the rivers in Yunnan and Sze-chuen, especially from the upper branch of the Yang-tze, called Kin-sha-kiang, or Golden Sanded River. The largest amount is said by Sir John Davis to come from Li-kiang-fu, near that river, and from Yung-chang-fu, on the borders of Burma. It is wrought into pendent ornaments and knobs for official caps, and beaten into leaf for gilding. Silver also is brought from near the borders of Cochinchina, China; and the mines in that region must be both extensive and easily worked, to afford such large quantities as have been exported. It is found in the sands of the Min river in Sze-chuen, and in very many of the small streams in Chefoo in Shan-tung; the island of Hainan (Kiuang-chau-fu), also Shan-king-fu and Lien-chau in Canton province, several places in Yunnan and in Kwei-chau, all yield gold.

In the Japanese Islands, gold-dust has been largely washed for; but that of the Sado district in the northern part of Nippon, and those of Surunga, and Satzuma, and Omura, and Tsu-kan-go, are mentioned as the most productive.

The information given here as to the diffusion of gold in the streams of Malabar, the Neillaghers, and Mysore, was also printed in the first and second editions of this Cyclopaedia. It showed that the gold-washers were working at most about a day, and offered no prospect of profit to skilled workers. But in 1877 to 1882, speculators formed 26 companies, with capital amounting to about £3,000,000, about half of which went to the sellers of estates. It is the second speculation that has occurred in the Madras Presidency since 1860, the first having been coffee. Gold there is, but, as yet seen, by no means sufficient to meet the heavy demands of skilled labour and machinery. The annual imports of gold into all British India from 1872 to 1882 has ranged in value from £1,443,712 in 1877, to £4,586,382 in 1882.

GOLD AND SILVER FILIGREE WORK. The native silversmiths of Cuttack have long been noted for the fineness, neatness, and lightness of their filigree work. This kind of work is executed for the most part, under supervision, by mere boys, whose nimble fingers and keen eyesight are supposed to enable them to bring out and put together the minute patterns with more distinctness and accuracy than their elders can; comparative cheapness is perhaps another reason for their employment. The ruling rates for this filigree work are from two to two and a half rupees; that is to say, taking the first rate, two rupees or four shillings is charged for every rupee weight of finished silver work, namely, one rupee for workmanship and one rupee as the price of the silver. The filigree work in gold of Delhi and other places is famed. Next to muslins and embroidered fabrics, filigree work is that for which Dacca is most celebrated. The articles usually made at Dacca are ladies' ornaments, such as bracelets, ear-rings, brooches, chains, necklaces, etc., and attar-dans and small boxes for natives. The design best adapted for displaying the delicate work of filigree is that of a leaf. It should be drawn on stout paper, and of the exact size of the article intended to be made. The apparatus used in the art is exceedingly simple, consisting merely of a few small crucibles, a piece of bamboo for a blow-pipe, small hammers for flattening the wire, and sets of forceps for intertwisting it. The gold and silver filigree work of the Chinese equals any ever produced by ancient Venetian masters, and their chasing in silver is unrivalled. The art of enamelling on silver is also brought to great perfection in China, and specimens surpass any ever produced at Genoa.—Sirr's China and the Chinese; Dr. Watson.

GOLD AND SILVER WIRE. The drawing of silver and gold wire (i.e. silver wire covered with gold) used as thread in embroidery, is extensively carried on in several places, and Benares is celebrated for this art. There are several varieties of silver and gold thread (badla) made at Dacca, as kalabatun for the embroidery of muslins and silks; goshoor for caps and covering the handles

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of chowries; sulmah for turbans, slippers, and hookah snakes; and bunion, for gold lace and brocades. Some of it is drawn almost as fine as a hair. In the time of Aurangzeb, a quantity of this article was made yearly for the court at Delhi. A hundred sticks covered with it, and plain gold and silver badia to the amount of £2,000 in value, appear among items compositing the Malbooa khas nazr, or present of royal clothing annually sent to the emperor. The Trichinopoly filigree work is as light and elegant as the Malbaa. —Dr. Taylor.

GOLD EMBROIDERY. Zardozi, HIND. The oriental races have ever been celebrated for their skill in this art of embroidery, which appears to have been practised in Assyria, and introduced from thence into India. Pliny, however, mentions that it was a Phrygian invention, and in Rome embroiderers were called Phrygiones. In Babylon, clothes were woven of different colours, and called Babylonia. During the early part of the middle ages, Europe obtained its most important embroideries from Greece and the east. Many of the sarees or women’s clothes made at Benares, at Pytun, and Burhanpur, in Gujerat; at Narrinpet and Dhanwarun, in the territory of His Highness the Nizam; at Yeokla in Kandesh, and in other localities, have gold thread in broad and narrow stripes alternating with silk or muslin. Gold flowers, checks, or zigzag patterns are used, the colours of the grounds being green, black, violet, crimson, purple, and grey; and in silk, black, white with some yellow, crimson with green, blue, or white, yellow with deep crimson and blue, all producing rich, harmonious, and even gorgeous effects, but without the least appearance of or approach to glaring colour, or offence to the most critical taste. They are colours and effects which suit the dark or fair complexions of the people of the E. Indies; for an Indian lady who can afford to be choice in the selection of her wardrobe, is as particular as to what will suit her special colour—dark or comparatively fair—as any lady of Britain or France. India in this manufacture stands unrivalled, and it makes some very gorgeous shaniamans and elephant saddle clothes. The gold and silver fancy fringes of Hyderabad are well known in India. Solid silver wire fringes and ornaments are made in Madura, but they are surpassed by the silver thread of Hyderabad.

In the embroidered fabrics of India, it may be mentioned as a principle, that patterns and colours diversify plane surfaces without destroying or disturbing the impression of flatness. They are remarkable for the rich division shown in the patterns, the beauty, distinctness, and variety of the forms, and the harmonious blending of several colours.

In Burhanpur, most of the people are dependent in one way or other on the wire-drawing and cloth-weaving industries of the place. The value of its fine fabrics depends mainly on the purity of the metals employed in the composition of the wire, and to secure this the wire-drawing has always been kept under Government inspection. A hereditary tester, called the chaukshi, received and asayed all the silver and gold brought to the taksal or mint (where the Burhanpur rupee was also coined), and here the wire was drawn out to a certain degree of fineness before being allowed to pass again into the hands of the manufacturers, an arrangement still continued by the British. The drawing takes place only at Burhanpur and Lodhipur, a suburb of the old city. The silver bars are covered with a thin gold leaf weighing from four to forty-two masha (of fifteen grains troy each) to each pasa, that is, from about half to six per cent. on the amount of the silver. The number of masha employed is called the rang (colour) of the wire. The adhesion appears to be effected purely by mechanical skill on the part of the workmen, called pasa tana. It is then passed by the same workmen through a series of holes in steel plates, and dried while the wire, by means of copper, is applied by means of a spoked wheel of the rudest construction. It is passed through forty of these holes before it leaves the taksal, and is then reduced to about the size of an ordinary sodawater wire. Thence it goes into the hands of another set of operatives, called tana, who still further reduce it through a gradation of forty more holes, the last of which is as fine as a human hair.

Their apparatus is of somewhat more delicate construction, but the work requires neither the same skill nor hard work as the first operation. The wire is drawn by them down to various degrees of fineness, according to the work for which it is destined. The round wire is then given to the chauria, who flatten it into an almost impalpable film, by hammering between two polished steel surfaces,—an operation requiring, it is said, superior skill. In this state it is termed badla, and is used in the last stage of work. The inner part of it has, however, to be spun into a thread along with silk before being woven up. This is done by persons called bitai, who use no sort of apparatus for the purpose, excepting a couple of wooden spindles twirled by the hand. Indeed, the beauty of the result obtained by such primitive implements must strike every one with amazement. The layer of gold on the finest wire must be of almost inconceivable thinness. The mixed thread is called kalabatun, which is woven into the kimkhab and other brilliant fabrics worn by rich natives on high occasions.

The wire-drawers were originally Pathans, introduced from Upper India by the emperor Akbar, but now all castes work at the trade. The fabrics are of many different sorts, many of them of great beauty. Kimkhab (vulgarily kimno), which is of mixed silk and gold thread, is now little made in Burhanpur, the Ahmadabad and Benares articles, from being produced both cheaper and nearer the great markets for such stuffs, having driven it out of the field. The same may be said of mashroo, a fabric of silk warp with the wool of cotton thread, wrought with a pattern in kalabatun; though made to a small extent, it is greatly inferior to the produce of Ahmadabad. The chief fabrics still made in the city are zari, a very light rich stuff, in which the flattened wire is interwoven with silk in the warp with a thread wool, chiefly made up into scarves and sarees worn by females on wedding and other high occasions. Salari is half silk and half thread, with brilliant edging and borders of silk and gold thread, mostly in the form of sarees and do-pattas; pitambar, all silk with the same edging, is a better sort of the same. Turbans, sashes, etc., are made in all these fabrics. The gold thread also is much woven up with silks into rich borders and edgings, exported to be attached
to the cloth manufactures of other places. Silk for these cloths is all imported; it is mostly from China, generally spun and dyed in fast colours at Poona. A little, however, is spun in the city from the material imported raw. The cotton thread used is extremely fine, and is both English and made on the spot. The former costs in Burhanpur exactly one-fourth of the latter, but it is greatly inferior both in strength and cleanliness. The closely-twisted native thread breaks with a sharp crack, while that English article, from its flabby, open charred parts without any noise. The English thread, from its cheapness, has, however, supplanted the native for all but the finest stuffs. The city thread is spun by the families of the weavers and others, the best being produced by the Balahi or Dher caste. A coarser thread is generally spun throughout the country by the women of almost every caste. It is woven into every description of common cloth by the Burhanpur weavers, even the best of them, when out of fine work, having to take to the commoner stuffs. The latter now greatly preponderate in quantity. The supersession by the rough-and-ready Maharrattas of the luxurious Mahomedan princes and nobles, was probably the first blow to the trade. The average earnings of the weavers range from about five to ten rupees a month, besides what their families earn by spinning, dyeing, and odd work connected with the trade.

Among the manifold and various manufactures of China, the gold and silver tissue cloths of Pekin stand deservedly in high estimation; their chief value arises from the peculiar property which they possess of never tarnishing or becoming dis-coloured.—Dr. Watson; J. B. Waring, Masterpieces of Industrial Art, Exhib. of 1862; Williams' Middle Kingdom; Boyle, Arts of India.

GOLDEN FOOT, a title of the king of Burma.

GOLDEN ISLAND, or Chinas, is in the middle of the Yang-tze-kiang, or great river of China, where the width is near three miles. It is the property of the emperor. It is interspersed with pleasure-houses and gardens, and contains a large monastery of priests, by which the island is almost entirely inhabited.—Macartney's Embassy.

GOLDEN LILIES, a translation of the name given to the cramped feet of the women of Chinese origin. It is not practised by the Hakka, a race of ancient Chinese stock who emigrated from Northern to Southern China about the 13th century; nor amongst the Manchu, nor amongst the hill tribes of Formosa.

GOLD FISH, Cyprinus auratus, seem to have long been known in China, and were introduced into Britain about the 15th or 16th centuries. They are seldom seen in India, but are very common in the Mauritius. They are supposed to be of accidental production, as they are not found wild, and their fins and tails highly vary.


GOLD-LEAF. Kin-poh, Chin. This is roughly made in China, and largely exported to India. In China suicides swallow it, as also gold-dust: these produce mechanical irritation and death. — Smith.

GOLD MOHUR, also called Ashrupee, a gold coin, value about fifteen or sixteen rupees.

GOLD, OXYMEL of Kin-ising, Chin. The Chinese regard this as an elixir vitae.—Smith.

GOLDSMITH, one of the five artisan castes among the Hindous of India, the other four being the blacksmith, carpenter, brazier and stone-cutter. These all wear the pootn, zonar, or sacred cord, and do not reverence Brahmanas. Those in the Malabar country follow the rule of descent by the mother, and their women are polyandrists. In Western India they are distinguished by their country, as Marwari, Gujarati, Cuchhi, or Dakhani, and work at ornaments worn by people of their respective castes or countries. The Cuchhi are the best workmen. Usually the intending purchaser finds the gold or silver, and the artisan charges from three annas to two rupees and upwards per tola, according to the simplicity or richness of the design. A large number of articles in gold and silver are annually made at Bhooj, Guibadan, or rose-water sprinklers, are manufactured for native use. The silver and gold used is very nearly pure. The charge is at the rate of 8 annas per tula weight.

GOLD-THREAD is largely used in the embroidery of India. There should not be any alloy whatever in the gold or gilt silver thread used. This alone can preserve it from tarnish; and as gold thread enters very largely into the patterns of most native cloths, it would be impossible to make any of high value acceptable without it. In its manufacture, a small bar, ¼ inch diameter and about 6 inches long, of the purest silver, is trebly or quadruply gilt by the highest touch gold; there is no alloy whatever used in the highest kinds, but the value of the thread depends upon the number of times the silver has been gilt with pure gold. The gilt bar is beaten out to a thick wire with carefully polished flat hammers, on a polished anvil, and afterwards drawn through a succession of holes in a plate, until the requisite fineness is obtained, which is hardly more, probably, than a fine hair. The wire is wound round upon reels, and is flattened by a delicate and peculiar manual operation as follows:—Three reels of wire are placed upright on the further side of a steel plate, perforated, through which the wire is drawn; the workman draws these wires towards him over a highly polished steel anvil, placed on a small stool, and as they pass strikes them sharply with a somewhat heavy hammer, the face of which is also perfectly flat and highly polished. The operation is very rapid, and must require great skill so as to ensure uniform flatness and perfection in the wire thus prepared for use. To make it into thread it is twisted upon silk thread of various degrees of fineness, as required, by a simple process as follows. The thread passes over a ring or hook a few feet above the operator, and then is wound upon a spool with a long Shank which hangs near the ground. A rapid twist is given to it by the workman, by rolling it sharply on his thigh, and as it spins the gold thread is directed carefully along, so as to cover the whole exactly as high as the man can reach. The spindle is then stopped, the covered thread wound upon it, and the operation resumed. It is doubtful, perhaps, whether any mechanical
GOLEEREE.

Go, a shepherd, grazer, or cowherd. A man of a caste whose duty it is to graze sheep or cattle. See Goala.

GOLAR or Goller, a race in India who are treasurers, cashiers.

GOLAR. Tel., KARN. A shepherd, grazer, or cowherd. A man of a caste whose duty it is to graze sheep or cattle. See Goala.

GOLOKA, the highest world, residence of Krishna; perhaps Go-loka, the cow-place.

GOLUK, a Hindu race in Woon.

GOLUNDA. Tel., KARN. A race, probably a tribe, of the Khasi, a branch of the Assam tribes, called Koli by the Mutart in the Census report of 1872. They are a race of sheep-herds, who live on the plains of Khasi hill, and go to the plains of the Ganges in the winter. They are a peace-loving race, and are not addicted to war.

GOLUNDA ELLIOTTI. Jerd. Bush rat. Mus hirsutus, Elliott. Mus cochen. Kelaart. One of the most interesting animals of the genus Mus of the island of Ceylon, is the Mus hirsutus of Balistis, which is a species of the same family as the M. rudis of the Ceylonese, and which is found in the jungles of Ceylon.

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The soft-furred field rat lives entirely in cultivated fields, in pairs or small societies of five or six. In 1826, owing to a deficient monsoon, they ascended in multitudes, and destroyed the seed grain and grain in the ear. The rats employed the Wadda to destroy them, but thousands were killed without diminishing their numbers. They are eaten by the Wadda race. It has only been found in Southern India.

Dr. Kelart describes G. newera as occurring in Ceylon.—Elliot.

GOMAL, a pass at the head of the Gomal valley, in lat. 32° 27', long. 70° 30' E., and about 100 miles long. It runs 20 miles from the entrance of the road to the N.W., then 80 miles S.W., then N.W. to Ghazni. This pass is of great commercial importance. Every spring large caravans traverse it from Hindustan to Afghanistan.

GOMASHTA. Hind. An overseer, an agent, an accountant.

GO-MEDHA. SANSK. From Go, a cow, and Mehta, flesh. A cow nourishing its flesh.

GOMEZ, Lorenzo de Gomez, a Portuguese, was the first of the European navigators who approached the northern part of the island of Borneo. He arrived there in 1531 in the ship St. Sebastian, on his route to China. He gave to the country the name of Burn, but he says that the natives term it Brannai or Brunai. The people have, however, no general name for the island.


This tree grows to the height of 30 feet on the continent of India and in Ceylon, and is common up to an elevation of 3000 feet. The wood is useful for building purposes.

GOMPHEREA GLOBOUSA. Linna. Ma-hyana, BURM. Gul birlikum, HIND. Jaffari gundi, DUKK. Lal-gul, URDU. Everlasting flower, ENG. Pedda goranta, TEL.

This flowering plant has a red and white variety, and the red resembles red clover. It is cultivated in gardens.—Roeb.; Mason.
GO-MUKHI.

which rises in the Aravalli mountains, and flows near Udaipur. It was dammed across by the rana, and the great Kankraoli Lake formed, 12 miles in circumference, at a cost of one kror and fifteen lakhs of rupees.

GO-MUKHI. HIND. A bag used by Hindu devotees; it contains a rosary, the beads of which are counted by the hand. Literally the two words mean cow's mouth.

GOMUTI. MALAY.

Duk or Dok, . . . Jav. | Atu,       . . . Sum.
Uj, Sib,    . . . Mal. | Scho,      . . . Tel.
Sagw,      . . . Port.

The Tree.

Naw,     . . . Amb. | Abo, Areng, Indro, MALA.

Gomuti is a fibrous horsehair-looking substance, produced at the base of the petioles of the Arenga saccharifera, and superior in quality, cheapness, and durability to that obtained from the husk of the coconut. It has great power in resisting wet, and is used by the natives of the Indian islands for every domestic and naval purpose to which cordage is applied. The coarser parts are used as pens by all the tribes who write on paper, and as the arrows for blow-pipes or arrow-tubes. Gomuti, of all vegetable substances, is the least prone to decay; it is fastened like straw over bamboo thatch round the ends of posts placed in the ground, is mixed with mortar, and is plastered by the Bornoese into ornaments for the arms, legs, and neck. Gomuti fibre is in Europe occasionally heard of by the name of vegetable bristles, but only a portion of the fibres may be likened to stiff bristles, the greater part being more like black horsehair. Dr. Roxburgh, writing in the year 1799, strongly recommended the extensive introduction of this palm into India; and the Arenga now grows in Bangalore, and to some extent in the Nuggur division of Mysore. The palm-wine and the sugar it yields, the black fibres for cables and cordage, and the pith for sago, independently of many other uses, are objects of commercial importance. This palm is to be found in all the Asiatic islands, especially in low moist situations, and along the banks of rivers. The native shipping, all kinds are entirely equipped with the cordage of the gomuti. It undergoes no preparation but that of spinning and twisting,—no material similar to tar or pitch, indispensable to the preservation of hemp cordage, being necessary. The best gomuti is the produce of the islands farthest east, as Ambonaya and the other spice islands. That of Java has a coarse ligneous fibre; the produce of Matura is better. Gomuti is generally sold in twisted shreds or yarns. Besides the horsehair-like fibres, there is at the base of the leaves a fine gossamer-like woolly material, 'Baru, MALAY, Kawal, Jav., much employed in caulking ships, as stuffing for cushions, and as tinder. Eju was sent to the London Exhibition of 1861. The bundles of the coarse and fine fibres were about six feet in length, and about twelve inches in diameter, neatly tied up with split cane. Interspersed among the coarser were some finer fibres, something like black wool. The sinnet is coarse, but strong, and broke with a weight of 85 lbs., when coir of about the same size broke with 75 lbs.; but the comparison was not very exact. Besides making strong and durable cordage, the eju fibre is no doubt applicable to a variety of purposes for which horsehair and bristles are now employed.—Royle, Fib. Pl.; Seemann on Palms; Vout; Roxburgh; Morrison's Comp. Desc.

GONDA, also Gonaapat. HIND. Gunny: a coarse canvas or sackcloth made from the Corchorus capsularis (pat) and C. olitorius, of which the gunny sacks, cordage, and paper are made.—W.

GOND, the province of Gondwana, on the old maps was bounded on the S.W. and W. by the Godavery, Pranhita, and Wardha rivers, and the Kalagong Hills; the Nerbudda separated it from Malwa and Dumoh, and the boundary line ran N.E. along the Kutne, and on the N.E. side it had Berar and Chutia Nagpur. On the E. and S.E. it extended at least to a line drawn from Gangpur on the Brahminhi to Bhdraachalam, about 120 miles from the mouth of the Godavery, and included Simbulpore, Sompur, and Patna; but on Hamilton's map of 1820 it includes Kalahandi, Bond, and Singbhum. Its length from S.W. to N.E. was not less than 380 miles, and its average breadth fully 300, whilst its area was at least 115,000 square miles. Gond tribes are scattered over the mountain ranges of this territory, though they do not extend quite so far to the E. as it does. They are found extending into Sirajga on the N.E.; they are found in Karial and Kalahandi or Kharond, along with the Khand and Uriya. In the south, says Mr. Hislop, they form the mass of the population of Bastar, and a portion of the inhabitants of Jeyapore (in the Madras Presidency), while they occupy the hills along the left bank of the Godavery, about Nirmul; and on the west they are intermingled with Hindus of Berar for 30 miles from the right bank of the Wardha. The chief remaining sites of the aboriginal tribes of Central India is the Satpura plateau, divided among the British districts of Baitul, Chhindwara, Seoni, and the higher half of Mandla. Commencing from the west, one-half of the population of Baitul is Gond; in Chhindwara, the proportion is as high as three-fourths; in Seoni, which is traversed by the main line of communication through the plateau, it sinks to one-third, rising to one-half in the wild district of Mandla, where the last Gond kings held sway. To the east and west of this region, hill races of a different stock press in upon the Gonds, Kurku, Bhill, Baiga, Kol, and Dhangar.

The name Gond or Gundi, says Mr. Hislop, seems to be a form of Kond or Kund. Both forms are most probably connected with Konda, the Telugu equivalent for a mountain, and therefore will signify the Konda-wanu, hill people. And this name they must have borne for many ages, for we find them mentioned by Ptolemy, the geographer (A.D. 150), under the name of Gondaloi. But it has also been supposed to be a contraction of Govinda, literally cow-keeper. Of their history we know but little. Under all changes they appear to have preserved their own forms of worship and social habits; but some have adopted to a greater or less extent the forms of Hinduism, and a still fewer number have become Mahomedans. The Rajputs from Malwa seem to have pushed their conquests into the country and intermarried with them. Their descendants are still known as Rajputs or Gond Rajputs. They established governments, one of which ruled the Nerbudda valley, and had its capitals at Mandla and
at Garha, near Jubbulpur. It was founded by Jada Rai, who succeeded his father-in-law Nagdeo, the Gond raja of Garha (A.D. 358). Mandla was conquered by his descendant, Gopal Sa, A.D. 684. Sungram Sa, the 47th in descent from Jada, inherited only three or four districts in 1480; but at his death, in 1530, he ruled over fifty-two. Fergusht tells us that when Asaf Khan invaded Garha in 1563, Bir Narayan was raja. Hirdi Sa, the 54th raja, built the temple at Ramnagar, near Mandla; and Sereaj, the 59th, began to reign in 1742, when Balaji Bajo Rai invaded the country. A second kingdom had its seat on the southern slope of the Satpura Hills, at Deogarh in Chhindwara, one of the rajas of which, Bahadur Bahadur, was either taken prisoner by one of Aurangzeb's generals, or visited Delhi of his own accord, where he was converted to Mahomedanism, and then permitted to return to his country, where his descendants, say Mr. Hislop, though adhering to this change of creed, have not ceased to marry into Gond families, and hence the present representative of that royal house is not only acknowledged by the whole race about Nagpur as their head and judge, but is physically regarded a pure Raj Gond. A third Gond principality had its capital at Kherla in Baitul, to which belonged the famous forts of Gawilgarh and Narnalla. In 1493, its raja, Narasingh Rai, who is represented as powerful and wealthy, was slain in battle by Hushang Ghorii, king of Malwa, and Kherla taken. At a later date it appears to have become subject to Pandu Gauli, the raja of Deogarh, and continued so under his successors. Not far from Kherla we find a hill raja at Saoligad in Aurangzib's time, who seems to have maintained his independence till swept away by the Maharratts between 1760 and 1775. A fourth Gond kingdom was that of Chanda on the Wardha, which extended far to the east and south-east. The four kingdoms arose before the ascendency of the Moghuls in India, and have left architectural and other monuments of great interest. The principal architectural remains are at Mandla, at Garha near Jubbulpur, at Chaurnar near Narsingpur, at Deogarh near Chhindwara, at Kherla near Baitul, and at Chanda. But besides the preceding kingdoms, there was also a Gond Rajput dynasty at Warangal or Orankal in the Dekhan, to the south of the Godavary, which is said to have been founded by Kakati of the Ganapati family about A.D. 1082. The kingdom became very powerful about the end of the 13th century, and the raja of Orissa, becoming jealous of his neighbour's power, solicited the aid of Ala-ud-Din, who sent an army, routed the Bengalis, and dispersed the whole of Kafur; but his expedition failed. Malik Kafur was then despatched with 100,000 horse into the Dekhan, and, after a siege of some months, he took Warangal in 1309, and made the raja, Ladder Deva, tributary. In 1321 it was again besieged by Alif or Jema Khan, the son of Ghaiaus-ud-Din Taghalagh, but he was obliged to retreat with the loss of nearly his whole army. He returned, however, and in 1323 reduced the place, and carried the raja prisoner to Delhi. It is said he was afterwards released and restored; at all events Warangal reasserted its independence in 1344, and assisted Hasan Ganga, Bhumani, in his revolt. From this time the Bahmani kings of Kulkurru involved the native rajas in continual wars. Firoz Shah (1397-1422) especially obtained great successes over the raja of Kherla; and finally Ahmad Shah, Wali, took permanent possession of Warangal, forcing the raja to relinquish his ancient capital and flee northward across the Godavary, where he established himself in wild independence among the inaccessible forests. The Gond rajas still maintained their independence, however, and in 1513 we find them joining in a powerful confederacy on the side of Medon Rai against Muhammad ii. of Malwa. At the close of the 16th century, Akbar reduced the western portion of Gondwana, but it was not till the middle of the 18th that permanent progress was made. About 1738, Raghunu Bhonsla interfered in a disputed succession in Deogarh, and secured half the revenues; but in 1740 for Gond rajas in the direction, which Baghrujo quelled, and annexed the principalities of Deogarh and Chanda to his own dominions; and in 1751-52 he took the forts of Gawilgarh, Narnalla, and Manikrug, with the districts dependent on them.

From this period large numbers of Mahrattas settled in these districts, the Gonds became more restricted to the hills, and they do not now form any considerable part of the population of the plain or champaign country. They predominate from Sirgajwa westward along the line of the Satpura Hills, through all the hilly country of the districts of Mandla, Jubbulpur, Seoni, Chandwara, Baitul, and Hoshungabad, and in some degree to the neighbourhood of Asirgarh. The Gond of Berar is a hill race, occupying the Mailihat and the southern skirts along with the Anhil, the Kolamb, and Karku. All these have a physical resemblance, but each of them speaks a different language, and in features they are quite distinct from the people of the villages. There are 8000 of them in the Amraoti district. In the Central India Provinces the chief Gond tribes are:—Bhatra Gond, Mari Gond, in Chanda; Mariiah or Gottawar, Upper Godavary; Khutolwar, in Chanda; Durveh, of Chanda; Aguriah, of Mandla; Hulta, of Upper Godavary. Their numbers have been variously estimated up to 2,000,000, partly under feudatory states, as Bastar, Hyderabad, etc., and partly under the British Government, in the Central Provinces.

The Gonds divide themselves into twelve and a half castes, viz. Raj Gond, Raghuwul, Dadare, Katula, Padal, Dholi, Ohjyal, Thotly, Koilabhatul, Koikopal, Kolam, Madyal, and an inferior sort of Padal as the half caste. The census of 1881 names nine of them—Raj Gond, Padhar, Kolam, Koilabhute, Darwe, Thakur, Bucheria, Boy, and Koikopal. The first four, together with Mr. Hislop, with the addition, according to some, of the Kolam, are comprehended under the name of Koitor,—the Gond par excellence. This term, in its radical form Koi, is the name given also to the Meriah sacrificing tribes of Orissa, and to the wild tribes skirting the left bank of the Godavary from Rajamundry to near the mouth of the Indravati. The Persian word Koh, a hill, approaches this more closely than even the Telugun Konda. The Koitor, as a rule, resent with no small vehemence the imputation of belonging to any portion of the Hindu community. The first three classes generally devote themselves to agriculture; the fourth includes those who have begun to conform to the Hindu religion and ape Hindu manners. The Padal, Patladi, Pardhan,
or Dessi, called Raj Pardhan to distinguish them from the Mahendi-speaking half-caste,—who play on wind instruments of brass, and spin cotton thread,—are the religious counsellors or bhata of the upper classes. The Dholi are musicians; and a subdivision of them in jungly districts are employed as goatherds. The Ojhyal are wandering bards and fowlers. The Thotyal (i.e. maimed) or Pendabarya, ‘minstrels of God,’ are also called Matyal, because their songs are chiefly in honour of Mata, the dreaded goddess of smallpox. They make baskets also. The Kollabhalu are the third wandering caste, and their women are dancing girls. They follow their profession chiefly among the Hindus, it being reckoned disreputable by the people of their own race. The Koikopil, i.e. Gondi Gopali, are a settled class devoted to cow-keeping. The Madya, called Jhola in Bastar, are savages on the Bella Dila Hills, and in the remote parts of Chanda. The only clothing the women wear is a bunch of leafy twigs fastened with a string round their waists, to cover them before and behind. In this they resemble the Juangar to the south of the Kol country, the Chencheri near the Pulicat Lake and to the north of Ellore, and till about A.D. 1830 a similar custom existed among the Holier near Mangalore. The Kolam extend along the Kandi Konda or Pindi Hills, on the south of the Wardha river, and along the table-land stretching east and north of Manikgadh, and thence south to Danttanapalli, running parallel to the right bank of the Pranhita. They do not intermarry with the common Gond, but the one attend the nuptials of the other, and eat from their hands. Connected with the Gonds, though not included in the preceding classes, are the Madiya between Chindwara and the Mahadeva Hills, who have conformed to the Hindus in their language and some religious observances; the Halwa, pretty numerous in Bastar, Bhandara, and Raipur, who covet the distinction of wearing a sacred thread,—a privilege, till recently, sold to those in Bastar by the raj: the Gaiti Gonda in Bastar, who call themselves Koitor; the Moria Gonda, who are the principal agriculturists in Bastar; and the Naiknde Gonds, inhabiting the jungles on the banks of the Pain-Ganga, and especially the tracts between Digaras and Umarked, and found about Aparawa-pet, and as far as Nirnul, who have adopted the Hindu dress, and will not eat beef; but they live by the chase, or cut wood and grass, and have been a terror to their neighbourhood by their depredations.

Quite distinct in language at least from the Gond tribes, are the Kur or Musai and the Kurku to the N.W. and W. of the Mahadeva Hills. Of the latter of these, Mr. Elliot gave interesting details in the second number of the Journal of the Antiquarian Society of the Central Provinces. They belong to the Kol or Munda family.

The Gond religion is as distinctively of Scythian origin as is their language and physique. Earthenware figures of the horse are offered instead of the living sacrifice. They propitiate the manes of their ancestors by offerings of these earthenware horses, rice and other grains, eggs, fowls, or sheep. The sacrifice of the cow was prohibited by the Bhonsla government. Children everywhere, and many adults, are buried, but the Madia of Bastar and the Gond races who have conformed to Hindu customs burn their dead.

They have in all about thirty divinities, but two of these, Barra Dewa and Dula Dewa, are most worshipped. The Creator, under the name of Bhagwan, is occasionally worshipped in their houses by prayers, and by burnt-offerings of sugar and ghi, but their chief worship is to the inferior divinities; these are—

1. Bana Dewa (great god) or Budhal Pen (old god), who is the same as the Bura Pen of the Kond race, and appears to be the same as Rayetal, or the sun-god, represented by an iron tiger three inches long; and is probably the same as the Marung Bura of the Santal. He is worshipped once a year, at the rice harvest, and a hog is then sacrificed to him. Among the Gaiti he is represented by a copper piece, kept in a tree in the jungle. This they take down at the animal festival, clear a space of about a foot square under a tree, in which they lay the pice, before which they arrange as many small heaps or handfuls of uncooked rice as there are deities worshipped by them. The chickens brought for sacrifice are loosed and permitted to feed on the rice. Goats are also offered, and their blood presented in the same manner. On the blood arrack is poured as a libation to their deities. The pice is now lifted and put in its bamboo case, which is shut up with leaves wrapped in grass, and returned to its place in the tree, to remain there till it be required in the following year. Both Budhal and Matya (about to be noticed) are said to be sometimes of iron, and a foot long.

2. Matya, called Mata by the Kurku, is both the god (or goddess) of the much-dreaded scourge smallpox, and of the saj tree. The Goi, who are permitted to represent Matya as the attendant or kotwal of Budhal Pen, and they offer him a pig. The Kurku suppose Matya to reside inside the village, and they make offerings of cocoanuts and sweetmeats, but no blood.

The Gond have no images in their houses, and at their religious ceremonies they employ only the rudest symbols,—knobs of mud, stone, iron rods, pieces of wood, chains, bells, etc. Their festivals are associated with their crops, and are celebrated under the saj tree or em tree three or four times in a year, as on the occasion of the commencement of rice sowing, when the rice crop is ready, and when the mahua tree (Bassia halloc) comes into flower. In the south of the Bandara district are to be seen squared pieces of wood, each with a rude figure, carried in front, set up somewhat close to each other. These represent Bangaram, Bangara Bai, or Devi, who is said to have one sister and five brothers, the names of the latter being Gantaram, Champaram, Naikaram, and Pottinga, the sister being known as Danteswari, which is a Hindu name of Kali. These are all deemed to possess the power of sending disease and death upon men, and under these or other names seem to be generally feared in the region east of Nagpur city. At Dantewada, in Bastar, about 60 miles S.W. of Jagdalpur, near the junction of the Sankari and Dunkan tributaries of the Indravati, is a shrine of Danteswari, at which, about 1885, it is said that upwards of 25 full-grown men were immolated on a single occasion by a late raia of Bastar. Since then numerous complaints have reached the authorities at Nagpur of the continuance of the practice, and up to 1883 the conduct of the ruling rajah continues
unsatisfactory. Amongst the Moria Gond, Bhabwani is worshipped as the smallpox goddess, and as Maoli or Danteswari.

3. Sate or Nal, or, according to the Gaiti Gond, Saleng, sits on the same gadhi with the great god, to whom he is said to be nearly equal. An offering of a she-goat is made to him, and he is probably the protector of cattle.

4. Gangara, Ghangara, Gagaral, Gongara Mal, is the bell god, and is represented by a bell, or by an iron chain of four links.

5. Polo, of whom only the name is known. The suitable offering to Gangara and him is a cow.

6. Gaduwas the god of the dead, and is perhaps the same as Chawar, and identical with Dichiha of the Chaibassia Kol.

7. Kham or Kank, the last of the seven deities (Sat dewala), is worshipped under the saj tree (Pentapenta tomentosa).

Kodo Pen is besides these seven, and is the horse-god, common to the Gond and Kur. Mr. Driberg supposes him to preside over a village, and thus he would correspond to Nalza Pen of the Kond. But Mr. Hislop conjectures he may be the god of crops, Kodo, the Pasalum frumentaceum, being the grain chiefly cultivated by the Gonds. In the wilder villages near the Mahadeva Hills, Kodo Pen is worshipped by new comers near a small heap of stones, through the oldest resident, with fowls, eggs, grain, and a few copper coins, which become the profits of the officiating priest.

Mutua or Mutya Dewa, among the Kurku, is a heap of small stones inside the village, besmeared with sandur, red lead. He is associated with the prosperity of the village, and is worshipped with a goat, coconuts, dates, and a ball of sandur paste.

Pharsi Pen or Pharsa Pot is represented by a small iron spear-head. This name may possibly be connected with Barchi (Hindi), a spear; and he may be Heru, Pen of the Kond, the iron god or god of war. Pharsa, in Gondi, also means a trident, which is an ancient Tartar weapon. He is worshipped every third or fourth or fifth year, at full of the moon Vasaksh, and on the occasion people assemble from great distances, and offering is made of a white cock, a white hog-at, and a white young cow. The ceremonies are conducted with great secrecy, and no Hindu or Gond woman even is allowed to be present. He is apparently the same as Dula Dewa, the god of the battle-axe of the Gaiti Gonds, who represent Dula Dewa by a battle-axe fastened to a tree. While Barra Dewa requires the sacrifice of a living animal, a fowl, a goat, a pig, on public occasions, Dula Dewa is a household god, to whom at times rice, flowers, and oil can be offered.

Hardal, at Anarkantak, is worshipped as the cholera god; but Mr. Hislop supposed this to be another name for Bural Pen. The Kurku style him Lalhradal, and he possibly is the same as the Gohem of the Chaibassia Kol.

Banegram is probably the god of fever, as among the Kol of Chaibassa, where he is associated with Dichali and Gohem, as also with Chondu, the god of itch, and Negra, of digestion.

Bhikawas or Bhim Pen is, in the Mahadeva Hills, the god of rain, where a festival lasting for four or five days is kept in his honour at the end of the monsoon, when two poles, about 20 feet high and 6 feet apart, are set up, and a rope attached to the top, by means of which they climb to the top of the pole, down which they then slide. Offerings of fowls, eggs, and grain are presented to him. All over Gondwana he is generally worshipped under the form of an unshapely stone covered with vermilion, or of two pieces of wood standing from three to four feet above ground, like those set up for Bungaram. Before these the Moria Gond regularly perform worship previous to sowing. A little S.W. from Bajar Kurd, however, and north of Parsenni, is a formed idol of Bhiwasa, 8 feet high, with a dagger in one hand and a barchi (javelin) in the other. A Bhumuk is the pujari or officiating priest, and the people worship on Tuesdays and Saturdays, making offerings of hogs, he-goats, cocks, hens, coconuts. At an annual feast the potali gives two rupees, and Hindu cultivators rice; the pujari takes a cow by force from the Gowar and offers it to Bhim Sen, in presence of about twenty-five Gonds.

Sasarkan is a pool in the Mahur jungle, where the Pain-Ganga is said to be engulfed. The Naikude Gond repair there, in pilgrimage, at the month Chatria, to a huge stone that rises in a gorge, and goes by the name of Bhim Sen, before which Naikude Gond mingle with Raj Gond and Kolam in worship. Towards evening the worshippers cook a little rice, and place it before the god, adding sugar. Then they smear the stone with vermillion and burn resin as incense; after which all offer their victims, sheep, hogs, and fowls, with the usual libations of arrack. The pujari appears to be inspired, rolls his head, leaps wildly about, and finally falls down in a trance, when he declares whether the god has accepted the services or not. At night, drinking, dancing, and beating tom-toms goes on, and in the morning they return home after an early meal. Those unable to leave home perform similar rites beneath a mahua tree.

Waghoba, the tiger god, is worshipped by the Nandus, and under the name of Bag Deo by the Kurku.

Sultan Sakeda is worshipped by the Kur. Sakal Dewa or Sakra Pen, the chain god, is worshipped in Sooni and elsewhere.

Sanyal Pen or Sanyal, the spirits of the departed, are worshipped or propitiated for a year after death; but persons of note, headmen of villages, or priests, are treated as gods for years or generations, and sacrifices are usually offered at their Shapana or shrines of earth.

The Gonds of Manella have the Lamjina Shadi, in which the betrothed lad serves an apprenticeship for his future wife. A Gond girl, however, may exercise her own will and run off with a man; but it is quite allowable for her first cousin or the man whom she has deserted to abduct her from the man whom she has chosen. The Shadi Bandhoni is a compulsory marriage. In the Shadi Baitho, a man goes to a near house. Widows remarry either to a younger brother of their deceased husband, or to some other man.

To burn dead men is deemed the most honourable mode of disposing of the remains; women are always buried. When the father of a family dies, if well to do, they clothe the corpse in a new dress, and bury or burn the remains; his spirit is supposed to dwell in the house till it be released. Till released, the spirit is the only object of worship in the house. After the funeral, a piece of turmeric and a piece are tied up in a cloth and suspended to
one of the beans of the house. When the time comes to lay the spirit, the cloth is removed, and, with a portion of the flesh of a goat or a pig, is offered to the village deity. A feast is given to the relatives and elders, and the release is complete.—Central Provinces Gazetteer; Sir Walter Elliot, in Journal Ethn. Soc.; Coleman, Myth. Hind. p. 297; Latham's Ethnol.; Mr. Logan, in J. Ind. Arch., 1853, p. 201; Malcolm's Central India, i. p. 361; Dalton's Ethn. of Bengal; Mr. (Sir George) Campbell, Ethn. of India, in J. B. As. Soc.; Report of Ethn. Committee of the Central Provinces, 1868, p. 7; Rev. Mr. Hislop's Notes; Wilson.

GONDA, a town in Oudh, in lat. 27° 30' N., and long. 82° E., is 28 miles from Faizabad. It gives its name to a revenue district with a population over a million. The great cultivating castes are the Ahir, 122,106; Kori, 110,916; and Kurni, 92,321. The Kahar, mostly servants and palanquin bearers, number 44,978. The Barwar are a predatory tribe of Hindus.—Imp. Gaz.

GONDANA MAHR., KARN. Called also Gondli or Gondhal. A tumultuous assembly in honour of the Hindu goddess Devi, celebrated in Mysore by Mahratta Brahmanas, with music, dancing, and the recitation of mythological stories, the performers being a low caste named Gondhal, who sing and dance. In some places the Gondhalis is the village drummer; sometimes he is a vagrant musician, dancer, etc. In Berrar, also, the Gondhalis is the village musician.—Hind.

GONDAR, the capital of the Amhara kingdom, stated by Hengin (1862) to have contained from 6000 to 7000 inhabitants, but it is said to have been totally destroyed by the emperor Theodore.

—Par. Paper.

GONÐNÍ. HIND. Cordis angustifolia, C. obliqua, and C. Rothii. The fibre of the bark is made into rope. The fruit of C. angustifolia is an orange-coloured, sweet, and rather mucilaginous berry.

GONDOPOLÁ. URIA? A tree of Ganjam and Gumsur, extreme height 45 feet. Bandy wheels and ploughshares are occasionally made of the wood.—Captain Macdonald.

GONG or Lou, a musical instrument of the south and east of Asia, composed of a mixed metal resembling bronze in appearance. It is in the form of a large flat basin, with a ridge, and when beaten with a mallet, covered with woven cotton or twist, emits a strong reverberating or singing bell-like sound. Its value is in proportion to the quantity of metal it contains. In China, gongs are suspended at the doors of courts of justice, where applicants for justice attend and sound. The gongs of China are made of mixed metals,—in 100 parts, copper, 82; tin, 17; iron, 1; nickel, traces. The metals are melted in a crucible, and poured out on an iron mould with a clay rim, and hammered while still red. The gongs are hard, but brittle, and are struck with a padded bamboo and gradually brought to the full sound. The Kayu kutch of the Malay is a wooden gong. It resembles the teponaztli of the Mexican Cordilleras.—Crawford; Burbridge.

GONI. HIND. Gunny. Goni cloth, gunny of Crotalaria juncea.

GONIKAR. HIND. A low caste employed to gather the areca nut from the gardens of the husbandmen in Mysore.—Witt. Gloss.


GO-NYEN. BUMB. A vine producing a pod 3 or 4 feet long, containing 10 or 12 beans, 10 inches in circumference. These beans, well boiled, are sometimes used for food.—Malcolm, i. p. 182.

GOZALSES. Ruy Gonzalez de Clavijo, an officer of the court of Henry ill, king of Castile, went to Samarcand as an ambassador in 1403, and returned A.D. 1408.

GOZALSES de Mendoza (Jo), author of a History of China, published at Rome A.D. 1585; at Antwerp 1596. It was translated into Italian and published by M. Fr. Avanzo at Genoa in 1586, and put into French by L. de la Porte, Paris 1600.

GONZALEZ. Sebastian Gonzalez de Tibaq arrived in Bengal in 1605, where he engaged in the salt trade, but took to piracy, and commanded a fleet of pirate ships; seized Sundwa in the Sunderbuns. He had a large force, and frequently ravaged Arakan and the Sunderbuns. He married the sister or daughter of the king of Arakan, but after a chequered career he sank into obscurity.

GOOAL or KOWAR. HIND. A cereal which, in the N.W. Provinces, is frequently sown with cotton, and given as fodder to cattle.—Elliot.

GOODA, also Goora. HIND. A temporary place of refuge; hence the designation of many towns in India.—Toôd's Râj., i. p. 298.

GOOGA or Gogo. In the Lower Himalayas of the Panjub there are many shrines to this mythological being. In one account he was a chief of Ghani, who was slain in war against his brothers Uurjun and Surjun, but a rock opened, and Goga sprang forth armed and mounted. Another account makes him the lord of Durd-Durehra, in the wastes of Rajwara, who died fighting against the armies of Mahmut.

GOOGUL, HIND., is met with in all the bazars of India. It much resembles myrrh; and is said by some good authorities to constitute the bulk of the article exported from Bengal as East Indian myrrh. Royle considers the Googul identical with the Ùdellium of commerce, and he ingeniously traces in Budleyum and Madelkbon, the Greek synonyma of Googul, the Ùdellion and mabylon of Dioscorides. A tree in the Saharapur garden, pointed out as the Googul tree, had scaly bark exactly conformable to Dr. Roxburgh's description of his Anmyris. Dr. Ainalie (i. p. 29) adduces as synonyma of Ùdellium, Kukul, Tam, Googul, Tel, Googul, CAN, HIND, Aflatun, ARAB, and Mukul, Pers. He describes the gum-resin as semi-pellucid, yellowish, or brown; inodorous and brittle; softening between the fingers; in appearance not unlike myrrh, of bitterish taste, and rather strong smell. He stated, however, that it was all brought from Arabia and from Persia, where the tree is called Darakht-i-mukul, but in the bazars of India it is said that the Googul comes from the hills.

Under the term Googul, however, the resinous exudations of several trees seem to be classed. Under the Gnereusea and Maharatta names Dioscop, and Googul, Dr. Gibson mentions two species of Cumarium, one in Canara and Sundra, on the ghats above, and the second species of great size...
cultivated near Bilgii and at Siddalpore. The choice gum-resins afforded by these trees are extensively used in the arts, and exported both inland and to the coast. Several plants undoubtedly yield the b?ellum of Scripture, and amongst others Bannalanodendron Roxburghii, Aru., B. pubescens, Stocks, of Sind, B. Mokul, Dravy, B. gibra, W. and A., B. Africanum of Senegambia. Olibanum is produced from species of Boswellia, described by Avicenna, evidently referring to the libanum of Dioscorides, who mentions both an Arabian and an Indian kind. The latter, Mr. Colebrooke proved to be the produce of Boswellia serrata, Razzh, (B. thurifera, Celebro), the Salai or Saleh, Gond., of the Hindus, common in Central India and Bundelkhand, especially about the Bismunughe ghat. It is probably also produced by B. glabra, which has the same native name, and though extending to a more northern latitude, is distributed over many of the same localities. To this kind, according to Dr. Anstie, the term General is applied by the Telugu people. The resin of both species is employed as incense in India. Central India alone furnishes the greatest portion of the Indian olibanum of commerce, as it is chiefly exported from Bombay.—*W. Ill.; Razzh; O'Sh. p. 287; Royle, Prod. Res.; Anstie; Gibson; Birdwood.

GOOGL, a fibre supposed to be obtained from the Isora corylvolia, the Valumbi-kaya of the Tamul language.

GOOHA. Sansk. A secret place, from Goh, to hide or cover; hence Gohoya, requiring to be concealed. See Gulya.

GOOR. Duki. Jaggary, Hind.; Nulla vellum, Tam.; Bellum, Tel. A coarse sugar obtained from the sugar-cane and the various palm wines, particularly that of the Phoenix dactylifera. Twelve pints of the sap are boiled down to one of goor, and four of goor yield one of good powder sugar. It is not sugar, nor is it molasses, but both together.—Sinnam.

GOOR. Bahram Goor was famous for his liberty, gallantry, and love of the chase. He was the monarch whom the Greeks and Romans styled Varanes, and was the fourth monarch of the family. The famous impostor Mani, founder of the sect of Manicheans, made his appearance in this king's reign, and was put to death by the king. Bahram Goor is said to have visited India in the fifth century, and to have left progeny there by a princess of Kanauj. See Gor.

GOORAKOO, Goodakoo, or Goodakh, Hind., called in Bengal Tambaku, the name given in the Peninsula of India to the compound of tobacco for the hookah; from Goor, raw sugar, and Akoor, Tel., leaf.—Herklots.

GOOSE.
GOPADITYA.

Gopi, a herdsman. Gopi, a herdsman. From Go, Sansk., a cow. Immense numbers of the Ahir or Gopa of Northern India still cling to the nomadic life of their ancestors. Seeking the high grazing grounds of Central India and Western Bengal, they form encampments on the pasturage lands, where they reside with their wives, families, and herds, till the grass in the neighbourhood is exhausted, subsisting entirely on the proceeds of their milk and butter. The houses they use are constructed of large bamboo mats; they can be taken to pieces and removed like tents. A large section of the tribe have settled down as farmers, and are only distinguishable from other agriculturists by a possession of larger herds of cattle, by the greater care bestowed on them, and in profiting more by the sale of butter and milk. As the Doljatra festival begins on the 14th day of the light half of Phalguna, or about the middle of March, the image of Krishna is put into a swing at dawn, noonday, and sunset. The caste of Gopas or cowherds is everywhere profoundly conspicuous in this ceremony, especially so amongst the Uriyas; and they renew their own garments and all the harness equipments of their cattle. They also bathe them, and paint their foreheads with sandal and turmeric.

The race known to Europeans as Goala in Singbhum and the adjoining Tributary Mahals of Katak (Cuttack) and Chutia Nagpur, especially in Keonjhar, are the most flourishing of the peasantry, though the Bhuiny or Kol are the dominant races. In Behar there are several subdivisions, as Bhota, Bunarusa, Kanoujia, and Choutaha. It is pronounced as Gwal. The Sadgop, literally chief or superior Gopa, is now more an agricultural than a pastoral race. The Gareri are a shepherd race, to which the Gaekwar belongs.—Dalton's Ethnology of Bengal, p. 314; Elliot.

GOPADITYA, the successor of Deva Twasha, and grandson of king Yudishtira.

GOPALA and Govinda, common names of Krishna. Gopala is from Go, a cow, and Pala, nursing; a herdsman. See Chaitanya; Krishna; Rdra Sampradaya.

GOPAMOW, a town in Oudh, from which the Nawabs of the Karnatic came. Anawar, the father of Anwar-ud-Din, died there; his son, Anwar-ud-Din, was killed in battle at Ambur. Anwar-ud-Din's son, Muhammad Ali, died at Madras in 1795. Muhammad Ali's son, Oomdut-ul-Umra, died 1801. Azim-ud-Dowlah, the nephew of Oomdut-ul-Umra, succeeded, and died in 1818. His son, Azam Jah, died 1824; and the last nawab, Muhammad Ghous, died 1855. The family were then designated with the title of Prince of Arcot.

GOPANG, a Baluch tribe in Dehra Ghazidistrict.

GOPASHTAMI, the eighth day of the light half of the month Kartik (Oct.—Nov.), when cattle are fed, and decorated with garlands in commemoration of Krishna's passing his youth among the cow pastures of Brindavan. On this day, as well as on the Godhum (Covardhum), the day after the Dewali, garlands are suspended from the necks of cows; their horns, hoofs, and bodies are painted; and salutations are made to them. The whole ceremony reminds us of that observed on St. Anthony's day at Rome, when the beasts are sprinkled with holy water, and blessed by priests, as Elliot in Supplementary quotes:—

GOPURA.

Yet to me they seemed crying, alack and alas! What's all this white daisies to daisies and grass? Then they're brought to the Tope, and with transport they're kissed,

And receive consecration from Sancticy's fist.

GOP CHANDANA, a common magnesian clay, used by Hindus to make the sectarian marks on their faces, breasts, and arms. Vishnunara Hinduja employ a white earth from Dwarka, said to be the soil of a pool in which the Gopi drowned themselves on hearing of the death of Krishna. It is also described as an aluminous yellow earth, brought from the Ganges at Hardwar, and used to mark the foreheads. It is also given in medicine.—Gen. Med. Top. p. 131. See Tripundra; Vibhuti.

GOPESWARA and Barahat are two towns in Garhwal, from which were received two bronze tridents, respectively 21 and 16 feet high, with an inscription in semi-barbarous Sanskrit without date. In the more recent inscription on the Gopeswara trident, the invocation is Aum Svasti; and the spot is called sacred to Mahadeva. The tridents are precisely of the form of the trident on the Indo-Scythic coins, with the axe attached to the shaft. The oldest inscription is Bhitish; however, from the form of the Deva Nagara cannot be before the 7th century—are in relief upon the shaft, and make no mention of Mahadeva or Hinduism; but the more recent are cut into the trident, which must have been taken down to admit of the incision. In one of these is the Aum and the name of Mahadeva, which had no association originally with the tridents.—J. B. As. Soc. v. pp. 347 and 485.

GOPHER WOOD, of which the Hebrew ark was built, is supposed by some to be the wood of Cupressus sempervirens, or common cypress. But some commentators have supposed this term to be squared or planed wood; others the cedar, others pitched wood.

Gopi or Gopin, a milkmaid, a herdsman; generally applied to designate the herdmamn of Brindabhan of Vrij, the native country of Krishna, with whom Krishna associated while a young man. Radha, daughter of Nanda, a pastoral chief, was Krishna's first and favourite love, and the stories of his Gopi life are much read by the Hindus. It is said that on one occasion, when the girls went to bathe in the river, Krishna stole away their clothes from off the river bank; and up to the present day, the Vrijma women, when they go to bathe, like the Gopi of old, leave behind their garments on the steps of the ghat, and make a rush to the water, thus giving a colouring of truth to the story. Gopini are the Gopi herdswomen. It is believed that the Rasmandal is typical of the zodiacal phenomena,—that the nine Gopini are the personifications of the Nourmangi, the nine nobles of music, or the Nourmangi, the nine passions, excited by the powers of harmony. There is much in the Hindu mythology that is founded on an astronomical basis,—much that perpetuates the early Vejio worship of the elements under a figurative garb.—Tr. Hind.

Gopi-Nat'ha. Sansk. A name of Krishna, from Gopi, the wife of a milkman, and Nat'ha, a lord.

GOPURA, also called Gopuran, a gate, a town gate; in Hindu temple architecture, the tower over the porch. There are numerous beautifully sculptured gateways attached to the larger
temples of the Hindus. On days of festivals, the figures of the deities are brought out of the temples through the Gopura, and placed in small open temples called Mantopa, to receive the adoration of the multitude.—Col. Myth.

GOR. PERS., and Gadha, HIND., mean the wild ass; and Bahram, the Vanues of the Greeks, was surnamed Gor from his partiality to hunting that animal. Various authorities state that Bahram Gor entered India in the 5th century, and left progeny by a princess of Kanjou.

GOR, a celebrated tribe, amongst the most illustrious of the Chauhan feudatories. A branch, until latter years, held Soopur, and about nine lakhs of territory. The Gor tribe was once respected in Rajasthan, though it neither has any considerable eminence. The ancient kings of Bengal were of this race, and gave their name to the capital, Lucknow. Colonel Tod has no doubt that the Gor appanage was wasted to the Indus, and that this tribe on conversion became the Ghor. Ferris writes concerning the proselytism of all the Afghan tribes; but Colonel Tod is of opinion that the Afghans are converted Jadoun or Yaud, not Yalun or Jews.—Annals of the Bhatti; Tod's Rajasthan.

GORAH BUNDAR river flows between lofty hills, beautifully wooded, and studded here and there with ancient ruins, and huge masses of dark rock. The river abounds with crocodiles.—Postans' Western India, i. p. 179.

GORAI. HIND. A clan of Rajputs in the Agra district.—Wilson.

GORAKH or Gorakhnatha, the founder of the sect of Kanh-phata Jogi. He was contemporary of Kabir, and was personally known to him, and, like Kebir, Gorakhnatha is peculiarly an Oudh saint. The chief seat of his teaching was at the town of Gorakhpur, named after him; and he was the founder of the numerous sect of the Jogi or Kanh-phata Jogi, who in Oudh, in 1768, numbered 8642. Gorakhnatha's teaching, like that of Ramana, was addressed to the people, and his followers may be of any caste. His chief tenet was the possibility of acquiring in life entire command over elementary matter, by means of certain ascetic practices. This state is called Joga or Yoga, and the method of acquiring it is taught from the Patanjala school of philosophy.—J. Charles Williams; Oudh, p. 121.

GORAKHATHA, at Gorakhpur, is a temple, which, according to local tradition, was founded by Siva, in the second of Treta age. It was converted by Ala-ud-Din into a Mahomedan mosque. It was subsequently rebuilt in another place, but again appropriated by Aurungzeb to the Mahomedan religion, but subsequently restored. It is the most celebrated of the temples of the Jogi sect.—Wilson. See Jogi or Yogi: Naga Kuli.

GORAKHPUR, in lat. 24° 42' N., long. 80° 23' E., a town on the right bank of the Rapti, in the N.W. Provinces of British India, which gives its name to a revenue district lying between lat. 24° 5' E. and 27° 28' 25' N., and between long. 80° 7' and 80° 23' E., with an area of 4578 square miles, and a population in 1872 of 2,019,361 persons. Among the inferior castes, the Aahir are the most numerous, numbering 242,383 souls; but the Chamars nearly equal them, with a total of 210,108. The western part of Kosala—that is, Gorakhpur—continued some time under the Cheri, after other portions of that territory had fallen into the hands of the people called Gorkha (hence Gorkhapur, Gorakpur?), who were in their turn expelled by the Tharu, also from the north. The Tharu have left numerous monuments in Gorakhpur, and a few of them still remain in the district and in Mithila. They claim to be of the family of the sun, i.e. the Aryans, but are said to have strongly-marked Mongolian features. One of the rajas of this dynasty had for his chief priest a man named Rasu, of the impure tribe of Musahar. In Shahabad, also, the most numerous of the ancient monuments are ascribed to the Cheru, and it is traditionally asserted that the whole country belonged to them in sovereignty. Buchanan suggests they were princes of the Sunaka family, who flourished in the time of Gautama, about the 6th or 7th century before the Christian era. The Cheru were expelled from Shahabad, some say by the Savara or Sura, some say by a tribe called Harisa, and the date of their expulsion is conjectured to be between the 5th and 6th centuries of the Christian era. Both Cheru and Savara were considered by the Brahmins of Shahabad as impure or Mlechhas, but the Harisa are reputed good Kshatriyas.

The overthrow of the Cheru in Mithila and Magadh seems to have been complete. Once lords of the Gangetic provinces, they are now found in the Shahabad and Behar districts only, holding the meadst offices, or concealing themselves in the woods skirting the hills occupied by their cousins the Kharwar, but in Palenam they retained till a recent period the position they had lost elsewhere. They invaded that country from Rohtas, and, with the aid of Rajput chiefs, the ancestors of the Thakurs of Janka and Chainpur, drove out and supplanted a Rajput raja of the Raksahil family, who retreated into Sirgura, and established himself there. It is said that the Palenam population then consisted of Kharwar, Gond, Mar, Korwa, Parhaya, and Kisans. Of these, the Kharwar were the people of most ancient origin. The Cheru conciliated them, and allowed them to remain in peaceful possession of the hill tracts bordering on Sirgura; all the Cheru of note who assisted in the expedition obtained military service grants of land, which they still retain. It is popularly asserted that at the commencement of the Cheru rule in Palenam they numbered 12,000 families, and the Kharwar 18,000; and if an individual of one or the other is asked to what tribe he belongs, he will say, not that he is a Cheru or a Kharwar, but that he belongs to the 12,000 or to the 18,000, as the case may be. The Palenam Cheru now live strictly as Rajputs, and wear the polta or caste thread. They do not, however, intermarry with really good Rajput families. Intermarriages between Cheru and Kharwar families have taken place.—Dilaton, Ethnol. of Bengal, 126; Imp. Gaz.

GORAM. HIND. Literally, white people; a term applied to Europeans by natives of India, who call themselves Kala-log, or black people, also Kala-admi, black man.

GORAM, a group of three islands in the Eastern Archipelago. S.E. of Goram is a high group, composed of raised coral reefs 300 or 400 feet, with a volcano on the island of Teir, which broke forth in 1659. In the Goram group, at Manowoko, east of Ceram, a slight infusion of Papuan
on a mixture of Malay and Bugi has produced a

good-looking people. The Goram people are

wholly traders. Every year they visit the Tenimer,

Ke, and Aru Islands, the whole N.W. coast of N.

Guinea from Oetanata to Salwatty, and the islands

of Waigyu and Mysol. They also extend their

to Tidore, Ternate, Banda, and Ambonaya.

Their prahu's are all built by the Ke islanders, who

anually turn out hundreds of neat boats. The

Goram people trade in trepang, medicinal Missou

bark, wild nutmegs, and tortoise-shell, which they

sell to the Bugi traders at Ceram Laut and Aru.

—Wall, ii. pp. 53, 60; Bickmore, p. 243.

GORAYAT. Hind. The village watchman of

Hindustan. See Pasban.

GORDI, a fine race of Central India. Their

features and manners show them to be decidedly

Aryan, of a type less alloyed than that of most

castes. The old remains of former greatness, so

common in Central India, especially the curious

cairns and stone circles, are attributed to them.—

Sir G. Campbell, J. F. S.

GORDONIA FLORIBUNDA. Wall. The

A-nan-foo and Theet-ya of the Burmese. A

conspicuous tree of Moulnein, Chappedong, Tavoy,

and Martaban. There is some difference be-

tween the Tavoy and Moulnein trees; that of

Moulnein has leaves precisely like G. obtusa, with

shallow serration, but the leaves of the Tavoy

tree are quite entire, and the Burmese have
different names for them. The compact timbers of

Gordonia floribunda and Gordonia integrifolia

are called itch-wood by the Tavoyers, from the

itching which the chips or bark occasion when

brought in contact with the skin. The timber is

used for house-posts, and for rice mortars.

Malwa.

GORDONIA OBTUSA. Wall. Gordonia

parviflora, W. III. | Nagetta, NEELCHERRIES.

This very beautiful tree is very common on

the Neelgherry's, the Wynad, and throughout the

Western Ghats of the Madras Presidency, from

2500 to 7500 feet elevation. Its timber is white,

with a straw tint, even-grained, and pleasant to

work, and not unlike beech. It is very generally

in use for planks, doors, rafters, and beams, but

warps if not well seasoned.—Beddome, Fl. Syl.

GORDONIA SPECIOSA. Thuc. Garria

speciosa, Gardn. A large tree, 40 to 50 feet high,

rather uncommon, in damp forests of the central

province of Ceylon at an elevation of 5000 feet


GORDONIA WALLICHI is a common tree in the

Eastern Himalaya and in Sikkim; much prized for ploughshares and other purposes re-

quiring a hard wood. It is the Sing-brang-kan of

the Lepcha, and in Sikkim ascends to 4000

feet. Oaks at this elevation occur as solitary

trees, of species different from those of Darjiling.

There are three or four oaks with a cup-shaped

involure, and three with spineous involucres

enclosing an eatable sweet nut; these generally

grow on dry clayey soil. Gordonia Wallchii is

an erect and singularly handsome tree. It ascends

4000 feet on the mountains. In very dry soils it

is replaced by sal (Vateria robusta), and more

rarely by the Pinus longifolia.—J. As. Soc. Bengal,


GORDONIA ZEYLANTICA. Wright.

Var. a. lanceolata. | Var. b. elliptica.

Grows in forests of the central province of

Ceylon, at an elevation of 4000 to 7000 feet.—


GORGIAR. Hind. In Chutia Nagpur, a method

of settling village boundary disputes. The watch-

men of the two villages are buried up to the waist

in two holes, and whoever holds out longest is

the victor.—W.

GORGHEN, a river which rises in Kurdistan,

and, after a course of 120 miles, falls into the

Caspian. The Yonum Turkoman occupies its valley.

—Collett, Khiva (C. Asia).

GORY, a dynasty that ruled at Mandu, in Malwa.

Sultan Dilawar governed the province from A.D. 1357

but assumed independence 1401

Sultan Hoshang Gori, 1405

Ghazni Khan, 1432

Mamud Khan, contemporary of Rana Khumbe

of Chittore, 1435

Ghias-ud-Din, 1469

Mamud il, 1532

Malwa incorporated with Gujarat, 1564

Malwa annexed by Akbar, 1568

GORIWAR, an agricultural tribe in the Northern

Circars.

GOR-KHAR, or wild ass, Equus onager, has been

often confounded with the Kiang or wild

horse, E. hemionus; it inhabits chiefly the rather

hilly districts of Baluchistan, part of the sandy

plains of Sind; and another animal is to be found

to the westward of Baluchistan, in Persia, which

is called Kulan (Equus hemippus). Dr. Barth

has mentioned that, according to the description

given to him, he thinks the ass he saw in Africa

identical with the Gor-khar, or wild asses of Sind

and Baluchistan. The Gor-khar is also called

Khar-guddha. Though an inhabitant of the

Sind desert, it most abounds in the southern part,

about Dhalt, and the deeproot which extends

from Barmair to Banksirr and Bubairr along the

north bank of the Great Runn or Salt

Desert.—Todd's Rajasthan, ii. p. 328. See Kiang.

GOROWA, a Hindu caste who wear the janava,

yotnai, poitair, Sansk., and claim to have a gotra.

They are styled saiva Brahmans. They worship

the lingam as Siva or Mahadeo. They are

engaged in all civil avocations; and as agricult-

urists; are never soldierly. They are of a bamboo-

yellow colour, and are burly men. They do not

know where they came from, but reside in the

Western Dekhan. Qu. Gurao?

GOROWLI, a feudatory chieftaincy in Bunde-

khand, with an area of 50 square miles, a popula-

tion of 5000 souls, and a revenue of Rs. 15,000.

GORRE CHIMIDII. Tel. Andrographis eh-

oides, Nees. The name means sheep's mucus,

the whole plant being very viscus. Gore-

porous. Lea, sp., signifies sheeps's droppings.

GOSAIN, Goswami. From Go, Sansk., sense

or passion, and Sen, master. One who masters

or restrains his passions; modified vernacularly,

as Gosain. Sects of Hindus, whose discipless

are styled Gosami, Sami, Swami, Gosali, Gosavi,

Gosayi, etc. A religious mendicant in general.

As a special name, it is applied to very different

classes of persons, identified only by their profess-

ing a religious and mendicant life. The most

respectable are the reputed descendants spiritually

of Sankaracharya, of whom there are ten chief

branches, and who are thence also called the

Das-nami, or ten-named Gosains, attaching to the

ordinary Hindu appellation one of the terms,
Tirtha, or shrine: Astana, an order; Yana and Aranya, a wood; Sarsawati, the goddess of eloquence; Bharati, the goddess of speech; Puri, a city; Giri and Parvata, a hill; Sagara, the ocean;—as Awanda-gir, Vidyanaya, Puran-gir, Rama-Asrama. These, although they are occasionally vagrants, are usually assembled in marts, or conventional residences under a superior. Some of their establishments are liberally endowed, and of great reputed sanctity, particularly that of Sringeri in the Western Ghats, near the sources of the Tungabhadra, said to have been founded by Sankara himself. Individuals of the three pure castes are admissible, and in some cases Sudras also; but as they profess celibacy, their numbers are in part recruited by the purchase or adoption of boys at an early age.

The Das-nami Gosains worship preferentially Siva, of whom Sankara is said to have been an avatara, but many have been distinguished as advocates of the Vedanta doctrines. One division of them, termed Atits, differs from the more rigid Dandi Gosains, in following secular pursuits as traders and ministrant priests of temples. Some of them marry and settle, when they are termed Samyogi or Gharbharhi. These Gosains, although met with in Upper India, are most numerous and influential in the south.

In Hindustan the term is more correctly applied to two different classes, both worshippers of Vishnu,—the Gosains of Goluk, who are descended from Valabhabharya, and, although religious characters, are allowed to marry and follow secular pursuits; and the Gosains of Bengal, who are the disciples of Chatina, a native of Bengal, who instituted a new form of Vaishnava worship at the end of the 15th century. They also marry, and, like the Gokulashta, lead domestic and respectable lives. The term is also applied loosely to mere vagrants, some of whom wandered about formerly in armed gangs, and levied contributions forcibly on the villages, plundered them; or now, coming singly or in small bands, exact money by inflicting disgraceful tortures upon themselves; these sometimes go naked.

Gosain, female Gosain, Mahi, one who, on arriving at years of discretion, adopts a life of continence and mendicancy.

Dauri Gosai, Mahi, a class of religious vagrants said to be disciples of Goraknath, in which case they are not properly Gosains but Jogis. They sing hymns in honour of Bhairava, playing on the dura, or a small drum shaped like an hour-glass, whence their name Dauri, a player on the dura.

The ceremony observed at the initiation of a Gosain is as follows. The candidate is generally a boy, but may be an adult. At the Siva-ratri festival (in honour of Siva), water brought from a tank, in which an image of the god has been deposited, is applied to the head of the novitiate, which is thereupon shaved. The guru, or spiritual guide, whispers to the disciple a mantra or sacred text. In honour of the event, all the Gosains in the neighbourhood assemble together, and give their new member their blessing; and a sweetmeat called laddu, made very large, is distributed amongst them. The novitiate is now regarded as a Gosain; but he does not become a perfect one until the Vijayaj Hom has been performed, at which a Gosain famous for religion and learning gives him the original mantra of Siva. The ceremony generally occupies three days in Benares. On the first day the Gosain is again shaved, leaving a tuft on the top of the head, called in Hindi Chundii, but in Sanskrit Shikhi. For that day he is considered to be a Brahman, and is obliged to beg at a few houses. On the second day he is held to be a Brahma- charya, and wears coloured garments, and also the janao or sacred cord. On the third day the janao is taken from him, and the chundi is cut off. The mantra of Siva is made known to him, and also the Rudri Gayatri (not the usual one daily pronounced by Brahmins). He is now a full Gosain or Wan-Parrast, is removed from other persons, and abandons the secular world. Henceforth he is bound to observe all the tenets of the Gosains. The complete Gosain who have performed the ceremony of Vijayaj Hom are celibates. It is customary, therefore, for men not to perform it until they are forty or fifty years of age, as it involves the abandonment of the secular world and families. Gosains will eat food in the houses of Brahmans and Rajputs only. At death their bodies are not burned, but are either buried or thrown into the Ganges.

The Vaishnava Gosains observe none of the Hindu festivals except those of Krishna; but the anniversaries of the deaths of their founders are observed as such. They do not, says Mr. Ward, reject the mythology or the ceremonies of the Hindus, but they believe that those of Hari (Krishna) only are necessary. On the nights of their festivals, the initiating incantation may be heard resounding through the stillness of the night: 'Hari, Krishna; Hari, Krishna; Krishna, Krishna; Hari, Hari; Hari, Ram; Hari, Ram; Hari, Ram; Hari, Hari!'

In Northern India, the Vaishnava Gosains worshippers of Vishnu, called Goluk Gosain, followers of Valabhabharya, marry and follow religious pursuits; and in Bengal, Gosains who follow the doctrines of Chatina, are called Byragi and Sava Gosain. They sometimes come in conflict, and at Hardwar, on the Ganges, a celebrated place of pilgrimage, soldiers of the Bengal army had to keep the peace, long after a battle that occurred, about the middle of the 18th century, in which they fought almost to extermination. The descendants of Nityananda are Gosains of Khurda. The descendants of Adwaite are Gosains of Santipur, and there the principal idol is Shambhunath. But one-third of the people of Santipur are Vaishnavas.

The Gosai of Gujerat worship Siva. They wear orange-tawny clothes, and the tilak or sectarian mark upon their forehead is horizontal.

The priests of Eklinga are Gosain or Goswami. The high priest and his order are celibates, and the office is continued by adopted disciples. Of such spiritual descent they calculated 64 since the sage Hari, whose benediction obtained for the town Eklinga the name of Chittoro, when driven from Samratra by the Parthians. A numerous class of Gosains have adopted celibacy, who yet follow secular employments both in commerce and arms. The mercantile Gosains are amongst the richest individuals in India, and at Udaipur were thus useful when the Mahrattas demanded a war contribution, as their privileged character did not prevent their being offered and
taken as hostages for its payment. Gosains who profess arms, partake of the character of the knights of St. John of Jerusalem. They live in monasteries scattered over the country, possess lands, and beg, or serve for pay when called upon. As defensive soldiers, they are good. Siva, their patron, is the god of war, and, like him, they make great use of intoxicating herbs, and even of spiritual liquors. Mewar could always muster many hundreds of the Kaempfhat Jogi, or 'split-ea ascetics,' so called from the habit of piercing the ear, and placing therein a ring of the conch shell, which is their battle-trumpet. The poet Chand gives an animated description of the body-guard of the king of Kanouj, which was composed of these monastic warriors. The Iuna of Mewar, as the divan or vice-regent of Siva, when he visits the temple, supersedes the high priest of Eklings in his duties, and performs the ceremonies. The shrine of Eklings is endowed with twenty-four large villages from the fice, besides parcels of land from the chiefains.—Tod's Rajasthan; Tr. of Hind.; Cole. Myth. Hind.; Rasmalai, Hinda Annals, ii. pp. 312; Elliot, Sup.; Wilson's Glossary; Sherring's Hindu Tribes and Castes, p. 257.

GOSHA. HIND. Concealed. A Gosha woman means a woman who carries out the Mahomedan law of concealing herself from the sight of men, except certain near relatives. Many Hindu women, however, follow this rule. A Mahomedan ascetic is called a Gosha Nashin, who has withdrawn from the world and become an ascetic, or who lives a redusee life. It means sitting in a corner; and the term is applied to a woman of rank who is desirous to lead an ascetic life. The term for her is properly Gosha, or Parda, Nashin.

GOSHOO. HIND. Gold thread used to emboider caps.

GOSSYPIUM, cotton plant.

Gossypium, . . . . G. [Karpasa], . . . . SANNEK,
Kapasa ka jhar, . . . . HIND. Punjab,
Carbassus, . . . . EAT. Patti chetta, . . . . Tel.

The genus Gossypium, belonging to the natural order Malvaceae and its species, from the hair or wool which surrounds its seeds, are, next to food plants, the most important of the vegetable kingdom. Taking the population of British India and allied states at 250 millions, and allowing 10 pounds of raw cotton per man annually, the produce and yield of this plant annually exported may be taken at about 22 million cwt. There are several recognised species. De Candolle admits 13, and notices others. Two others were described by Dr. Roxburgh, and another in the Flore de Senebogam. Of varieties, Mr. Bennett says that he knows more than one hundred kinds, and they appear to him never ending. Dr. Royle was of opinion that the species may be reduced to G. Peruvianum (G. acuminatum), G. Indicum (G. herbaceum), G. arboresum, and G. Barbadense. Baron Fred. von Mueller (1880) notices as species — G. arboresum, Linn., the tree cotton; G. Barbadense, Linn., West India or Sea Island cotton, with its tall Egyptian variety called Bamia cotton; G. hisutum, L., upland or short-staple cotton; G. religiosum, Linn. (G. Peruvianum, Cavan.), kidney cotton, Peruvian or Brazilian cotton; G. Tattense, Parlatore (G. religiosum, Banks and Solander), and G. tomentosum, Nittal (G. Sandiviscus, Parlatore, G. religiosum, A. Gray).

There can be no doubt that the cotton plant is indigenous in America, and the species of the old world appear to be Indian and Chinese. Cloth manufactured from cotton has been brought from the tombs of Peru; and cotton seeds have been obtained by Rosselini from the monuments of Thebes. The Sanskrit name Karpasas has been taken into different tongues. The Hebrew word Karpasas of the book of Esther (i. 6) and the Latin Carbensas are derived from it; and the Karpasas mentioned in the Periplus of Arrian has been rendered by Dr. Vincent fine muslin. Pliny (ib. xix. c. 1) mentions the cultivation in Upper Egypt of a small shrub, called by some Gossypion, by others Xylon, bearing fruit like a nut, from the interior of which a kind of wool is produced. The species of the cotton plant grow in the warm tropical regions of America and Asia, but they are likewise extra-tropical; and Baron Humboldt mentions having seen it growing at 5500 feet in Mexico, and 9000 feet of elevation in the equinoctial Andes. It is largely grown in China. Dr. Royle mentions that it is cultivated in small quantities at 4000 feet of elevation in 30° N. in the Himalaya; and Dr. Stewart tells us that it is grown in many places all over the Panjab as a hot-weather crop, ripening up to Christmas, and that it is cultivated up to the Kashmir valley (5000 feet), but the quality does not appear first rate.—Rozb.; Dr. Stewart's P. Pl. p. 27; Cleghorn, Report, Br. Ass.; Eng. Cyc.; Royde, Prod. Res. of Ind.; Von Mueller.

GOSSYPIUM ACUMINATUM. Rozb. The
Brazil or Pernambuco cotton.

Wa-ku-la, . . . . BURN. Pamidi patti, . . . . Tel.

This species is indigenous, growing in the mountains of Bengal and in Malaicea. It is not cultivated; but as the wool is separated easily from the seeds, it is very desirable to make trial of it in agriculture.—Rozb.; Royde; Voigt.

GOSSYPIUM ARBOREUM. Linn. This tall perennial species, Nu wa, BURN., tree cotton, is found in Celebes and in every part of India. It is noticed among lists of the plants of Arabia, and also of Egypt. It is the New Orleans cotton (G. sanguineum, Hassk.). According to Dr. Wight, almost the only distinction between G. religiosus and G. arboresum is that the former has a yellow and the latter a purple flower.—Eng. Cyc.; W. Jc.

GOSSYPIUM BARBADENSE. Linn. This cotton plant, a native of the West Indies, is cultivated in India. It is called Barbadoes, Bourbon, Sea Island, West India, long-stapled, Upland Georgian, and short-stapled cotton. Swartz described this species as extensively cultivated in the West Indies. It is also one of the cultivated cottons of Egypt. Mr. Dellechheimer has noticed a new and almost branchless tall plant, exceedingly prolific, raised in Egypt, called Bamia cotton, which Sir Joseph Hooker considers to be a variety of G. Barbadense. It is more than probable that the Sea Island or long-staple cotton is a variety of this species, as its seeds agree in character. More than this it is not possible to say.—W. Jc.; Royle, Ill.; Rozb.; Voigt; Eng. Cyc.; V. Mueller.

GOSSYPIUM HERBACEUM. L.; Rozb.; W. Jc.; Ill.; Royle.

Koton, . . . . ARAB. Cay-haung, Hao-mien, CH.
Karpasa, Tula, . . . . BENG. Bomold, . . . . DAN.
WA, . . . . BURN. Ketoen, Boomwoel, DUT.
Bari of . . . . CHENAR. Coton, . . . . Fr.
GOTAMA, founder of the Nyaya school of philosophy. He is called also Sattananda, also frequently Gautama. He was author of a Dharmasutra or law book.—*Doesen*.

GOTAMA SWAMI, a Brahman of the Gautama family, whose personal name was Indra-Bhuti. He became a disciple of Mahavira, often represented in Jain sculptures, especially in Karuatica, and on the Malabar coast. A statue at Sravana Belgola in Mysore is 663 feet in height; another at Yeni is about 35 feet; one at Karkala, 24 miles west of Yenur, is 414 feet high. An inscription is on the last. See Hoisala.

GOTE. HIND. Presents given at the birth of a child.

GOTHI, the high priest of a Jaina temple.

GOTHIIC, a branch of the Indo-Germanic stock of languages. The Goths consulted the heart of victims; had oracles, had sybils; had a Venus in Friya, and Parnac in the Valkyrie.

GOTRA. SANSK. A hurdle, a pen, a fold, a tribe. Professor Wilson explains the term Gotra as meaning a family, lineage, relationship by descent from a common ancestor of the same name, or from some saint, or regard him as a primitive spiritual head, and whose designation they bear, as the Bharadwaja-gotra, Kasyapa-gotra, Sandilya-gotra, etc. In vol. ii. p. 12, of the Hindu Theatre, Professor Wilson says it is asserted that thirteen Gotra or families of Brahmins owe their origin to as many divine sages called after their name. Kasypa (Kusip) is one of the number. The Aṣawalajana Sutra of the Rig Veda contains the enumeration of the Gotra, and their subdivisions, but in a very involved and unintelligible style. The popular enumeration of them, however, is not uncommon; but it is nearly, if not wholly, confined to the south of India, where several of the reputed representatives of these tribes yet exist. Throughout the entire Peninsula every Brahman claims his own Got; every marriage is regulated by the Got, and no Brahman marries into his own Got. Gotra, Vanea, Varina, Paksha, and Gana are all used, in a similar sense, to indicate the larger as well as the smaller families descended from the eight rishi. The care taken by all Brahmins in the S. of the Peninsula in making their marriage selections, justifies the conclusion that the genealogical lists of the Brahmins at the present day furnish in their general outlines a correct account of the priestly families of the Hindus. The eight rishi have eight Gotra, which are subdivided into 49 Gotra, and these 49 into a still larger number of families. In common practice they consider the same gotra as the same family, as in the more classical Gotra of Wilson's *Dictionary*. Properly, those only are Got which bear the name of some rishi progenitor, as Sandilya, Bharadwaja Vasishtha, Kasyapa; but it has become the custom to call each subdivision of a tribe a Got, and, according to the Nirnay Sind, there are no less than ten thousand. Early genealogies of the Rajputs frequently exhibit them as abandoning their martial habits, and establishing religious septs or Gotra. Thus Reh was the fourth son of Proorwa, of the Lunar race; from him, in the fifteenth generation, was Harita, who with his eight brothers took the office of religion, and established the Kausika Gotra, a tribe of Brahmins. According to Colonel Tod, both Got and Kaup denote a clan, and in Rajputana its subdivisions have the patronymic

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GOTRA.

GOTAMA, founder of the Nyaya school of philosophy. He is called also Sattananda, also frequently Gautama. He was author of a Dharmasutra or law book.—*Doesen*.

GOTAMA SWAMI, a Brahman of the Gautama family, whose personal name was Indra-Bhuti. He became a disciple of Mahavira, often represented in Jain sculptures, especially in Karuatica, and on the Malabar coast. A statue at Sravana Belgola in Mysore is 663 feet in height; another at Yeni is about 35 feet; one at Karkala, 24 miles west of Yenur, is 414 feet high. An inscription is on the last. See Hoisala.

GOTE. HIND. Presents given at the birth of a child.

GOTHI, the high priest of a Jaina temple.

GOTHIIC, a branch of the Indo-Germanic stock of languages. The Goths consulted the heart of victims; had oracles, had sybils; had a Venus in Friya, and Parnac in the Valkyrie.

GOTRA. SANSK. A hurdle, a pen, a fold, a tribe. Professor Wilson explains the term Gotra as meaning a family, lineage, relationship by descent from a common ancestor of the same name, or from some saint, or regard him as a primitive spiritual head, and whose designation they bear, as the Bharadwaja-gotra, Kasyapa-gotra, Sandilya-gotra, etc. In vol. ii. p. 12, of the Hindu Theatre, Professor Wilson says it is asserted that thirteen Gotra or families of Brahmins owe their origin to as many divine sages called after their name. Kasypa (Kusip) is one of the number. The Aṣawalajana Sutra of the Rig Veda contains the enumeration of the Gotra, and their subdivisions, but in a very involved and unintelligible style. The popular enumeration of them, however, is not uncommon; but it is nearly, if not wholly, confined to the south of India, where several of the reputed representatives of these tribes yet exist. Throughout the entire Peninsula every Brahman claims his own Got; every marriage is regulated by the Got, and no Brahman marries into his own Got. Gotra, Vanea, Varina, Paksha, and Gana are all used, in a similar sense, to indicate the larger as well as the smaller families descended from the eight rishi. The care taken by all Brahmins in the S. of the Peninsula in making their marriage selections, justifies the conclusion that the genealogical lists of the Brahmins at the present day furnish in their general outlines a correct account of the priestly families of the Hindus. The eight rishi have eight Gotra, which are subdivided into 49 Gotra, and these 49 into a still larger number of families. In common practice they consider the same gotra as the same family, as in the more classical Gotra of Wilson's *Dictionary*. Properly, those only are Got which bear the name of some rishi progenitor, as Sandilya, Bharadwaja Vasishtha, Kasyapa; but it has become the custom to call each subdivision of a tribe a Got, and, according to the Nirnay Sind, there are no less than ten thousand. Early genealogies of the Rajputs frequently exhibit them as abandoning their martial habits, and establishing religious septs or Gotra. Thus Reh was the fourth son of Proorwa, of the Lunar race; from him, in the fifteenth generation, was Harita, who with his eight brothers took the office of religion, and established the Kausika Gotra, a tribe of Brahmins. According to Colonel Tod, both Got and Kaup denote a clan, and in Rajputana its subdivisions have the patronymic

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GOTRA.
terminating with the syllable ote, awnt, sote, in the use of which euphony alone is the guide: thus, Sukawut, sons of Sukta; Kurmasote, sons of Kurma; Mairawut or Mairote, mountainers, sons of the mountain.—Eliot; Wilson’s Hist. Theatre; Wilson’s Glossary.

GOTTI GADDA. Tel. Spatithum Chinsene, Lour., syn. of Apojongeton monostachys, Linn. The roots are much prized as food by the Yanadí.

GOU-CHUNA or Go-chunee is a field of wheat and chune, or Cicer arietinum, sow together. The practice of sowing culminating and leguminous plants together is advantageous to the land as well as to the crop. Dew readily forms on the leaves of the chune, which would not form on the wheat, and this in seasons of drought is often the means of preserving both crops. Agriculturists in Europe sow clover with barley, flax, and oats, and Lent-corn.—Eliot.

GOUGH, HUGH, VISCOUNT, born in 1779, was the son of George Gough, Esq. of Woodstown, county of Limerick, Ireland. He entered the British army in 1791, served at the capture of the Cape of Good Hope and of the Dutch fleet in Saldanha Bay, 1795, and afterwards in the West Indies, including the attack on Porto Rico, the braggard war in St. Lucia, and capture of Surinam. He proceeded to the Peninsula in 1809, and commanded the 87th regiment at the battle of Talavera, where he was dangerously wounded. Had horses shot under him both at Barossa and Vittoria and Nivelle; again severely wounded at Nivelle; for which engagements he received the gold cross. He also commanded this regiment at the sieges of Cadiz and Tariffa, where he was wounded in the head. At Barossa his regiment captured the eagle of the 8th French Regiment, and at Vittoria the baton of Marshal Jourdan. He was nominated to the Mysore division of the Madras army in 1837, and in 1840-41 went in command of the land forces against China, for which services he was made G.C.B. and a baronet. On the 11th August 1843 he was appointed Commander-in-Chief in India; and on the 29th of December 1843, with the right wing of the army of Gwalior, he defeated a Mahratta force at Mahanpur, and captured 56 guns, etc.; and on the same day General Grey, commanding the left wing of his army, routed another body of Mahrattas at Lumnar. In 1845 and 1846 the army under his personal command defeated the Sikh army at Moodkee 18th December, Ferossalal 21st and 22d October, and Sobroon 22d February 1846, for which services he received the thanks of both Houses of Parliament, and was raised to the peerage. During the last desperate struggle with the Sikhs in 1848-49, he subdued the enemy at a great expenditure of human life. The next year he received from his sovereign additional rank in the peerage, from the East India Company a pension of £2000, and a similar sum from Parliament for himself and his next two successors. Sir Henry Hardinge, who was Governor-General, had voluntarily served under him as second in command at the battle of Ferossalal. He was gifted with great powers of combination and strategy, but his impulsive personal bravery, rushing into the midst of the battle, and by hurrying on one movement before the previous arrangement could be carried out, disarranged and rendered useless his own valuable plans. General Havelock said he was a man with a lust for danger. He excited the warmest attachment in his soldiers, and his zeal succeeded almost as well as Suwarrow’s. He never lost a battle,—for Chillianwalla, though a terrible destruction of life, was not a lost battle; and at Gujerat, where, for the first time in his life, he took advice and let artillery have fair play, he destroyed the most dangerous enemy, savagely. Ilyer Ali, the British ever encountered in India. The victory was due in no slight degree to the reckless daring with which he inspired all under his command.—Loud. Spectator, Men of the Time.

GOUGHIA, a curious large evergreen laurel-like tree, found by Dr. Hooker at Chating, in the Lachen valley of Sikkim. It is very similar in foliage to a fine rhododendron. Wight gives Griffithiana and G. Neigherennis.—Hooker.

GOUL, amongst the Persians, a fabulous spirit, sometimes represented as in the form of a beautiful young woman, that resort to churches. They affirm that it entices the traveller by its cries, and then tears him to pieces with its claws.—Dc Bode’s Tr. p. 23. See Ghoul.

GOUR or Gaur, called also Lakhnauti, the ancient capital of Bengal, and its territory, supposed to be the Gangha Regio of Ptolemy. It stood on the left bank of the Ganges, on a stony embankment about 25 miles below Rajmahal. It was the capital of Bengal 730 years before Christ, and was repaired and beautified by Akbar, who gave it the name of Jahangard, which name it still bore by a part of the cirque in which it was situated. According to Ferishta’s account, the unworthiness of its air about the middle of the sixteenth century occasioned it to be deserted soon after, and the seat of government was removed to Tondah or Turmah, a few miles higher up the river; then to Rajmahal. Three causes, however, viz.; the removal of the capital, the desertion of its old bed by the Ganges, and the unworthiness of the region, all contributed to turn Gour into a wilderness. No part of the site of ancient Gour is nearer to the present bank of the Ganges than four miles and a half; and some parts of it which were originally washed by that river, are now 12 miles from it. Taking the extent of the ruins of Gour at the most reasonable calculation, it was not less than 15 miles in length (extending along the old bank of the Ganges), and from two to three miles in breadth. The first rulers who have been identified, were the family of Bhupala. Abul Fazl, however, enumerates three dynasties as prior to this family.

The first of the Vaidya rajas was Suk Sen, in A.D. 1063. Its last Hindu king was Lakshmanan. He had been placed on the throne in infancy, and during his long reign had been a just and liberal ruler. In A.D. 1203 Bengal was overrun by Bakhtiar, a general of Muhammad Gori, and the last Hindu king escaped to Orissa. Gour is also by many supposed to have been founded by one of the physician dynasty of Bengal, not long before the Mahommedan invasion, though Dow and Rennell state that it was the capital of Bengal, not 730 years before Christ.—Tr. of Hind. i. p. 94; Rec. Mems. p. 56; Prinsep’s Antiquities.

GOUR or Goura. Sanskrit pandits of old divided the colloquial languages of India into two classes, each containing five dialects, denominated respectively the five Goura and the five Dravida. By the term Goura or Guda is meant the Blasha or Prakrit or spoken tongues in Northern India,
some old ones of which have long ceased to be spoken, or have merged into others. At present the languages which may be considered Gaur are Bengali, Hindi with its neighbour the Hindustani, Panjabi, Gujerati, Marathi, and the languages of Kashmir and Nepal, altogether nine. The pandits named the five Dravidia or Dravira, viz. Telings, Kanniakata, Marathi, Gurjara, and Dravira or Tamil proper; but at present Dr. Caldwell displaces the Gurjara or Gujerati and the Marathi, and considers the Dravidian proper or Tamil, the Telings, and Canarese, to be the three principal languages of the Dravidian family; and he adds thereto the Malayalam, the Tulu, and the five other languages. Gaur, and Ku, altogether nine Dravidian or Tamil tongues. The Gaur alphabet is the immediate parent of the modern Bengali, and it is to be seen in the ancient inscriptions at Buddha Gaya in the Naga Arjuna cave, also in an inscription from Bhavaneswar in Orissa, and in one from Brahmeswar in Cuttack.

Dr. Caldwell's Comparative Grammar.

GOUR, a race on the cast of the Gond, who extend into the borders of the Chutia Nagpur agency in Udaipur and Sirguja. They are the dominant tribe in Sirguja; and the Sirguja raja is supposed to be a Gour, through claiming to be a Rajput. They are much Hinduized.—Sir George Campbell, p. 32.

GOURAHUR, an obscure tribe of Rajputs in Sarswain, Gungeri, Puchnurah, Budoara, and Bibram, on the borders of Budan and Alighur.

GOURAMI, the Ophiocephalus olfax, a freshwater fish of Cochin-China and China, which has been introduced into Penang, Malacca, Bengal, Neighhurries, Mauritius, Bourbon, Cape of Good Hope, Australia, and Cayenne. Like all the Labyrinthide, it is provided with an apparatus for retaining water, so that when out of the water it can keep its gills moist, and can run to some distance by means of its fins and tail, and even leap upon the near plants to catch insects; grows to 20 lbs. in weight. It is esteemed of more delicate flavour than the salmon or turbot.

GOURD. ENG. Karat, ARAB. Gourd is a term, like that of melon and pumpkin, applied as a suffix to the fruits of species of the natural order Cucurbitaceae or gourd tribe, and of the genera Cucurbita, Cucumen, and Lageneria. The Cucurbitaceae is a group of prostrate or climbing plants, with palmately-lobed leaves and tendrils, chiefly tropical, with but few species extending into cool regions. Many of the species are ariet and purgative.

Cucumis melo is the melon.

Benincasa cerifera, pumpkin or white gourd.

Lagenaria vulgaris, bottle gourd or white pumpkin.

Tricosanthes anguina is the snake gourd.

Cucumis sativa, the cucumber.

Cucurbita maxima, squash gourd or red gourd.

Cucurbita lanifera, the range gourd.

Cucurbita ovifera, vegetable marrow.

The wild gourd of 2 Kings iv. 39 is the bitter cucumber, Citrullus colocynthis.

Towel gourds (Luffa or Cynmpia, D. C.) are grown in the West Indies and West Africa. The close vascular network of the inside of this gourd serves as scrubbing brush and sponge.

GOURKANI, the name of the tribe to which Timur belonged, also Baber and his descendants.

—Ferrier, Hist. of Afghanis, p. 71.

GOUR-KAYET, one of the twelve subdivisions of the Kayaasth race; they are chiefly to be found in Bengal.—Elliot, Supp. Gloss.

GOURROO, also Gourna, an inferior class of Rajputs in Behur and Nugeena of Bijnore, Irradatar of Agra, and Suhar, Shergar, and Huzur Talsil of Murtha.—Elliot, Supp. Gloss.

GOVARDHAN, a mountain which the Yadu race worshipped. It is celebrated in Indian poetry, and is still a great place of Hindu pilgrimage. Nothing less than that it is the personification of Krishna has been the opinion of which Government has been held by his followers. Devout votaries perform the circuit of the mount, by going round its base, prostrating themselves at each step on the way, and marking the space covered by their bodies. This penance can be completed only in several years, and one devotee has been heard of who had been able to go round but half the mountain in seven years. No Hindu dares to bring home any stone from Govardhan; it is said to be endued with life. The Luka-Laki, or hide-and-seek tank, near Govardhan, speaks of the early age of that game among the Hindus, having been played by Krishna with the Gopis. Govardhan mountain is famed to have been reared by Krishna, who

"With one finger reared the vast Govardhan."

—Sir W. Jones' Hymns to Indra, xii. p. 274. Tr. of Hind.

GOVERNOR, the official designation in British India of the President in the Council of the Government at Calcutta, of the Governors of Bengal, of Ceylon, and of the Straits Settlements, all of whom rule with a council for administration and legislation. The rulers of Bengal and the Punjab are Lieutenant-Governors. Governor-General is the official designation of the chief ruler of British India. These have been in succession—Warren Hastings, Sir John Macpherson, Earl Cornwallis, Sir John Shore, Sir Alured Clarke, Marquis of Wellesley, Marquis Cornwallis, Sir George Barlow, the Earl of Minto, Marquis of Hastings, Mr. John Adams, the Earl of Amherst, Mr. Butterworth Bayley, Lord William Bentinck, Sir Charles Metcalfe, the Earl of Auckland, the Earl of Ellenborough, whom the Court of Directors recalled, Lord Hardinge, Marquis of Dalhousie, Earl Canning, the Earl of Elgin, Sir Robert Napier, Sir William Denison, Sir John Laurence, the Earl of Mayo, Lord Napier and Ettrick, Lord Northbrook, who resigned, Lord Lytton (1877), who was succeeded by Lord Ripon, and the Marquess of Salisbury. Governor-General have been Viceroy and Governor-General since Earl Canning, 1st Nov. 1858, and have under them 2 Governors, of Madras and Bombay; 3 Lieutenant-Governors, of Bengal, N.W. Provinces or Agra, and the Punjab and its dependencies; 5 Chief Commissioners, Oudh, Central Provinces, Burma, Sind, Hyderabad, Assigned Territories; as also 2 Residents, of Hyderabad and Nepal; 2 Agents to Governor-General, for Rajputana and Indore. Every order is issued in the name of the Governor-General in Council, but Lord Canning rearranged the Council into the form of a cabinet, with himself as president.

The Act for the Better Government of India (1858) enacts that India shall be governed by and in the name of the Queen of England.
through one of her principal Secretaries of State, assisted by a Council of fifteen members. By the Indian Councils Act (1861), the Governor-General's Council, and also the Councils of Madras and Bombay, were augmented by the addition of non-official members, either natives or Europeans, for legislative purposes only; and by another Act passed in the same year, High Courts of Judicature were constituted out of the old Supreme Courts at the presidency towns.

A Governor-General also rules the Portuguese Possessions of India; another Governor-General rules the Dutch East Indies, known as the Netherland Possessions in India; the Spanish East Indies in the Philippines have another Governor-General; and the French Possessions in India have a Governor.—Imp. Guz. iv.

GOVIND, the tenth Guru of the Sikhs from Nanak.

GOVINDA, Gopala, and Gokala are names of Krishna, derived from his pastoral avocation of herdman, from Go, a cow. Gopinath, husband or lord of the Gopi, another name, is derived from his association with the Gopi herdwomen. Mr. Garrett says that Govinda was given by Indra as a name to Krishna after he had raised Gavardhan. It is a frequently recurring name amongst the Hindus. The Gita Govinda are songs of Krishna; also a pastoral drama by Jayadeva, in praise of Krishna. Jayadeva, the bard of the Hindu race, in the opening of the songs of Govinda, says, 'If they would be delighted with the remembrance of Hari, or sensible to the raptures of love, listen to the voice of Jayadeva, whose notes are both sweet and brilliant.' Jayadeva opens the first interview of Krishna and Radha with an animated description of a night in the rainy season, in which Hari or Krishna is represented as a wanderer, and Radha, daughter of the herd chief Nanda, is sent to offer him shelter in their cot. Nanda thus speaks to Radha: 'The firmament is obscured by clouds, the woodlands are black with tamals trees; that youth who roves in the forest will be fearful in the gloom of night; go, my daughter, bring the wanderer to my rustic mansion.' Such was the command of Nanda the herdman, and hence arose the love of Radha and Madhava.

The poet proceeds to apostrophize Hari, which the Hindu bard terms Rupaca, or personal description:—O thou who reclinest on the bosom of Canala, whose ears flame with gems, and whose locks are embellished with sylvan flowers; thou from whom the day-star derived his effulgence, who slowest the venom-breathing Caliya, who beamest like a sun on the tribe of Yadu, that flourished like a lotus; thou who sittest on the plumes of Garuda, who sippest nectar from the radiant lips of Pedma, as the fluttering chacora drinks the moonbeams. Be victorious, O Hari.—Malcolm's Central India.

GOVINDGHUR, a huge fortress built in 1809 by Ranjit Singh, at Amritsar. It is garrisoned by British artillery and infantry.

GOWARI, a tribe of agriculturists speaking the Mahrati language, dwelling in the more civilised parts of the Central Provinces. They resemble the Raj Gond, but are fairer.

GOWDAH, Gowdian, or Gounden, also written Gonda, Gour, the title of all respectable farmers and the headmen of villages in the Canarese and Coorg districts.

GOWHATTY, a town in Kamrup, 335 miles from Calcutta; it is on the left bank of the Brahmaputra river, in lat. 26°11' N., and long. 91° 48' E., and is 180 feet above the sea-level. Pop. 11,492.

GOWLA. Guj., Hind., Tam. A brown-coloured seed, about the size of, and having much the same appearance as, the coriander seed, but more oval. They have a pleasant, sub-aromatic, and mucilaginous taste, and are considered by native practitioners as cordial and stomachic. They are cultivated in Egypt, from the Persian Gulf, and are distinguished in the bazaars either with or without husks.—Faullier.

GOYOSOO. Jap. A custom-house or townhall, where all foreigners transact business and see Japanese officials.

GRACILLARIA COFFEIIOLIELLA. The larva of this mines the coffee leaves; it is very common, but of no importance to the planter.—Pl. Nieuw.


A small and delicate fucus, well known for the amylaceous properties it possesses, and the large proportion of true starch it furnishes. The fronds are filiform, the filaments much branched, and of a light purple color. It grows abundantly in the large lake or backwater which extends between Putlam and Calpentyn, Ceylon. It is collected by the natives principally during the south-west monsoon, when it becomes separated by the agitation of the water. The moss is spread on mats, and dried in the sun for two or three days. It is then washed several times in fresh water, and again exposed to the sun, which bleaches it; after which it is collected in heaps for exportation. 100 grains weight yielded the following proportions:—Vegetable jelly, 54°50; true starch, 16°00; ligneous fibre, 18°00; sulphate and muriate of soda, 6°50; gum, 4°00; sulphate and phosphate of lime, 1°00; with a trace of wax and iron. For a decoction of Ceylon moss, take Ceylon moss ground to fine powder two drachmas, water one quart; boil for twenty minutes, strain through muslin. By increasing the proportion of the ground moss to half an ounce, the filtered solution on cooling becomes a firm jelly, which, when flavoured by cinnamon or lemon-peel, sugar, and a little wine, is an excellent article of light food for sick children and convalescents. The whole thallus of this one of the algae is sometimes imported from Ceylon and the East Indies, and used in Britain for dressing silk goods. The agar-agar is a sea-weed exported from the islands of the Indian Archipelago as a portion of the cargo of every junk. It form a gelatinous mass with water, to which the Chinese add sugar, and use it as a sweetmeat.—Beng. Phar. p. 276.

GRACILLARIA TENAX.


Gracillaria tenax, one of the algae of the order
GRALLUS.

Rhodomyienae. Mr. Williams and the Hon. Mr. Morrison say that the Chinese people collect this sea-weed on the coast to a great extent, using it for food, and also in the arts, affording an excellent material for glues and varnishes. It is boiled, and the transparent glue obtained is brushed upon a porous kind of paper called sha-chi, which it renders nearly transparent. It is also used as a size for stiffening silks and gauze, and extensively employed in the manufacture of lanterns and in the preparation of paper for lattices and windows. This and other kinds of fuic are boiled down to a jelly by the islanders on the south, and extensively used for food. About 27,000 lbs. are annually imported into Canton from the provinces of Foh-kien and Chekiang, and sold for 6d. to 8d. the pound. The Chinese make it the basis of an excellent glue and varnish, and employ it chiefly in the manufacture of lanterns, to strengthen or varnish the paper, and sometimes to thicken or give a gloss to silks or gauze. Mr. Neill thinks that the gummy substance called chin-chou or hai-tsee in China and Japan may be composed of this substance. Windows made of slips of bamboos and crossed diagonally, have frequently their interstices wholly filled with the transparent hai-tsee glue.—Mr. Neill; Williams, Middle Kingdom, p. 275; Morrison's Comp. Sum.

GRALLUS, a genus of birds of the order Natatorae, tribe Plectores, and family Graulidæ or cormorants, which comprise the Gr. carbo, Gr. Javanicus, Gr. Sinensis, the large, little, and lesser cormorants. Gr. Sinensis, Show, the leu-tze or fishing-bird of China (Phalacrocorax Sinensis) is bred and instructed in the art and practice of supplying his owner with fish. Around the gunnel of their light boats their cormorants perch. On each boat or raft are ten or a dozen birds, which at a signal from the owner plunge into the water; and it is astonishing to see the enormous size of fish with which they return grappled between their bills. They are so well trained, that it does not require either ring or cord about their throats to prevent them from swallowing any portion of their prey, except what the master was pleased to return to them for encouragement and food. The boat used is of a remarkably light make, and is carried to the lake, together with the fishing-birds, by the men who are there to be supported by it.—Jordon; Fortune.

GRAHA. Sansk. A planet; a moveable point in the heavens. In Hindu astronomy the planets have each a great number of names or epithets. The following number are known to every Indian, because they serve to give names to the seven days of the week:—Ravi, or Surya, the sun; Chandra, or Soma, the moon; Mangal, or Cuja, Mars; Budha, Mercury; Guru, or Vichnappati, Jupiter; Sura, or Bhrig, Venus; Sani, or Saturn. Besides these, the Hindu astronomers consider Rahu, the moon's ascending, and Ketu, her descending nodes, as obscure planets, which occasion the eclipses of the sun and moon. Graha, when the terms Madhya and Sphuta are prefixed to it, signifies the mean and apparent place of the planet in the Hindu sidereal or fixed zodiac. Graha laghavā is the name of a treatise on astronomy, written about the 4657th year of the Caiiy (A.D. 1555). The Graha, or planets of the Hindus, are sometimes worshipped together, and at others separately. Graha Parivritthi is an account of time used by the inhabitants of the southern provinces of the Peninsula of India. It consists of a cycle of 90 solar sidereal years of 356½ days. Its epoch is A.D. 24, and it is constructed of the sum of the products of the revolutions of Mars (15), Mercury (22), Jupiter (11), Venus (5), Saturn (9), and sun (1).—Cole. Myth. Hind. p. 38; Warren, Kala Saudita.

GRAHAM, JOHN, a servant of the Bombay Government, author of a catalogue of the plants growing in Bombay and its vicinity, 1830, in which he was assisted by Mr. Joseph Nimm of Bombay. Mr. Graham was a native of Dumfries-shire, and arrived in India in 1828. He died at Khandalla on the 28th May 1839, at the age of 31. The catalogue has unfortunately been of little use, owing to the absence of descriptions rendering it impossible to identify in a satisfactory manner the species referred to.—Hooker f. et Th.

GRAHILOTE or Gehlote, a Rajput tribe of the Suryavansi, the chief of which is the Maharana of Mewar. By universal consent, as well as by the gotra of this race, its princes are admitted to be the direct descendants of Rama, of the Solar line. A pedigree is deduced from him, and connected with Sumitra, the last prince mentioned in the genealogy of the Puranas.—Todd's Rajasthan.

GRAINS OF PARADISE, Shu-sha-jiu and Si-sha-tau, Chin., are small fruits produced by species of Amomum, Amomum grandi paradise, Linna, and A. grandiflorum. They are hot, acrid, and aromatic, and used for medicinal and other purposes as stomachic and cordial stimulants. Those of the Amomum xanthioides, the Elettaria cardamomum are also known by the same Chinese names.—Smith.

GRALLATORAE, the Graleæ of Linnaeus, the wader order of birds, which some naturalists arrange as under:

a. The young when hatched able to run at once.
1. Tribe Struthiones, comprising the ostriches, emus.
2. Tribe Prostrinæ, bustards, plovers, cranes.
3. Tribe Longirostræ, snipes and sandpipers.
4. Tribe Littoroæ, rails and water-hens.

b. With the young helpless when hatched.
5. Tribe Cistirostræ, storks, herons, and ibises.

Many of these are migratory, and come annually into India across the Himalaya. Mr. Hodgson says the grallatorial and natatorial birds begin to arrive in Nepal from the north towards the close of August, and continue arriving till the middle of September. The first to appear are the common snipe, the jack snipe, and Rynchelea; next, the scolopacous waders (except the woodcock); next, the great birds of the heron and stork and crane families; then the Natatoræ; and lastly the woodcocks, which do not reach Nepal till November. The time of the reap-pearance of these birds from the south is the beginning of March, and they go on arriving till the middle of May. The first which thus return to Nepal are the snipes; then come the teal and duck, then the large Natatoræ, and lastly the great cranes and storks. The Grallatoreæ which visit Nepal or pass over it are much more numerous than the Natatoræ. The wild swan was once seen in Nepal in the mid-winter of 1828.

None of the Natatoræ stay in Nepal beyond a week or two in autumn (when the rice-fields tempt them), or beyond a few days in spring, except

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the teak, the widgeon, and the coot, which remain for the whole season upon some few tanks whose sanctity precludes all molestation of them. There are cormorants throughout the season upon the larger rivers within the mountains, but none ever half in the valley beyond a day or two. For so long, however, both they and pelicans may be seen occasionally on the banks.

The larus and sterna are birds which usually affect the high seas; but Mr. Hodgson had killed both the red-legged gull and a genuine pelagic tern in the valley of Nepal. But so had he fishing eagles; and in truth, he adds, who shall limit the wanderings of these beautiful birds of the ethereal expanse? See Birds; Migration.

GRAM, a word supposed to be derived from the Portuguese Grao, grain, but applied by Europeans in India to the pulses from species of Cicer, Dolichos, and Phaseolus.

_Cicer arietinum_ furnishes that called Bengal grain, and is the Chenna or Chuna of Bengal.

_Madras gram_, generally known as Kulti, is the Dolichos uniflorus, _Lam._, the _D. biflorus_, _Roscb._. It has a pale yellow and a jet black variety, and is both used for cattle, and by people in curries. It has been tried in England, but unsuccessfully.

_Phaseolus mango, _Linn._, furnishes the green gram of all India; it is the _Ph. max._, _Roscb._. There are several varieties, one of them with black seeds, called black gram. It is a very important crop, and is largely exported. Its chemical composition, a starchy matter, 59.87; nitrogenous, 24.12; moisture, 11.05; fatty or oily matter, 1.22; and mineral constituents, 3.66.

_Mungo_ is the ground nut, the Arachis hypogea, which is eaten as a fruit, and yields an edible oil. Gram exported from India,—

<table>
<thead>
<tr>
<th>Year</th>
<th>Cwt.</th>
<th>Rs.</th>
<th>Year</th>
<th>Cwt.</th>
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<tr>
<td>1874–75</td>
<td>322,661</td>
<td>11,29,187</td>
<td>1875–76</td>
<td>316,592</td>
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<td>1876–77</td>
<td>288,506</td>
<td>13,86,314</td>
<td>1877–78</td>
<td>289,596</td>
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GRAM or Grama. _Sansk._ A village and its lands, modified into the Hindi, Gam, Gaon, Gaum, and in Telugu Gramam. The village lands are held under several tenures in the different parts of India, either one individual being responsible for the revenue, or it is paid by a number of individuals as a coparcenary. In the Tamil portions of the S. of India, the Ekabhogam gramam (sole enjoyment) or Ijaman gramam (Yajaman, householder) is usually the property of a single individual. There are in N. India, Biaya chara or brotherhood villages, called also Pattadari (shore), in the Sanskrit, Pasung rarei and Pangi-vali, or by the Sanskrit terms Samohi or Samudayam. The Pattadari or share tenures in the south are called Arudi-kari, Achanthiram, Bhattachatri or Bhartivarti and Palabhogam.

Grana Deva, _Sansk._, a tutelar deity of the Hindus, who protects the fields, villages, and towns from evil spirits and from all evils. In the extreme south of India, Aynar with his two wives are frequently the Grana Devata, the genii lod. In many parts of India—the Grana Devata are the most popular objects of worship with the mass of people. See Devar.

Gramam, in the Travancore the headman of a village, is also the hereditary chief of the Shanar, a race who cultivate the palmyra for their palm-wine. In Bengal, Uriya, Tel., Karn., and Mal., it denotes the village barber.—_Wilson._

Grana Peraverticum, _Tam._, a village senate or council which ruled the village republics of India prior to the introduction of the present system.

GRAMMAR is a favourite study among all Hindus. It is a tradition that Agastyra wrote the first Tamil grammar, but it perished on account of the curse of his pupil Tolkappiyar. The latter wrote what is called the Tolkappiyam, the oldest treatise on the subject now in existence. It contains 1276 sutras, or rules in verse. Pavananti wrote the Nannul, in 462 sutras, considered the standard work on Tamil grammar. It is greatly admired for its logical arrangement and comprehensive brevity. The Tamils boast that its sutras do not contain a single redundant word. Though intelligible to good scholars, others will think that the remark of Sir William Jones applies to them in some measure. 'dark as the darkest oracles.'

GRAMMATOPHYLLUM, a gigantic epiphytal orchid peculiar to the Archipelago. Its clusters of leaves and flower-stems are ten or twelve feet long.—_Wallace._

GRANADA, a town in Spain. Its Albaebra, or ancient palace of the Moorish kings, in point of workmanship perhaps the most beautiful extant, and justly the pride of Granada, stands on a lofty eminence between the rivers Doura and Xenil, and derives its name from the red colour of the materials with which it is built. The words Al hamra signify the red house, or palace. For—_Alhamra._

GRANADILLA, Passiflora quadrangularis, the Jamaica passion-flower, flourishes well on the Tennessean coast, and is very prolific. The smooth oblong fruit grows nearly as large as a cucumber, and contains a succulent pulp, which makes a cooling, delicious dish, and, when prepared in tarts, can scarcely be distinguished from green apple. The Rev. Mr. Bennett of Tavoy introduced it among the Karens, by whom it is highly esteemed, and much sought for. It possesses all the attractive qualities of fine fruit, handsome fragrant blossoms, and, when trailed over an arbour, a rich, pleasing shade.—_Mason._

GRANARIES or Grain Pits. Kalanjemum, _Tam._, Patra, _Tel._, are underground pits in which grain is stored. Grain pits in India are in elevated dry spots, their size being according to the nature of the soil. All the preparation they undergo is the incineration of certain vegetable substances, and lining the sides and bottom with wheels and barley straw. The grain is then deposited in the pit, covered over with straw, and a terrace of earth about eighteen inches in height, and projecting in front beyond the orifice of the pit, is raised over it. This is secured with a coating of clay and cow-dung, which resists the ordinary rains, but is renewed as the rainfalls injure it. Grain can be kept in these for years without injury.

GRAND LAMA, the chief lama or priest of Buddha, in Tibet, who is supposed to be a Bodhisatwa, who abstains from accepting Buddhahood, and is re-born again and again for the benefit of mankind. See Buddha; Lama; Sakya.

GRAND MOGHUL, a title given in Europe to the last dynasty of Mahomedan rulers in India, who reigned at Delhi. See Moghul.

GRANEEA MADERASPATANA. _Poir._

Gr. Adamsania, _Cas._ Arctemia maderas, _Will._

Nanuti, ... _Beng._ Mashiputri, ... _Tam._

Nalum mats, ... _Malle._ Mustur, ... _Tel._
Grapes, the fruit of the vine, are grown in most parts of British India and in China. There are many species of the genus Vitis, but the V. vinifera is the only one known as the grape vine. V. Indica, the Ameloucha of the Indian Peninsula, Bengal, and Himalaya, produces beautiful clusters of round purple berries, and a large grape which is very fair eating; and the common vine of Europe is probably from this plant. The wild grapes of Isaiah v. 2 are a species of Solanum.

The vine seems to have been known in China from the earliest times, but varieties appear to have been re-introduced from Farghana, Ladakh, and other western countries. The wild V. Amurensis, Ruppins, of the Amur, has been supposed to be identical with the cultivated plant. Quantities of grapes are grown in Peh-chi-li and Shan-si provinces, green grapes in Sze-chuen and Foh-kien, and a very excellent sultana raisin in Tien-tsin.

Grapes dried before being ripe, and powdered, are used in Kahl as a pickle. In the Panjab several varieties of grapes are recognised, — Kan-dahari, a purple grape; Kishmishi, a small seedless grape, producing what are called in England sultana raisins,—these are of the varieties called Sahibi surkh and Sahibi abblak; Khatan grapes produce the large common raisins, called munakka; Fakhri, sometimes called Askari, a black grape; Munakka and Abjosh munakka are grapes dried in the sun; Rish bana; Dida-i-gau, a white grape, with some spots on the skin, which are said to resemble a cow's eye, hence its name; Pious Hindus refuse to eat this grape on that account; Karghani (white), called from the name of a place; Angur Jalalabadi, called also Khatta angur, grown at Charbagh, a few miles from Jalalabad; Charanurg, grown also at Jalalabad. The common sorts of grapes are Roche-i-surkh and Roche-i-safed, also Toran. Green grapes sold in the plains in the winter time, are the Hosaini or Shaikh kalli varieties; they are of large size, pale green colour, and of delicate flavour. They are picked before being quite ripe, and packed between layers of cotton wool, in round boxes, made of white paper, and tied up with a string of goat's hair; these are exported in thousands, and called Angur khatti. There is yet another, the Akta grape, which produces bloom raisins, called Dagh, or more properly Kishmish-i-daghi, which are prepared by dipping the ripe bunches of fruit into a boiling solution of quicklime and potash (hence called Abjosh, lit. infused in water) before drying in the shade.

In the Indian Peninsula there are several varieties, but the common lock-green is the most esteemed, though many persons like the Habshi grape. In the arid regions of Rajputana, where they depend entirely on the heavens for water, and where they calculate on a famine every seventh year, nothing that can administer to the wants of man is lost. The seeds of the wild grapes, as the bhzoek, buroo, herraroo, sewun, are collected, and, mixed with bajra flour, enter much into the food of the poorer classes. They also store up great quantities of the wild ber, khyr, and kharil berries; and the long pods of the karjna, astrigent and bitter as they are, are dried and formed into a flour.

Grape sugar, also called Glucose, is found in the fruits of most plants. It seems to act on the system in precisely the same way as cane-sugar. The result of the fermentation of grape-sugar is the production of alcohol, which does not differ much in composition from sugar.

Graphic Slate, that 'soils and writers,' is found east of Tavoy, and another and softer variety is found in Monmluen.—Mason.

Graphite, also called Black Lead and Plumbago, occurs in Travancore, Ceylon, Vishnagranam, at Gurjoli, and at Almorah. It occurs in Travancore, and also in the corresponding parallels on the eastern sides of the ghats in Tinnevelly, in both sites the rocks apparently coinciding in direction with the strata in Ceylon, in which this mineral occurs. Graphite is found in the districts of Simla. In Upper Burma it is found in large quantities to the east of Nat Talk, on a low range of hills near the village of Nyoke toke.

Grapus, a genus of the Crataeaceae.

Grapus strigosus, Edras, Red Sea, Indian Ocean, New Holland.

G. variegatus, Edras, New Holland, Chili.

G. mesapotam, Edras, Red Sea, Indian Ocean.

G. pleiatus, Edras, Sandwich Islands.

GRAPTOPHYLLUM HORTENSE. Nees. Justicia picta, Roxb.


A handsome flowering plant with large crimson flowers, native of Java, commonly cultivated in gardens in India. Var. b. G. lurido-sanguineum, the Sa-lat-ne of the Burmese, is larger.

Some varieties have red and dark red spots. The leaves are used for the decoration of the dessert after dinner, and other ornamental purposes. Few leaves can be found on which some grotesque resemblance to the human countenance may not be fancied or traced.—Riddell; Joffrey; Voya, 488.

GRAS, the griffin of Rajputana. The Naguni is half serpent, half woman. At Baroli the Gras and Naguni are represented in a highly finished sculpture.—Toft's Rajasstan, ii. p. 716.

GRAASIA. HIND. Garaso, Git. In Malwa, Gujerat, Cutch, and Rajputana, a chief of a tribe claiming revenues from villages. In Mewar, the Grasia is of mixed Bhil and Rajput descent, paying tribute to the Rana of Udaipur. In Western India, a military chief. The term is derived from Grass, a Sanskrit word which signifies a mouthful, and has been metaphorically applied to designate the small share of the produce of a country which these landowners claim.—Malcolm's Central India.

GRASS.
In England the grasses have received great and deserved attention. In some places hay grasses are cultivated; in some, those adopted for pasture or for catch-meadows; while in other localities preference is given to varieties which yield early or late pasture, or have the recommendation of being suitable to some peculiarity of the soil. In India, however, the subject has received no such minute consideration, although deserving accurate investigation and careful experiment. The pasture lands are everywhere left to nature. There is generally a right of common pasture, and there is nothing to prevent the village cattle from roaming at discretion.

The populations of Central and Southern Asia are largely pastoral and agricultural, and the grasses useful for cattle are therefore of vital importance. Nomads shift with the seasons of the year to their summer and winter grazing grounds; and in India, partly in this manner, and in part trusting to their natural grasses, they are still able to rear large herds and flocks, though the waste lands of India are yearly becoming more tilled to meet the wants of the increasing populations. Grass is but seldom cut and stacked as hay. The rapid growth and subsequent dryness render many natural Indian grasses unfit for pasture at the end of the year; and grass-cutters, who provide horses, usually search for and collect the dub grass, the Cynodon dactylon.

Sir W. Jones observes (As. Res. iv. p. 242) that it is the sweetest and most nutritious pasture for cattle, and its usefulness, added to its beauty, induced the Hindus, in their earliest ages, to believe that it was the mansion of a benevolent nymph. Even the Veda celebrates it, as in the following text of the A’tharvana: ‘May Durva, which rose from the water of life, which has a hundred roots and a hundred stems, efface a hundred of my sins, and prolong my existence on earth a hundred years.’

In the east coast of the Peninsula of India, the vegetation of most plants is interrupted for a longer period by the dry season, than in Europe by the winter. The sandy tracts about Madras remain perfectly arid, only a little relieved by partial showers during the south-west monsoon. This alternation of drought and heat at one season, and of heavy rains at another, necessarily precludes the pasture grounds of the Karnatic from attaining the verdant, flourishing condition observable in extra-tropical countries. At the same time, however, the temperature of the cold weather admits of the production of a considerable quantity of serviceable grass.

No grasses are cultivated in China for food for animals. The country produces many species fitted for rearing flocks and herds, and are extensively cultivated in the south of China for weaving floor matting of various degrees of fineness, the coarser kinds of which are used also to construct sheds to screen workmen when building houses, and even the walls of the huts tenanted by the poor; the best comes from Lien-tan, west of Canton.

Of the grasses eaten by cattle, Sir A. Burnes mentions that three are cultivated in Kâbul,—Riskha or Medicago sativa, the common lucerne; Shafful, a kind of trefoil; and the Si-barga (three leaves), a clover new to Europe, which from its great yield was named Trifolium giganteum.

Another plant, the Melilotus leucanthus, of Bokhara clover, differs much from the Trifolium giganteum in its properties, though, like it, of luxuriant growth.

In the Râkh of the Panjab, and in the ‘bar’ tracts during the rains, the whole surface of the plain is covered with grass. Thirty sorts—each with its distinctive name—were collected in the rainy season near Lahore.

Dr. Royce mentions that the grasses of Hurriana (Siris and Rohk)—and it is true of the râkh generally—consist of species of Panicum, Pennisetum, Cenchrus, Chetania, Daicytotonem, Chloris, Eleusine, Accrahe, Poa, Eragrostis, and Andropogon, and to these, species of Saccharum and Rotbollia should be added. In one place a clover or lucerne, Shaftul, is grown, also Sinji, but this principally by Europeans for their horses and other cattle. Cattle in India are usually fed (besides grass) on Bhusa, or, as it is called in Panjab, Turi, the chopped straws of wheat and barley; besides which they get Karbi, the dried stalks of Jowar (Sorghum vulgare); this latter when green and fresh is called Charr. Chopped leaves of the Ber (both Z. vulgaris and Z. nummularia), called Mula, are much used, and are said to be fattening. Dr. Henderson mentions that in Shâhpur, and one or two other districts, turnips are grown very extensively for feeding cattle during the cold weather, and they often attain a larger size than in Europe. A few of these are used in times of famine for food, as the Markan grass, the wild Sawank, and Phog. The seed of Calligonium polygonum is used as human food in the Panjab in times of famine. Dhaman or Anjan (Pennisetum cenchroides) is considered the best grass for cattle, rapidly improving their condition, and increasing their produce in milk. Jhang is a scented grass, probably Andropogon schenanthus; and the root of A. muricatum forms the khaskhas used in matting tatties and sareaus for cooling purposes.

The Durva or Hurrrial grass (Cynodon dactylon), unquestionably the best species which India possesses for forage, has been cultivated with great success at Vellore by Major Octley, who has given an interesting account of this grass in the Madras Journal of Science and Education, xv. p. 477. In upland districts rye-grass and clover grow; and both these exotic, when sown fresh, have been found to answer exceedingly well on the Shevaroy, Pulney, Neigherry, and Baba Booden Hills. The Guinea grass has been strongly recommended in Bengal.

Inoculating Grass.—In poor soils such as that of the Karnatic, grass seeds do not take so well as in rich land, and there is great difficulty in procuring a good sward. In this case recourse must be had to planting, or, as some call it, inoculating grass. This is done by taking pieces of turf from the banks of a river or tank, and spreading them over the land to be laid down, after it has been prepared in the same manner as it would have been to receive the seed. The turf should be taken up in little square pieces, and spread over the surface of the ground, leaving small interspaces between each piece. A stone roller or a wooden beater should then be employed to press them into the ground. In a few days the interspaces will be filled up, and a complete carpet of turf to have formed.
GRASS-CLOTH.

Before putting down the turf, poor stiff lands must be divided by ditches, ploughed in deep furrows, and exposed as much as possible to the wind and sun. Such soils may with careful culture and irrigation become permanent meadow land, but it is essential to get them into a sound state by most carefully clearing them of rush grass and weeds before laying down grass seeds, and subsequently by keeping the land free of coarse grass by hand weeding. Paring and burning the straws have been found useful, and if beneficial in the first instance, the operation may be repeated with advantage.

Lepidzia stricta, H. and A., the Japan clover of China and Japan, is much valued in N. America as a grass for cattle.—Von Mueller; Powell; Royle, Ill.; Mason; Williams; Hooker’s Ill. Jour.

GRASS-CLOTH, the Hia-pu or Chna-ma of the Chinese, is fabricated from the fibre of the Urtica nivea of Linum, the Boehmeria nivea of Gaudichaud. It is met with bleached and unbliached. It is extensively used by the Chinese, being woven into narrow pieces and into handkerchiefs, the export being chiefly to India and the United States, many handkerchiefs being sent to the latter country. Clothes are sent from the Chinese market to South America, made from grass-cloth and nankeen. No account of the quantity has been kept. Coarser sorts of China grass-cloth are furnished by the fibres of Sida tiliafolia and Dolichos bulbosus.—Smith.

GRASSHOPPER.


One of this tribe, a species of Detusics, is kept by the Chinese in cages for fighting. The Greeks ate grasshoppers, and liked them amusingly; the aborigines of New South Wales eat them raw, first taking off their wings.

GRASS OILS are obtained from species of Andropogon.—A. citratum, A. Martini, A. iaranae, and their allies. They are fragrant essential oils. In the south of the Peninsula of India, in Madura, are three grasses or sorts of grass, named Poopathal, Secompil, and Komatchpil, which are employed to furnish grass oils. The stalks are cut into pieces a span in length, and put into earthen pans with water, and exposed to the action of fire. In the south of India and Ceylon they are known to the British as the lemon grass oils, also citronelle oils, ginger grass oil, essence of verbena.

The grass oil of Nemaun, Roosa-ka-tel, Hind., was first brought to notice by Dr. Maxwell in 1829, and was further described by Dr. Forsay in 1842. This oil is obtained from the Andropogon Martini by distillation. 250 to 300 small bundles of the grass are placed in a boiler, covered with water, and distilled. About a seer of oil is obtained in the receiver. It is volatile, extremely pungent, of a light straw colour, very transparent, with a peculiar rich and agreeable odour. As a rubefacient, it is very highly esteemed by the wealthy natives of India for the cure of rheumatism, especially that of the chronic kind. Two dracons of the diluted oil are rubbed over the pained part in the heat of the sun, or before a fire, twice daily. It causes a strong sensation of heat or prickling, lasting for two hours or longer. The natives also regard it as an efficacious remedy in slight colds. They anoint the soles of the feet with the oil, and it is stated that slight diaphoresis is thus produced. It is also known as the ginger grass oil. It is employed as a substitute for caoutch oil. The grass has a strong aromatic taste, scenting the milk of those animals which feed on it. The oil is very fragrant and aromatic, and the colour is a pale straw. Much used in perfumery, and medicinally as a stimulant and diaphoretic. It has the power in a most remarkable degree of preventing the hair of the head from falling off after acute diseases, such as fever, or after confinement or prolonged nursing. It even restores it after it has fallen off, but it must be strong and pure.—Royle, Useful Plants; Trans. Med. and Phys. Soc. iii. p. 219; O’She.

GRASS TREE, or Australian Grass Tree or ‘Black Boy’ (Xanthorrhoea, sp.). Some of the grass trees are from 5 to 7 feet high, and as many in circumference. They have leaves 3 to 4 feet long, and flower-spikes 5 to 10 feet high, thickly clothed with hard scales and small white star-like flowers, except for about 14 feet at the base, which is bare. Abundance of red resin is exuded by them.—J. Backhouse.

GRASS-WRACK, Zostera marina, L., belongs to the small group of grass-like marine plants. It is common on the British coast, and in most parts of the world, near low-water mark. Used for packing and to stuff beds.

GRATIOLA SERRATA, Irvine.


GRACIALUS, a genus of cuckoo-shrikes, of the family Laniidae and sub-family Campephaginac.

GRAVET, a term in Ceylon applied to the space outside the principal forts in the island. The Singhalese word Cadavetta describes the enclosure or boundary of a temple or city, or a royal chase. It was adopted by the Portuguese, after the erection of these fortresses, to define the limits of the lands they had been permitted by the native princes to appropriate, and the word Garvetta is still used in the patois of the Portuguese descendants. When the Dutch seized the forts, the word passed into Gravette, which appears on their records; and from the British, in turn, took the present term Gravet.—Tennent’s Christianity in Ceylon, p. 291.

GHAY, J. E., author of Illustrations of Indian Zoology, chiefly from the collection of Major-General Hardwicke, Lond. 1830.

GREASE FOR RAILWAYS. The mixture used by the East Indian Railways for axle-grease is—tallow, 50 lbs.; country soap, 20 lbs.; castor-oil, 30 lbs.; water, about 10 gallons. Melt the tallow in a large vessel, cut the soap in slices and put into the water when the latter is warm. When the soap is fully dissolved, pour the water containing it into the tallow, after which add the castor-oil; immediately after the latter is added, take the mixture off the fire, and while it is cooling let it be stirred constantly till cool. The mixture may require a little more or less water, according to the temperature of the weather.

GREAT MOGHUL, a designation employed by the nations of Europe as the title of last dynasty emperors of Delhi, most of whom were descendants of Baber.

GREAT WALL OF CHINA was built by the
GREECE.

emperor Chi-hoang, of the Tsin dynasty, about B.C. 260. It was done by forced labour,—every third labouring man was compelled to work for his bare food as a remuneration. It extends from the sea to the most westerly province of Shen-si, about 1500 miles. It was built of earth faced with brick. From the west shore of the Gulf of Liau-tung, in lat. 39° 58' N., long. 119° 51' E., originating within 100 yards of the beach, and having a massy pier jutting out into the sea, it crosses mountains, valleys, and rivers, and was finished in five years. Its breadth admits of six horses riding abreast, and thus with every hundred yards towards Chi-hoang-ti who introduced yellow as the colour of the royal family. The route between Pekin and Western Asia and Europe issues from the western end of the Great Wall, to cross the desert of Gobi.

GREECE, a celebrated country in Europe, famed for the military exploits, learning, and arts of its inhabitants. The people of Greece call their country Ionia. It is the Yuuan of the Mahomedans, whose people the Hindoostan style Yavana. It has produced many men famed throughout the world,—Alexander the Great, his teacher Aristotle, Socrates, Hippocrates, Plato, who are not mentioned by Hindus, although known to all the Mahomedans of Asia, as Sikander, Rumi, Aristok, Skratuk, and Aflatan. The following Greek and Roman writers were known to the Mahomedans, viz.:

Herodotus, b.c. 450 Clemenb Alexand-
Ctesias, b.c. 400 Eusebius, 320
Oroondas, 420
Megalasteennes, 370 Festus Avienus, 380
Strabo, a.d. 20 Marcian, 420
Pomponius Mela, 20 Cosmas Indicopleus-
Pliny, 27 Stephen of Byzantium, 560
Persilus Mari Ery-
trh, 525 Ravenntot Fonymi-
Dionysius Periegetes, 80 Cosmographia, 7th cent.
Ptolemy, 130 Georgius Synecleus, 800
Arrian, 150 Eustaliuia, 12th cent.

But the first Greek historian who speaks clearly of India is Hekataios of Miletus (549-486 B.C.); the knowledge of Herodotus (450 B.C.) ended at the Indus; and Ctesias, the physician (401 B.C.) brought back from his residence in Persia only a few facts about the products of India,—its dyestuffs and fabrics, monks and parrots. India to the east of the Indus was first made known to Europe by the historians and men of science who accompanied Alexander the Great in 327 B.C. Their narratives, although now lost, are condensed in Strabo, Pliny, and Arrian. Soon afterwards, Megalasteennes, as Greek ambassador resident at a court in the centre of Bengal (306-298 B.C.), had opportunities for the closest observation. The knowledge of the Greeks and Romans concerning India practically dates from his researches, 300 B.C. Alexander the Great had entered India early in 327 B.C. He crossed the Indus above Attok, and advanced without a struggle over the intervening territory of the Taxiles to the Jhelum (Hydaspes). Having drawn up his troops at a bend of the Jhelum, about 14 miles west of Chillianwalle, the Greek general crossed under shelter of a tempestuous night. The enemy had 30,000 efficient infantry, 4000 horse, 300 chariots, 200 elephants; and Alexander's army numbered about 50,000, including 5000 Indian auxiliaries under Mophis of Taxila. Alexander found the Rawal Pindi district in possession of the Takka or Takshak, a Scythis race; and, 1300 years afterwards, Malmud found it in the possession of the Ghakkar, who are still there. It was from the Takshak that the Greek name of Taxiles was derived. Alexander advanced south-east through the kingdom of the younger Porus to Amritsar, and, after a sharp bend backward to the west to fight the Cacthei at Sangala, he reached the Beas (Hyphasis). The country was hostile, and the Greeks held only the land on which they encamped. At Multan, then as now the capital of the Southern Punjab, he had to fight a pitched battle with the Mallus, and was severely wounded in taking the town. His surgeon dressed his wound, and was kept within it by the sword. Further down near the confluence of the five rivers of the Punjab, he made a long halt, built a town, which he called Alexandria, and which is the modern Uch."
GREECE.

finding himself cut off from Syria by the Persian revolution, declared his independence.

Araxes is called Akeche by Eastern writers, and is said to have been a descendant of the ancient Persian kings. When he gained the kingdom, it is said he promised to exact no tribute, and merely to consider himself as the head of a confederacy of princes, united for the double object of maintaining their independence and freeing Persia from a foreign yoke. This is the commencement of that era of Persian history called by Eastern writers Muluk-ut-Tauif, or commonwealth of tribes. In A.D. 906 Phrases was taken by Ismail, founder of the Samani dynasty. It ceased now to be a seat of empire, and in A.D. 967 became the capital of the house of Shemug, a race of petty princes who maintained a kind of independence, while the dynasties of Sanaan and Dilemee divided the empire of Persia. In A.D. 1027 Phrases was the last conquest of Mahmud of Ghazni.

II. Bactria.

The sole evidence of the long line of Bactrian kings exists in the emanations from their mints, exumed from time to time in and around their ancient seats of government. In the almost total absence of annals, whether occidental or oriental, their coins furnish nearly all the testimony at present available with which to reconstruct the story of the survival, re-institution, and extinction, of the dominant Hellenic element on the site of Alexander's furthest conquest in the East, and of those potentates who swayed the dynasties of these lands for upwards of two centuries. Professor Wilson has given a list of these from Thedotus I., B.C. 256, to Pantaleon, B.C. 120. Then of Barbaric kings, Su Heraeus, Kadaphes and Kadphises, from B.C. 100 to B.C. 50. Of an Indo-Parthian dynasty; the Indo-Scythian princes of Kabul; and a classification of their contemporaries. Mr. Thomas, in Prinsep's Antiquities, quotes Major Cunningham's table:

B.C.
256. Diodesotus I., Bactriana (including Sogdiana, Bactria, and Margiana).
247. Agathocheles, Bactria and Paragamisade and Nysa.
250. Phryganeus, Paragamisade and Nysa.
196. Demetrius, do., do., and later in his reign, Patalene, Syrastene, Larice.
190. Helocheles-Bactriana and Paragamisade.
185. Eucrately-Bactriana, Ariana, besides Patalene, Syrastene, and Larice, as well as Nysa, Gandhara, Pekhotaht, and Taxila.
173. Antimachus Nikorhabos-Nysa, Gand., Peuk., and Taxila, contemporarily with Eucratides' reign, but independent of the rest of his dominions.
165. Philoxenes succeeds to Antimachus Nikorhabos' kingdom.
Nicob, do., with the exception of Taxila.
165. Apollodotus succeeds Eucratides in Ariana, as well as Pata, Syr., Larice.
Zolus, follow Apollodotus in Ariana alone.
Dionysus.
159. Lydus succeeds those in Paragamisade, and obtains Nicob's dominion of Nysa, Gand., Peuk.; while Mithridates I. possesses himself of Ariana, having previously gained Margiana from Eucratides.
Antialcides succeeds to Lydus' kingdom.
Amynius. Archebus follows Antialcides.
Greece.

Panjib had first been placed under Philip, while the civil administration of the country remained in the hands of its native princes, Taxiles and Porus. Afterwards, on the murder of Philip by the Macedonian soldiery, Alexander (Anabasis, vi. 2, vii.) directed Eudemos and Taxiles to govern the country until he should send another deputy. It is probable, however, that they continued to retain the charge; for, after Alexander's death in B.C. 329, Eudemos contrived by his general Eumenes to make himself master of the country, by the treacherous assassination of king Porus (Diodorus, xix. 5). Some few years later, in B.C. 317, he marched to the assistance of Eumenes with 3000 infantry and 5000 cavalry, and no less than 120 elephants. With this force he performed good service at the battle of Gabiene. But his continued absence gave the Indians an opportunity not to be neglected, and their liberty was fully asserted by the expulsion of the Greek troops and the slaughter of their chiefs.—Justin, xv. 4.—"Prefactos ejus occidet;" again, 'Molienti deinde bellum adversus prefactos Alexander's. Chandragupta was present when Porus was murdered, and he became the leader of the national movement, which ended in his own elevation to the sovereignty of the Panjib. Justin attributes his success to the assistance of banditti; Justin, xv. 4—"Contractis latronibus Indos ad novitatem regni sociavit." But in this Colonel Cunningham thinks he has been misled by a very natural mistake; for the Aratta, who were the dominant people of the Eastern Panjib, are never mentioned in the Mahabharata without being called robbers (Lassen, Pentapot. Indica), —"Arati prefecto latrones," and "Bahici latrones."

The Sanskrit name is Arashtra, the 'kingless,' which is preserved in the Adrastie of Arrian, who places them on the Ravi. They were the republican defenders of Sangala or Sakala, a fact which points to their Sanskrit name of Arashtra, or 'kingless.' But through their power was then confined to the Eastern Panjib, the people themselves had once spread over the whole country,—'Ubi fluvii illi quin ... ibi sedes sunt Arratorum' (Lassen, Pentapot. Indica, from the Mahabharat). They were known by the several names of Bahika, Jarttika, and Takka, of which the last would appear to have been their true appellation; for their old capital of Taxila or Takka-sila was known to the Greeks of Alexander, and the people themselves still exist in considerable numbers in the Panjib hills. The ancient extent of their power is proved by the present prevalence of their alphabetical characters, which, under the name of Takri or Takni, are now used by all the Hindus of Kashmir and the northern mountains, from Simla and Subathu to Kábul and Bamiyan. On these grounds, it is supposed that the principality of Justin with the Takka, or original inhabitants of the Panjib, and assigns to them the honour of delivering their native land from the thraldom of a foreign yoke. This event occurred most probably about 316 B.C., or shortly after the march of Eudemos to the assistance of Eumenes. It was followed immediately by the conquest of Gangetic India, Justin, xv. 4; and in 316 B.C. the rule of Chandragupta was acknowledged over the whole northern Peninsula, from the Indus to the mouths of the Ganges. According to Colonel Tod, the Yavan or Greek princes, who apparently continued to rule within the Indus after the Christian era, were either the remains of the Bactrian dynasty, or the independent kingdom of Demetrius or Apollodotos, who ruled in the Panjib, having as their capital Sagala, changed by Demetrius, ruled in his Hist. Bact. p. 84, that according to Claudius Ptolemy there was a city within the Hydaspex yet nearer the Indus, called Sagala, also Euthydemia; but he scarcely doubts that Demetrius called it Euthydemia, from his father, after his death and that of Menander. Demetrius was deprived of his patrimony A.D. C. 562. Sagala is conjectured by Colonel Tod to be the Salbanpurra of the Yadu when driven from Zabulistan, and that of the Yuchi or Yeti, who were fixed there from Central Asia in the 5th century, and, if so early as the 2d century, when Ptolemy wrote, may have originated the change to Yuti-media, the 'central Yuti.'

Numerous medals, chiefly found within the probable limits of the Greek kingdom of Sagala, either belong to these princes or the Parthian kings of Minagara on the Indus. The legends are in Greek on one side, and in the Sanskrit character on the reverse. The names of Apollodotos and Menander have been deciphered, and the titles of Great King, Saviour, and other epithets adopted by the Arsacide, are perfectly legible. The devices, however, resemble the Parthian. These Greeks and Parthians must have gradually merged into the Hindu population. Recent travellers—Burnes, Masson, and Ferrier—met with tribes who claim a Grecian descent. According to Burnes, the Mir of Badakashan, the chief of Darwaz in the valley of the Oxus, and the chiefs eastward of Darwaz who occupy the provinces of Kulub, Shaughman, and Wakhan, north of the Oxus, also the hill states of Chirral, Gilgit, and Iskardo, are all held by chiefs who claim a Grecian origin.

According to Ferrier, however, the whole of the princes who claim descent from Alexander are Tajak, who inhabited the country before it was overran by Turki or Tartar tribes. The Tajak, now Mahomedans, regard Alexander as a prophet. The Badakashan family are fair, but present nothing in form or feature resembling the Greek. They are not unlike the modern Persian, and there is a decided contrast between them and the Turk and Uzbek.

According to some writers, the fair complexion and regular features of the Siahposh Kafr, the variously coloured eye and shaded hair, indicate them to belong to the European family of nations, and disconnect them from the Tajak, the Hazara, the Uzbek, or the Kirghiz. It also merits consideration that the region now inhabited by the Siahposh is surrounded by the countries where, this is his dynasty ruled, and is encircled by the colonists, posts, and garrisons which they are known to have established; and by the fact of the establishment of military colonies of Macedonians at Alexandria ad Caucasum, Argieum, and Bazura, and of the garrisons of Nysa, Ora, Massaga, Peukelatis, and Aornis. General Ferrier, on reaching Gazergah, found there a small encampment of persons in the Uzbek dress, but whose configuration of features clearly indicated quite another origin. They stated that they were the descendants of the Yumani (Greeks) whom Alexander the Great (Sikander Rumi) had left in these.
GREECE.

countries; and from the replies he received to the numerous questions he put to these people, he was convinced of the existence of the real descendants of the ancient Greeks in those countries. These Yunnan, he says, are not isolated and dispersed here and there, but united in tribes, occupying a considerable tract of country; nothing, however, either in their language or their habits betrays their origin. They are Mahomedans, and have the reputation of being somewhat fanatical, and are not held in much consideration by the Tartars, amongst whom they are settled; but they are respected, for, like their ancestors, they are brave, and the consequences of their hatred are terrible to those who are the objects of it.

It is said in the Dabistan that Calliatheness sent to his uncle a technical system of logic (naya), which was the basis of the Aristotelian system. We also observe a close affinity between Aristotle's theory of the soul as regards its organism, and the Vedanta-darsana; and Plato's ideas as to the detachment of the soul from the world of sense, constituting the true subjective condition, bear an analogy to the Sankhya philosophy. The Greek kings as well as the Scythians adopted a language closely allied to the Sanskrit. The inscriptions for more than two centuries, during the Greek and Scythian connection, invariably contain the Greek with a vernacular translation. The coins of the Sah kings of Saurashtra have an imperfect Greek and Sanskrit inscription, while those of the Guptas (2d to 4th century A.D.) have an emblem of the Greek and Pali, showing the gradual appearance of the Greek from the Indian coins. The Greeks adopted the Indian symbol of Swastika.

Greece and Asia Minor seem to have been parcelled out among a number of deities, each of whom was the paternal god of some city or race, having not only separate rites, but a form of worship widely different. Each deity had his favourite abode, and local attachment to some valley or grove or town, to which the power and presence of the divinity especially belonged; and hence in Boeotian Thrace we trace the orgies of Bacchus, in Northern Thessaly the worship of Apollo, on the Corinthian shores the rites of Neptune, in Argos the temples of Juno, and in Ephesus the worship of Diana. Though acknowledged to be divine out of their own peculiar domains, yet their worshippers were rather averse to proselytism, fearing lest, by an extended communication, the local influence of the deity should be weakened. The sacred object of Ephesian worship was carefully preserved from the period of its first formation, through the ages which intervened, till the demolition of pagan temples which followed upon the rise of Christianity. The image of Diana consisted of a block of wood of beech or elm, but, according to some, of ebony or vine, shaped into a likeness of the goddess, and evidencing its remote antiquity by the ruggedness of its workmanship. The first statues were unshaped blocks and stones; and hence the word column was generally used by the Greeks to denote a statue. Greeks identified Baal with Zeus, as they did Astarte with Venus. The heaven-fallen idol of Ephesus was not a representation of the elegant huntress of classic fable, but an Egyptian hieroglyphic, a personification of nature. In this character she was pictured as a woman having a number of breasts, to denote, according to Jerome, that, as nature, she was the nurse, the supporter and life, of all living creatures.

The Greek people are now Christians; but until the time of Jesus Christ both Greece and Rome were worshippers of idols, of spirits of deified men, of gods residing in a higher sphere, and of demons in a hell below; and the gods of ancient Greece and Rome have been reckoned at not fewer than thirty thousand. These gods were in their characters simply exaggerated men, with human virtues and vices on an enlarged scale. The common people of Greece continued to believe in these gods until Christianity displaced them; but philosophers early appeared doubting their existence. Xenophanes, b.c. 534, denounced the adoration of the gods as godless fables; but he frankly admitted that he knew not God. About a century later lived the philosopher Thales, followed by Socrates, Plato, the Pyrrhonists, the Academics, the Peripatetics, Epicurus, and the Stoics, all of whom saw the absurdity of the popular creeds, and put forth philosophical views. Milton says of them (Paradise Regained, book iv.):

'The first and wisest of them all professed
To know this only, that he nothing knew;
The next to fabling fell and smooth conceits;
A third sort doubted all things, though plain sense;
Others in virtue placed felicity,
But virtue joined with riches and long life;
In corporal pleasure lie, and careless ease;
The Stoic last, in philosophic pride,
By him called wisdom.
Much of the soul they talk, but all awry,
And in themselves seek wisdom; and to themselves
All glory arrogate,—to God give none.'

In Homer's time the manners were rude and coarse; in subsequent centuries, immorality and vice grew. The Romans copied the Greeks in religion and manners, though Cato the Censor warned his countrymen against Greeks as the parents of every vice. For two centuries before the birth of Christ, immorality and infidelity greatly increased. From the time of Augustus superstition began to reappear, chiefly in the form of wild oriental rites. Human sacrifices were offered as late as the reign of Augustus; slavery was universal; in the public shows gladiators appeared,—sometimes more than 20,000 men perished in these exhibitions in one month. Both Greek and Roman authors complained that the charmers of the people were as grossly corrupt as that of the deities they worshipped.

It was from Chaldæa that the germs of Greek art and of much of the Greek pantheon and mythology originally came. Columnar architecture reached its first and highest development in Babylonia. The lions of Mykenæ are distinctly Assyrian in character; and the Greek Herakles, with his twelve labours, finds his prototype in the hero of the great Chaldæan epic.

Greek mythology is largely mixed up with the mythology of India.

Yama or Dharmaraja is the Grecian Pluto.
Vaitarini of the Hindu pantheon has its supposed analogue in the river Styx.
Corbans has corresponding dogs.
Durga is the analogue of Juno.
Narada, god of music,—Mercury.
Krishna,—Apollo.
Bhawani,—Venus.
Asvini-Durgas,—Prosperine.
Agni,—Vulcan, fire, ignis.
Swaha, wife of Agni,—Vesta.
Aswini-Kumars,—Castor and Pollux.

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GREEN COPPERAS.

Greewia.—Aurora.
Ata Deva.—Diana.
Kuvera.—Pluto, god of riches.
Indra.—Jupiter, god of the firmament.
Varuna.—Neptune, god of the water.
Pritivi.—Cybele, goddess of earth.
Vishwakarma.—Vulcan, architect of the gods.
Kartikeya or Skanda.—Mars, god of war.
Kama.—Cupid, Eros, god of love.
Surya or Arka.—Sol, the sun.
Hanuman, the monkey god, son of Pavana.—Pan.
Rama.—the Grecian Dionysus.
Hercules, an Indian deity.—Hercules.
Asinula, an Echus, Genii.
Vayu.—Zeus.
Sri, Lakshmi.—Ceres.
Anna-Purna.—Anna-Perenna.

The Greek Charites must be compared with the Sanskrit Haritas, the coursers of the sun; and both received their name from a root, Ghar, to shine or glisten. Zeus seems to be the Sanskrit Dyaus, and Eryins is Saranyu.

Sceythian coins exhibit Greek and Hindu divinities, and those under the Yu-chi have an image of Siva and the Nandu bull. The affinity between the Greek and Hindu gods and the goddesses, and the languages, literature, and religion, that the process of giving and receiving must have been reciprocal. Varaha Mihira, in his Brihat Sanhita, astronomy, says 'the Greeks indeed are foreigners, but with them this science is in a flourishing state.' We find that the later Greek physicians availed themselves of the Hindu medical works.

The Takshaks and Nagas were the tree and serpent worshippers, whose rites and objects of adoration have impressed themselves deeply on the architecture and sculptures of India. The names were applied in a confused manner to different races of Sceythic origin.—Imai, Gaz.; Tod's Rajastan; Princep's Antiquities by Thomas; Smith's B. W. Dict.; Ed. Ferrier's Journal; General Cunningham, A. C. G. O. I. Calcutta Review, No. 109; Malcolm's Persia; Weber, Hist. Ind. Lit.; Wilson in J. R. A. Soc. xii. 1550; Miller's Seven Churches of Asia; the Rev. J. Murray Mitchell, Letter to Indian Youth; Burns.

GREEN COPPERAS or Green Vitriol.
Sulphate of iron...Eng. Solfate di ferro...It.
Sulphate of fer...Fr. Tarosse...Mal.
Schwefelsaures eisen...Ger. Zunkur madnee...Pers.
Hareassins...Hind. Tootiya-sahh...Twm.
Hera-tutus...Anna baguli...Taw.

A principal ingredient in dyeing, in the manufacture of ink, and of Prussian blue. It is also used in tanning, painting, medicine, etc.—M'C.; Faulkner.

GREEN DYE. In the Comptes Rendus, xxxv. p. 558, there is an account by M. J. Persoz of a green colouring matter from China, of great stability, having the appearance of indigo, which communicates a beautiful and permanent sea-green colour to mortars of alumina and iron, and which is not a preparation of indigo or any derivative of this dyeing principle. It was in thin plates of a blue colour, resembling Japanese indigo, but of a finer grain, differing also from indigo in its composition and chemical properties. On infusing a very small quantity of it in water, this fluid soon acquired a deep blue colour, with a greenish tinge. Upon boiling and immersing a piece of canvas on which the mortars of iron and alumina had been printed, it was dyed a sea-green colour of greater or less intensity according to the strength of the mordant, the portions not coated remaining white. Dr. R. F. Thompson, civil surgeon of Malda, wrote as to a green dye as follows:—'One mound of the dried leaves will dye 1280 yards of cloth of a fine apple-green colour. The supply cheap and unlimited; cultivation easily extended from cuttings or seed; requires little care or watching, as no animal will eat it. The plant is doubly valuable from the seeds yielding a fine clear limpid oil for burning purposes, sample of which I also forward. It takes half an hour to dye a whole than of cloth. An oil obtained from the seeds of the plant yielding the green dye, and expressed in the ordinary bazar fashion in the common kolu, has a beautiful colour, limpid, and burns well. This plant is the Jatropha grandiflora. See Dyces; Rhamnus.'

GREENHEART, Nectandra Rodicci, Schk., a remarkably hard timber of British Guiana, classed among the first eight woods at Lloyd's. It might be introduced into India.

GREENSHANKS of India, of the genus Totauna, family Scolopacidæ. T. glottis and T. stagnatilis are known. T. fusces and T. calidris are the redshanks of India.

GREENSTONE, a volcanic rock common in the Peninsula of India. Some of it is exceedingly hard and difficult to work, but it takes a most beautiful and durable polish, as in the magnificent mausoleums of Goleconda, the tombs of Hyder Ali and Tipu Sultan at Seringapatam, parts of the temples at Bijapur, and in many of the sculptures of the Karnatic pagodas. It is much used for building and ornamental purposes in Madras, for round millstones, pestles and mortars, door-posts, etc. Greenstone dykes of the Peninsula break through the claylate of the eastern ranges of the Ceded Districts, in many places convert it into flinty slate, or turn it to a crystalline or hornblende rock, whilst the dyke acquires a distinctly slaty structure, and so much modified in mineral character as scarcely to be distinguished from the altered claylate of the vicinity.—Carter's Geol.

GREGORY ABUL FARAGIUS, the name by which Europeans designated Mar Gregorius.

GREGVILLEA ROBUSTA, Cunningham, a noble tree, the silk oak of Moreton Bay in Australia; attains the height of 50 to 70 feet, and a circumference of 6 to 8 feet. Its timber has a beautiful grain, and is used for staves of casks.—G. Bennett.

GREWIA, a genus of plants of the natural order Tiliaeae, the linden tribe. In the East Indies the principal species are:

abutilonia, Asieca, calophylla, columnarlis, denticulata, floribunda, polygama, elastica, hirsuta, lavigata, microstemma, microcos, multifora, occidentalis, oppositifolia, paniculata, pilosa, populifera, populinfolia, rotundifolia, salvifolia, sapida, sclerophylla, sepia, sinuata, tricholepis, tiliacifolia, ulmifolia, umbellata, vestita, villosa, viminea.

The bark of G. oppositifolia is employed in the Himalaya for making ropes; and G. elastica, Dhamnu of the natives, is valued for the strength and elasticity of its wood. Cattle are fed on the leaves of some species. The pleasant-tasted subacid fruit of several species is eaten by the natives of India, but principally used for making sherbet. G. affinis, rigida, and salicifolia, Stocks, are trees of Sind, the edible fruits of which are called gangi.
GREWIA ASIATICA.

or gango, which might be improved by cultivation. At Tavoy, when vessels require spars, they are usually furnished from a small tree which grows on the seacoast, belonging to this genus. The Mai-va of the Burmese in Tavoy, and the Tha-ran of the Burmese of Monmlein, are species of Grewia. The wood of a species in the Madras Provinces makes good walking-sticks.—M.E.J.R.; Eng. Cyclopedia; Mason; Voigt; Roxb.; Gaubert.

GREWIA ASIATICA. Linn.


Grows in the Peninsula of India, in Bengal, Northern India, and the Panjab, and is a large tree of Pegu, like G. floribunda, but not so plentiful. It is commonly cultivated in the plains of the Panjab for its pleasant, subacid, small berry-like fruit, eaten and used for making sherbet. A spirit is said to be distilled from it, and the fruit is much prized by Mahomedans, who prescribe it to cool the body in fevers. Cultivated at Ajmir, both large tree and small bush varieties; the large tree is very beautiful when in new foliage. The fruit, containing one or two small stones, is generally made into sherbet by pouring boiling water on it, and when cool adding sugar to the taste. The plants are grown readily from the seed. They are generally cut down almost to the ground in November, and even the leaves are burnt round the stalks, after which the roots are opened and maneuvered, and watered occasionally, when new shoots spring out, and the fruit is borne near the axilla of each leaf; when of a dark purple, they are ripe and fit for use. The appearance of its leaves has caused Europeans to mistake it for the hazel. The leaves and buds are officinal. In the Panjab there are two kinds, one sweet, called Shakarti, and other acid, Sharbatiri. G. Asiatica and G. tiliifolia both yield a useful bast. Wood white colour, and adapted for every purpose of house-building.—Roxb.; M'Clist; Stewart; Ainslie; Irvine; Biddell; Clegg; Rep.; Powell.

GREWIA BETULIFOLIA. Juss.

Gangi, Inare, Tr.-Ind.; Khireha, Tr.-Ind.

A small shrub, growing X.V. from Delhi, on the hills beyond the Indus, and up to 3000 feet on the Salt Range. Its small tasteless fruit is eaten by the natives.—Stewart.

GREWIA FLORIBUNDA. Wall.


A very common tree throughout the Rangoon, Pegu, and Toungoo districts. It is a good serviceable timber for all ordinary purposes of house-building. The bark affords a coarse, strong fibre, not much employed, however, by the Burmeses.—Dr. M'Clist; Cal. Cat. Exz., 1862.

GREWIA HOOKERI. M'Clist. Phet-woon, Bum.

Attains a girth of about 3 to 4 feet, and grows up tall and remarkably straight. It is found with tea in the forests of Pegu and Toungoo. Wood white coloured, and adapted for every purpose of house-building.—M'Clist.

GREWIA MICROCOOS. Linn.


A shrub in the Peninsula of India, and found as a small tree on elevated ground of British Burma. Wood not used. A cubic foot weighs 51 pounds.—Dr. Brindis, Cal. Cat. Exz., 1862.

GREWIA OBLIQUA. Gibson.


A small tree of Canara and Sunda, found mostly below. Wood used in agriculture, house-posts, etc.—Dr. Gibson.

GREWIA OPPOSITIFOLIA. Buch.

Damun, . . . Hind.; Pastu-wanna, Sind.; Paj.; Bihull, Bial, Sind., Paj.;

Grows in the Kheerce pass, in the Dehrah Doon, and in the Sutlej valley between Rampur and Sungnam, at an elevation of 5000 feet. The branches are periodically cut in winter time as provender for the cattle. Its inner bark is employed in the Himilaya for cordage and coarse cloth, and a kind of paper. The wood is tough and elastic, valued for handles and shafts and bungy sticks, and for the ring for supporting the seat of the single-roped bridge. The leaves largely serve as fodder, wherever it is common and are said to increase the quantity of milk. The bark is made into sandals, etc.—Roxb.; Royole; Cleggorn.

GREWIA ROTHII. D. C., W. and A.

G. salviifolia, Roxb.


A tree of the Panjab, Circars, and of the Cud-dapah Nullamallay; has a light ash-coloured wood, with a straight grain, hard and strong; is much used and very serviceable, and makes good walking-sticks.—Capt. Beddome; Mr. Latham.

GREWIA SPECTABILIS. M'Clist. Phet-woon, Bum.

Very plentiful; attains a girth of about 3 to 4 feet, and grows up tall and remarkably straight, with teak, in the forests of Pegu and Toungoo. Wood white coloured, and adapted for every purpose of house-building.—M'Clist.

GREWIA TILLEFOLIA. Roxb.

G. arborea, Roxb.; G. elastica, Royole.

Thadaal, Butala, . . . Can.; Tharra, Thada, . . . Tam.; Dhaman, . . . Ind.; Charachi, . . . Tel.;

A large and very common tree, all over India and Ceylon. It ascends the mountains to about 1000 feet, and is often of large size in favourable localities. The berries are eaten, having an agreeable acid flavour; the timber is highly prized for strength and elasticity, and is used for building purposes, bows, buggy shafts, walking-sticks, and a variety of other uses. It is light and rather soft, flexible and fibrous, coarse-grained and durable, of a light pinkish colour, turning to light-brown, and easily worked; unseasoned it weighs 45 to 50 lbs. the cubic foot, and 34 lbs. when seasoned; its specific gravity is $5.44$. The leaves make a good fodder, and the bark, like that of all the Grewias, is used as cordage.—Beddome, Roxb.; Voigt; Wight; Gibson; M. E. J. R.

GREWIA VESTITA. Wall. The dhaman.

Gr. elastica, Royole; Gr. Asiatica, Linn.


A tree, 15 to 20 feet high, found in the Sutlej valley between Rampur and Sungnam, at an elevation of 4000 feet; common in the Himalaya at moderate elevations, and in Sikkim, in Darjeeling, in Kashmir, in青海, and Gumsur, also in China. In timber it is highly valued for its strength and elasticity, and much used for bows, buggy shafts, and bungy sticks.
sticks. Its fruit is used to make sherbet. In China, the young branches, leaves, and berries are used in dyspepsia and diarrhoea. In the N.W. Himalaya, the branches are periodically cut in winter time as provender for the cattle.—Chely.jpg; Royal's Ill.; Smith.

**GRIFFITH, WILLIAM, F.L.S.,** a medical officer of the Madras army, author of numerous works on Indian botany. He accompanied the army which marched in 1838-39 from Sind through Quetta and Kandahar to Ghazni and Kabul. From Kabul he crossed the chain of the Hindu Kush to Bannian and Singhah, and spent some time in the Kunar valley; his collections, there amounted probably to about 1000 species, many of which are deposited in the Royal Herbarium at Kew. His collections from Malacca, Tenasserim, the Khassya mountains, and the whole Assam valley, Mishmi and Naga Hills, and Upper Irawadi, Calcutta, Bhiton, Siula, Sind, and Afghanistan, are probably not under 9000 species, which is by far the largest number ever obtained by individual exertions. He also made a collection of birds in Afghanistan. His posthumous notes and journals were published in Calcutta, edited by Dr. McClelland, under the auspices of the Indian Government. A mural tablet, erected to his memory in the cathedral church of Madras, says he was born at Ham, in the county of Surrey, March 1810. He had attained to the highest eminence in the scientific world, and was one of the most distinguished botanists of the age. He acquired his knowledge by personal investigation in the different provinces of British India and in the neighbouring kingdoms, from the banks of the Helmand and Oxus to the Straits of Malacca, where, in the capacity of Civil Assistant Surgeon, he died 9th February 1845, in the 35th year of his age, and the 13th year of his public service in India. *His early death is deeply deplored by numerous private friends; and his loss to the cause of science elicited a public and emphatic expression of regret from the Governor-General of India.* This tablet is erected as an humble tribute to his memory, by a few of his medical brethren of the Madras service.—Hooker *et al.*


**GRIHA. Sansk.** A house.

**Griha Kutumbine, literally, the head of the house or the family.**

**Grihapsa, Sansk., a Hindu married household.**

**Grihapsa-Dharma, Sansk.,** from Grihapsa, situated in a house, and Dharma, religion.

**Griha-Yajna, Sansk., domestic worship, especially the obliteration of clarified butter on the household fire.—IV.**

**Grihya, the sacred fire or altar on which it is kept, first lighted by a Brahman husband on the day of his marriage.—Miller.**

**GRIMM, Jacob,** author of Deutsche Mythologie, published 1835; under the designation Teutonic Mythology, it was translated from the 4th edition, with notes and appendix, by James Stephen Stallybrass.

**GRINDSTONES.**


The natives of India prepare a lap or grindstone composed of shell-lac as its basis, and corundum powder or other hard mineral as the grinding material. In Coimbatore, persons of the barber caste are the manufacturers of these. The stone being pounded and reduced to the form of fine-grained gunpowder, is heated in an earthen pot (chatty). The lac is then added, and the two stirred together until the mass is of the consistence of dough, when it is turned out, and beat and kneaded into the required shape. Not using a mould, the operation is tedious, and the finished article, when completed, not by any means of first-rate excellence. The principal objection to them seems to be the extreme hardness, which renders them less effective than the lap, by a small admixture of a softer substance, were rendered somewhat more yielding. As made there, it is a rather rude though durable machine. At the Hunsur farm, where pearl barley was prepared, English grindstones for making it required frequent renewal, but a lap of this description had been in use five years. The stone used in Coimbatore is powdered coarse garnet sand, found in the beds of the neighbouring hill streams. The corundum stones met with for sale in the bazars are usually small, generally more rounded and water-worn on the edges, as if collected in the beds of mountain streams, from among the pebbles they bring down.

Coarse grindstones are found at Verdachellum in S. Arote, Triputty, and Ootramaloor in Chingleput, Kurse Mungallia near Yellore, Woodimtta and Chellamocoor in the Cuddapah district, and Podelay and Woodingherry in Nellore. Hard gritty kinds, like the bharstone of France, occur in the Pelda Redapully Taluk of Nellore, and near Ghooty. Some of the sandstones of the Guntur, Bellary, Madura, and Mysore districts are very similar to those used as grindstones and flour-mill stones in Europe. Good dry whetstones are those of Nuggur, Matoor hill in Guntur, Tripupthy, Arnee, and Neecheria in Bellary. Fine-grained sandstones of a sharp cutting quality occur at Gootemokoka and Dyda in Guntur, at Chellumocoor and Chettywarappely in Cuddapah, and in the Pedelay Taluk and Woodingherry Hill in Nellore. A stone resembling the Ayrstone or snakestone occurs at Koopookonda, eight miles west of Vinaconallah in Gunoor. Good substitutes for Turkey stone occur at Cuddapah, Woodimtta, Chellumocoor, and Humphsark; and varieties of green and grey granular felspar at Seringapatam, Nellore, and on the banks of the Godavery. The latter are well suited for putting a fine edge on razors and gravers. Hones, silicious and slaty limestones of every quality, accompany the extensive beds of lithographic marble near Kurnool, Guntur, Bellary, Datchapally, and Gootty.

Grinding of grain in India is still done by the hand-mill, as in Isaiah xlvi. 1, 2, Matthew xxiv. 41.


This very beautiful flowering plant is a shrub or small tree, and is found in the islands of the Indian Ocean, in China, and in every part of the continent of India, especially in the jungly tracts.
at the foot of its several ranges of mountains. It grows in the N.W. Himalaya up to 4000 feet, is common in exposed places in the Maturtne and Ova districts of Ceylon up to an elevation of 4000 feet, and is very common in the Prone district. Its bright red calyx retains its colour till the seeds are ripe, gives the whole plant a very showy appearance, and points it out to the collectors of its flowers, which form an article of commerce, and are used for a red dye. In the bazaars of Bengal they are found in a dry state, under the name of Datokhe. Sheep-skins steeped in an infusion of the dried leaves take on a fine red, of which native slippers are made. The dried flowers are employed in N. India, under the name of Dhauri, in dyeing with morinda bark. In Kandesli the flowers form a considerable article of commerce, inland, as a dye. It grows abundantly in the hilly tracts of the N. Circars. Its gum, called Dhauka or Dhau-ka-gond, is brought from Mowar and Harowtee, and is abundant, white in colour; and, like the katira and tragacanth gum, swells in water. In cloth-dyeing it is applied to those parts that the dye is not wished to touch. It is eaten in Luddoo; one maund costs ten rupees. Its wood is used for fuel, and by liquor distillers for fermenting liquor; its leaves are used in infusion as tea.—Irune; O.Sh.; McIl.; Stewart; Clep.; The. Zeyl.

GRITACHEE. SANSK. In Hindu mythology, a celestial cousin, from Ghrita, clarified butter, and Anch, to worship.

GRITSA-MADA, the author of many hymns in the second mandala of the Rig-Veda.

GROBAGAN is in Burna. Here, in the limestone district, is a mud volcano, 16 feet in diameter. The black mud every two to five seconds bubbles up and subsides; it rises to a height of 20 to 30 feet, then explodes with a dull noise, scattering a shower of warm black mud in every direction. Round about are warm brine springs, from which salt is extracted. Its eruptions are most frequent in the rainy season. It is called Kowga, the place of abode; and an old legend is, that it is the residence of a monster snake, whose writhings cause the eruptions.—Oldham in Yale's Embassy.


GROSSULARIACEÆ, the current worts or current tribe of Lindley. They are unarmed or thorny shrubs, arranged in five genera, one of which, the genus Ribes, occurs in India. R. grossularia is the gooseberry; R. rubrum is the red currant, and R. nigra is the black currant. Dr. Roby regards the Himalayan Ribes as a distinct species, and names it R. Himalense.—Voigt.

GROUND FISH, the Bora-chung of Bhutan. It inhabits the gills and slow-running streams near the hills, but is found also in ponds and banks, into which they penetrate from one to five or six feet, and are found generally two in each chamber, coiled concentrically like snakes; the entrance is generally a few inches below the surface, so that the fish can return to the water at pleasure. It is believed that they take possession of holes made by land-crabs. The bora-chung would appear to be a species of Ophiocephalus, probably the O. barka described by Buchanan as inhabiting holes in the banks of rivers tributary to the Ganges.—Dr. Campbell; Tennant's Ceylon. See Fish.

GROUND-NUt.

GROUND-NUT, Earth-nut; Japan, China, pulse.


The ground-nut is the fruit of the Arachis hypogea. The plant has somewhat the appearance of the dwarf garden pea, though more bushy. It is cultivated in the S. of Europe, largely in America, Africa, Asia, Australia, and the Archipelago, and is named from the circumstance of its introducing its fruit or pod into the earth, for the purpose of ripening its seed. The flowers, leaves, and stems are produced in the ordinary manner seen in the pea tribe. When the yellow flower has withered and the seed fertilised, there is nothing left but the bare stem which had supported it. This stem, in which is the germ of the future fruit and pod, now grows rapidly in a curved manner, with a tendency to arrive shortly on the surface of the ground, into which the now naked stem penetrates several inches. In this obscure position the fruit takes its ripened form, and is either gathered from its hiding-place, or left to the future season, when its time of rising into new existence calls it from its natural position. When mature, it is of a pale yellow colour, wrinkled, and forms an oblong pod, sometimes contracted in the middle; it contains generally two seeds, a valuable article of food in the tropical parts of Africa, America, and Asia. They are sweetish and almond-like, and yield an oil when pressed, not inferior in quality to that obtained from the olive. The leaf resembles that of clover, and, like it, affords excellent food for cattle. The cake, after the oil is expressed, forms an excellent manure. The Arachis seeds are usually sown in the dry, warm weather from May to June, and are placed at the distance of eighteen inches from each other. Insects are fond of them; and if the season is cold and unfavourable to them, or the growth retarded, they become musty and bad, or eaten by insects. In some parts of America it yields from 30 to 80 bushels of nuts per acre. On the western coast of Africa it is planted to a great extent. In South Carolina the seed is roasted and used as chocolate. The leaves are used medicinally; it is greedily devoured in the green state by cattle. Two varieties are grown in Malacca, the white seed and the brown seed; and also in Java, in the vicinity of sugar plantations, the oil-cake being used as manure. It is there known as Katang. The seeds are consumed as a cheap popular luxury, being half roasted, and then eaten with salt.

Ground-Nut Oil, Manilla nut oil. This valuable oil is obtained by expression from the ground-nut, and, under favourable circumstances, the Arachis will produce half its weight of oil. When heated and pressed the quality is very considerably improved. This oil is good for every purpose for which olive or almond oil is used. For domestic purposes it is esteemed, and it does not become rancid so quickly as other oils. In lamps, the brilliance of its light is superior to that of olive oil, and its durability is seven minutes per hour beyond the combustion of the best olive oil, with the additional advantage of scarcely any smoke. Under the term ground-nut oil, or Manilla oil, there was exported from the Madras Presidency, in the four years 1852-53 to 1855-56, chiefly to the United Kingdom, Bon-
bay, and the Indian French ports, to the amount of 534,024 gallons, valued at Rs. 2,12,896. 1950 parts of seed, separated from their coverings and blanched, give 1405 of kernels, from which, by cold pressure, 703 parts of oil are procured. For machinery the naval steam cruisers on the African coast adopt it. Ground-nuts from the river Gambi and from Sierra Leone, at £10 per ton, sell in London at £11. From France the oil finds its way over the world in the shape of olive oil,—the skill of the French chemists enabling them to imitate the real Lucca and Florence oils, so as to deceive the nicest judges.—Eng. Cyc.; Ed. Phil. Mag.; Simmonds; Jury Rep. Mad. Ex.; Useful Plants; O'Sh.

GROUND RANATANS. The excellent walking-sticks known to the British under this name, are made from the Rhapis flabelliformis, which grows in Lin-kin and Southern China. See Calamus.

GROVES of trees were planted by the ancient Egyptians within the courtyards of their temples, but the law of Moses (Deuteronomy xvi. 21) forbade the Hebrews to plant any tree near the altar of the Lord, though the Alexandrian Jews, in later times, planted groves near their synagogues. Individual trees, throughout India, are regarded as habitation of spirits, both good and bad, and noon is the particular period at which their evil influence is believed to be exercised. In the Fiji Islands a fine grove exists in the Rewa district, near the mission station of Mataiura. These sacred groves and trees are not worshipped as gods, but, as in the Odin religion, are looked upon as places where certain gods had taken up their abode. Hindu kings formerly planted mango groves as acts of merit, and gave them to Brahmans or to the public.—Fiji Islands; Ward, iii. p. 107.

GRUB, a term familiar to coffee planters in Ceylon and the Peninsula of India, applied to insects which injure the coffee plant and coffee berry. Mr. Nieter tells us that the brown and white bug and the black and white grub are the only important enemies of the coffee tree, and that the destruction caused by Arhines, Limacodes, Zebuzera, Phymatea, Sthricia, and the coffee rat, appear to be of a more local and occasional nature.

Bug.—The appearance and disappearance of the coffee bug, he tells us, is most capricious. It comes and goes, now rapidly spreading over a whole estate, now confining itself to a single tree amongst thousands; here leaving an estate in the course of a twelvemonth, there remaining permanently; sometimes spreading over a whole estate, sometimes attacking a single field, then leaving it for another and another. But the white bug prefers dry, and the brown, damp localities, the latter being found more plentiful in close ravines and amongst heavy rotting timbers than on open hill sides, and it is probably to this predilection that the shifting of the insect is attributable. The bug of course seeks out the softest and most sheltered parts of the tree, the young shoots, the undersides of the leaves and the clusters of berries. The injury done by the white bug seems more severe than that from the brown, but, not being so plentiful as the latter, it is of less general importance. The white bug is especially fond of congregating amongst the clusters of berries, which drop off from the injury they receive, and trees often lose their entire crop in this manner. The injury produced by the brown bug is the weakening of the tree, and is thus more general, but the crop does not drop off altogether nor so suddenly. With white bugs on an estate the crop can hardly be estimated; with brown bugs it can.

White Grub.—Under this name are included the larvae of various Melolonthide, the cockheavers of Ceylon, which do much harm to coffee plantations, young and old, by eating the roots of the trees. Mr. J. L. Gordon of Rambodde considers the white grub to be by far the greatest enemy of the coffee trees which the planter has to contend with, as he never knew a single tree recover after their attack; and he adds that they had destroyed at Rambodde, in two years, between eight and ten thousand trees of fine old coffee. Mr. Gordon used to dig up the soil at the foot of the trees and take out such grubs as he could find.

Black Grub.—The larva of the moth called Agrotis segetum is the very destructive black grub. This pest is about an inch long, and is most abundant from August to October. The caterpillar lives in the ground, but comes out at night to feed, and is very common and injurious. They attack not only coffee trees, but all sorts of vegetables and flowers, and are very destructive to gardens and in the field, as they eat everything that is artificially raised, despising grass and weeds. They generally appear only on certain fields, and will not go over an estate. The insect is not confined to Ceylon; its ravages are well known in India, at the Cape of Good Hope, and in Europe, where it injures the grain and beetroot crops. In Ceylon it only attacks young coffee trees, gnawing off the bark round the stem just above the ground. Where the trees are very small, they are bitten right off, and the tops sometimes partially dragged under the ground, where the grubs may easily be discovered and dislodged. The damage which they inflict on plantations may be estimated, when it is mentioned that Mr. Nieter lost by them in one season, in certain fields, as many as 25 per cent. of the young trees he had put down.—Nieter on the Enemies of the Coffee Plants. See Bug; Coffee; Leaf Disease.

GRUBBER and Dervile, two Jesuit fathers, who in a.d. 1661 travelled from China via Tibet. They were the first Christians from Europe who are known to have penetrated into the populous parts of Tibet. Marco Polo in his journey in the 13th century, was to the N.W. by the sources of the Oxus.—Priness, Tibet, p. 11.

GRUNDLEY. John Ernest Grundley, an eminent missionary at Tranquebar, to whom George r. of England, in a letter dated 23d August 1717, addressed an autograph letter.

GRUNTH is the name of the books of the Sikh religionists. Grunt’hee, from Gruntha, a book, one who is learned in the Grunth. The Adi Grunth compiled by Nanak and his immediate successors was translated by Professor Trumpp. Nanak quotes largely from Kahir. The Grunth of Guru Govind Singh of a later date is written in Gurmukh, the Sikh alphabet.

GRUS, a genus of birds belonging to the family Gruidae, in which are the genera Grus and Anthropoidae. The words Grane, Grus, Geranos, with the Hindustani Saras, Kakarra, Karrach, etc., all have reference to the loud trumpeting voices of the birds in question, which form a very distinct group by themselves, that should be confounded with no other. The so-called gigantic crane or
adjutant is not a crane, and can merely clatter its mandibles together. The word Crane is often used vaguely.

Grus Antigone, Linn., Sarat, Sarhans.

G. torquata, Vuillot. | G. orientalis, Pallas.

The saras is found throughout the greater part of India and Burma. It breeds on some island or spot nearly surrounded by water. Its fine trumpet call, uttered when alarmed or on the wing, can be heard a couple of miles away. In the territories of Holkar it is almost venerated. It breeds south of the Himalaya, and birds too young to fly are occasionally brought for sale to Calcutta. Turner, describing the lake Rantuch, says prodigious numbers of the saras are seen here at certain seasons of the year. Instances are known of the saras breeding in captivity. A pair was allowed the range of a large walled garden (protected from jackals), containing shallow inundated enclosures for the growth of rice. Their nest was commenced under water, and raised for some inches above the surface; the eggs are two in number, about 3½ inches long by 2½ inches broad, of a bluish-white, with a few distantly-placed rufous specks and blotches.

Grus Australasiana, Gould, is the native companion of the Australian colonist; has more of the aspect of G. vulgaris, Pallus, but is considerably larger. It is only found in N. Australia and N.S. Wales. It evinces great aptitude for domestication, and gets its name native companion from the docility with which it accommodates itself to the society of man.

Grus Cinerea, Bechstein. | Ardea grus, Linn.


The crane of Europe, Asia, N. Africa, is migratory; now rare in Britain. In Scandinavia it usually breeds in extended morasses, far away from the haunts of men. It makes its nest, consisting of stalks of plants and the like, on a tussock, and often amongst willow and other bushes. The female lays two eggs. The European crane is equal to any in the majesty of its gait, and even in the beauty of its plumage, if we except the Manchurian. It is the most widely distributed of the whole family; visits India in numerous flocks during the cold weather. In the Dekhan and Central India it is generally seen in parties of from eight to twenty, but sometimes in much larger numbers, especially in the N.W. Provinces. It feeds chiefly on grain, and commits great havoc in the wheat-fields and rice-fields.

Grus Lencogeranos, Pallus, is the large white crane; visits several parts of N.W. India, and the interior of the Himalayas in the winter season.

Grus Monacha, Temminck, is from N.E. Asia and Japan, as also is Grus vipo, the white-necked crane, an ornamental species.—Blyth.

GRYLLOTALPA VULGARIS; Mole cricket. Goorhgoorha, | Hind. | Ghooorhgoorha,

Occurs in the temperate and tropical regions of the Old World. It is of nocturnal habits, and is a destructive creature of all vegetable products. In Dinapur and Bankapur, in November and December, it attacks the young poppy plant.

GRYLLUS CAMPESTRIS, in China, about midsummer are made to fight with each other. They are sold at rates from a few cash to tens of dollars, and there is much gambling and betting on them amongst all classes. Gryllus migratorius is the common locust. There are, however, other locusts, one of them of a red colour; species of Gryllus (Ghulya and Phanga, Hind.) attack the young poppy plant in November and December in Lower Bengal.

GUALACUM OFFICINALE, Lignum vitae.


This plant was introduced into the Madras Gardens, and found to thrive remarkably well. It is a native of Jamaica and Hispaniola. Both the bark and wood are used as sudorifics in the treatment of gout, rheumatism, and chronic or secondary syphilis. The resin is obtained by spontaneous exudation.

GUALAMA, the Singhalese devil-bird, supposed to be a owl or a night-hawk. Its shout is clear, resembles that of a human being in agony, and can be heard to a great distance.—Tennent.


Biyawak, Bewak, Malay. Udum, | Makrak, | Manurak, | Patna.

The iguana, a reptile of India, found about old walls and underground buildings. It is about two feet long, tail long and tapers off; eyes, back, tail, and throat are serrated; its whole surface is covered with shining scales. The flesh is eaten by the Mahomeans of India, and in the West Indies it is salted and barreled for exportation. In India the body of the dried guana is made into an eucalyptus, with a certain portion of ghi, and used as a strengthening medicine in consumptive complaints. An animal oil is obtained from it.—Foulkner.

GUANO, the accumulated dung of sea-birds, found on many islands. The white layer of the first year is considered the best. A variety of guano found in the limestone caves on the Tenasserim coast is much used as a manure by European and Chinese planters in Pinang and Province Wellesley. M. A. Ramonde, Professor of Natural History at Lima, was sent in 1853 by the Peruvian Government to the Chinchas Islands. In some places he found guano up to 30 feet in depth. From the bodies of animals as well as from various manufactured articles found in it, he concluded that the deposit belongs to the present epoch of the earth's history. The birds observed during his visit were—Pelecanus magus, Molin; Carbo Gaimardii, Lesson; C. albipalla, Branfil; Sula variegata, Tschudi; Spheniscus Humboldti, Meyen; Plotos anhing, Linn.; Rhynchoptera nigra, Lem.; Larus modestus, Tschudi; Puffinaria Garnotii, Lesson; Sterna inca, Lesson. Some of them only appear at the breeding seasons. The pelicans do not seem to produce much guano, as they almost always inhabit the cliffs, and their excrement falls into the ocean. The same may be said of the species of Carbo. The species of Sula contribute more to the deposit, their number being greater, and their habitats being more in the interior of the islands. The species of Plotos and Rhynchoptera are very rare, those of Larus more numerous. The Sterna only visit the islands to lay their eggs, but their numbers are so very great that they must contribute in a great measure to the formation of guano. The Spheniscus abounds in the southern island,
which is inhabited. These birds not being able to fly, hollow out habitations for themselves in the guano. The birds which produce the largest quantity of guano are the Puffinaria; their number is incalculable. — L. Institut. May 1856; Ed. New Phil. Jour. November 1856.

GUARAPU. A drink prepared from sugar-cane.

GUARDAFUT, the Ras Jardan of Hafin of the Arabs, meaning the Highland of Cret of Hafin. A cane, or head of the coast of Africa, nearly opposite Alden. It is the Opone of Ptolemy.

GUARD FIS, eaten at Penang. It is the Hemiarphus Russelli, Cuc., the Toda pendex of the Malays. See Fish.

GUAREA TRICHLIOIDES. Its bark is a violent emetic and purgative. Wight in Icones gives G. paniculata.— W. Lc. : O'Sh.


This moderate-sized tree grows in the Bengal and Madras Presidencies, and is common in the Bombay coast and Ghat forests. It may be easily recognized by its great straightness and handsome appearance. Its wood is reddish and close grained, useful in carpentry, as well as for naval purposes, as boat masts, small spars, etc. The natives on the Godavery do not use it, and say that it is soft.


A very handsome, erect, growing, large tree of India and Java, but with a soft and useless wood. It is much grown in Madras as a highly ornamental avenue tree, and it should be planted in avenues more than it is at present. The true asok, Jonesia asoka, is rarely seen in Southern India.—Roxb.; Voigt; Wight; Beddome.


There are two kinds of guava fruit largely grown in India and in the islands of the E. Archipelago,—one white within, the other red. The wood is extremely close grained, tough, and compact; is preferred for making wooden mallets, and other things required to stand hard knocks; and it is also used for wood engraving. London says 'the fruit ripens freely in Britain, but is of little merit.' The white guava is the species more usually cultivated, but the red is not uncommon.—Mason; Ains. Mat. Med. p. 211.


The Guazuma is a genus of the family Sterculiaceae; and G. tomentosum, sometimes known as bastard cedar, the gunstock tree, was introduced by Dr. Anderson about the end of the 18th century from America. It grows in Ceylon; common in the Deklan, pretty common about Madras. The fruit is tuberous, about the size of a cherry. Between its outer bark of sap-wood is a fibrous substance about half an inch in thickness, richly impregnated with mucilage, which is extracted by macerating for twelve hours in warm water; and is greatly employed in the West Indies and in South America in clarifying sugar, as a Kydia is in India. Its wood is light and loose grained, and of a light-brown colour, and is used for furniture, coach panels, for packing-cases, paneling, etc. It weighs about 40 to 45 lbs. per cubic foot unseasoned, and 32 lbs. when seasoned, and its specific gravity is .512. It was largely cultivated at one time in the Madras Presidency, under the name of bastard cedar, as fodder for cattle. The fibres of its straight, luxuriant young branches were submitted to trial by Dr. Roxburgh; and while the hemp broke when dry with 160 lbs., and 209 lbs. when wet, that of the bastard cedar broke with 100 lbs., when dry, and 140 lbs. when wet.—Chishorn, M. E. J. R.; Thou.; Voigt; Riddell; O'Sk; Royle, Fil. P.

GUADA, Gode, Gudi, as in Nanajongde, Methagoo, is probably from the Telugu and Karnatica Gudi, a temple, a pagoda. Gud, Mah., a house. GUDA, a mixed race in Sind, from Sindias and Sidi women; they were equally slaves with their mothers, and could be bought or sold at will. —Postan's Ind., p. 359.

GUADAIR. SANSK. A beggar, so named from their carrying a metal pan containing scented wood. See Hindu; Ukbara.

GUDBA, a Kolarian tribe, numerous in the eastern part of Bastar and Jeypore, but scarce to the west of Bastar. Some of their most important words are identical with those used by the Kurki in the W., and by the Kol and Suntal on the E. —P. C. G. Rep. p. 6.

GUDDEE, a tribe resembling the Ghosi. They are now mostly Mahomedans, and have a few scattered communities in Goomkootsar and Surava of Meerut, and in the Rumpur territory. It is not unusual to call any converted Hindoos a Guddie, which is looked on by a Mahomedan as a term of reproach. A Guddie tribe occupy the Kangra Hills. Elliot, Supp. Gloss. See Gudha.

GUDDI PADA, flying of paper kites at the new year on the new moon of Chaitra, about the 5th April.

GUDEER, a feast celebrated by Shahi Mahomedans. See Ghadir.

GUD'HA. Hind. An ass, a donkey, Gadheka-hal, a donkey's plough. Before the British domination in India, it was not uncommon to yoke donkeys in a plough and drive them over the ruins of a captured fort, as a mode of showing mass about half an inch in thickness, compact. The furrows thus raised were levelled by the tabor, ki-mye, or iron harrow. Horace says (Carm. i. 16): —

"Exito gravii
Stravere, et a/Is urbis ultimae
Stetere causa, cur perirent
Punditis, imperatoreque moris
Hostile aramum exercitus insolens."

This mode of wreaking vengeance has been in especial favour with eastern nations, and was
practised by Chengiz Khan and Timur with unrestrained severity. Hence the common expression, 'I shall saw barley where you now stand,' as in the vaunt of the bandit minstrel Kurruglow, at p. 138 of Popular Poetry of Persia.

Gadhe-par-Charhana, literally, to seat upon a jackass, is a punishment more commonly known by the Arabic Taskheer publication, celebration; which is rendered by Golius, 'Per urben duci jussit solum in exemplum: fere asino aut caneno impositum.'—Elliot, Supp. Gloss.

GUDHI or Guri, a ceremony amongst the Maharrats. A pole is erected on the first day of the year before the house-door, and ornamented with cloth, mango sprigs, etc.—W. GUDI. Tel. A temple. This may be the word from which Pagodhas been obtained. Pagudhi, a devil temple.

GUDIGAR. KAR. A caste at Nager in Mysore, carvers in sandal-wood, horn, and ivory.

GUEST, amongst several of the eastern nations, the dread to be held to a guest are still regulated as in ancient times. Luke x. 7 says, 'Go not from house to house;' and it would be a great offence among the Hindus if a guest, after being made welcome at a house, were to leave it and go to another. Also Luke xiv. 6, etc., 'A certain man made a great supper, and bade many.' Messengers are sent to invite guests to a Hindu feast, when not only relations, but all persons of the same division of caste in the neighbourhood, are invited. A refusal to attend is considered as a great affront. Mark xiv. 14 says, 'Where is the guest-chamber?' Respectable Hindu householders have a room which they call the stranger's room (Attie-hee-shale), and which is especially set apart for the use of guests. Lane, in his Modern Egyptians, p. 443, answering the question, What does a musair (traveller) expect and receive? says, 'By a Sunnche law, a traveller in the desert may claim entertainment for three days unquestioned.' Most Bedawi will suffer almost any injury to themselves, rather than allow their guests to be ill-treated. In the great tribe of the Bihaseen which inhabits the desert between the Nile and the Red Sea, unmarried daughters are offered to guests.

GUETTARDA SPECIOSA. Linn.

Cadamba jasminiflora, L. | Jasminum sambac, L. | Wilcke.

Pannir, DUKH', TAM., TEL. Himma, . . . | SANSK.

Rava-pu, . . . | MALAUK.

Nili-pitchea, . . . | SINGII.

A small but very handsome tree, with large white and very fragrant flowers, in blossom throughout the year. It grows at Calcutta and near Galle in Ceylon, and is cultivated in Indian gardens. Amongst Hindus the tree is sacred both to Siva and Vishnu.—Roxb.; Riddell; Ain.; Thou. Zeyl. ii. p. 103.

GUERO UPAS, or Valley of Poison, is on the side of the volcano Papandayan, in Java. It is 500 feet below the run of the old crater, which is now the Telaga-batu or White Lake. It is a small barley place, with many creevices from which carbonic acid is poured; and many dead animals, dogs, cats, squirrels, rhinoceros, tigers, birds, and snakes, are said to be seen in it, but this has lately been discredited.—Bikmore, p. 58.

GUGAL, a term applied in India to the fragrant residuals of several trees, also to the trees themselves. The resin, Gugalam Telugu, is also called Gugal-ka-Gond, also Indian B'dellium, and its synonyms are given as Moogl (Arabic), Baughan turb, and Allatun. In Syrian, the Makhzan-ul-Adwija says it is called Badliyun, which is like a corruption of B'dellium. It is the fragrant gum-resin of Balsamodendron Roxburghii, the Amyris agallocha, a tree which is plentiful in the Ajmir Hills, and which yields a fragrant gum-resin used in sacred fumigations by the Brahmons; it is no doubt the B'dellium of the ancients. It has a similarity to myrrh; is used also in flatulencies, taken in ghi; is one of the ingredients in the incense or dhoop. The word Gugal in combination, when applied to a tree, indicates particular plants yielding resins, as Guggilam chettu, Agieceras fragrans, Kon.; Guggulu or Sala is Vatica robusta; and Guggilapu chettu is Boswellia glabra.—Elliot, Fl. Andar. See B'dellium.

GUFE or Hundes, 120 miles long and 15 to 60 broad, is commonly known as the plain of Tibet. It is comprised between the Himalaya and its Caspian branch. It extends from the Kansarwar and Rakastal down the course of the Sutlej to Kanawar. It is wholly under Chinese influence. Its undulating surface is covered with an alluvial deposit, declining from 15,200 feet, the level of the lakes, to 10,000 feet at the confines of Kanawar. The Sutlej and its feeders traverse it, flowing in deep narrow ravines 1000 to 3000 feet below its mean level.—I. f. et T. 223.

GUGLI, a class of Brahmons at Vaishnava shrines.

GUHA or Gooha, in Sanskrit a secret place, from Gouli, to hide or to cover; hence Guhya, parts requiring to be concealed. In Hindu mythology, when the goddess Sati burst, and the gods in her womb came forth, this part of her body fell in Nepal, where, at a place called Guhyasthan, they continue to be devoutly worshipped.

GUHURWAR, also written Gahurwar, a tribe of Rajputs found in Dehra Mungalpur, Bithur, Gajnow, Kanauj, and the Central Doab. The Gahurwar of Khera Munogore in Mirzapur have been converted to Mahomedanism, and those of Mahaic in Ghazipur are reckoned an inferior branch. The chief of the Gahurwar resided at Bijapur, a few miles to the west of Mirzapur, where the liberality of the British Government enabled him to keep up some show of respectability. At the time of the first occupation of Benarees by the British, he was a fugitive from the tyranny and oppression of the Goutum Blinmar, who had expelled the Gahurwar family in A.D. 1758. The Gahurwar are recorded among the 36 royal tribes of Rajputs, and are said to be of the same family as the Rathor, with whom it is said they never intermarry.—Elliot, Supp. Gloss.

GUHWARA. HIND. A swinging cradle.

GUIHAKA are cave-dwellers, Hindu demi-gods; the servants of Cuviera, the deformed deity of riches, and he who brings the dark souls of men, addicted in this world to vices and confabulations, transmigrates.—Moore, p. 108; Wilford.

GUI, amongst the Oraon, a sworn friendship between two girls. They each say, 'Tu aar main gai jurabi; Amren phul jagabi.' Then each plucks flowers and arranges them neatly in the other's hair, exchange necklaces and embrace, and give a joint feast. See Brother-making; Munh bula-bhai.
GUIA KHATAI. A Bokharian Hakim presented Dr. Honigberger with this hard, pitch-like plaster spread on a small piece of red linen, which he stated had been prepared in China, and which was capable of removing every kind of pain, simply by application. One and the same plaster serves for several cases. The form is square, three or four inches in diameter; each of them bears a Chinese seal. According to the assertion of the Hakim, its constituent parts are sweet-oil and litharge; the latter, an indiscernible powder, is added to the former. The Bokharian doctor stated that it should be applied as near as possible to the affected part. It acts as a rubefacient, without blistering.—Dr. Honigberger, p. 252.

GUILANDINA BONDUC. *Linn.*


A great thoroy climber, with yellow flowers, and with long briar-like trailing and climbing shoots. It grows in the East and West Indies, and the Eastern Archipelago. The bonduc nut is an irregularly round grey seed; the almond or kernel is white, very hard, and intensely bitter; it gets a blood-red colour from nitric acid. Mr. Piddington detected in the nuts, oil, starch, sugar, and resin. Bonduc nut is the commonest antiperiodic in the bazar medicines of Bengal, and it is undoubtedly one of considerable utility, especially in convulsions from fever. If it do not stop the paroxysm the first time, it seldom fails the second. The common way of exhibiting this substance is to give of the nut finely powdered and of black pepper each 6 to 20 grs. three times daily. In the Panjab, asefaotida is added to the black pepper. In Chittagong it is administered in pills, 4 grains of the pounded kernel with 4 grains of the black pepper. It is a very effectual remedy, but to make it so the pills must be given fresh. If the seeds are not broken they will keep good for years; but if broken, and the kernel kept for four or five days, they become useless as a medicine for fever. Bondunc nut oil is mentioned by Ainslie as useful in convulsions and palsy.

GUILIELMA SPECIOSA, *Mart.* is the Piritu or Pirijao of Venezuela, the Pupumbo of the Amazon district, and the Paripon of Guiana. It is a palm of an intensely hard wood; sharp needle-like spines are thickly disposed in rings or bands round its slender cylindrical trunk. The Indians subsist for months on its farinaceous fruit.—Seeman.

GUINDY, a hamlet and country-seat of the Governor of Madras.

GUIANA FOWL. *Nomina melaeasis, Linn.* is believed to be descended from the Numida ptilorhyncha of the hot, arid parts of E. Africa, but it has become wild in Jamaica and St. Domingo, and has there become small, with black legs. The guinea-fowl is the Bohemian of the barnyard. They are hardy and prolific, and are valuable in gardens, as they rarely scratch the ground, are eager in their search for insects, and with a scraping motion of their bill gather the seeds of grasses.—Darwin.

GUIZA GRASS, Panicum jumentorum. When well manured and kept clear of weeds, it grows luxuriantly, and admits of being cut every six weeks or two months. A small patch near Colombo, about an acre and a half, for 7 or 8 years supplied 3 or 4 milch cows and from 5 to 7 horses continually with all the grass required for their consumption, and latterly left a surplus which was dried for bedding and hay. When first planted it frequently attains a height of over 9 feet; and a stalk taken promiscuously from a small patch planted in Combonaco measured 1 foot 45 inches in length; when cut two or three times it grows thicker, but not so high. Mr. Wedderburn in Coimbator with the view of utilizing the washings in the municipal slaughter-house, had a piece of neighbouring waste land, in extent four acres, enclosed and irrigated by the diluted filth of the slaughter-house floor. Besides this, pondrette, consisting of night-shade and such was applied. These four acres of land produce annually thirty-two tons of guinea grass, at ten rupees per ton. This nourishes bullocks better than double the weight of paddy straw at seven to ten rupees per ton. It is excellent feeding for horses and cattle, and is generally preferred by them to the ordinary country grass, though horses which are hard worked seem to prefer the dry grass roots supplied by the grass-cutters. It should not be given to cattle fresh, but the supply for one day should be cut the day previous; and it should not be cut too close to the ground, but the stalk ought to be left 7 to 9 inches high. It is a good plan to move the ground between the roots every time the grass is cut, and it should be heavily manured after every three or four cuttings. It is very hard, and may be easily propagated. It requires abundant moisture, but will not live in a soil which is at all marshy. It answers best planted in small tufts 1 foot 9 inches to 2 feet apart, which rapidly spread into stools from 6 inches to a foot in diameter.—Spry's Suggestions, p. 15.

GUIZOTA-WORM, Filaria Medinensis, *Gmel.*

Paretiti, . . . ABAR. Dracunculus, . . . LAT. Drakontion, . . . GR. Pejsuk, . . . JUSPE. Nara, Narm, . . . HIND. Sougenw, . . . SEENAR. Langan, synchron, . . .

It occurs in Africa, Arabia, Persia, India, and Turkestan, most frequently appearing in the feet and legs. It has been supposed to be transmitted by the means of the cyclops,a little fresh-water crustacean received by means of the drinking water. At the end of six weeks the presence of the animal is revealed by tumours; then wounds appear, caused by the dissemination of the eggs. Gordius ornatus occurs in the Philippines.

GUITAR, a musical instrument similar to the cither, supposed to have obtained its name from the Sih-tarn, the three-stringed.

GUIZOTIA OLEIFERA. *D. C., W. III.*


Ulisi, Valisi, Valasalu, Telisi, Valisal, *Fam.*

This plant is grown in Egypt, Abyssinia, and throughout the East Indies. It has large bright yellow-coloured flowers, and it ripens its seed in February and March. The seed in shape is like the black cummin seed, and a sweet-tasted oil is
GUJERAT.

manufactured from it, and used for nearly the same purposes as the sesamum or gingelly oil. The seeds yield about 34 per cent. of oil, which sells at about 10d. per gallon. It is exported under the name of Niger seed. It was first shipped to London experimentally in 1851. It is a favourite crop, of easy cultivation, and giving good returns.—*Mad. Ez. J. Rep. Col. Cat.*, 1862.

GUJAH, a race in the N.W. Provinces of India, notoriously predatory, but gradually becoming more settled to habits of peaceful Industry. Their former importance may be rated by their having given name to provinces of Gujerat on the western coast of India, and to Gujerat in the Punjab. They are sometimes considered to be among the prior occupants of India, and have been so reckoned by Tod, who declares them also to be a tribe of Rajputs. Sir R. Jenkins also says that in the Nagpur territory they consider themselves to be Rajputs, and that, as they are descendants from Lava, Rama's second son, they have an undoubted right to be so regarded. They must at one time have been dominant, for Edrisi, quoting Ibn Khordadbah, states that Juur or Hurz was the hereditary title of a king as well as the name of the country. Guar are in Kashmir, in the Punjab, and are spread all over the Dehli territory, the Upper Doab and Upper Rohilkhand, and they enumerate 84 different tribes. In Dehli the chief tribes are the—


In the Doab—


In Rohilkhand—

K’usanne. Bavee.

All these tribes intermarry on terms of equality, the prohibited gotra or tribe being only those of the father, mother, and paternal and maternal grandmother. A great part of the district of Saharanpur was called Gujerat during the 18th century. By the Gujar themselves it was said to consist of three parts, and the division is known amongst them to this day, and is usually adopted in ordinary converse. In 1811 Colonel Tod's duties called him to a survey, amidst the ravines of the Chambal, of the tract called Gujargar, a district inhabited by the Gujar tribe. Turbulent and independent, like the sons of Esau, their hand against every man, and every man's hand against them, about the middle of the 18th century, their nominal prince, Suraj Mull, the Jit chief of Bhruptur, had pursued exactly the same plan toward the population of these villages, whom he captured in a night attack, that Jannema did to the inhabitants of Mahahurkat. He threw them into pits with combustibles, and actually thus consumed them. The Gujar race has largely pressed into the Central Provinces of India, and have settled down to agricultural pursuits; and those in Hoshangabad and Nemur are fair farmers. They are agriculturists in the N.W. Provinces, but, whether of the Hindu or Mahomedan faith, they everywhere prefer pasturage to the plough. The Gujurs of Kashmir are shepherd proprietors, and said to have come from Gujerat in the Punjab; they live in log houses, in recesses at the foot of the Panjal, and in the woods. The Gujar tribe in the Panjal are probably of primitive antiquity. They have not lost the pastoral habits of their race, though they devote much attention to agriculture, and they are more industrious and less predatory than their brethren of Hindustan. Many of the thieves in Hindustan are of this tribe.

In 1857, in the revolt in India, the whole of the Gujar villages around Dehli, after fifty years of compulsory quiet, broke out and plundered all over that district within a few hours of the outbreak of the mutiny. And whenever any fugitives during the mutiny came to a Gujar village, they were invariably plundered. The instant the strong arm of a government was removed, these and other predatory races resumed their ancient habits. They are cultivators and keepers of cattle and buffaloes, living in separate villages of their own, and are numerous about Dehli and in the Merut and Saharanpur districts of the Doab. They are numerous in the Panjal, on the northern frontier of British India, in Swat and the adjacent hills, and in the hills about Kashmir; and they are said to have preceded the Swat tribe as the inhabitants and owners of part of the Hazara district east of the Indus. In the hills about Kashmir the Gujars have pastoral vagrant habits. In all the northern, if not in all the Jat country, the Gujar are much mixed with the Jat, and form a considerable part of the population. They are numerous in all Northern Rajputana, and extend into Malwa and the adjoining parts of Central India as far east as Bundelkhand, one of the chiefs in which is a Gujar. The last Nagpur prince is stated to have been a Gujar, but at present there are no Gujar in Gujerat. Those located in the east in Hindustan, trace their origin from the west.

The Gujar have no resemblance to the pre-Aryan races. They are a handsome tribe, and both men and women are noted for their powerful figures and fair comPLEXIONS. They are particularly remarkable for the height and strength of their men, and their women are proportionately tall. They are remarkable for their hardihood and endurance, their self-denial, and their heroism. They are noted for their fondness of the chase, and are most expert in the use of the bow and arrow. They are men of enterprise and enterprise, and are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure. They are noted for their love of adventure and adventure.
GULAL.

Gujarat gives its name to a British revenue dis-

trict, lying between lat. 32° 10' 30" and 33° N.,

and between long. 78° 20' and 74° 31' E., with an

area of 2029 square miles, and a population in

1868 of 616,847 persons. There are numerous re-

lics of antiquity in this district, and mounds of

ancient construction yield considerable numbers

of early coins. General Cunningham has identi-

cied one of these shapeless masses, now occupied

by the village of Noga or Mong, with the site of

Nikaea, the city built by Alexander on the field of

his victory over Porus. This mound is about six

miles west of the Pabbi range, and has a height

of 50 feet, with a superficial dimension of 600 by

400 feet. Copper coins of all the so-called Indo-

Scythian kings, with the Abundes, were found. While

the siege of Multan (Multtan) still dragged slowly

on, Sher Sinh established himself at Ramnagar,

on the Gujranwala side of the Chenab, 22 miles

below Gujarat, leaving the main body of his army

on the northern bank. Here he awaited the

attack of Lord Gough, who attempted, unsuccess-

fully, to drive him across the river, 22d November

1848, and withdrew with heavy loss; but, sending

round a strong detachment under Sir Joseph

Thackwell by the Wazirabad ferry, he turned the

flank of the enemy, and won the battle of Sadullu-

pur. Sher Sinh retired northward, and took a

strong position between the Jhelum and the Pabbi

Hills. The battle of Chillianwala followed (13th

January 1849). On 6th February, Sher Sinh

again eluded Lord Gough, and marched southward

to make a dash upon Lahore; but the British-Indian

army followed, and on the 22d of February Sher

Sinh turned a guard, and thus his victory was con-

verted into a victory over the Sikhs. The products of the districts are

grain, cotton, opium, safflower, tobacco, indigo,

goor, wool, and ghi. About half the grain is

exported on camels, mules, bullocks, and donkeys,

but chiefly by boats to Pind Dadun Khan, and

from thence by boat to Multan and Sind. Kofti-

gari, or gold-inlaying in iron, is peculiar to Gujarat,

and a very brisk business is carried on by the

workmen. Under former rulers, this inlaid work

was used chiefly in ornamenting weapons, but,

under the peaceful rule of the British Government,

the craftsmen now make principally baskets, trays,

paper-weights, paper-knives, bracelets, and orna-

ments.—Rennell's Memoir, p. 85; Cunningham,

Ancient Geog. of India, p. 179; Imp. Gaz.

GUJERATI, a term applied to a mercantile race

from Ceylon. They are of Rajput origin, and

are principally of the Jain religion. See

Marwari; Gujerat.

GUJ. HIND. Wheat and barley sown together.

GUJ.-PIPAR or Gui-Pipl, according to Dr.

Irvine, is supposed to be the root of Borassus

flabelliformis, brought from Kabil; is astringent,

and is given in medicine to promote digestion;

one seer costs two rupees. According to other

writers it is the sliced dried fruit of Scindapsus

officinalis, Schott.

GUJRA or Sumurrum, bracelets made of col-

oured thread, worn at the Maharani.

GUJARANWALA, a British revenue district in

the Panjub, lying between lat. 31° 32' and 32° 33' N.,

and between long. 73° 11' 50" and 74° 28' 15" E., with an area of 2563 square miles, and a popula-

tion in 1868 of 550,576. The Jats number in all

287,000 persons, or 43.15 per cent. of the

whole population. Farther north, their fellow

tribesmen have almost all become Mahomedans.

GUL. HIND, Pers. A rose, but compounded

with many words to indicate other flowers and

flowering plants. Gulab, rose-water; Gulab-pass,

or Gulab-dan, a rose-water sprinkler; Gulab katu,

or the otto, an essential oil from rose leaves.

Gul, fire-balls for the hookah; a piece of hard

charcoal for lighting the pipe or hookah; also the

cinder or refuse that comes from a hookah, pipe, or

chillum when smoked out.

GULAB SINGH, raja of Jumoom in the time of

Ranjit Singh, was a Dogra Rajput, brother of raj-

Dhan Singh, and raja Suchit Singh. He was cruel,

tyrannical, and exacting, but tolerant in religious

matters. After the Sutlej campaign, the treaty of

Lahore, dated 9th March 1846, left the British

possession of the hill and plain country between

the rivers Beas and Sutlej, and of the hill country

between the Beas and the Indus, including the

provinces of Kashmir and Hazara, and they con-

ferred on Gulab Singh, territories in the hills, and

recognised his independence. He began life as a

horseman in a troop commanded by jemadar

Khashul Singh, then the favourite chamberlain of

Ranjit Singh. He soon raised himself to an inde-

pendent command, in which he distinguished

himself by making prisoner Agur Khan, chief of

Rajouri. For this service the principlship of

Jumoom was conferred on his family. He took

up his residence in Jumoom, and soon extended

his authority over his Rajput neighbours, and

eventually into Ladak. He took an important

part in the negotiations which followed the battle

of Sobraon, and was conducted as the British govern-

ment which ensued broke irretrievably the power

of the Sikhs. The products of the district are

grain, cotton, opium, safflower, tobacco, indigo,

goor, wool, and ghi. About half the grain is

exported on camels, mules, bullocks, and donkeys,

but chiefly by boats to Pind Dadun Khan, and

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tion in 1868 of 550,576. The Jats number in all

287,000 persons, or 43.15 per cent. of the
GULANCHA.

GULANCHA, also Gudanchea. Hind. Root and stem of Cocculus cordifolius. It is intensely bitter. A transverse section is very porous and radiated. A decoction is a valuable bitter tonic and alterative; dose, one ounce flavoured with honey, thrice daily. Is the Panchana preparation of the native physician.—O'Sh.; Beng. Phar. p. 277.

GULBHANGA. Hind. The flower-bearing or female plant of the hemp. Gulbhanga-i-bilishi, a narcotic.

GULKHETUR, a famous field at Tanesur, close to the Grand Truck Road, about 30 miles south of Ambala.

GULIERI. Hind. An iron from Gwalior used for wire-drawing.

GULF OF AKABAH. The Red Sea at its northern end separates into two branches, the Gulf of Suez to the west and the Gulf of Akabah to the east. Akabah is a continuation of the valley of the Dead Sea and the river Jordan. It is a desolate and deserted sea, useless to commerce, and shunned by the native craft on account of the violent northern winds which almost constantly prevail there, raising the sea into a deep and turbulent swell.—Findlay.

GULF OF CAMBAY is about 72 miles long, 80 miles wide at its mouth, and 14 miles at its head. The Nerbudda and the Tapti rivers disembogue into it; and the smaller rivers are the Sabarmati, Myhe, and Dharudar. The mass of alluvial matter brought down by these rivers, and the peculiar motion of the tides, has thrown up many enormous sandbanks; the flood-waves come in the form of a bore. At Perim, 26 miles from the entrance of the gulf, the tidal stream is forced through a space four times less than it occupied before; and again, 27 miles farther north, below the Bore Rocks, it flows into a channel only one-ninth its original width, from which circumstances the velocity of the tide is greatly increased. At the head of the gulf, where it separates into the channels of the Myhe river and the Cambay Creek to the east, and into those of the Sabarmati on the north-east, the accumulated waters of the flood-wave assume the form of a bore, the wave coming in perpendicularly. The eastern or principal bore rises five miles to the W.S.W. of Cambay Creek, and is not perceptible in the deep tides, unless the previous springs have been unusually high, when it may be observed slightly through the quarter. It generally commences when the winds begin to lift, the waves increasing daily in height as the tides gain strength, and it is at its greatest height about two days after new and full moon. It also varies with the night and day tide, which differ in height six or eight feet, the night tide both of new and full moon being the highest; as the highest tide must have the greatest velocity, so the wave of the bore will be highest with the greatest tide. At about 14 miles below Cambay, the high springs were found to rise 33 feet. And the flood runs at six miles and the ebb at seven miles an hour. The bore first shows itself in the channel at eight miles below Cambay, as a wave 3½ feet high, with a rate of seven knots. In the first hour the water rose six feet during the first ten minutes. Above Cambay the wave breaks in seven feet high, with a velocity of ten knots. The western bore, running into the Sabarmati river, is almost precisely similar to the eastern bore, but it washes away by its force very large portions of the shore and adjoining sandbanks. In places where the force of the wave is directed to one point, it frequently flows quite perpendicularly, having the appearance of a wall, when it curls and breaks with a thundering roar. In the centre of the channel in the main line of the rush of the bore there is less danger than near the shore, where the wave curls along the banks.—Findlay.

GULF OF CUTCH is an extensive inlet of the Arabian Sea, running eastward 90 or 100 miles, and separating Cutch from Kattiyawar, and terminating at its head like the Kori, in the flat desert of the Rann. At its mouth, between Dwarkas and the Cutch coast, it is 30 miles broad.—Findlay.

GULF OF MANAAR lies between Ceylon and the Peninsula of India, and has a width of 130 miles, extending to the line of islands and banks separating it from Palk's Straits, and a breadth of 200 miles from Point de Galle to Cape Comorin. In the 19th century the British deepened it, to admit ships of greater draught.—Findlay.

GULF OF MARTABAN is the north-east angle formed by the delta of the Irrawadi and the Martaban, Amherst, and Tenasserim coasts. Between Baragu point and Klangouk island it is 130 miles wide, and recedes to the banks of the Sitang river.—Findlay.

GULF OF OMAN is the funnel-shaped entrance to the Persian Gulf, included between the province of Oman and the opposite coast of Makran. The south coast of the Gulf of Oman, from the Ruweis-ul-Jabal nearly to Muscat, is fertile and well covered with date trees. It extends in a wide plain to the foot of the mountains, and increases in breadth from 29 miles at Cape Musendom to 110 miles at its eastern end. From Muscat to Musendom it is 200 miles in length, and within these limits its area is 14,000 square miles. The coast on the Persian side is mountainous, with deep water close to it; but the Arabian coast, excepting the Ruweis-ul-Jabal mountains, is low, fronted by reefs and shoals at a great distance from the shore for nearly its whole length, forming the celebrated pearl banks.

GULF OF PEH-CHI-LI, on the E. coast of China, is at the mouth of the Pei-ho river, and is separated from the Yellow Sea by the Mian-tau group of rocks. The shore is low and flat. GULF OF PERSIA, or Khali-ul-Fars, is the large inland sea bounded on the N.E. by Persia and on the S. by Arabia. The Persian Gulf, from the coast of Oman to the Basra river, is 450 miles. Inside its breadth varies from 100 to 180 miles, but at its entrance at the narrowest part it is only 29 miles. Within a line drawn due east from Ras Musendom, it comprises an area of nearly 70,000 square miles. The northern or Persian side presents in its whole extent, from the delta of the Euphrates to the Makran coast, a series of rugged precipitous mountain ranges, one behind the other, running nearly parallel to the coast and to each other, and increasing in height as they recede from the sea. A belt of low land of varying width runs between the mountains and the sea, called by the Persians the Garm-sair, hot and unininviting, with a few date groves. The small seaport towns are occupied by Arabs. The southern coast, from the mouth of the Euphrates (Shat-ul-Arab) to the Ruweis-ul-Jabal, is generally of white sand, a perfect desert, with extensive uninhabited tracts. Water scarce and bad, though there are date
GULF OF SUEZ.

GUM.

people know them as Adavi Gullar, i.e. country
or wild Gullar also as Bai-mandel-wanloo, also
Dowai Darman and Dowa dene walay. The men
are herbalists, collecting roots and plants for the
native physicians ; the women beg. Their physical
appearance is strikingly like the races from
FxTidlciv,
GULF of SUEZ, at the N. end of the Ked Sea, Rajputaua, about the same in colour, but moi'e
slender and not so tall. None of them had resem-.
abreast of Tur, is 17 miles broad.
GULF STREAM of the eastern seas, issues blance to any of the races of Southern India.
from the Bay of Bengal, passes through the Straits They speak in Hindi, Telugu, and Canarese. They
of Malacca, and sweeps to the north along the wear clothes dyed red with red ochre
they seem
poor.
Asiatic coast, modifying the climate.
It is called
They do not eat the cow or bullock, but
by the Japanese Kuro-Siwo, and debouches to use the goat, sheep, hare, and other creatures;
the Philippine Islands, and thence rushes into the and the village Gullar are goatherds.
Like the
great Pacific, describing an arc of a great circle Baidar, they eat the crocodile.
They do not interas far as the Aleutian Isles, on which it leaves marry with the Gaddha Gullar. The Gaddha Gullar
strange weeds. The waters of this eastern Gulf dwell in the neighbourhood of towns and villages.
Stream are of an indigo tint. The Sargasso weed The men wear beards, and rear dogs and asses
they hunt wild animals, and eat the jackal, crocooccupies the centre of the stream.
GULF(Sargassura bacciferum, Agh.), dile, porcupine, guana, and the women beg. They
in enormous quantity, floats in an eddy of the are alleged to be thieves and dacoits.
Atlantic to the west of the Azores, from lat. 20°
GULLI-MILNA. Hind. Properly Galli-milna.
to 36° N., and again west of the Bahamas, its A form of salutation,
the embracing described in
utmost eastern limit extending to long. 36° E. It Scripture as falling on the neck.
GUL-MEDAK. Hind. Jacinth but generally
occurs also in the streams in the Pacific. It is
understood to be an imitation gem of a deep
of a greenish-yellow colour
is abundant on the
orange colour.
reefs, but continues to vegetate as it floats about
in the circular currents after it has been torn from
The masses give shelter to a great Galls produced on the pistachio tree (Pistacia
its attachment.
number of fish, molluscs, and crustacean animals. vera), a native of the south of Europe and of
Travellers to and from India meet with the Gulf- Asia.
They are imported in Bombay from the
weed in the Atlantic.
Persian Gulf, and are used in medicine by the
GUL-GAJUBA. Hind. Flowers of gajuba natives of India. Faulkner; Birdwood.
from Bombay
cooling, in various mixed preor Gooloo.
Hind.
The pod of the
scriptions. One seer costs two and a half rupees.
mahwa tree, Bassia latifolia. It yields a very
useful oil, and is sometimes eaten by the poorer
GULGEEAN, or Gulguleean, Gulgully, swollen
rice mixed with molasses formed into balls.
GUM.
GULGULA, a town near Bamian, destroyed by Gorame,
Malay.
Fr. Gatah pulut,
Chengiz Khan. From some cause, not now remem- Gom
DuT. Goma,
Sp.
Tam.
bered, being highly exasperated with the people, Gummi, Dan., Ger., Sw. Pisini,
Guj., Hind. Banka, Jigata,
Tel.
he came upon them suddenly, put them without Gond,
Port., It. Zamk,
Turk.
mercy to the sword, and overturned and de- Gomma,
groves near villages. The population is exclusively
Arab. Along its northern or Persian coast are
numerous towns and villages, with a mixed Arab
and Persian population the Arabs are fishermen
and seamen, and the Persians are cultivators.

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molished the place. There are innumerable excavations or caves in the mountains of the valley of
Bamian, which still form the residences of a great
part of the population ; a detached hill in the
middle of the valley is quite honeycombed with
them, and is called the city of Gulgula.
Caves
are in greater numbers on the north side of the

where the idols occur, on all sides of which
It is said that at a day's journey
are excavations.
from Bamian, to the south-west, were the remains
of an extensive fortress, called Band-i-Berber,
erected near a large lake.
Moorcroft's Travels.
GUL-i-GULAB, a series of fortresses which have
a communication with each other.
They are
situated near the Persian Gulf, about five farsangs
from Behbehan, and the river Kheirabad, the
Ab-i-Sherin or Indian river, flows close to the
foot of the rock on which they are built, one fort
above the other.
GULLAR, a race in the Raichore Doab, with
several sections.
There are two branches of this
tribe, the Adavi GuUar and Gaddha GuUar, about
2000 in number. The Adavi Gullar are dwelling
in the villages between Hyderabad and Poona,
but a very considerable number dwell in Seroor,
10 miles from Kulburga. They call themselves
Gol, from Go, a cow, also Hanam Gol
and they
claim to be of the Dhangar or herd race. But the
valley,

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Gums and

resins,

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and

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resins are divisible into

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gums, gum-

resins.

Gums are soluble in water, but not in alcohol.
Gum-resins., being compounds of gum and resins,
are partially soluble in water, partly in alcohol
the gummy matter being separated by one, and
the resinous matter by the other.
Resins are soluble in spirits, from Avhich they
are in a considerable proportion separated by
water.
The resins melt on the application of
heat, but not so the gums.
The chief gum and
gum-resin producing plants of Southern Asia are
Abies Smithiana.
Acacia Arabica.
A. catechu.
A. ferruginea.
A. lebbek.
A. leucophlsea.
A. modesta.
A. odoratissima.
A. serissa.
A. speciosa.
A. snndra.
A. vera.
A. xylopyra.
^gle marmelos.

Amyris commiphora.
Anacardum occidentale.
Armeniaca vulgaris.

Agate grandiflora.

B

Ailantus excelsus.
A. Malabaricus.
Aloe fierfoliata.

Bauhinia emarginata.

Amygdalus

1264

Persica.

Artocarpus

integrifolia.

Astragalus, sp.

Augia Chinensis.
Azadirachta Indica.
Balsarnodendron mukul.
B. agallocha.
B. myrrha.
B. pubescens, Stocks.
B. myrrha.
B. Roxburghii.
Bassia elliptica.
longifolia.

B. parviflora.
B. retusa.
B. Vahlii.


There are two leading modifications of gum, one of which is represented by gum-arabic, and the other by gum-tragacanth. There are many intermediate varieties, amongst which cherry-tree gum may be distinguished; and the different kinds of gums have been classed under the generic terms of arable, tragacanthine, and cerasine.

Gum-arabic, gum of the cherry, gum-tragacanth, and others, flow spontaneously from the branches and trunks of the trees producing them. The gummy matter resides in the bark and albumen; it is the nutritive juice of the plant. But as the wood absorbs more moisture from the air than the bark, and hence swells more, in consequence of its enlargement it distends the bark, which by the internal pressure of the wood gives way, and gummy matter escapes.

Artificial Gum.—In the process of calico-printing and for stiffening different goods, an artificially prepared gum has for some years been employed. Starch or curculio is, by the action of diastase—a peculiar azotised substance formed during the germination of seeds—converted into a gummy mucilaginous substance named dextrine. It is known in commerce under the name of British gum and torrefied starch. The term leucoem has been applied by Payen to a modified dextrine, whiter and more soluble than can be obtained by torrefaction. It is formed by moistening 1000 parts of dry starch (potato starch is generally used) with very dilute nitric acid, consisting of 2 parts of concentrated acid and 300 of water. The mixture is divided into small blocks, which, when dried in the air, are rubbed down, and exposed in a proper drying stove to a current of air heated to about 150° or 160°; the powder is afterwirds well dried at a temperature not exceeding 230°. When well made, it dissolves in cold or tepid water as easily as gum-arabic.

Gum-Arabic.


Gum-arabic is the produce of species of Acacia growing in Arabia, India, Upper Egypt, Senegal, etc. Acacia seyal, A. Ehrenbergii, A. tortilis, A. vera of Africa, all yield the gum-arabic of commerce. That known in commerce as the finer gum Senegal is said to be the produce of A. vera. A. albidus (the A. Senegal of Willde.), A. seyal, and A. Arabica also yield it, and the inferior reddish varieties from A. Adansoni. Barbary gum is said to be the produce of A. gumnifera.

Gum Senegal is exported from Portendic, Sierra Leone, and the French settlements on the Senegal, being produced chiefly in the desert country to the north of the Senegal. A. vera is stated by the authors of the Fl. de Senegambia to yield the pale and fine varieties, A. albidus (A. Senegal, Willde.), and A. Adansoni the inferior reddish varieties. A. seyal, A. vera, and A. Arabica are found in Senegambia.

Barbary Gum is exported from Mogador on the west coast of Africa. It is of inferior quality, and, moreover, a mixture of two or three kinds.

The East India Gum of commerce is the produce of A. Arabica, A. sericata, Aegle maramelos, Feronia elephantum, Azadirachta Indica, Melia azedarach, Odina wodleri, and Prosopis spicigera. It is known as Gond, Babul gond, and Ghati gond. It occurs in rounded pieces or tears, and in fragments, up to the size of a walnut or larger. It dissolves almost completely in water. The solution is purer when made with cold water, and keeps better.

East India Gum is exported to Europe chiefly from Bombay, having been previously conveyed there from the coast of Arabia, and is largely of African origin. Some is also exported from Calcutta and Bombay by the names of Babul and
GUM.

Ghatti gum, and is of good quality, but is yielded also by Acacia serissa, and by species of other genera.

A gum is also obtained at the Cape from the Acacia karroo, A. horrida, and A. giraffe, and from the A. decurrens of New Holland.

According to the locality producing it, gum-arabic is known as Turkey or Arabic gum, Barbary or Morocco gum, Senegal, East India, and Cape gum. The mucilage of each of these varieties of gum is employed to give lustre to crapes and silks, and for cementing into cakes the various pigments used by artists in water colours.

Cherry-tree Gum, including that of peach and apricot trees and other species of Prunus, resin is obtained in inferior gum-arabic in its external characters, but is only partially soluble in cold water.

Mastic Resin is produced in Scio from the Pistacia lentiscus, the lentish tree. That which collects on the branches of the trees is called mastic in the tear, and fetches the highest price, while that which falls to the ground constitutes the common mastic. Mastic varnish is well known from its transparency, and its peculiar toughness and tenacity even when spread in the thinnest coat on wood or on canvas. This is due to the presence of a peculiar resin, which does not possess any acid properties.

Olibanum was the frankincense used by the ancients in their religious ceremonies. Moses speaks of it in Exodus; and it long formed a constituent in the preparation of incense. It is produced in India from the Boswellia thurifera, but there are also African and Arabian varieties.

Myrrh—This gum-resin was an object of trade more than 3500 years ago. It is produced in various parts of Asia and Africa, one myrrh tree bearing the scientific name of Balsamodendron myrrha. Turkey myrrh is considered the finest, the East Indian being the second in quality. It is employed medicinally as a dentrifrice, and in the preparation of fumigating pastilles.

Tragacanth is gathered in Crete from the Astragalus tragacantha. It is largely employed in calico printing, and has many uses in the arts.

Catechu is an extract rather than a gum, obtained from the Acacia catechu.

Gambier has similar properties to catechu. It is obtained from the Uncaria gambier, and both of these are employed in calico printing, dyeing, etc.

Gum Kino of commerce is obtained from the Sterculia cinerea and P. marsupium, and Eucalyptus resinifera. It is used in medicine, and has been proposed to be employed in the arts. The dragon’s blood is from P. draco.

Gamboge is obtained in Ceylon, Malabar, Siam, from species of Garcinia. It is much used as a pigment, and in miniature painting it is employed to colour varnishes and lacquers.

Elemi gum-resin is the product of a tree still undetermined, and although it is of considerable importance, and is imported in large quantities, the locality producing it is not distinctly known. It forms an essential ingredient in many of the finest varnishes.

Copal resin exudes spontaneously from two trees, Rhus copallinum, and Elaeocarpus copalifer, the first being an American and West Indian, and the second an East Indian tree. A variety of copal is obtained from the coasts of Guinea. The American kind comes to Britain in flat fragments, the East Indian in roundish masses, and the latter furnishes the finest varnishes. Fresh essence of turpentine dissolves it completely, but old turpentine will not do so. It is stated that essence of turpentine, digested upon sulphur, will dissolve double its own weight without letting any fall. The oil of rosemary also dissolves copal with great readiness. An excellent varnish may be made by dissolving one part of copal and one of essence of rosemary, with from two to three parts of pure alcohol.

The employment of the gums and resins in the arts has been greatly facilitated by the discovery of new solvents, such as the new alcohols and ethers, naphtha, benzole, chloroform, and others.

Gum-ammomiacum.

Ushek, Feshah, Agan, Sanough b’ sherin, Pera.

This is a bitter, nauseous, bad-smelling gum-resin, and used in medicine. Dorema ammoniacum, Ferula ammonifera, Fex, F. orientalis, and F. Persica, have all been named as its source.

Gum-anime is a gum-resin the product of the Hymenaea courbaril, the courbaril locust tree of South America, introduced into Tenasserim, and easily propagated. This gum-resin is of a pale brownish colour, and is met with in commerce partly in translucent and somewhatunctuous grains or tears, and partly in large brittle masses. But the commercial article is doubtless the product also of the Vateria Indica or gum-copal tree, which yields almost a precisely similar resin. For ordinary purposes these may be used indifferently, but where purity is demanded, copal is almost insoluble, while anime is wholly soluble in alcohol.

Dekamallee is the gum of Gardenia lucida; it exudes in amber-coloured transparent drops at the ends of young shoots, from which it is collected. It is a strong, disagreeable-smelling gum-resin, procurable in most Indian bazaars, and much used by native physicians as an external application, when dissolved in spirits, for cleaning foul ulcers. It is also used by some European practitioners in cases of worms in children. It is most useful in preventing vermin breeding in wounds, keeping away flies from sores, on account of its strong aroma; and it is an article in the materia medica of the village farrier. Its effect in preventing the access of flies to festering wounds and running sores is remarkable.

Dammer is a vernacular term for the resins of various trees growing in India and in the Eastern Archipelago. In Bombay the term Dammer is also applied to pitch. Throughout India, Bal and Rala are terms applied to all resinous substances; but the Bal of Northern India, and exported from the Punjab, is not similar to that of the resins of Vatica robusta and of V. tumbaga, which form the chief part of the dammers of India. These are very brittle, and are amber-coloured.

Sal-tree Dammer is the resin of V. robusta and of other species. It occurs in sticks much resembling in shape the black dammer, but differing widely in colour and consistency. In colour it varies from a light yellow to a dark brown, the two colours being very frequently found in the same lump, and giving it the appearance of having a regular ‘grain.’ It is friable, and differs from the white dammer of the western coast in its inferior hardness, opacity, and its peculiar form.
GUM.

and from the black dammar in its colour. There are extensive tracts of Gigulun (Vatican) jungles in the Gumur and Cuttack provinces. The Khond and Uria races living in and near these jungles, wound trees in several places, the resin issues, and is collected when sufficiently solid. The dammer collected from the decayed parts of the tree is of a dark colour.

Piney Resin of the Vaterra Indica is amber-coloured and very tough. It is known as Piney dammer, white dammer of Malabar, Indian copal, and Indian gum-anime. This resin when soft is Piney varnish. It is largely exported from the forests of Travancore and Western Ghats.

Black Dammer of Malabar is the product of Canarium strictum.

White Dammer of Singapore occurs in fragments of variable size, marked with reddish streaks, transparent, amber-like, brittle, with brilliant fracture, very inflammable, inodorous, and tasteless. This resin flows from the Damurra orientations which grows on the lofty mountains of Amboyna. It hangs from the branches, and resembles stalactites, the pieces being sometimes as large as the hand, and 4 to 8 inches long; some pieces are like anime resin. This substance, in contact with wood-oil, makes a useful coarse varnish for doors and windows. It is also sometimes employed as a pitch in dockyards, and by mariners in the preparation of certain plasters. When melted with gingelly oil, it is used for covering corks in bottles.

Coedie or Kurrie Gum, called also Australian dammer of New Zealand, is the product of Dammar Australis.

The dammer of the Tenasserim Provinces is the product of three different genera, belonging to the wood-oil tree family,—the Vatica, the Hopea, and the Dipterocarpus.

Gum Elemi of commerce is said to be yielded by several species of Amyris.

Brazilian Elemi is called also Aouaceli balsam. It is obtained from the Icena heterophylla.

American Elemi comes from Icena iciecarba; resin of courina from I. ambrosia.

Gum Galbanum is referred to Ophoidia galbanifera, Don, Galbanum officinale, Don, and Female galbanum, Don. There appear to be two kinds of galbanum, Levant and Persia. The Persian, which is the one which comes to commerce, is yielded by Ophoidia galbanifera.

Gum-eleastic, caoutchouc, or India rubber, is obtained in S.E. Asia from several milky-juiced plants, belonging to different families (Sapotaceae, Apocynaceae, Moraceae, and Euphorbiaceae). Assam in particular furnishes large quantities of India rubber from Ficus elastica; whilst supplies from Labuan are of the Urceola elastica; and from the Peninsula, of Cryptostegia grandiflora.

Isodonra gutta yields the famous guuta-percha of commerce, which, like India rubber and caoutchouc, rapidly rose in demand after its first discovery, and merchants anxiously look for new sources of supply.

Gum Sagapennum, believed to be the produce of an amphiher of Western Asia, perhaps Perula Persica, Wil. (Sagapenna, Wil. Fl.)

The Turpentine are oleo-resins obtained from coniferous plants. Pinus palustris and P. teda yield turpentine, Canada turpentine, or Canada balsam, is from the Abies balsamea. Spirits of turpentine is obtained by distilling the crude turpentine. Camphene is the rectified spirit. Turpentine is extensively employed as the solvent of the other resinous bodies in the formation of varnishes. Its solvent powers in this respect render it exceedingly valuable to the artist, and also to the manufacturer. The rectified oil of turpentine has been much used to a solvent of caoutchouc. It has been stated by Bouchard that the unrectified oil dissolved India rubber with great difficulty, whereas the oil rectified without water was an excellent solvent, but that it was rendered still better when it was distilled from bricks.

Scio Turpentine, called also Chian and Cyprus turpentine, is the product of a Pistacia in the island of Scio. It is obtained by cutting crossways with a hatchet the trunks of the largest trees; the turpentine runs down on flat stones placed to receive it, each tree yielding about eight or ten ounces.

The Oleo-resins or wood-oils, the Gurjun oils of the genus Dipterocarpus, also the black varnish from the genus Melanorrhoea usitata, are all largely used in the arts and manufactures of S.E. Asia.

The export of gums from India during the ten years 1871-72 to 1880-81, ranged in value from £147,336 in 1871-72 to £332,393 in 1880-81. During the last ten years, 1881-82, produced, 323,393 cwts., valued at £294,685. In the eleven years 1850-51 to 1860-61, gum-lac, etc., the value of from £78,642 to £171,646 was exported, nearly all from Bengal. From 1872 to 1881, the value of its exports ranged from £208,680 in 1873, to £755,745 in 1876.—Ainslie; Crawford; McClennan's Tenasserim; Pereira; Royd; Prod. Res.; Eng. Cyl.; Hamilton's Senai, Hedjaz, p. 278; Rozh.; Morrison, Comp. Descr.; Mason; O.Sh.; Faulkner; Vegetable Kingdom; Poole; Drury's Useful Plants; Birdwood's Bombay Products; Porcell.

GUMADI. Tel. Gummar. HIND. Species of Gmelina, G. arborea, G. parviflora; Tella gumadi is G. Asiatica. Tagumadi, Gmelina parviflora, is a large timber tree, a native of the mountainous parts of India. The wood of such trees as will square into logs from 18 to 24 inches, resembles teak. The colour is almost exactly the same, the grain a little closer; at the same time it is as light or lighter, and is as easily worked. It is used for the decks of pinnaces about Chittagong, Dacca, etc., and is found to stand the weather without shrinking or warping, better than any other wood known there. It seems to be the Gm. Asiatica. Gm. arborea has a light-coloured wood, close-grained and light, grows in the Santal jungles, but scarce. It is used for planks, and in constructional palkies. It is this wood with which the beautiful lac ornaments are made, such as workboxes, envelope cases, pen-trays, etc., for which Suri is celebrated.—Cal. Engineers Journal, July 1860; Rohde, MSS.; Rozh.

GUMATTI. HIND. Mines in Mandi, Kangra Hills, etc., a dirty-grey rock-salt is obtained.

GUMBAZ. HIND. A dome, a mausoleum. The gumbaz covering the tombs of the Adal Shahi kings at Bijapur and Gogi are of magnificent dimensions, and in good preservation. Those at Kulburga and other places have, however, been dismantled. Those at Golkonda, near Hyderabad, and the Dekhan, over the Kutub Shahi kings, are in good order, though of small dimensions. Those over
the Imad Shahi of Berar are remarkable. Over the Barid Shahi of Beder there are large gumbaz, but mostly in ruins; and those at Roza, between Dowlatabad and Ellora, are small and mean in appearance, though the emperor Aurangzeb, who died at Ahmadnagar, is buried there.

GUM DRAGON TREE. of the Canary Islands, the Dracaena draco, affords a concrete, astringent, resinous juice, called dragon's blood. A tree growing at Orotava, in Teneriffe, attained much celebrity. Its hollow trunk had been used from time immemorial by the Guanches for their religious rites. The approximate circumference of the trunk in 1867 was about 78 feet, its height not exceeding 75 feet. It was greatly injured, if not destroyed, by a gale in the autumn of 1867. The gum dragon is a name of tragananth.

GUMGHATTY, in Bombay, is a commercial term for mixed gums from forest trees, from species of Acaea called Baba, the wood- apple tree, Feronia elephantum, the mango tree, the nim or margosa trees, species of Melia and Azadirachta, the Vachellia farnesiana, the Moringa pterygosperma, and the cotton trees, Cochlospermum gossypium; picked pieces are sold as gum-arabic.

GUMKA. Hind. Slight fermentation of ears of corn, induced to facilitate threshing.—W.

GUMP KAMLU or Kamawaru. Tel. A Sudra caste in Southern India, who do not permit any stranger to enter their houses.

GUMSUR, a hill tract lying between lat. 29° 40' and 20° 25' N., and long. 80° 10' and 85° 5' E., in the neighbourhood of Ganjam and Vizagapatam. For a long period after British occupation of the Peninsula, the zamundar held the Gumsur country on payment of rent. The native Chief in 1855 claimed exemption from civil process, also refused to pay arrears of revenue, and the territory was annexed by the British. In 1871 the population of Gumsur was 158,061. It is now a taluk of Ganjam.

GUMTI, a tributary to the Ganges. It rises in a small lake or morass 19 miles east of the town of Pilibhit, in lat. 28° 33', long. 80° 10', 520 feet above the sea. It runs S.S.E. into the Ganges, joining 30 miles below Benares, after a course of 482 miles. In the rainy season boats of 4000 or 4200 mounds burden are sometimes seen proceeding down the river to Lucknow. It runs near Lucknow, Juaopore, Sydpur, and near Chongong in Comillah.

GUM TREES of Australia are of several genera. The grass gum trees, Xanthorrhoea, sp., and Kingia Australis, R. Br., plants of Australia, bear some outward resemblance to each other, but belong respectively to the lily and the rush families. The blue gum tree of Tasmania (Eucalyptus globulus) and its ally E. corynocalyx of South Australia, and other species; also Cordyline congesta, Moreton Bay; Seaforthia elegans, Damnara robusta, of Queensland.

GUN. Several of the old cannon in the Peninsula of India are of great size. That with the largest diameter is at Bijapur. It was cast at Ahmadnagar about a.d. 1549, by a supposed native of Constantinople, named Rumi Khan, also Husain Khan, and the bed of its foundry was still unlevelled in a.d. 1839; it was close to Rumi Khan's mausoleum, which had been converted into a dwelling-house. The gun was dragged to Bijapur by means of elephants and bullocks. Rumi Khan was the Mir-atish, or commandant of artillery, under the Nizam Shah Bhaier dynasty of Ahmadnagar. The length of this gun is 15 feet, and calibre is 2 feet 4 inches, and a full-grown man can creep into it. It remains on a bastion of Bijapur, and Hindus have besmeared it with red-lead and worship it. Another gun may be seen not far off, on the summit of the high tower called the Oopuri Boorj, measuring 30 feet in length, and composed of bars of iron welded or rather bound together. The legend current regarding the Oopuri Boorj is that one of the kings, wishing to get his city fortified with as little expense to himself as possible, gave each of his nobles a certain portion of wall and rampart to build, and excited the greatest emulation among them as to whose work should be best done. One of the chief nobles was absent at this time, and on his return found the city completely walled in, and his peers rejoicing in their patriotic endeavours. Stung at being excluded from such a grand work, he expostulated with the king, who, to comfort him, promised him that he should build one that would surpass in height and splendour the work of the others. Hence this bastion. A built gun 27 feet long is now lying on the top of Gawilgarh Hill, and one 21 feet long was on the walls of Beder in 1869.

GUNA. Sansk. Merit, virtue; a property, a quality, of which, metaphysically, three are principal.

Sativa guna, the property of truth, purity, and wisdom.

Raja guna, the property of foulness, the source of passion and error.

Tama guna, the property of darkness, the source of inertness and ignorance.

Nir guna, deity abstractedly, without any of the three properties.—Wilson.

GUNA-DOSHA. MALEAL. From Guna, good; Dosham, bad. A form of marriage amongst the Nair people; the words mean for better or worse. See Polanydrty, p. 109.

GUNCH. Hind. Roots of Abrus precatorius, a substitute for liquorice root. The seeds are used as weights by jewellers, also for necklaces, bracelets, and other trinkets. They are of various colours, red, and red and black, and almost wholly black.—Cymbdis Diet.

GUND, a plateau in N. Cainta near Dandiili. It has a considerable forest tract, and near Dandiili is a Negro race. There is a succession of small rapids, amounting to a fall of 120 feet, in the Black River, but the timber can be floated downstream, though not without some difficulty.—Cleg.

GUNDA, four of anything. Like the Duna, the Gunda of accounts and the Gunda of practice do not coincide. See Ganda.

GUNDA BAROSA. Hind. Boswellia thurifera resin.

GUNDAL. Sansk. Tel. Cyperus hexastachys, Rott. Wight says the true name is Gunda, a fragrant grass; also a plant bearing a fragrant seed, which, with the addition of La, 'what eats,' becomes Gundala, a name of the Chakor or Perdic Chakor, Gray, which is said to eat the seeds above mentioned.—Elliot, Fl. Anher.

GUNDURGH, This mountain, prior to British supremacy, was a stronghold of banditti, who infested the high road passing through Husan Abdal to Peshawur. At the foot of one of its northern spur, opposite to Hurripur, is the
GUNONG.

GUNONG API.

GUNONGAPE.

strong village of Murree, where the Sikhs were several times repulsed by the mountaineers, and where Major Abbott found an asylum during an inundation.—Rec. Gov. of India, No. 11.

GUNDICOTA, a town and fortress in lat. 14° 51′ N. and long. 75° 22′ E., between Gooty and Cuddapah. It is on the summit of a precipice, forming the southern wall of a fissure that cleaves a range of sandstone hills from their summit to their base, and the Pennar river passes through the gap into the plains of Cuddapah. The district was ceded to the British by the Nizam in A.D. 1800.

GUNAGHAR. SANSK. From Gunga, and Dhara, to hold. Gunaghara-Shastri, he who knows the Shasta is called a Shastri.

GUNAPUTR or Gangapootr, a tribe of inferior Brahmanas (literally sons of the Gandes), found chiefly in Benares, Bithur, and Sheorapur in Cawnpur.—Elliot.

GUNAGULLY, a river of the plain of Dharwar, rises in lat. 15° 45′ N., long. 75° 10′ E., and runs S.S.W. into the Indian Ocean; length, 100 miles.

GUNAGULLY and Sadashewghur are shipping ports on the W. coast of India. Gunagulli was at one time the chief place of export for the metals, timber, etc., its position nearest to the Mogadda jungle above, and to the south of the Arbyle Ghat.—Gibson's Bombay Forest Report.

GUNGHILU, little bells fastened to a string, which is wound round the wrists and ankles, and which jingle at every motion of the limbs.

GUNKARI. HIND. Pewter anklets of Kulu.

GUN-METAL.

Stuck-goed. DUT. Metallum tormentorum, Stuckgurt. GER. Metallum tormentorum, Bronze. IT. Metal de canones, SP.

It is used for casting statues, cannon, bells, frames, stands for argand lamps, ornaments, etc. Bronze is an alloy of copper and tin, the quantity of tin employed varying according to the effect desired to be produced. Analysis has shown that ancient weapons and tools contained 8 to 15 per cent. of tin, medals from 8 to 12 per cent. tin, with 2 parts zinc added to each 100, for improving the bronze colour. The modern alloys of copper and tin, which are now produced in large quantities, are made up of a variety of metals bearing different names, as soft gum-metal, brass ordnance metal, with 8 to 12 per cent. tin, the various bell-metals, and the Chinese gong with 20 per cent. of tin, and speculum metal of 126-4 per cent. of copper with 58-9 of tin.—Tomlinson. See Alloys.

GUNNEIRA SCABRA, used for tarts, like the stalks of a species of rhubarb.

GUNNY.

Guni, BENG. | Koni, TAM. Gunpat, Gunipat, HIND. | Gona, Tel.

A strong, coarse sackcloth manufactured largely in Bengal, for making into bags, sacks, and packing generally. The material from which this is manufactured is the fibre of two plants, Corchorus olitorius and C. capsularis, both of which, but particularly the former, are extensively cultivated throughout Lower Bengal. Besides a large domestic consumption of gunny, the whole rice, paddy, wheat, sugar, salt, pepper, coffee, and other foreign produce, are exported in gunny bags or sacks. The kind of cloth of which the gunny bags are made is called in Bengal Chata, in Tamil Koni, and in Tel. Goni, also Tat. It is of three different kinds, and was formerly woven in pieces from three-quarters to one cubit wide, of which two or three were sewn together at the sides, into one piece, before offering it for sale. The first kind, intended for bedding, is 4 to 6 cubits long and from 2 to 3 cubits wide, and sells at about 8 rupees per 100 pieces. Secondly, that intended for covering bales of cloth is of the same dimensions, but is thicker than the former kind, and costs from 6 to 10 rupees per 100 pieces. Thirdly, that intended for making rice and sugar bags is 5 cubits long and 1½ or 1½ cubits wide, and ten bags cost 4 or 5 rupees. The exports from British India of gunny bags and gunnies have vastly increased. From 1850 to 1882 they were of the following value:

1850-51. £118,421 1856-57. £376,253
1851-52. 290,790 1857-58. 217,062
1852-53. 201,667 1858-59. 392,424
1853-54. 174,926 1859-60. 333,977
1854-55. 215,346 1860-61. 230,043
1855-56. 302,340 1851-52. 1,067,588

Gunny Bags exported from India.

1874-75. No. 8,010,824 Rs. 23,307,523
1875-76. 19,523,250 44,25,003
1876-77. 32,890,545 64,64,808
1877-78. 26,406,539 72,96,686
1878-79. 29,587,010 72,96,686
1879-80. 55,902,481 1,13,20,504

Gunny Cloths exported from India.

1874-75. Rs. 20,271
1875-76. 4,47,542
1876-77. 6,94,643
1877-78. 3,56,100
1878-79. 5,26,446
1879-80. 6,08,188

Gunny Rope and Twine exported from India.

Cwt. Rs.
1874-75. 5,000 24,404 1877-78. 4,428 54,431
1875-76. 1,362,44,632 1878-79. 2,768 23,286
1876-77. 4,555,34,759 1879-80. 2,063 16,754

GUNNYGULL, a hill ridge south of Kurnool, which is seamed with great veins of pure specular iron ore. See Iron.

GUNONG API. MALAY. Literally, fire mountain.

There are three volcanoes in the Eastern Archipelago of this name,—one within the circle of the Banda Islands, which is a conical active volcano 2900 ft. high; the second one, which is the most northern, is 1000 ft. high, and the third is near the W. end of Sumbawa, at the northern entrance to the Siphi Strait. Gunong Api, north of Wettas, rises six or seven thousand feet above the sea. It is an uninhabited volcano, and is a great landmark for ships trading with China, who pass up the Ombay passage and come down the Flores Sea. Nila is an active volcano 1700 feet high, in the E. Archipelago. It is E. of the Gunong Api that lies north of Wettas. In 1694 a great eruption occurred, part of the crater fell in, the whole island was a sea of lava, and the people fled to Banda; and a similar eruption occurred in September 1824, when all similarly fled.

Gunong Api of the Banda group is called by the French the grenade of Banda. It is a single island or cone of volcanic matter rising from a rocky base, and separated from Greater Banda by a narrow channel. Since the Banda Islands were discovered, there have been at least 13 great eruptions of this volcano. That of 1820 was very severe; and another occurred in 1824. The strongest eruptions were in the following years:

1598, 1615, 1632, 1691, 1711, 1749, 1798, 1820. That of 1691 was a terrible one. The most fatal earthquakes took place in 1629, 1683,
GUNPOWDER.

1866, 1743, and 1816. Its height is about 2000 feet. It is covered with magnificent vegetation, commencing at the line where the waves cease to beat, and continuing upwards to the point where the lava ceases to flow, being cooled by the air. This volcano is the curse of the group. The nutmeg is not cultivated, and the island is occupied by a few emigrants from Timor.

Gunong Bermen is a lofty mountain 100 miles north of the Lautman group of the Malay Peninsula. The upper part of the rivers and many of their feeders are occupied by five tribes of aborigines, viz., the Uday or Senang, who appear to be the same people who are known to the Binna of Johore under the name of Orang Pago, are found on the Seganet, Palungan, and Kapi, tributaries of the Muar, and in the vicinity of Gunong Ledang. The Uday or Senang have not any other weapons than the muspitan. This is the most savage of the aboriginal tribes that roam the mountains and forests in the centre of the Malay Peninsula, and upon the borders of the Malacca territory.

The Jakun partially frequent the same territory, the lower part of Palungan, Gampam, etc., and extend N. and N.W. within the British boundaries. They are found at Tidong, Ayer Chirimin, Ayer Itam, Durut Yassin, Ulo Kissang, and Pakit Singer. Many, the largest tribe, dwell around Gunong Bermen and the adjacent mountains. G. Risam, Lieila, Singwang, Kamuning, Kaya Libet, and G. Garus possess the higher part of both the western and eastern streams.

The Sakai succeed to them in the interior, frequenting the neighbourhood of Gunong Kinabalu.

On the N.W. the Mentira march with the Besi, one of the most numerous tribes, who occupy all the streams flowing in that direction from Gunong Bermen and the mountains lying to the southward of it.

These five tribes (as well as those inhabiting all the interior of the Peninsula to the north) are sometimes by the Malays called Orang Binua.

Another group are the Bermen tribes, so called from the circumstance of most of the streams on which they are found rising in the Bermen mountain system, receiving accessories from it, or joining rivers which have their source in its ravines.

Gunong Bedong, in the Natunas Islands in the China Seas, in lat. 4° 3' N., also called Quon Hill. Another mountain in the Natunas is called Gunong Ranay.

Gunong Geeth, or the Blue Mountains, a high range in Java, about 30 miles inland from Batavia. Pangeango rises 9954 feet, Salak 7322 feet, and Kaurang 6014 feet above the sea.

Gunong Gedong, about 7000 feet high, is about 30 miles E. by N. 3/4 N. from Malacca, and is also called Queen's Mount, also Mount Ophir.

Gunong Geral, also called Quedah Peak, is the highest hill on the Quedah main. Its summit is estimated at 6000 feet above the level of the sea.

Gunong Mar-epi, a sulphurous mountain in Java, 2000 feet high.—Bikorasa; Horbsburg.

GUNPOWDER.

CHIN. | MALAY.
---|---
Sandra, Masiyu, MALAY. | Sandawa, Masiyu, MALAY.
Krutid, por, POL. | Krutid, por, POL.
Povud, POL. | Povud, POL.
Schudp, GER. | Schudp, GER.
Barut, Dara, HIND. | Barut, Dara, HIND.
Ubout, Ubout badil, MALAY. | Ubout, Ubout badil, MALAY.

GUNTA BARINGA.

Gunpowder is a compound of sulphur, charcoal, and nitre. The sulphur and charcoal in a state of fine powder are mixed with the saltpetre moist as it comes from the refinery. This compound, known as green charge, is long and carefully ground under iron and stone runners. This green charge is then milled into gunpowder under large iron runners, that used for Esfeld or Snider for petits, this being done for the space of two hours. It leaves the mill in a state partly of soft cake or mill cake, and partly of dust. These are then pressed into a hard cake at the rate of 70 tons on the square foot, and by the corning and granulating processes it is broken up into the grain, dried and glazed to the form in which it is sold as gunpowder.

The gunpowder made in Madras is sun-dried on a black drying terrace, on which, in 1854, the temperature ranged as under at noon:—

Jan., 130°—156° | May, 130°—154° | Sept., 130°—154°
Feb., 130°—156 | June, 132°—156 | Oct., 135°—150
March, 130°—154 | July, 150°—156 | Nov., 138°—146
April, 130°—156 | Aug., 129°—150 | Dec., 130°—150

Sir John Davies is of opinion that the art of printing, the composition of gunpowder, and the magnetic compass had their first origin in China. Gunpowder was known in England in A.D. 1390. A discovery of Angendre, which Dr. Pohl turned his attention to, is an explosive mixture of 28 parts of prussiate of potash, 23 of cane sugar, and 49 of chloride of potash. This mixture is white, and may be used as gunpowder; it is lighter than common gunpowder, but its strength is greater in the ratio of 167 to 100 for an equal weight of each, and in the ratio of 129 to 100 for equal volumes. Hence only 60 grammes of white powder are necessary to produce the effect of 100 grammes of black, which, moreover, leaves a residue of 68 grammes, while the former only leaves 31 1/2 grammes. White gunpowder has further the advantage of not heating the gun so fast as the other, because the temperature of its flame is much lower. It is easier to manufacture, less hygroscopic, less inflammable by percussion, and more economical than black gunpowder. In India the charcoal used for making gunpowder is made from the stalks of the Cuminum indica. In China it is made from the Cunninghamia excelsa and C. excelis. Gunpowder Play is the Laut-ul Barut, firing matchlocks in the air in the East to rejoice.—Davies' China.

GUNT. HIND. Rent-free lands.
GUNT. HIND. A hill honey or Tartar honey.
GUNTA. HIND. A small tank or small pond.
GUNTA BARINGA. Tel.

Bhiu jamb, BEN. Sirri-teku. SINGH. Gunt baranghi, DUKH. Chirru-dakki. TAM. Barunghi, SANSK. Ghantu bharangha, TEL. Bhooni jombuka, TEL.

Gunta baringa is the root of a plant growing in the hills about Lamsingi to the W. of Visagapatam. It is mentioned by Ainslie (p. 112, 1st ed. 1804) under its Tamil name Chippalekky. It grows in Southern India by native practitioners as a febrifuge. Aimsie says it is a small, knobby, somewhat warm, and slightly bitterish-tasted root, which the natives prescribe in fever and catarrh. The Vytteens consider an infusion or decoction of the leaves and tender shoots of this plant as attendant and diaphoretic. They are said to be slightly bitter and not unpleasant to the taste. Mr. W.
GUNTER.

Ferguson of Colombo is of opinion that Premna herbacea, Roxb., is the plant that produces the Gunta baringa.—Elliott, Flora. And.; M. J. R.; Ind. Ann.; Med. Sci., 1856.

GUNTER, Dr. A., a learned naturalist. In 1860, Lieut.-Colonel Playfair and Dr. A. Gunter published a work on the fishes of Zanzibar. Dr. Gunter, in addition to all that he had written in the proceedings of the Zoological Society and other journals in the years 1860 to 1898, brought out seven volumes of a Catalogue of the Fishes in the British Museum.

GUNTUR, a town in lat. 16° 12' N., and long. 80° 20' E., which gives its name to a revenue district of the Madras Presidency. A body tract of 1000 square miles is known as the Pahad, but an extensive plain surrounds the Condaived range of hills, rising 1725 feet above the sea. The Innaconda hills rise 1920 feet above the sea. Bellumconda, 35 miles N.W. of Gunter, is a conspicuous hill on which, as also on the Condaived hills, are remains of fortresses. The town of Khodinipuram, at the foot of Condaived, is a place of much sanctity. Arzampatam and Cotta-pallam are seaports. A raised beach extends from N. to S. from Chhina Ganjam towards the Kistna, and a tradition says the sea once reached that spot, near the town of Chhina Ganjam, and that Europeans traded, in a.d. 1224, to the town of Franguloddn, now in ruins. Earthquakes are of frequent occurrence. The Kistna river winds round the Pahad, and at Bezawara it has been dammed by an ancient 3750 feet long, to irrigate 1,000,000 acres in this and the Masulipatam district. Several marine lagoons run along the coast. The Buddhist temple of Amarnath on the Kistna is in ruins. Compact crystalline limestones occur. Gunter was thirteen years subject to British authority previous to the possession of the remaining four districts of the Northern Circars, viz. Ganjam, Vizagapatam, Rajamundry, and Masulipatam; these were acquired in 1765. But by the treaty concluded with the Moghul by Lord Clive, Gunter remained in the possession of Bazalet Jung, the Nizam's brother, to be enjoyed by him as a jaghir during his life, and it was not until the year 1788 that the country was finally transferred to the E. I. Company. In the district of Gunter, in one year, in consequence of drought, a famine destroyed one-half of the population, and caused a loss in revenue, for ten years, estimated at £50,000. The agricultural population are Teleng.

GUNYA, the gnomon, or carpenter's square.

GUPTA, a Sanskrit word meaning concealed or hidden, hence, Buddhist, from Gupta and Avadhuta, to resemble. Gupta-Para, from Gupta, and Para, a division of a town.

GUPTA, a dynasty that ruled in India from a.d. 319 to 465. They succeeded to the power of the Andhra. When in the plenitude of their power, the province of Northern India, with the province of Gujarat, was under their rule, and Samudra Gupta recorded on the Allahabad pillar that the whole of Southern India as far as Ceylon, also Assam and Nepal, were subject to them. About a.d. 465, Skandagupta lost Saurashtra and all their western provinces by the rebellion of his senapati Bhatarka, the founder of the Balabhi family. Two years after this event Skandagupta died, and the Gupta race were dethroned by foreign invaders, supposed to have been the White Huns. The Gupta dynasty were Buddhists, and one of them, Chandragupta II., made gifts to the tope at Sanchi which are recorded on its rail; but their other inscriptions on the lateral at Allahabad and Bhutari show a decided tendency towards Brahmanism. The following are tables of the Gupta kings, according to the views of writers who have made them a subject of special study:

Messrs. Ferguson and Burgess, p. 140.

1. Gupta, . . . 319
2. Ghatothkacha, . . . 350
3. Chandragupta I., . . . 360
4. Samudra Gupta, . . . 380
5. Chandragupta II., . . . 395
6. Badagupta, . . . 400

Colonel Cunningham, continuous Series.

1. Gupta, . . . 319
2. Ghatothkacha, . . . 340
3. Chandragupta I., . . . 360
4. Samudra Gupta, . . . 383
5. Chandragupta II., . . . 400
6. Mahendravarman, . . . 430
7. Narasimhavarman, . . . 490
8. Raviavarman, . . . 540
9. Vikramaditya II., . . . 550
10. Mahendravarman, . . . 570

Professor Lassen, Elder Guptas.

1. Gupta, Cor., . . . 160
2. Ghatothkacha, . . . 168
3. Chandragupta I., . . . 195
4. Samudra Gupta, . . . 230
5. Chandragupta II., . . . 240

Later Guptas.

1. Devagupta, . . . 400
2. Tathagatagupta, . . . 505
3. Chandrapraiy, . . . 435
4. Ghatotkacha, . . . 540
5. Mahendravarman, . . . 570
6. Buddagupta, . . . 580

Ferguson, pp. 725-6; J. R. A. S., 1880.

GUPTA VADHUTA, a mendicant branch of the Sakta sect of Hindus. An ascetic Hindu who does not avow his profession of mendicancy, or who observes its practices in secret.—Wilson.

GUPTESWARA, a title of Siva.

GUR. HIND. DUKH. Unclarified sugar; raw sugar with treacle or molasses, whether the product of the sugar-cane or of any of the palms; written Goor, also called Jagari. Gur-aik or Gud-aku, tobacco for the hookah, from Gur, and Aku, a leaf.

GUR, an epithet applied to Vrihaspati, Lord of the Bull, the Indian Jupiter, from Gur, preceptor or guardian.

GURJENDA. SINGH. A tree in Ceylon, the wood of which emits an offensive stench. Thunberg stated that it is neither the Sterculia foetida nor the Anagyris foetida.—Tennant.

GURKHA MAHR. A cow-keeper, a cow-herd, from Ga, cow, and rakha, to keep, the source of the Gurkha name.

GURAIL. HIND. The shamas of Kangra.

GURAN, a Kurd tribe of N. Persia. All-Hali sectarian belief in Persia is chiefly confined to the genuine Persian tribes of Lad descent, also among the Gurian Kurd, and around the higher parts of Zagros. Other Mahomedans accuse them of practising rites at night; and it is generally allowed that they preserve their customs a secret. They make use of wine and spirits, and eat swine's flesh.—MacGregor, p. 21.

GURAO. MAHL. According to Wilson, a mixed caste usually employed as the servant of the village temple, sweeping it, and deckling the village idol: he is also the village trumpeter. In the Dekhan.

1271
the Gurao is supposed to be the illegitimate offspring of a Brahman with a woman of another caste. They are now in very varied employ.—

Wilson. See Baluta.

GURKHA. The much-feared and respected caste of the Nepalese. In the Indian district of the Gorkha tribe is the seat of the ancient kingdom of Nepal, under the rule of a dynasty of Chetas—Hindu, and at one time independent. As early as 

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the GURKHA, a tribe of Afghans on the N.W. frontier, many of whom live in the hills, and some in the plains. They can muster about 2000 fighting men. Their hill frontage is not more than 20 miles long, but it is intersected by about 30 passes. Towards their southern limit stands the fort of Hurrund, a strong masonry structure, erected by Sawai Mull for restraining them. Near Hurrund is an important pass leading towards Kangdhar. Raids of theirs were reported in 1850, 1852; and in 1853 it was proclaimed that any of their hillmen found in the British territory would be seized and placed in confinement. In 1854 their headman entered into engagements to protect the passes, on which account they received an allowance of Rs. 1000 per annum. A section of the Gurkhani tribe are termed Lishari, who were always ready to join in forays with the Murrees, a more powerful tribe. In 1850 one raid was reported against them; in 1852, one; in 1853, four; and in 1854, four. These raids were not, however, successful. In front of the Gurkhanis and Lishari hills, and between Hurrund and Mithunkote, are plains inhabited by the Dreshuki, British subjects.

GURDASPUR, a district in the Amritsar division of the Panjab, with 906,300 inhabitants. The town is 44 miles from Amritsar.

GURDEZI, a country between Ghazni and India.

GURDEZI, properly Gardezi, a class of Syuds in Jowlee of Muzaffarnagar. They claim connection with the Barh Sudat.—Elliot.

GURGAN, the modern Vehren or Hyrcania.

GURGAON, a British revenue district in the Panjap, lying between lat. 27° 39' and 28° 30' 45" N., and long. 76° 15' and 77° 15' E.; area, 1015 square miles; population in 1868, 696,646. Of these are—Brahmans, 55,402; Bania, 88,214; Gujars, 21,818; Rajputs, 12,867; and Ranghar, 5883. The last two are indolent and thriftless cultivators. The Mina in the Gurgaon district are notorious for their thriving propensities. Devi, under the name of Sitala, as goddess of small pox, forms the chief object of Hindu worship throughout the district.—Imp. Gaz.

GURGHURA or Ghurghuray, Hind. The mole cricket, Gryllotalpa vulgaris. See Insects.

GURGUZ, a kind of battle-axe.

GURJARA, the ancient name of the tract between Jambuka or Jambusir on the Nerbudda and the Tapti river. The capital was named by Hiwen Tshang, Pi-lo-mi-lo or Balmir. This is exactly 800 miles N. of the ruins of Balabhi. This is exactly 800 miles N. of the ruins of Balabhi.

GURJA-RASHTRA, also Gurjara or Gujratith, a name of Gujerat.

GURJ, a Georgian. To say that a Persian lady resembles a Gurji or Georgian, is one of the highest compliments to her beauty. The hazards of Persia contain many lovely Circassians.—Onelegy's Travels, ii, p. 51.

GURJUN OIL, an oleo-resinous liquid afforded by several species of Dipterocarpus, deep brown, transparent, of nauseous odour, sometimes thick and white. The tree grows with a straight stem to the height of 30, 40, and 50 feet before it throws out branches, which grow horizontally, and produce flowers and seeds during the rainy season. If the seeds fall when there is a breeze of wind, they are carried a considerable distance, but very few of them germinate in a natural state. The oil is obtained by cutting a hole in the tree, from the ground, and about 4 to 5 inches deep, and the base is hollowed out to receive the oil. The whole of the hollow is cleared with fire, without which no oil exudes; after it is cleared, the oil exudes, collects in the hollow at the base, and is removed at intervals. The oil is thus extracted year after year, and sometimes there are two or three holes in the same tree, and the tree does not die. The oil is allowed to settle, when the clear part separates from a thick portion, which is called the Guad. If a growing tree be felled and cut into pieces, the oil exudes and concretes on the stem and ends of the pieces, very much resembling camphor, with an aromatic smell also. It is said that the tree yields from 3 to 5 maunds yearly, i.e. 240 to 400 pounds, and the same tree will yield oil for several years. It is a good balsamic medicine, and is very generally employed as a substitute for copaiba; but it would be more valuable as a varnish, as it is preservative to wood, to which it gives, with little trouble of application, a fine surface and polish; it becomes, however, white and milky if exposed to wet. It can be had in Chittagong in large quantities at Rs. 10 per maund.—Local Committee, Chittagong.

GURKHA, a race in Nepal, with broad Chines or Tartar-like physiognomy, small eyes, flat nose, and meagre whiskers, as well as of stout square make and sturdy limbs. The Gurkha, in every description of costume, and in all degrees of raggedness, are to be seen mingled with inhabitants of Kamaon, Sirmore, and Garhwal. The name is said to be derived from the Sanskrit Goraksha, or from Gao and Rakha, cowkeeper, and that the founder of the dynasty emigrated in the 14th century A.D. from Tirhat.

The present inhabitants of Nepal are the descendants of successive tide of invaders from beyond the Himalayan range, and of fugitives from the plains of Rajputana and of Oudh. But when the Mahomedan invasions of India began in the 11th century of our era, many Hindu princes fled beyond the Terai, to find a safe place of shelter in the valleys and recesses of the country round the sources of the rivers Gogra and Kosi. It is from the alliance of these Hindous with the women of the Gurung, Magar, and other Mongol tribes, that the warlike race of Nepal, the celebrated Khos or Gurkha, is supposed to have sprung. They had been settled at the town of Gurkha considerably to the west of Khatmandu for some centuries before the year 1708, when the crisis in their history arrived. Their chief was on terms of friendship with, and nominally subordinate to, the king of Khatmandu. He appears to have had his share in the defence of the state when Muhammad Taghbaluq strove to subject it to his dominion. On this occasion a Chinese army appeared upon the scene, and thoroughly discomfited the invading force. The division of the kingdom into several independent districts by the last of the great princes of the Mal dynasty, about the year 1600, had paved the way for the ultimate success of the Gurkhas, but it was not until more
GURKHA.

than a century and a half after this occurrence that the opportunity presented itself. The interval had been taken up by feuds between the rival chiefs or kings of Bhartagoa, Khatmandu, and Lalita Patan, from all of which the Gurkhas had kept steadily aloof. At this juncture Prithi Narayan, who claimed descent from the rajas of Udaipur, was chief of Gurkha, and his authority was also recognised in Kamaon and Nayakot. The king of Bhartagoa, hard pressed by his opponents, came to him with a request for assistance, and this Prithi Narayan willingly consented to give. But the Bhartagoa chief soon found that Prithi Narayan aspired to be his master rather than his ally, and the three kings made up their feuds, and opposed the Gurkha invader as the common enemy of all. One capital after the other, however, surrendered to Prithi Narayan. One of the kings was slain on the field of battle, a second died in prison, and the third fled to India. A small force was sent by the Governor-General to their assistance, but was recalled without effecting any result. After Prithi Narayan's death the task of conquering the whole of the country was brought to a satisfactory conclusion by his great-nephew the regent, Tappa, a youth of the ruler's youthful grandson, and from that time down to the present the supreme administrative authority in the kingdom has been in the hands of a regent rather than in those of the king.

Bahadur Shah, the regent, undertook an invasion of Tibet in the year 1791. A Gurkha army of at least 20,000 well-trained soldiers crossed the Himalaya and advanced towards the Sampu. It captured and plundered Teshu Lambu, but beat a hasty retreat on the approach of a large Chinese army. The Gurkhas were beaten in several battles, pursued within sight of Khatmandu, and compelled to acknowledge themselves vassals of the Chinese emperor. The Gurkhas then turned their attention to the districts south of the mountains, when their encroachments in the direction of Sikkim brought them into collision. War broke out between the British and the Gurkhas in 1814, and was concluded by a treaty written by Sir David Ochterlony, during the following year, restored the balance, and in February 1816 a treaty of peace was signed, by the terms of which Nepal was deprived of its more recent conquests, and reduced to its present dimensions. The Chinese sent an army on this occasion to assist the Gurkhas, but it arrived too late. One of the stipulations of this treaty was that the British were to have the right to station a resident at Khatmandu. During the Afghan wars of 1840-42, the resident, Mr. Brian Hodgson, averted a collision at the time when the Sikh question had reached a crisis. On the accession to power, in the year 1816, of Sir Jung Bahadur, who was the great-nephew of the regent, Bhim Sen Tappa, a more friendly attitude was observed towards the British Government, and staunch support was rendered during the Indian mutiny, and was rewarded in 1850 by the cession to Nepal of the Chitral Talu.

Mr. Hodgson, the resident, in the year 1833 wrote a paper on the advantages that would accrue to the British Government from inviting recruits from Nepal. 'The Gurkhas see,' he said, 'in foreign service nothing but the prospect of glory and spoil.' Their individual courage was represented as not more remarkable than their innate sense of discipline. They possess 'all that individual confidence, each in all, which grows out of national victory and success.' They had also a contempt for all the peoples of the plains, whom they styled Madhesive and Mr. Hodgson specified 30,000 Dakhreah, or soldiers off the roll, as furnishing a source immediately available. The Nepalese army now numbers more than 100,000 men, and the disapproval of the Khatmandu authorities to too many of their subjects entering a foreign service, have reduced the supply to a very limited extent. Owing to Mr. Hodgson's representations, a Gurkha regiment was included in the contingent force of Shah Shuja for the invasion of Afghanistan. It was practically annihilated in the defence of Charikar towards the close of the year 1841. But after the second Sikh war, the Gurkhas crossed the frontier in numbers to join the regiments which had been named after them, and recruited to a great extent from the hillmen of Kamaon, ended in 1816. The first, second, and third of these regiments were raised at the time of the war with Nepal, and did good service in the course of operations. The Gurkhas were known originally as the 66th Native Infantry, the Sirmur Rifles, and the Kamaon Battalion respectively. The 4th Gurkhas was raised at a later period; and the 5th, or Hazara Battalion, forms part of the Panjnad field force. Wherever there has been fighting on the Indian frontiers ever since the year 1838, these hardy troops have rendered the most valuable service. The whole of the Gurkha force was employed in Afghanistan, and three of their regiments were included in General Roberts' army. The steadiness of one regiment in face of the charge of the Ghazis contributed to the success of the day at Ahmed Khel, and another regiment shared up with the Gordon Highlanders the honour of leading the supreme attack on the strong position taken up by Ayub Khan at Baba Wall. Their record of service under the British flag is the narrative of untarnished valour and unshaken firmness. Every man's tour in India; Princep's Tibet; Fraser's Himalaya Mountains.

GURNAK, fishes of the genera Trigla and Dactylopterus, which have their English names from the grunting noise they make when taken out of the water. Two species, D. orientalis of the East Indies, and D. volitans of the Mediterranean, have the fine rays of the pectoral fins connected by membranes, by means of which they can support themselves for some time in the air like flying fish, and are known as the flying gurnard. Species of Exocetus are the flying fish, and a species of Pegasus is the flying horse.

GUROH. Hind. A band or troop of fakirs. Thus there is the Chistiah, Ba-nawa, the Kalandar, etc. Sar-guroh, leader of a band.

the guru corresponds to an ecclesiastical bishop, and each of the Hindu sects has a superintending guru. These have large incomes, reside in a temple, but make extensive ecclesiastical visitations or tours, accompanied by a band of disciples, who occasionally act as the assistant guru. In popular belief, the guru can work miracles and forgive sins. He can excommunicate and again restore to communion. In his tours he levies contributions from the people of his sect. The Jain have their own gurus.

Gurukkal is the head priest amongst the Saiva sect of the south of India. Gurukkal is also a titular appellation of the Moplah Mahomedans on the S.W. coast of the Peninsula of India.

Gurumata, a convention of the chiefs of the Sikh tribes, formerly held at Amritsar, on all occasions of importance.

Gurumukhi, a modification of the Devanagari alphabet devised by the Sikhs; it does not differ in shape, but the forms of many of the letters are interchanged.—Wheeler, Hist. of Ind.; Wilson.

GURUHADO. Uriya? A tree of Ganjum and Gushtump; extreme height, 22 feet. Rafters are occasionally made of this wood.—Copt. Macd.

GURUNG, a pastoral tribe who are living west of the Magar race, on the slopes of the mountains in Nepal, principally between Jumla and Kirant, at heights of 5000 and 6000 feet above the sea, and found by Captain Sierwill on the higher parts of the Singhalese range. They breed immense flocks of the Barwal goat and sheep, which they use for carriage. They are of a modified Mongolid type, and have 42 branches. They use their own language, which is peculiar, but little known, and used by the Buddhist priests to propagate their religion; and they have also learned the Khas language. They have adopted Hinduism, but retain also their former habits and customs. They eat beef, but do not use milk. The religion of the Khas, the Magar, and the Gurung differs only according as it combines a greater or less degree of the Hindu opinions with those of Buddhism. From their energy of character, love of enterprise, freedom from the shackles of caste, pure military habits, and perfect subjectivity to discipline, they are eminently fitted for a military life.

They form a tribe or clan or race in Nepal, and, along with the Kirant and Magar, also of Nepal, form the principal part of the Nepal army. These three tribes are said to differ only in their religion, according as it combines a greater or less degree of the Hindu opinions with those of Buddhism.

The Jarya, another tribe of Nepal, south of the Gurung, with whom they are intermixed and intermarry. They are Hindu in creed and manners.

GURU SICHER, a peak on Mount Abu, 5700 feet above the sea.

GURZ, an iron club, pointed at one end, and having a knob at the other covered with spikes. Gurz-mar is an order or gurah of fakirs. The members of this carry a gurz, with which they wound themselves to extort alms. The order is said to have originated with a pir named Sayid Ahmad Kabir.—Wilson's Glossary.

GUSHTASP, a Persian king of the Kaianid dynasty, mentioned in the earliest pages of Greek history. He was son of Lohmus; and the son of Gushtasp was Isfadlar, the Apanda or Astyages of the Greek historians. See Persian Kings.

GUTKA PERCHA.

GUTKULI. Malay. The thul or field of an extinct family.

GUTTA PERCHA, MALAY, is the concrete juice of the Isomandra gutta, a forest tree of Penang, of the Malay Peninsula from Penang to Singapore, of Sumatra and of Borneo. It is called the Taban tree by the Malays of the Malacca, and in Borneo it is known by the name of Nia. The ch is pronounced like the ch in the English word perch. The tree grows slowly to from 60 to 70 feet high, and 3 or 4 feet in diameter. Its foliage is of a pale green on the upper side, and covered with reddish-brown hairs beneath; it flourishes luxuriantly in alluvial tracts, at the foot of hills, and in such situations, in many cases forms the principal part of the jungle. The natives had discovered its valuable properties before it became known to Europeans. They constructed from it whips, shoes, traces, buckets, jugs, basins, timba or draw-buckets, and vessels of various kinds, and thus attracted attention to the substance, which has since been applied in Europe to a vast variety of domestic and scientific purposes. Their method of collecting the gum, however, has latterly been of the most destructive kind. They fell the trees at once, and by removing strips of bark at intervals, collect indeed a large quantity of sap at one time, but destroy all future supplies from that source. The tree was formerly very abundant, but all the large timber was soon felled. When 20 to 30 years old, it was cut down, and the smaller branches cleared away. Round the bark of the trunk and the larger branches circular incisions are made, at a distance from one another of a foot or a foot and half, and in a few days all the sap dribbles and falls into a coconut shell or other vessel placed below. The portions of juice are then collected into bamboo pitchers, and carried by the collectors to boil it, at their huts, in large caldrons, in order to steam off the water which has mixed with the juice, and to clear it of impurities. After boiling, it assumes its marketable consistency, and is brought for sale (Cameron). Pure gutta percha is greyish white, but it is generally brought to market of a reddish-brown hue. This is ascribed to chips of the bark which fall into the sap and give it their colour; but in addition to this there are frequently other matters, such as sawdust, purposely introduced as adulterants.

Dr. Montgomery of Bengal appears to have first noticed the native use of this substance in 1843. In 1843, Dr. d’Almeida presented a specimen of the inspissated juice to the Royal Society of Arts, and described some of the advantages which would accrue from its use. This communication led to no results. But another, made shortly after by Dr. Montgomery, was most successful, so that by the united efforts of these gentlemen gutta percha was introduced to public notice, and by the year 1858 about 2000 tons were annually exported from Singapore. In 1881, Great Britain imported 3422 tons of it from all places. A very small quantity, comparatively speaking, is to be obtained by tapping.

Dr. Oxley says that gutta ought not to require an elaborate process. The simple boiling in water, and rolling out into sheets, from which all foreign matter was removed, would probably be employed, and this, he thinks, would be generally sufficient, if manufacturers in giving their orders would take the precaution of requiring that the
GUTTA PERCHA.

GUZ.

article should be strained through a cloth at the time of its collection, and if they would encourage the natives to do this, by offering a somewhat higher price for gutta percha so prepared, a vast deal of trouble and expense might, in his opinion, be thereby saved. The great peculiarity which makes gutta percha convenient and valuable for a variety of purposes is, that when plunged into boiling water it becomes so soft and plastic, as to be easily moulded into any desired form, and this form it permanently retains on cooling. It was the discovery of this quality which first led the Malays to fabricate it into useful articles.

The juices of various trees have been brought to notice as possible substitutes for gutta percha, but none of them have been found to answer, not even the sap of Euphorbia cattiandu from the Coromandel coast, which at one time was considered a likely substitute. The gutta percha from Borneo is not so much esteemed as that from the Malay Peninsula, and doubts exist as to the identity of the trees. It seems to be a practice with the people who collect the gutta percha, to transplant the shoots of Potamonium, or of several other species of Isonandra with that of the true Isonandra gutta. And though this mixture confessedly depreciates the value of the gum, as the products of the several species have to some extent similar properties, the adulteration allows the commercial article to be applied to many purposes in the arts, from which the higher price and the scarcity of the true gum gutta would exclude it. There are said to be five or six species of Isonandra on the Koondals of the Western Ghats of India,—I. Wightiana, I. Perottetiana, I. Candollea, and I. lanceolata; and in Ceylon are I. grandis, and five other species. Some of these, however, have been referred to other genera, or are synonyms. One in the Peninsula, the I. acuminata, Wight, is now referred to the genus Bassia (B. elliptica), which yields the Fashonti, etc. General Oulden brought to notice the Pachonti tree of Malabar, but it was not found of much commercial value. It is said that while taking measures to transplant and cultivate the Isonandra gutta in Guiana, discovered at Surinam a juice-yielding tree possessed of analogous properties in the Sapota Mulleri, believed to be the same as the bullet tree of the English. It is a tall tree, yielding in the hot season a large quantity of milky juice. The tree grows abundantly on slightly elevated situations. The trunk is surrounded with a ring of chay, with elevated edges, and then an incision is made in the bark as far as the liber; the milky juice flows out immediately, and is collected in the clay reservoir. The juice resembles in some respects the milk of the cow; it forms a pelicle on its surface, which is renewed after removal. By the evaporation of the juice, 13 to 14 parts in 100 of pure gutta percha is obtained. Six volumes of absolute alcohol, added to ten of the juice, separates at once all the gutta percha and sediment and leaves the ether acts more readily than alcohol. The juice is not coagulated by acetic acid. This Surinam gutta product is sold at Amsterdam at the same price as the best gutta percha of commerce. The coagulated juice of a large climber found by Mr. Sandeman, of Munnipour, in his grant, has been pronounced inferior, inasmuch as it is sticky, and becomes brittle when exposed to cold, and it would be unsaleable in England. A Cachar kind of gutta percha is also brittle, and when dissolved in chloroform or benzole does not dry so quickly as the commercial article, and on heating this water it becomes more ductile and plastic, rather more so than common gutta percha. It is dissolved by the same agents as the latter.

Gutta of Borneo is collected in the Lawas district from at least five species of Isonandra, and adulterated with the juice of Ficus and one or two species of Artocarpus.

Gutta Podah of Billiton is vegetable wax.

Gutta Trap of Singapore is the inspisappated sap of an Artocarpus, used for birdlime.—Low's Sarawak; Singapore Cat. London Ez.., 1862; Indian Field, Calcutta, June 12, 1858; Tomlinson's Dictionary; Barbidge, p. 75. See Isonandra; Pachonti.

GUTTEAH of Chittagong, a tanning substance obtained from a bush that grows on the sides of creeks and rivers, in low ground which is inundated with the spring tide. It is cut for firewood, and the fishermen and shoemakers purchase it, and take the bark off to tan their fishing nets and leather, and afterwards sell the wood posts for firewood.

GUTWARA, properly Gatwara, but more correctly Ganthwara, a tribe of the Jat race who hold villages in Gohana (where they are called Aolan, after their chief town), also in Sonipat Bangur, and in the Doab on the opposite side of the Jumna. They trace their origin from Ghatzi, from which place they were accompanied by the bhat Bajwaen and the blacksmith Buda, of whom descendants are now living, and are engaged in the occupation of their fathers in the villages of the Ganthwara fraternity.—Elliott, Supp. Gloss.

GUTZAFF, CHARLES, a missionary of the Protestant Christian religion, who resided in Siam and China. He was acquainted with several Chinese dialects. He endeavoured to spread Christianity amongst them. He was afterwards an interpreter to the British in China, and Consul of Britain. He died about the year 1868. He greatly encouraged the Tao-ling movement. He wrote a Sketch of Chinese History, Ancient and Modern, comprising a retrospect of the Foreign Intercourse and Trade with China, Lond. 1884.

GUWAR, HIND. A hard refractory bean, cultivated in the Dikhan, steeped, and almost entirely used for animals. 100 parts contain starchy matter, 58-89; nitrogenous, 29-80; moisture, 11-75; mineral constituents (ash), 3-16; and fatty or oily matter, 1-40. It is the fruit of the Cyanopisis psoraloides.

GUWO UPAS, or Poisoned Valley in Java, three miles from Balor. It is about a mile in circumference, and 30 to 35 feet deep. Mr. Loudon mentions that on the 4th July 1830, when he visited it, the floor was covered with the skeletons of human beings, tigers, pigs, deer, pea-fowl, and all sorts of birds. A dog thrust into it, in 14 seconds fell on his back, and died in 18 minutes. Another fell in 11 minutes, and died in 7 minutes.


GUZ, also Gaz, a measure of length, a yard. 3 guz = 1 guntha, and 60 guz = 1 jareeb. The lftli guz is the standard guz, or yard measure of forty-one fingers, instituted by Akbar. After much controversy respecting its length, it was authoritatively declared by the British Government to be 33 inches long; and the declaration has
been attended with considerable convenience to revenue officers, as a bigha measured by this gus constitutes exactly five-eighths of an acre.

Since the middle of the 19th century the gus is generally regarded as the British standard yard of 86 inches.—*Eliot*.

GUZANJABIN, in the province of Kermanshah, is a kind of manna caused by a green fly on the back of the leaf of the dwarf oak. It is very accurately described by Diodorus Siculus. The Persians mix it with flour and sugar, and make it into little cakes, which they consider great delicacies, and export to all parts of Asia.—*Ed. Ferrier, Journ.* p. 26. See Gazanjab; Manna.

GUZERAT or Gujarat, the name given to the northern seaboard of the Bombay Presidency, extending from lat. 20° to 24° 45' N., and from long. 69° to 74° 20' E. The term Guzerat is sometimes also employed to include the peninsula of Kattyawar with its 180 pretty states. Guzerat Peninsula has the Gulf of Cutch on its north-west, and the Gulf of Cambay on its south-east. The area of the whole province is stated by Captain Nasmuth to be 31,752 square miles, of which only 10,736 belong to the British Government, in Ahmadabad, Kaira, Panach Mahal, Broach, and Surat, population 2,857,731, the remainder appertaining to tributary chiefs. Anhilwara was the dynastic name of three races that ruled in Guzerat from A.D. 696 till A.D. 1309, when Guzerat was annexed to Dehli by Ala-ud-Din Muhammad Shah. The name of these dynasties was taken from the town of Anhilpur, which rose to great distinction as a commercial site, and with Cambay as its seaport was the Tyre of India. At its height, Anhilpur was 12' cos (or 15 miles) in circuit, within which were many temples and colleges, 84 chak or squares, 84 bazars or market-places, with a mint for gold and silver coin. Col. Tod thinks it not unlikely that the Chaora, the tribe of the first dynasty of Anhilwara, is a mere corruption of Saura, as the ch and s are perpetually interchanging. The Mahrratta cannot pronounce the ch; with them Cheeto is Secto, etc. He thinks the Saura princes of this little country in all likelihood gave their name to the peninsula of Guzerat. Guzerat was overrun in A.D. 718 by Muhammad-bin-Kasim Walid's general, but when advancing on Chittore he was met by Bappa and totally defeated.

The city of Nehrwalla, says Rennell, the ancient capital of Guzerat, together with the whole of that peninsula, fell into the hands of Mahmud, who died four years afterwards (1028), possessed of the eastern and by much the largest part of Persia, as well as, nominally, of all the Indian provinces from the western part of the Ganges to the peninsula of Guzerat. It was governed by Mahomedans from A.D. 1396 to 1561, as under:—

Muzaffar Shah, A.D. 1396 A.H. 799
Abmad Shah, 1412 815
Muhammad Shah, 1443 847
Katub Shah, 1451 855
Daud Shah reigned one week,
Mahmud Shah, Begara, 1400 863
Muzaffar Shah 2nd, 1351 808
Sihand Shah, 1426 857
Mahmud Shah 2nd, 1526 932
Bahadur Shah, 1526 932
Miran Muhammad Shah Farukhi, 1356 845
Mamad Shah 3rd, 1563 961
Abmad Shah 2nd, 1561 969
Muzaffar Shah 3rd, 1561 969

The lowland of Guzerat resembles that of the Konkan, Canara, the Karnatic, and Orissa, but the interior of the province is mountainous. The alluvial tract is a soil eminently productive, and is occupied by Rajput tribes, Gujar, Kat'hi, Koli, and Kunbi, all claiming a distinct origin. The Koli of Guzerat are descendants of aboriginal tribes who occupied the country before the Aryan conquests. They have long since adopted some parts of Hindism. In the beginning of the nineteenth century they were a restless, turbulent race, despising agriculture, and living by plunder. Before the middle of the century they had settled down to be peaceful husbandmen, and the state of some of their villages vied with those of the Kunbi. In Guzerat the Kolis are of three sections: the most numerous, the Tullabahd (639,141), then the Puttunwaria, the Karez, the Dhandur, and Bhabria. They are in the Baroda district, north to Khyrullu and Massana in the Mahikanta, and form a large portion of the population. In 1853 there were 1,003,287 in Guzerat, Konkan, and Bombay. They are labourers and watchmen; and a few, under the name of Selottah, form escorts of treasure. The Guzerat Kunbi are a remarkably sturdy, independent race, and will often wrangle for days over a slight increase made in their rent.

The district of Diu is Portuguese, and the town of Diu during the past three centuries has been repeatedly besieged by rulers of Guzerat and the Dekhan, but it has continued in the power of the Portuguese.

The Guzerati language is spoken in the Peninsula by Rajput tribes, Gujar, Kat'hi, Koli, and Kunbi, all claiming a distinct origin. Guzerat is bounded by the Marwari a little to the north of Deesa, to the north and east by the Hindi or Rangi Basa of Malcolm, in Rajputana and Malwa respectively; and in the south it dovetails with Maharati in the valleys of the Nerbadda and Tapti, ending at Hamp on the former river, and running into the latter. The emigrants from Persia, now known as Parsees, who landed in this peninsula, have adopted the Guzerati language. In the Dekhan, Guzerati is a term applied to any native of Guzerat, but more especially to the traders and dealers from that country. In Bengal and Behar, one subdivision of the Kurni or agricultural tribe is called Guzerati, having perhaps come originally from thence, or possibly from being of Gujar origin. The Mahrratta and Guzerat Brahmins may eat together, but do not intermarry; and the first approach at social union is seemingly to be with the Mahrratta and Guzerat Brahmins, amongst whom the influence of European knowledge has had more effect than upon any of all the other races in India. Good seed has fallen on a good soil, and from a body of mendicants, these Brahmins have become active, powerful, and useful.—*Imp. Gaz*.

GUZELHUTTY, a pass running up a valley in which the Moyar flows to the Bhawani, between Coonoor and the Neighbour Hills. It is on the GWA or Goa, on the Arakan coast, in lat. 17° 38' 40" N., and long. 94° 38' 30" E.

GWADUR is a village on the north side of the Gwadur Bay, at the foot of a range of rocks. The electric telegraph comes overland here to the eastward of the town, and then up and over the peninsula into the sea, and then to Cape Musendon. —*Findlay*.

1276
GYMNOSOPHII.

GYMNOSOPHII. Putia Periplocasylvestris, and. Voiyt, land Singh, and residence who and the isolated great. nearly had S.E. and its pancies was on Northern Agent cliff same Mandar, karas, others. GWALIOR, whole broadest, north-eivst act capture British of State Bai, is by the artillery, colossal was without sustaining him of artillery, of India, and colossal of the army. The face of the fort is perpendicular, and where the rock is naturally less precipitous it has been scarped, and in some portions the upper parts overhang the lower. Gwalior Rock was scaled and taken by Major Poplam in 1780. Warren Hastings had sent him with a force of 2400 infantry, with cavalry and artillery, to protect Gohtud, sixty miles S.E. of Agra. He captured Lahar, and proceeded to Gwalior. Sir Eyre Coote, commander-in-chief, had pronounced the attempt to capture it an act of madness; but on the night of the 3d August, twenty European soldiers and two companies of sepoys, led by Captain Bruce, scaled and took it without the loss of a single man. It was regarded as so powerful a fortress, that its capture was heard of by the chiefs of India with great astonishment. During the rebellion in Northern India, a massacre at Gwalior occurred on the 14th June 1857, but the town was recaptured by Sir Hugh Rose on the 28th June 1858. The British Indian Government kept a Political Agent at the court of Gwalior, by whom, also, Amjhera, Narwar, Bhandara, Khaltrar, Sarsi, Raghogarh, Baroda or Sheopore, and Barra, are superintended.

There are several caves in the steepest face of the cliff. The Sas Bahu, a great Jain temple, was excavated about A.D. 1093, and the Telki Mandar, originally a Vaishnava shrine, about the same time. In the 16th century, the Jains, on the cliff that sustains the fort, executed the most extensive series of Jain caves known to exist anywhere. Their style of execution is very inferior. The principal group is in the Urwahi ravine, and consists of 32 colossal seated figures of the Tirthankaras, the largest a standing figure 57 feet high. Another group, on the opposite face of the cliff, has 18 statues 20 to 30 feet high, and there are others.—Burgess, p. 509.

GYA. TIBET. A stranger, a foreigner; hence Gya-philing, a Frank foreigner.

GYAING, a river in Amherst district, Tenas-
GYMNOSPORIA SPINOZA.

let him proceed ever, continuing his penances in severity. Their present representatives are the Viragi and Sanyasi. In the Ramayana they are represented as lying in winter in cold water, living on dried leaves and water. Colonel Wade and Captain Osborne were witnesses to the intermittent algae, and disinterment, of a devotee at Lahore in 1857, who was buried for six weeks in a closed chest. It was suspended in a vault to avoid the attacks of white ants. The seal of Ranjit Singh was on the tomb. The systems of Hinduism and Buddhism encourage austerities; and the reformers Sahib, Sivar, Kabir, Rah- nue, and Chand all favoured it. The idea seems to be connected with the prevailing belief as to transmigration, leading to the infliction of self-torture as penance for the sins of the former or present existence, in the hope of absorption after the present term of life. The austerities are practised in the most varied form, from simple abstaining from marriage, to temporary or lifelong tortures and voluntary suicide by drowning, burning, placing themselves beneath the great wheels of idol cars. The tortures at the Hol festival, the deaths in the Ganges and at the Jagannath car, the prostrations for a pilgrimage around the hill of Govardhan, are of this kind; and in 1866, a Hindu ascetic was sitting in a cave at the editor's visit to Ellora, where he was said to have sat for five years.

GYMNOSPORIA SPINOZA. H. f.

Ballro, ... BEAS. |...| Parmalma, ... RAYT. |...|
L. Kamb, ... CHEN. |Kadawar, ... SULTAN. |...|
Kanduri, ... JHELU. |...| Surajg-iasi, ... TR-S. |...|
Lap, Pataki, ... KANG. |Kharaya. |...|

A shrub with strong spines; common Trans-Indus, in Salt Range to 5000 feet, and to 3500 feet in the low valleys of the Outer Himalaya. The smoke of the seeds is said to be good for toothache.

GYMNURUS RAPPELLI of Borneo, resembles a cross between the pig and polecat.—Wall. p. 39.

GYMODACTYLIUS, a genus of reptiles, of which the following are known in India, viz.:—

G. pulchellus, Gray, Pen- |G. litoralis, Jordon, Malabar.
G. singular, Gthr., Ceylon. |G. fuscus, Gthr., Ceylon.
G. Kandiani, Kel, Ceylon. |G. Decoveniens, Gthr., Dekhan.
G. Myoternis, Jordon. |G. variegatus, Blyth, Moulmein.
G. Indicus, Gray, Neil- |...|...|...
gherries.

GYNANDROPSIS PENTAPHYLLA. D.C.

G. affinis, Blume. |Cleome pentaphylla, Linn.
Shada harburlia, ... BEN. |...|...|...|
Kamata, Katta koduku, ... |Valle kirc, ...|...|...|
Kara vella, ... MALEL. |...|...|...|

An annual flowering plant of the order Capparidaceae, grows in the East and West Indies and America. The leaves of the wild plant are eaten in curries; bruised and applied to the skin, they act as a rubbed agent, and produce a very abundant acrid exudation, affording the relief derived from a blister, without its inconveniences. This freedom from inconvenience is not, however, always experienced. Dr. Wight once saw extensive vesication produced, by the application of the leaves of this plant to a cutaneous tumor to an infantile boil. The previously existing inflammation of the skin probably gave rise to this extensive action. This and other species are very pretty, and grow well in a light rich soil. The colours of the flowers are white, red, purple, and yellow. At Lahore, the seeds are used by the hakims in convulsions; those of Cleome viscosa are said to be antileptic.—Honigb.; Roxb.; Voigt; Riddell; Jeffery; Wight, Il.

GYNOCARDIA ODORATA. Lindley.
Chaulmoogra odorata, Roxb.

This is a native of Sylhet, is met with on the banks of streams in the Tougphoo forests, and also throughout India generally. It grows to a size equaling the large-size mango tree. When full grown it may be compared to the great maple of our country. It blooms in April and May, and the seed ripens at the close of the year. When the fruit is gathered, the seed is carefully taken out, dried, and sold to the native dealers in drugs, at about five rupees the maund of 84 lbs. Its seeds are medicinal, and have been recommended for tapeworm; and an ointment prepared from them is a favourite application among native practitioners for the treatment of several cutaneous diseases, especially herpes and scrofula. The seeds, Ta-fung-tsze, Chih, are used by the Chinese in leprosy, syphilis, lipoma, and worms. The seeds are sold in the bazaars in India, at about 18s. 1d. per cwt.; they yield by expression about 10 per cent. of a thick bland fixed oil, having a peculiar smell and taste. They are various in shape, nearly oval, smooth, grey, hard; embryo, white. For external application, they are beaten up with ghi or clarified butter, and applied to the diseased cutaneous surfaces three times daily. The expressed oil is prized in the treatment of leprosy in India, also in scrofula and phthisis. The surfaces of the ulcers are dressed with the oil, while a six-grain pill of the seed is given three times a day. The dose of the latter is gradually increased to twice the original quantity. One drachm given to a dog caused violent vomiting in 15 minutes. The expressed oil is sometimes given internally, in doses of five or six minims. Too large doses are apt to produce nausea and vomiting. Its wood is adapted for fancy work and cabinet-making.—Roxb.; Ed. New Phil. Mag., 1856; O'Sh.; M'Cli.

GYPSUM. Shih-kau, Si-il-shih, of the Chinese, is a native sulphate of lime. It occurs as selenite, plaster of-paris, abaster or snowy gyspum, radiated gyspum, and satin spar or fibrous gyspum. Extensive beds of crystalline and compact gyspum and selenite occur near Ennore, the Red Hills, Ootatooor, Nellore, Tisscor, Madura, Bangalore, Sadradas, Masulipatam, Hyderabad, and other localities. It can be purchased in most bazaars in India under the name of Kulnar and Karpoorn sialait, and is used in small doses as a medicine; but the natives do not appear to be acquainted with its use in taking casts, plastering, and house decoration, or in manufacturing Keene's cement. It occurs very abundantly in the Madras Presidency, in the form of fibrous and crystalline gyspum, both free from carbonate of lime and well suited for the manufacture of plaster-of-paris for moulds, busts, statues, or ornaments.

Gypsum of great purity was described by Dr. Jameson as occurring at Jalalpur, recommended for public buildings and ornamental works. In the western parts of Marwar are extensive rocks of earthy and granular sulphate of lime. Selenite occurs in various places in Kattyawan, and at Dholgoun in the Rajpipla country. Granular gyspum is found near the banks of the Tensserim, in
GYPSY.

They call themselves Rom, Romani, Rommon-ehal, or Roman-ehal, two Hindi words, meaning fieldwalkers. Their primitive name is said to be Tzengari. Gypsies did not leave India before A.D. 1000. They entered Europe through Greece, were in Crete in 1322, in Corfu in 1346, and in Wallachia in 1370. Who are their Indian remnant, if any, is very doubtful; but Nat'ch, Babigar, Dom, Korawa, and Yerkal have been named, and in Persia and the Turkoman country, the Kauli and Kara-chi. Their number amounts to about five millions, half a million being in Europe. But races with similar habits are found throughout Northern Africa and great part of Central, Southern, and Eastern Asia, ostensibly working as tinkers, smiths, farriers, dealers in horses, and naturally familiar with them; without religion, unscrupulous thieves: women, fortune-tellers, especially by chiromancy; eating animals which have died a natural death; fly animals, carry corpses, make mats, baskets, and small articles of wood; show great skill as dancers, musicians, singers, acrobats; and there is hardly a travelling company of such performers, or a theatre in Europe or America, in which there is not at least one Gypsy. Their hair remains black to advanced age, and they retain it longer than do Europeans or ordinary orientals.

The gypsies of Bokhara and on the banks of the Zar-afshan river chiefly dwell in tents made of biza, a coarse cotton stuff. The gypsies in the N. parts of Persia lead a wandering life, but always aloof from the other errant tribes; and they go by the name of Karachi, from the Turkish work Kara, meaning black. They exercise the trade of tinkers, and are consulted at times as horse doctors; but they are in general looked down upon by the inhabitants settled in towns and villages, and even by the other wandering tribes. In Kermanshah and Kurdistan, where their number is very considerable, they also lead a vagabond life, and are known by the denominations of Susmani and Kauli. In Ardelen, which is the Persian Kurdistan, there is a large village near Senuch inhabited solely by the gypsies; they are like the Indian Baysides, and dance at the Persian festivals or assemblies, to the music which their husbands perform on some stringed instruments. There are several liyat tribes in Persia, the sound of whose names bear some resemblance with Zigan. These are the Zenghen, once a very considerable, and until now reckoned a very noble, Kurdish tribe of Kermanshah. A branch of them was also transplanted by Nadir Shah into Iruristan, where another tribe of the same name of Zenghen, though of Kurish origin, is established.

A singular class of wanderers, known by the name of Mayadds, visited Lahore in 1868. They spoke a peculiar language among themselves, though when within earshot of Europeans and Indians they spoke Persian. The Mayadds were always armed on reaching the Indian frontier, a fact for which they accounted by saying that they were Shirmans, within the sound of which are the Persian words to sell as slaves. When, says Dr. Lettner, I visited their encampment, their frantic gesticulations, and the hurling of children by one woman to another in order to emphasize her rage, reminded me of a scene recorded in my account of the gypsies of Turkey,... when a case was decided in favour of that side in a tribal contention, which could dance...
most obscenely and use the strongest expressions whilst advocating their own cause. Others of the same tribe appear to have visited Lahore in 1570. In a woman on Bokhara, Mr. Khanoff alludes to three tribes established there, which, he thinks, belong to the gypsy race. They are called Jughi, Mezeng, and Luli; and though outwardly professing Mahomedanism, seem to have no religion at all. General Ferrier mentions that the gypsies in Persia lead a wandering life; each band is independent; they preserve their own ideas of caste as a peculiar people, and with them the dirtiest habits; live upon next to nothing, and detest a regular life and a fixed place of abode. There are more than 15,000 families of gypsies dispersed over various provinces of Persia, paying a heavy tax to the Government. They are called Kauli, also Fal-sen, or fortune-tellers; also Kabir-band, or sieve-makers, because this is their principal occupation; these, their wives, who do not hide their faces, sell from door to door. General Ferrier at Roust Abdullah Khan came on a camp of Kabir-band gypsies, and the moment they perceived the travellers they called off their dogs, who were replaced by the women and children, vociferous for alms. It was impossible to proceed a step, for they hung on the legs, clothes, and bridles of the travellers, and completely hampered them; they were absolutely forced to comply with their clamorous demands. The women had sunburnt complexions; they were tall, with finely developed forms, which they cared as little to conceal as they did their faces. The men were seated at a little distance, making sieves, and apparently quite unconcerned about the proceedings of their wives. These gypsies had the same wandering instincts like all others he met with in Asia.

In Egypt, the men are mostly blacksmitb, braziers, and tinkers, or itinerant sellers of the wares which are made by others of this class, particularly of trumpery trinkets of brass, etc. Some gypsies also follow the occupation of phial-wans or gymnasts, performing feats of strength and dexterity. Many of the women are fortune-tellers. They dress like the females of the lower class, but always go about the streets with unveiled faces. Their cry is, 'I perform divination.' Some of these gypsy women also cry, 'Nedukk-wa-n- tahir! We tattoo and circumsice.'

Professor Sayce says (li. p. 76) that the gypsies passed successively through Persia, Armenia, Greece, Roumania, Hungary, and Bohemia, whence they dispersed towards Germany, Poland, Russia, Scandinavia, Italy, Spain, England, and Scotland. The later researches of Potts, Miclosich, and others leave no doubt as to the Indian origin of the gypsies. Many of the individual words are identical in Gypsy and Hindustani; but the grammar of the first-mentioned language, as shown in the mutilated form which remains in English Romany and the more perfect system of the Turkish Chingian, is quite different from most of the modern vernaculars of India, and has but few points of contact with the older dialects. Somewhere about the year 429 A.D., a number of strolling minstrels did find their way into Persia; they were called Lari, and are described by Firuz in terms which might equally well apply to a band of English Romanies. The word Lari is still used in Persia for strolling minstrels and vagabonds; and, under the form Nuri, it is the generic appellative of gypsies in Syria and Egypt. Arab historians speak of these people under the alternative name of Zutt, which is with much reason believed to be a corruption of Jat. Gypsies in Europe are perhaps the only race who will eat animals that have died a natural death. Mullo haulo, or 'dead pig,' is their favourite delicacy.

In 1844, three years after the appearance of Borrow's Zincaul, or Gypsies of Spain, Dr. A. F. Pott, of Halle, issued a work, entitled Die Zigeuner in Europa und Asien. Later on, Professor Miclosich of Vienna published in parts an exhaustive treatise, Uber die Mundarten und die Wanderungen der Zigeuner Europas; and in 1870 Dr. Paspati published, in French, at Constantinople, a magnificent monograph on the language and literature of the Turkish gypsies, with the title Etudes sur les Chingianes. The Romany language is spoken with the greatest purity by the gypsies of the Ottoman empire. M. Paul Bataillard has also made a valuable contribution towards the ethnology and history of the Romany race, in his L'Apparition des Bohémiens en Europe (1844). Of those who have followed Borrow in his investigations of the English gypsy dialect and traditions, the most noteworthy are Mr. Charles G. Leland (Hans Breitmann), Dr. Bath Smart; and Dr. Smart's Dialect of the English Gypsies. A volume of ballads in Romany and English was compiled jointly by Mr. Leland, Professor E. H. Palmer, and Miss Janet Tuckey.—Lane; Ferrier's Journal; Pottinger's Travels; De Bode's Travels; Peschel; Sayce, p. 76.

GYPSY APPLE. Popowich speaks of the gypsy apple as a small black fruit unfit to be eaten. A fruit was shown to Baron de Bode in the forests of the Zagros mountains, on the road from Kermanshah to Baghdad, called by the natives Angur-i-Kauli. It grows on the mazi or gall-tree, of a yellowish transparent colour. On account of its glutinous property, is sometimes used as glue.


This tree is widely distributed throughout the world. It is called Tanaku and Kamar pulki in Telugu, and Zaitun in Hindustani. The wood is very light, soft, and white, and is much used at Condapilly, in the Northern Circars, for making light cavadi boxes and toys, and it takes paint and varnish well. It is also preferred before all other woods for making catamarns; necklaces and rosaries are made from the seed.—Roxb.